Draft
Environmental Impact Report
SCH# 2021010168

Volume 3
Technical Appendices D to I

Bellefield Solar Project
by 50LW 8ME LLC

Zone Change Case No. 2, Map No. 195
Zone Change Case No. 57, Map No. 196
Conditional Use Permit No. 1, Map No. 195
Conditional Use Permit No. 57, Map No. 196
General Plan Amendment No. 2, Map No. 195
General Plan Amendment No. 3, Map No. 195 (Circulation)
Specific Plan Amendment No. 31, Map No. 196 (Circulation)

Kern County
Planning and Natural Resources Department
Bakersfield, California

July 2021

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July 2021

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Appendix D
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D.2 Wildlife Survey

D.3 Aquatic Resources Assessment

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D.1 Biological Evaluation

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BIOLOGICAL EVALUATION

BELLEFIELD SOLAR FARM
CALIFORNIA CITY AND KERN COUNTY, CALIFORNIA

AUGUST 2020

Biological Evaluation
Bellefield Solar Farm

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AUGUST 2020

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EXECUTIVE SUMMARY

50LW 8me LLC (Applicant) proposes to develop up to a 750 megawatt-alternating current (MW-ac) utility-scale solar farm with an up to 2,000 MW-hour (MWh) Energy Storage System (ESS) and associated electrical infrastructure known as the Bellefield Solar Farm Project in unincorporated Kern County and California City, California. The Project Area includes all features that comprise the project, to include but not be limited to, the solar array, collector lines, ESS, substation, ancillary facilities, and the generation tie-in (gen-tie)[1] corridors.

The Project Area is divided into the Project and the Gen-tie Corridor and a few areal features associated with the Gen-tie Corridor. The Project is defined as parcels for solar development and collector lines in both Kern County and California City all of which are located on private land.

The Project is comprised of 92 assessor's parcels, 84 of which are located within unincorporated Kern County (5,654.36 gross acres) and 8 of which are located within California City (2,102.64 gross acres) for a total of 7,757.00 gross acres. The collector lines within Kern County comprise 100.12 acres and within California City they comprise 26.70 acres, for a total acreage of 126.82. The linear distance of collector line alternatives is 11.5 miles with a width of 110 feet. The overall Project acreage is 7,883.82 acres.

The permanent disturbance acreage associated with development of the solar facility and associated infrastructure would be located within, but less than, the gross acreage of the Project. The Applicant will be applying for Conditional Use Permits (CUP) from Kern County and from California City for development of this Project.

Power generated from the Project would be delivered by up to a 230 kilovolt (kV) overhead and/or underground electrical transmission line(s) originating from one or more on-site substation(s)/switchyard(s) and terminating at the Southern California Edison (SCE) Windhub Substation. The Gen-tie Corridor lines will connect to SCE's Windhub Substation. The linear distance of the gen-tie alternatives is 89.6 miles with a width of 200 feet.

The Project Area is generally located north and south of State Route 58 (SR58), east of the community of Mojave and west and south of the Hyundai-Kia California Motors Proving Grounds (Hyundai-Kia Proving Grounds). Within the Project, the collector lines are generally located within or adjacent to the Kern County and/or California City parcels, while the gen-tie alternatives generally originate from the central portion of the Project heading west around Mojave, before reaching Oak Creek Road and SCE's Windhub Substation.

This Biological Evaluation (BE) documents existing conditions within the Project Area. The Applicant added additional parcels to the Project Area in 2020 which resulted in the collection of biological data in both 2019 and 2020.

In September of 2019 and March of 2020, Mohave ground squirrel habitat suitability assessments were independently conducted by Dr. Philip Leitner. The habitat suitability assessment results are incorporated into this BE and Dr. Leitner's completed reports have been

[1] A generation tie-in is an electrical transmission line that connects the generation location (solar field) to a substation which then connects to the electrical grid.

submitted to the Applicant under separate cover. Results indicate that the potential for occupancy of the Project Area by Mohave ground squirrels would be very low, low, or moderate depending upon the location, soils, and suitability of the habitat.

The vegetation community assessment was conducted in August and September of 2019 and April and May of 2020 by EREMICO Biological Services, LLC and included mapping of all plant communities within the Project and within areal features associated with the Gen-tie Corridors. It further included mapping sensitive plant communities encountered along the centerline of Gen-tie Corridors. The results of the vegetation community assessments are incorporated into this BE. Rare plant surveys have not been conducted but are planned for the future.

Species specific surveys for federal or state listed rare, special status, protected, threatened, or endangered wildlife were conducted between August and October of 2019 and April and May of 2020 by EnviroPlus Consulting, Inc (EPC). These survey results have not been incorporated into this BE but will be submitted to the Applicant under separate cover at a future date.

Additional information for this BE has been generated from literature searches, multi-agency databases, maps, and other documents to include a 20-mile radius around the Project Area.

Although this BE does not include the results of species-specific surveys it does include an in-depth review and analysis of vegetation communities; soils; the potential for state and federal special status and listed plant and wildlife species; and the potential for migratory bird and raptor species. A U.S. Army Corps of Engineers (USACE) jurisdictional determination and a California Department of Fish and Wildlife (CDFW) review of waters and wetlands was not conducted by EPC and is not incorporated into the BE. This information will be provided by another qualified firm.

The Project Area is located in the Mojave Desert Region of the Desert Floristic Province. Landforms in the region include granite-derived basin floors, flood plains, alluvial fans, small clay pans, and rock pediments. Mountains and hills, residuum weathered from basalt, granite, and sandstone, are also present. Cache Creek, a major stream on the east slope of the Tehachapi Mountains, traverses north of the Project and ultimately drains into Koehn Dry Lake to the northeast.

The Project supports a total of nine vegetation communities as well as developed and disturbed areas. Kern County parcels and collector lines support seven and eight vegetation communities, respectively, of which two are sensitive. California City parcels and collector lines support seven and eight vegetation communities, respectively, of which two are sensitive. A total of 3 sensitive vegetation communities were identified in the Project and include *Atriplex spinifera* Shrubland Alliance (Spinescale Scrub), *Krascheninnikovia lanata* Shrubland Alliance (Winter Fat Scrubland), and *Yucca brevifolia* Woodland Alliance (Joshua Tree Woodland). The Gen-tie Corridor supports two of the sensitive vegetation communities; Spinescale Scrub and Joshua Tree Woodland and the associated Gen-tie Corridor areal features support an additional non-sensitive habitat: *Ericameria cooperi* Provisional Shrubland Alliance (Cooper Goldenbush Scrub).

Vegetation community descriptions for the Project and acreages per CUP (unincorporated Kern County and California City) are addressed in detail in Section 4.0.

The 7,883.82 acre Project is comprised of the following nine vegetation communities and

urban/disturbed acreages (Sawyer et al. 2009):

- **Kern County portion of the Project – 5,754.48 Acres:**
  - *Larrea tridentata-Ambrosia dumosa* Shrubland Alliance (Creosote Bush–White Bursage Scrub) – 2,503.83 Acres
  - *Atriplex polycarpa* Shrubland Alliance (Allscale Scrub) – 1,714.20 Acres
  - *Ambrosia dumosa* Shrubland Alliance (White Bursage Scrub) – 646.88 Acres
  - *Larrea tridentata* Shrubland Alliance (Creosote Bush Scrub) – 568.35 Acres
  - *Atriplex spinifera* Shrubland Alliance (Spinescale Scrub) (sensitive) – 236.97 Acres
  - *Krascheninnikovia lanata* Shrubland Alliance (Winter Fat Scrubland) (sensitive) – 65.06 Acres
  - *Atriplex confertifolia* Shrubland Alliance (Shadscale Scrub) – 11.11 Acres
  - *Yucca brevifolia* Woodland Alliance (Joshua Tree Woodland) (sensitive) – 2.73 Acres
  - Unvegetated, urban, developed, and disturbed – 5.45 Acres

- **California City portion of the Project – 2,129.34 Acres:**
  - *Larrea tridentata-Ambrosia dumosa* Shrubland Alliance (Creosote Bush–White Bursage Scrub) – 943.92 Acres
  - *Atriplex polycarpa* Shrubland Alliance (Allscale Scrub) – 685.97 Acres
  - *Ambrosia dumosa* Shrubland Alliance (White Bursage Scrub) – 142.21 Acres
  - *Larrea tridentata* Shrubland Alliance (Creosote Bush Scrub) – 242.04 Acres
  - *Atriplex spinifera* Shrubland Alliance (Spinescale Scrub) (sensitive) – 0.41 Acre
  - *Krascheninnikovia lanata* Shrubland Alliance (Winter Fat Scrubland) (sensitive) – 107.08 Acres
  - *Yucca brevifolia* Woodland Alliance (Joshua Tree Woodland) (sensitive) – 1.53 Acres
  - *Ericameria nauseosa* Shrubland Alliance (Rubber Rabbitbrush Scrub) – 1.13 Acres
  - Unvegetated, urban, developed, and disturbed – 5.05 Acres

The Gen-tie Corridor traverses through the various vegetation communities in the Project Area as described above. It includes 2 sensitive vegetation communities (Sawyer et al. 2009).

- *Atriplex spinifera* Shrubland Alliance (Spinescale Scrub)
- *Yucca brevifolia* Woodland Alliance (Joshua Tree Woodland)

A total of 50 listed or special status species potentially occur within or in proximity to the Project Area. Of the 50 species, a total of 22 special status plants were identified during the literature review and database searches (discussed in Section 5.0); 25 wildlife species were identified, including the following listed species: the state Threatened Mohave ground squirrel

(*Xerospermophilus mohavensis*), the state and federal Threatened Agassiz's desert tortoise (*Gopherus agassizii*), the state and federal Endangered California condor (*Gymnogyps californianus*), the state Threatened Swainson's hawk (*Buteo swainsoni*), the federal Threatened western snowy plover (*Charadrius alexandrinus nivosus*), and the state Threatened tricolored blackbird (*Agelaius tricolor*); and three insect species (discussed in Section 6.0).

Recent status updates have been made by CDFW and the Fish and Game Commission. These include the designation of the Crotch and western bumble bees (*Bombus crotchii* and *B. occidentalis occidentalis*) as Candidate Species for Listing under the California Endangered Species Act (CESA) (discussed in Section 6.0) and a status review of the California Desert Native Plants Act (CDNPA) species Western Joshua tree (*Yucca brevifolia*), based on the recent Petition to List under CESA (discussed in Section 4.0). The Western Joshua tree will be treated in this BE as a CDNPA species until such time as there is a change to its legal status.

1.0 INTRODUCTION

1.1 Project Description and Land Ownership

50LW 8me LLC (Applicant) proposes to develop up to a 750 megawatt-alternating current (MW-ac) utility-scale solar farm with an up to 2,000 MW-hour (MWh) Energy Storage System (ESS) and associated electrical infrastructure known as the Bellefield Solar Farm Project in unincorporated Kern County and California City, California (Figure 1). The Project Area includes all features that comprise the project, to include but not be limited to, the solar array, collector lines, energy storage systems (ESS), substation, ancillary facilities, and the generation tie-in (gen-tie)[1] corridors.

The Project Area is divided into the Project and the Gen-tie Corridor. The Project is defined as private land parcels in both Kern County and California City and their associated collector lines.

The Project is comprised of 92 assessor's parcels, 84 of which are located within unincorporated Kern County (5,654.36 gross acres) and 8 of which are located within California City (2,102.64 gross acres) for a total of 7,757.00 gross acres. The collector lines within Kern County comprise 100.12 acres and within California City they comprise 26.70 acres, for a total acreage of 126.82. The linear distance of collector line alternatives is 11.5 miles with a width of 110 feet. The overall Project acreage is 7,883.82 acres.

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The Project Area may include operations and maintenance (O&M) buildings, substations, energy storage systems (ESSs), and/or transmission facilities, as necessary, or it may share such facilities with each other or with any future energy projects in the area, and/or it may be remotely operated. Any "unused" O&M building, substation, and/or transmission facility areas on-site may be covered by solar panels under such scenarios.

The Project Area is generally located north, south, and west of State Route 58 (SR58), east of the community of Mojave and west and south of the Hyundai-Kia California Motors Proving Grounds (Hyundai-Kia Proving Grounds) (Figure 2). Within the Project, the collector lines are generally located within or adjacent to the Kern County and/or California City parcels, while the gen-tie alternatives generally originate from the central portion of the Project heading west around Mojave, before reaching Oak Creek Road and SCE's Windhub Substation (Figure 2).

The construction period for the Project and Gen-tie Corridor, from site preparation through construction, testing, and commercial operation, is expected to commence as early as the fourth quarter of 2021 and will extend for approximately 18 to 24 months.

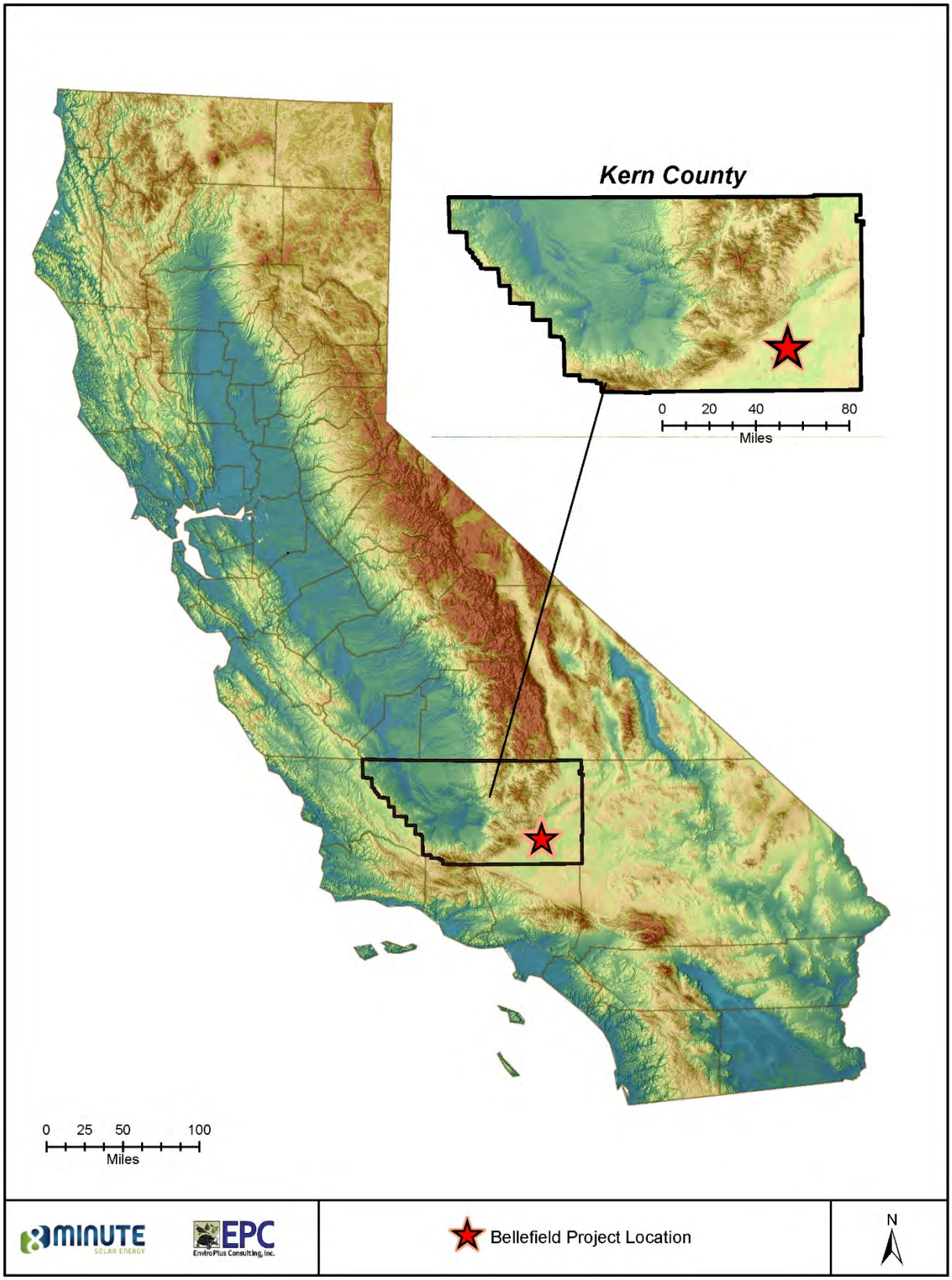

Figure 1. Bellefield Solar Farm Project Area Vicinity Map, California City and Kern County, CA

- Site preparation

Construction of the facility will include the following activities:

- Grading and earthwork
- Concrete foundations
- Structural steel work
- Electrical/instrumentation work
- Collector line installation
- Architecture and landscaping

No public roadways will be affected within the Project Area, except during the construction period. Construction traffic would access the Project Area from SR58, Altus Avenue, Silver Queen Road, and 50th Street. It is estimated that up to 1,000 workers per day, during peak construction periods, will be required for the construction of the Project and Gen-tie Corridor lines.

Heavy construction is expected to occur between 6:00 am and 5:00 pm, Monday through Friday. Additional hours may be necessary to make up schedule deficiencies or to complete critical construction activities. Some activities may continue 24 hours per day, seven days per week. Low-level noise activities may potentially occur between the hours of 10:00 pm and 7:00 am. Nighttime activities could potentially include, but are not limited to, refueling equipment, staging material for the following day's construction activities, quality assurance/control, and commissioning.

The Project could require an operational staff of up to 20 full-time employees. As discussed, the Project may share O&M, substation, and/or transmission facilities with future energy projects. In such a scenario, the projects would share personnel, thereby potentially reducing the Project's on-site staff.

The facility would operate seven days a week, 24 hours a day, generating electricity during normal daylight hours when the solar energy is available. Maintenance activities may occur seven days a week, 24 hours a day to ensure PV panel output when solar energy is available.

After the useful life of the Project, the panels will be disassembled from the mounting frames and the Site restored to its pre-development condition.

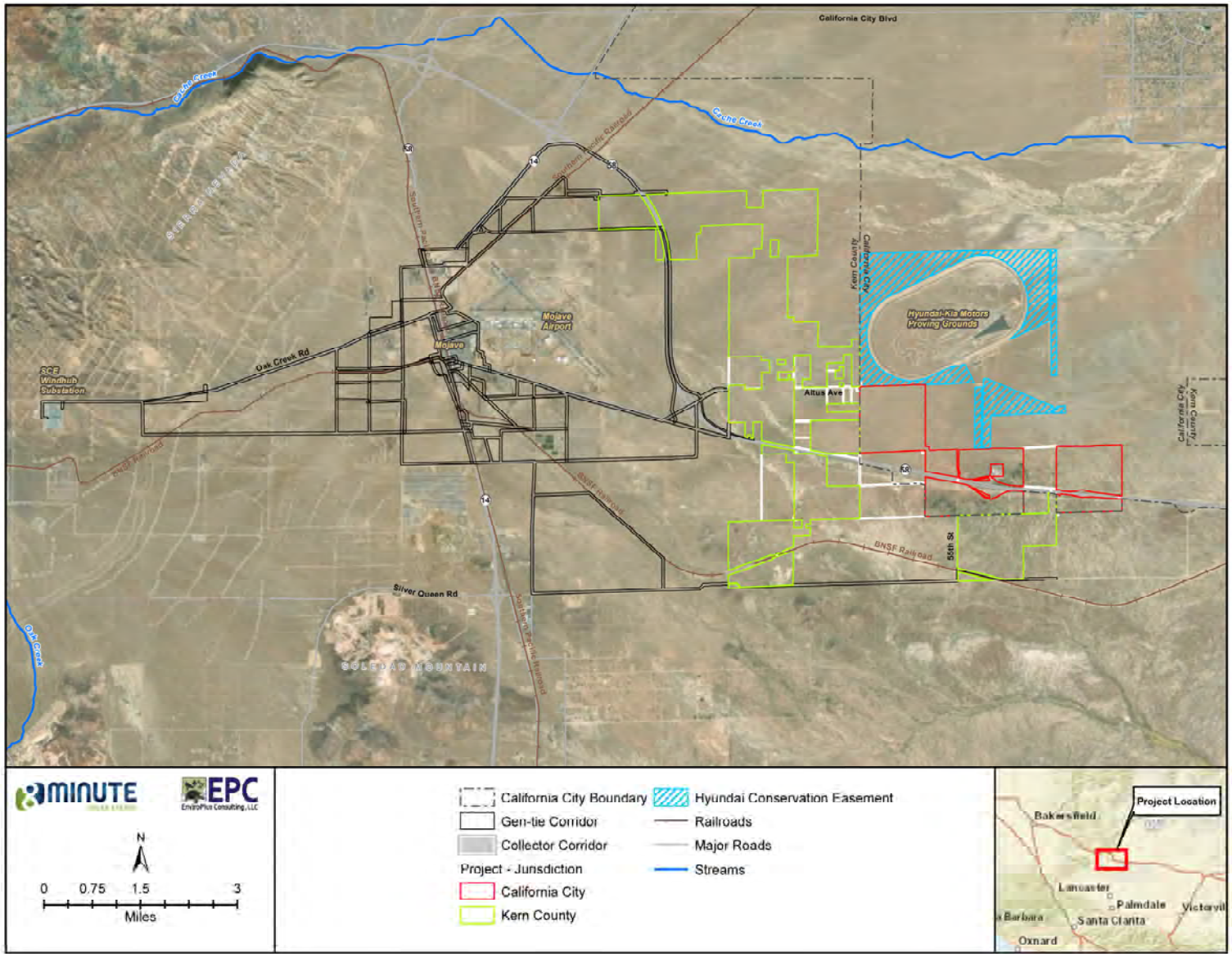

Figure 2. Bellefield Solar Farm Project and Gen-tie Corridor Location Map, California City and Kern County, CA

1.2 Site Description

The Project is situated partially within an unincorporated portion of southeastern Kern County and partially within the limits of California City, California (Figure 2). The Project is generally located north and south of SR58, east of the community of Mojave and northwest, west, southwest, and south of the Hyundai-Kia Proving Grounds. The primary Gen-tie Corridor originates from the central portion of the Project site and heads west around the developed portions of Mojave, before following Oak Creek Road to SCE's Windhub Substation. Several alternative routes are also under consideration.

The Project is located on privately owned lands with a majority of the Project falling within the lower ¾ portion of the Sanborn USGS 1:24,000 topographic map (7.5-minute quadrangle). The Project extends east into the southwest portion of the California City South quadrangle and into the upper northern portion of the Bissell quadrangle, and into the eastern portion of the Mojave quadrangle. The Gen-tie Corridor crosses the western portion of the Sanborn quadrangle and extends from the Project south into the upper northern portion of the Bissell and Soledad Mountain quadrangles, the southern portion of the Mojave quadrangle, and the southeastern portion of the Monolith quadrangle. The cadastral description of the Project is as follows: Township 11N, Range 11W, all or portions of Sections 5, 6, 7, 17, 18, 19, 20, 21 (all), 22, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, and 35 and Township 11N, Range 12W, portions of Sections 1 and 2.

The Project Area is generally bounded as follows:

- North – Cache Creek
- West – Tehachapi Mountains
- South – Edwards Air Force Base (Edwards AFB), Soledad Mountain, and the Rosamond Hills
- East – Similar vacant land in the north-south portion of California City Boulevard a few miles further to the east

The Project Area is located within the southern portion of Fremont Valley with the eastern slopes of the Sierra Nevada and Tehachapi Mountains to the west (Figure 3). Antelope Valley, located to the south of the Project Area, generally lies between the Tehachapi and San Gabriel Mountains. Elevations within the Project range from 2,798 feet above mean sea level (AMSL) in the northwest corner to 2,532 feet AMSL in the southern portion. The Project is relatively flat with increases in elevation to the west and east. The Gen-tie Corridor ranges in elevation from 2,541 feet AMSL near the southeastern portion of the Project to 3,468 feet AMSL at the northwestern corner of the SCE Windhub Substation.

Drainage in the northern portion of the Project is very gradual to the southeast along several washes. A few miles to the east, this drainage pattern turns to the northeast where it intercepts Cache Creek, a large wash that emanates from Tehachapi Canyon. This eventually drains into Koehn Lake 18 miles to the northeast. The terrain in the southeastern portion of the Project is dominated by a large, gradual grade with hills and undulating relief. The southeastern two-thirds of this area drains to the southwest along many washes into Rogers Lake located 12 miles to the southeast. The northwestern one-third of this area drains to the northwest along a few washes.

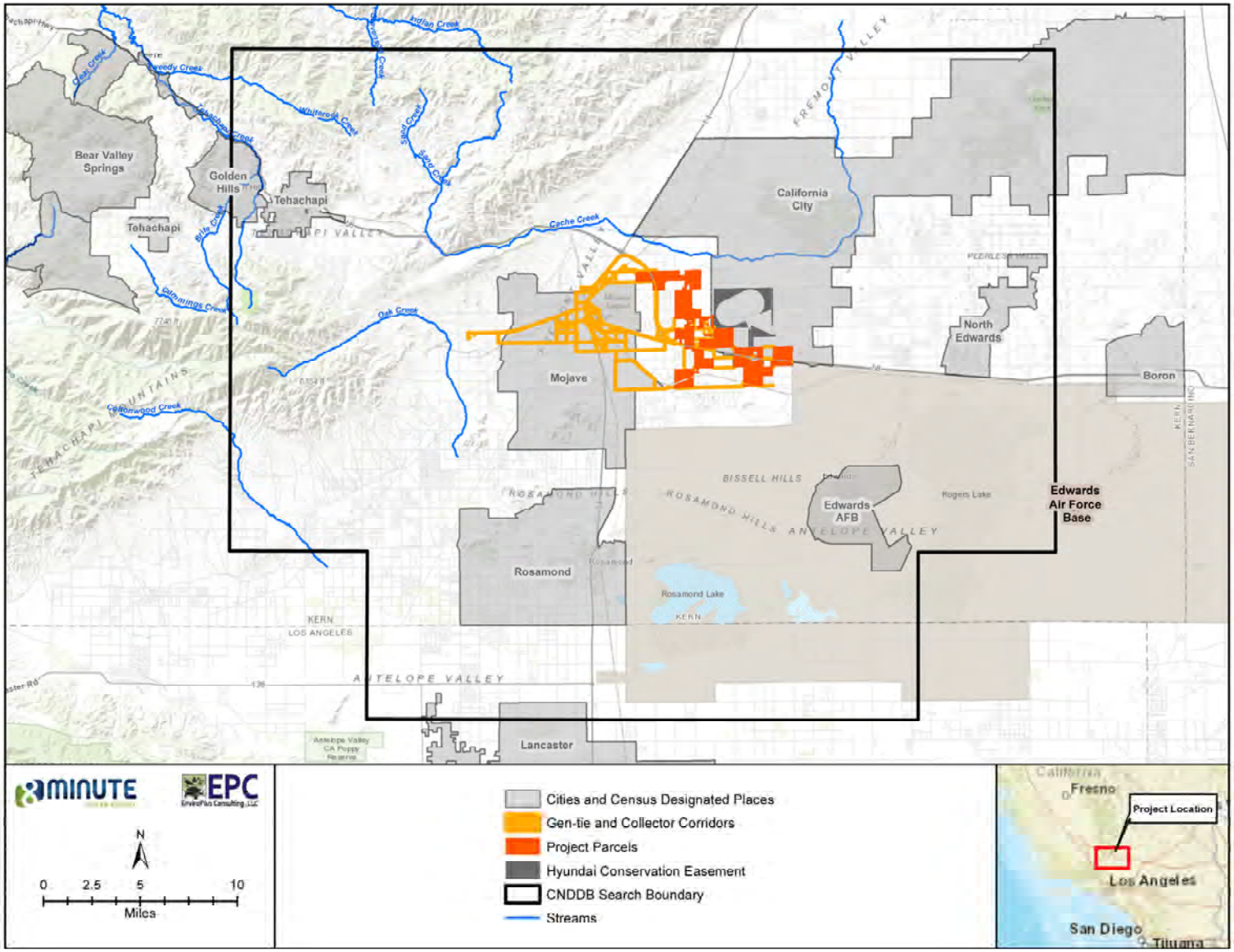

Figure 3. Bellefield Solar Farm Project Area Regional and CNDDB Search Map, California City and Kern County, CA

The unincorporated community of Mojave (population 4,238 in the 2010 census), located within Kern County, is west of the Project. Various gen-tie alternatives pass through undeveloped portions of Mojave inroute to the SCE Windhub Substation. Population centers and employers within the vicinity of the Project include but are not limited to Mojave, California City, Edwards AFB, the Hyundai-Kia Motors California Proving Grounds (Hyundai-Kia Proving Grounds), and the Burlington, Northern, and Santa Fe (BNSF) railroad. A facility that handled long line communications is bounded by the Project and is located south of the Hyundai-Kia Proving Grounds and just north of SR58.

The developed portion of California City (population 14,120 in the 2010 census), incorporated in 1965, is located northeast of the Project Area. The Project Area includes 2,129.34 gross acres of undeveloped lands within the jurisdiction of California City.

The 4,500 acre Hyundai-Kia Proving Grounds is located in the northern and northeastern portion of the Project Area. This facility was built in 2004. There is a 1,626 acre conservation easement that lies immediately adjacent to the eastern portion of the Project on the Hyundai-Kia property (CDFW 2018a).

The Project Area is located 10 miles southwest of the Desert Tortoise Research Natural Area (DTRNA). The DTRNA was established in 1974 and includes 39.5 square miles of desert habitat of which a majority of the private land inholdings have been purchased by the Bureau of Land Management (BLM), by the California Department of Fish and Wildlife (CDFW), and by the Desert Tortoise Preserve Committee (DTPC), a 501(3)c non-profit organization (DTPC, 2019). The southern and eastern boundary of the DTRNA is shared with California City. In 1980 the BLM designated the DTRNA as an Area of Critical Environmental Concern (ACEC) and perimeter fencing was installed as well as a visitor's center. The DTPC manages the DTRNA and over 30 years of research has been conducted there on the desert tortoise (ADT) (*Gopherus agassizii*), the Mohave ground squirrel (MGS) (*Xerospermophilus mohavensis*), and many other species of wildlife and plants.

The Project Area, at its closest point, is located 16 miles southwest of designated desert tortoise critical habitat at the BLM Fremont-Kramer ACEC.

SR58, a four-lane divided highway traverses the southern portion of the Project Area in a generally east-west direction and a Mojave bypass section turns northward and passes through the western portion of the Project Area. The sections of SR58 that pass through the Project are not separated from adjacent habitat by a desert tortoise-proof fence. Many unmaintained dirt roads crisscross the Project. The BNSF railway is a single track through the Gen-tie Corridor that becomes a double track line railroad through the Project Area. The railroad generally parallels the east-west portion of SR58 a little over a mile to the south.

A large east-west utility corridor is located just south of SR58. This corridor includes at least three gas pipelines and a petroleum products pipeline. One of these pipeline rights-of-ways crosses to the north side of SR58 in the eastern portion of the Project Area. An AT&T fiber optic line also passes through the Project Area in an east-west direction south of SR58 in the west and then just north of SR58 where it exits the Project Area to the east. The Antelope Valley East Kern Water Agency water pipeline and its associated right-of-way road is located along the southern boundary of the Project Area.

Evidence of human activity was prevalent throughout the Project Area and included sheep grazing as the most widespread human impact to the landscape. In addition to the numerous sheep trails, pellets, and heavily impacted watering areas and trampled vegetation, there is also widespread sporadic shooting activity to include a heavily used area located in the southwestern portion of the Project; illegal dump sites as well as blown trash; and limited off-highway vehicle (OHV) use was observed throughout the Project.

2.0 Literature Review and Database Search

Information on potential species occurrences has been obtained from existing databases and published and non-published resources. Databases were reviewed to assess whether occurrences of special status species have been documented in the vicinity of the Project Area within the Sanborn, California City South, Bissell, Mojave, and Monolith 7.5-minute USGS quadrangles (Figure 3 and Table 1).

A 20-mile radius around the Project Area included a review of all surrounding USGS maps to include Redman, Tylerhorse Canyon, Tehachapi North, Tehachapi NE, Cache Peak, Mojave NE, California City North, Galileo Hill, North Edwards, Tehachapi South, Willow Springs, Soledad Mountain, Little Buttes, Rogers Lake North, Edwards, Rosamond Lake, and Rosamond.

Databases and resources reviewed and researched included but were not limited to the following:

- The California Natural Diversity Database (CNDDB 2019b) and CNDDB QuickView (CNDDB 2019a) within a 20-mile radius of the Project
- California Department of Fish and Wildlife (CDFW) Natural Communities List (CDFW 2018b) and California Wildlife Habitat Relationships System Maps and Descriptions (CDFW 2014)
- CDFW State and federally listed endangered, threatened, and rare plants (CDFW 2019a)
- California Native Plant Society (CNPS) database (CNPS 2019) and CNPS website (CNPS 2019)
- CDFW Special Vascular Plants, Bryophytes, and Lichen List (CDFW 2019b)
- California Desert Native Plants Act (Division 23 of the California Food and Agricultural Code, Section 80071-80075) (California Food and Agricultural Code 2005)
- Bureau of Land Management (BLM 2015) species databases
- CDFW Special Animals List (CDFW 2019c) and the CDFW and USFWS Threatened or Endangered Animal Species List (CDFW 2019d)
- USFWS National Wetlands Inventory (NWI) Map (USFWS 2018b)
- Desert Renewable Energy Conservation Plan (DRECP) (Dudek 2014), DRECP Data Basin (Dudek 2014), and DRECP Kern County Gateway (Dudek 2014)
- CDFW West Mohave Desert Ecological Reserve (CDFW 2019e)
- U.S. Department of Agriculture (USDA) Web Soil Survey (USDA 1982)
- Federal Emergency Management Agency (FEMA) 100-year floodplain database (FEMA 2019)
- Regional hydrologic information was obtained from the Geospatial Data Gateway website of the Natural Resources Conservation Service (NRCS) (USDA 2019)
- Weather and precipitation data were obtained from the Western Regional Climate Center (2019).

Table 1. Federal and State Listed and Special Status Species; IUCN and Xerces Society Red List Species; and CNPS Special Status Species Identified for the Bellefield Solar Farm Project Area, California City and Kern County, California.[2]

SPECIES	ESA	CESA OR CDFW	G-RANK / S-RANK	CNPS RANK
Pacific Townsend's Big-eared Bat (*Plecotus townsendii* ssp. *townsendii*)	-	SSC and SGCN	G3G4 / S2	-
Mohave Ground Squirrel (*Xerospermophilus mohavensis*)	-	ST	G2G3 / S2S3	-
Desert Kit Fox (*Vulpes macrotis arsipus*)	-	CCR, Title 14[3]		-
American Badger (*Taxidea taxus*)	-	SSC	G5 / S3	-
Agassiz's Desert Tortoise (*Gopherus agassizii*)	FT	ST	G3 / S2S3	-
California Condor (*Gymnogyps californianus*)	FE	SE	G1 / S1	-
Northern Harrier (*Circus hudsonius*)	-	SSC	G5 / S3	-
Cooper's Hawk (*Accipiter cooperii*)	-	WL	G5 / S4	-
Swainson's Hawk (*Buteo swainsoni*)	BCC	ST	G5 / S3	-
Ferruginous Hawk (*Buteo regalis*)	BCC	WL	G4 / S3S4	-
Golden Eagle (*Aquila chrysaetos*)	BCC BGEPA	FP WL	G5 / S3	-
Prairie Falcon (*Falco mexicanus*)	BCC	WL	G5 / S4	-
Merlin (*Falco columbarius*)	-	WL	G5 / S3S4	-
American Peregrine Falcon (*Falco peregrinus anatum*)	BCC	FP	G4T4 / S3S4	-
Western Snowy Plover (*Charadrius alexandrinus nivosus*)	FT BCC	SSC	G3T3 / S2S3	-
Mountain Plover (*Charadrius montanus*)	BCC	SSC	G3 / S2S3	-
Burrowing Owl (*Athene cunicularia* ssp. *hypugaea*)	BCC	SSC	G4 / S3	-
Long-eared Owl (*Asio otus*)	-	SSC	G5 / S3	-
Short-eared Owl (*Asio flammeus*)	-	SSC	G5 / S3	-
Loggerhead Shrike (*Lanius ludovicianus*)	BCC	SSC	G4 / S4	-
Gray Vireo (*Vireo vicinior*)	BCC	SSC	G4 / S2	-
Black-tailed Gnatcatcher (*Polioptila melanura*)	-	WL	G5 / S3S4	-
Yellow Warbler (*Setophaga petechia*)	BCC	SSC	G5 / S3S4	-
Tricolored Blackbird (*Agelaius tricolor*)	SC BCC	ST	G2G3 / S1S2	-
Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*)	-	SSC	G5 / S3	-
Crotch Bumble Bee (*Bombus crotchii*)	-	CS[4]	G3G4 / S1S2 IUCN[5] - Endangered	-
Western Bumble Bee (*Bombus occidentalis*)	-	CS[4]	G2G3 / S1 IUCN/Xerces[5] – Vulnerable/ Imperiled	-
Mojave Dotted-blue Butterfly (*Euphilotes mojave*)	-	-	G2G3 / S1S2 Xerces[5] -	-

[2] See Appendix B for the definition of all Rank codes.
[3] Desert kit fox are a protected fur-bearing mammal under Title 14 of the California Code of Regulations, Section 460 (2019).
[4] CS = Candidate Species for Listing under the California Endangered Species Act (CESA) (California Fish and Game Commission 2019).
[5] IUCN (International Union for Conservation of Nature) Red List (IUCN 2019) and Xerces Society Red List (2019a, 2019b).

SPECIES	ESA	CESA OR CDFW	G-RANK / S-RANK	CNPS RANK
			Imperiled	
Horn's Milk-vetch (*Astragalus hornii* var. *hornii*)	-	-	G1 / S1	1B.1
Lancaster Milk-vetch (*Astragalus preussii* var. *laxiflorus*)	-	-	G4T2 / S1	1B.1
Alkali Mariposa Lilly (*Calochortus striatus*)	-	-	G3 / S2S3	1B.2
Desert Cymopterus (*Cymopterus deserticola*)	-	-	G2 / S2	1B.2 E
Recurved Larkspur (*Delphinium recurvatum*)	-	-	G2 / S2	1B.2 E
Rosamond Eriastrum (*Eriastrum rosamondense*)	-	-	G1 / S1	1B.1E
Barstow Woolly Sunflower (*Eriophyllum mohavense*)	-	-	G2 / S2	1B.2 E
Red Rock Poppy (*Eschscholzia minutiflora* ssp. *twisselmannii*)	-	-	G5 / S2	1B.2 E
Pale-yellow Layia (*Layia heterotricha*)	-	-	G2 / S2	1B.1E
Charlotte's Phacelia (*Phacelia nashiana*)	-	-	G3 / S3	1B.2E
California Alkali Grass (*Puccinellia simplex*)	-	-	G3 / S2	1B.2
Latimer's Woodland-gilia (*Saltugilia latimeri*)	-	-	G3 / S3	1B.2E
Sagebrush Loeflingia (*Loeflingia squarrosa* var. *artemisiarum*)	-	-	G5 / S2	2B.2
Kern County Evening-primrose (*Camissonia kernensis* ssp. *kernensis*)	-	-	G4T3 / S3	4.3E
White Pygmy-poppy (*Canbya candida*)	-	-	G3G4 / S3S4	4.2 E
Mojave Paintbrush (*Castilleja plagiotoma*)	-	-	G4 / S4	4.3E
Mojave Spineflower (*Chorizanthe spinosa*)	-	-	G4 / S4	4.2 E
Mt. Pinos Larkspur (*Delphinium parryi* ssp. *purpureum*)	-	-	G4T4 / S4	4.3E
Golden Goodmania (*Goodmania luteola*)	-	-	G3 / S3	4.2
Solitary Blazing Star (*Mentzelia eremophila*)	-	-	G4 / S3S4	4.2
Crowned Muilla (*Muilla coronata*)	-	-	G3 / S3	4.2
Lemmon's Syntrichopappus (*Syntrichopappus lemmonii*)	-	-	G4 / S4	4.3E
Western Joshua Tree (*Yucca brevifolia*)	-	PL[6]	-	-

[6] PL = Petitioned for Listing under CESA (California Fish and Game Commission 2020). Although it is not currently considered a Special Status Species is has been included in Table 1 due to the Petition to List. This species will be treated as a CDNPA species until such time as its legal status changes.

3.0 GENERAL SITE CONDITIONS

3.1 Geographic Area and Climate

The Project Area is located within southeastern Kern County (Figure 1). Kern County encompasses 8,161 square miles and is bordered by Monterey and King Counties to the northwest, Tulare County to the north, Inyo County to the northwest, San Bernardino County to the east, Los Angeles County to the south, Ventura County to the southwest, Santa Barbara County to the southwest, and San Luis Obispo County to the west. The climate of the region varies greatly from the foothills of the Sierra Nevada and Tehachapi Mountains to the foothills of the Coastal Ranges.

The 7,883.82 gross acre Project would be located on private lands east, within, and west of the community of Mojave, within portions of unincorporated Kern County on 5,754.48 acres, and south of the population center of California City on 2,129.34 acres of uninhabited private lands within the jurisdiction of California City (Figure 2 and Figure 3).

The community of Mojave is an unincorporated census-designated place (CDP) within Kern County and had a population of 4,238 at the 2010 census (USCG 2019a). Mojave is located at the crossroads of SR58 and SR14 at an elevation of 2,762 feet AMSL. It is 17-miles north of Lancaster, 12-miles east of Tehachapi and 50-miles east of Bakersfield, and 2.5-miles south of California City in the Fremont Valley region of the Mojave Desert. Mojave is located below and east of Oak Creek Pass and the Tehachapi Mountains and north of the Antelope Valley proper. According to the United States Census Bureau, the Mojave CDP has a total area of 58.4 square miles.

California City was incorporated in 1965 and the population was 14,120 at the 2010 census (USCB 2019b). Its elevation is 2,405 feet AMSL. It is located 5.5-miles northwest of Edwards Air Force Base, 15-miles east of Tehachapi, 20-miles north of Lancaster, 20 miles southwest of Ridgecrest, and 42 miles east of Bakersfield in the Fremont Valley region of the Mojave Desert. According to the United States Census Bureau, California City has a total area of 203.6 square miles, making it the third largest city in California based on land area.

The desert area around Mojave and California City has an average annual temperature ranging from 48 degrees Fahrenheit (F) to 76 degrees F (Wikipedia 2019). The coldest month is December and average temperatures range between 32 degrees F and 58 degrees F. The warmest month is July and average temperatures range between 67 degrees F and 97 degrees F. The mean precipitation is approximately 6.5 inches. Most of the annual precipitation, in the form of rain, falls between the months of November and March.

3.2 Soils

Soils identified within the Project Area include Cajon sand (113), Cajon loamy sand (114), Cajon gravelly loamy sand (116), Cajon-Garlock sands (117), DeStazo sandy loam (125), Garlock loamy sand (137), Hi Vista sandy loam (147), Muroc-Randsburg sandy loam (151), Neuralia sandy loam (154), Pits (157), Randsburg sandy loam (167), Rosamond clay loam (171), Torrifluvents-Cajon complex (184), and Torriorthents-Rock outcrop complex (185) (USDA 1981, 1982, 1997, 2001, 2015a-g) (Table 2 and Figures 4a and 4b).

Table 2. Soil Mapping Units Identified Within the Bellefield Solar Farm Project Area, California City and Kern County, CA

Soil Mapping Unit	Soil Mapping Unit Name	Slopes Associated with Unit (%)	Elevation where Found (ft)	Landforms Associated with Unit	Parent Material Associated with Unit
113	Cajon sand	5-15	2,500-3,500	alluvial fans, flood plains	alluvium derived from granitic rock
114	Cajon loamy sand	0-5	2,500-3,500	alluvial fans, flood plains	alluvium derived from granitic rock
116	Cajon gravelly loamy sand	0-9	2,000-3,500	alluvial fans, flood plains	alluvium derived from granitic rock
117	Cajon-Garlock sands	2-9	2,500-2,600	alluvial fans, flood plains	alluvium derived from granitic rock
125	DeStazo sandy loam	0-2	2,400-3,000	flood plains, basins	residual material from weathered granitic rock
137	Garlock sandy loam	2-9	2,500-3,500	alluvial fans, alluvial terraces	alluvium derived from granitic rock
147	Hi Vista sandy loam	2-9	2,400-2,600	low pediments	residual material from weathered granitic rock
151	Muroc-Randsburg sandy loam	5-9	2,500-3,500	low pediments	residual material from weathered granitic rock
154	Neuralia sandy loam	2-5	2,300-2,800	alluvial fans, flood plains	alluvium derived from granitic rock
157	Pits	0-5	2,500-5,300	flood plains, basins	alluvium weathered from extrusive and basic igneous rocks
167	Randsburg sandy loam	2-15	2,500-3,500	low pediments	residual material from granitic rock
171	Rosamond clay loam	0-2	2,500-2,900	alluvial plains	alluvium derived from granitic rock
184	Torrifluvents-Cajon complex	0-2	2,200-2,600	Basin-like depressional areas	alluvium derived from granitic rock
185	Torriorthents-Rock outcrop complex	50-75	2,400-4,000	mountainous	residual weathered material from granite, basalt, and sandstone

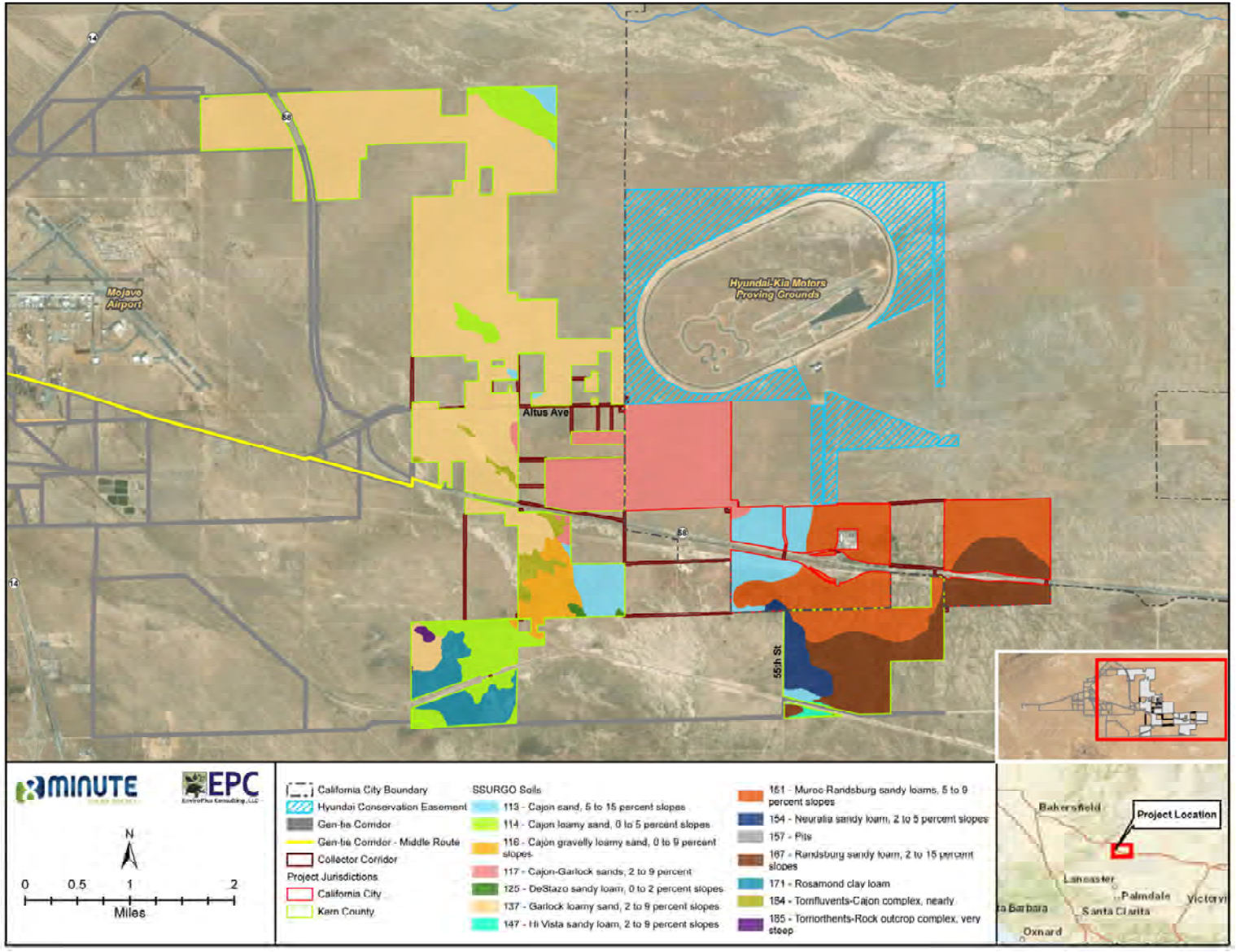

Figure 4a. Bellefield Solar Farm Project Soils Map, California City and Kern County, CA

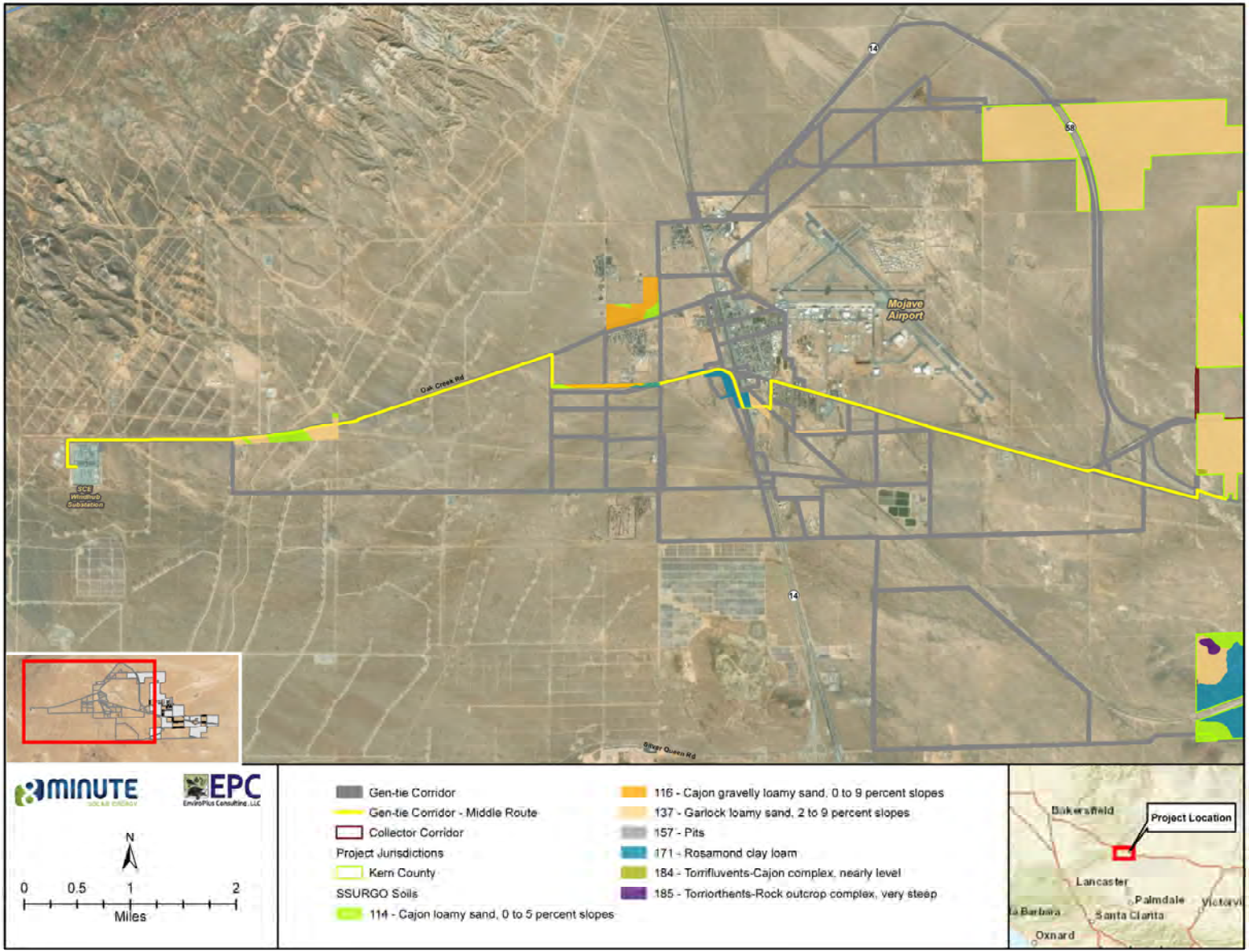

Figure 4b. Bellefield Solar Farm Project Gen-tie Corridor Soils Map

Dominant soil types found throughout the Project include Garlock loamy sand (137), Muroc-Randsburg sandy loams (151), Randsburg sandy loam (167), and Cajon-Garlock sands (117).

Soils Series descriptions are as follows:

Cajon Series (USDA 2015a)**:** The Cajon Series of soils consist of very deep, somewhat excessively drained soils that formed in sandy alluvium from dominantly granitic rocks. The textures can be coarse sand, loamy coarse sand, sand, loamy sand, fine sand, or loamy fine sand or their gravelly or cobbly equivalents.

Cajon soils are found on alluvial fans, fan aprons, fan skirts, inset fans and river terraces at elevations of 200 to 4,300 feet AMSL. Slopes are 0 to 15 percent. The climate is arid with hot dry summers and somewhat moist winters. Average annual precipitation is 2 to 9 inches, mostly in the form of winter rain. Mean January temperature is 43 degrees to 48 degrees F., mean July temperature is 82 degrees to 84 degrees F., mean annual temperature is 57 degrees to 70 degrees F. Frost-free season is 150 to 340 days. The profile is slightly alkaline or strongly alkaline and mildly saline-alkali to strongly saline-alkali. Cajon soils are somewhat excessively drained; negligible to low runoff; with rapid permeability. Cajon soils with sandy loam surface textures have moderately rapid over rapid permeability. Flooding is none to rare. Vegetation is mostly desert shrubs including creosote bush (*Larrea tridentata*), saltbush (*Atriplex* spp.), Mormon-tea (*Ephedra* sp.), Joshua tree (*Yucca brevifolia*), sand rice grass (*Stipa hymenoides*), and annual grasses and forbs.

DeStazo Series (USDA 2015b)**:** The DeStazo Series of soils consist of very deep, well drained soils that formed in material from mixed alluvium. The textures include fine sandy loam, loam, or light sandy clay loam.

DeStazo soils are found on fan piedmonts, stream flood plains and in basins that have slopes of 0 to 10 percent, between 1,500 and 3,800 feet AMSL. The climate is arid with hot dry summers and mild, somewhat moist winters. Mean annual precipitation is 3 to 8 inches with some as snow. Average January temperature is 45 degrees F and the average July temperature is 80 to 88 degrees F. Frost-free season is 200 to 300 days. DeStazo soils are well drained with negligible to medium runoff and moderately slow permeability. Flooding is rare. Wind erosion is moderate in some areas. Vegetation is mostly desert shrubs including saltbush and creosote bush with scattered annual grasses.

Garlock Series (USDA 2015c)**:** The Garlock Series of soils consist of very deep, well drained soils that formed from mixed alluvium. The textures include sand, coarse sand, loamy sand, coarse sandy loam, and sandy loam.

Garlock soils are found on old stream terraces and alluvial fans in the Mojave Desert that have slopes of 2 to 9 percent, between 2,100 and 3,500 feet AMSL. The climate is arid with hot dry summers and mild, moist winters. The annual precipitation is 3 to 8 inches with some as snow. Average January temperature is 45 degrees F and the average July temperature is 88 degrees F. The frost free season is 200 to 340 days. Garlock soils are well drained with low to medium runoff, and drainage that is moderately slow over very

rapid permeability. Vegetation is mostly desert shrubs including creosote bush, white bursage (*Ambrosia dumosa*), buckwheat (*Eriogonum* spp.), other shrubs, desert needlegrass (*Stipa speciosa*), sand rice grass, and other annual grasses.

Hi Vista Series (USDA 2015d)**:** The Hi Vista Series of soils consist of moderately deep soils to rock in well drained soils that formed in residuum from granitic rock. The textures include loamy fine sand, sandy loam, coarse sandy loam, and extremely gravelly sandy loam.

Hi Vista soils are found on hills and rock pediments that have slopes of 2 to 50 percent, between 2,300 and 3,300 feet AMSL. The climate is arid with long hot dry summers and cool, somewhat moist winters. The mean annual precipitation is 4 to 6 inches with brief periods of snow. Mean January temperature is 44 degrees F and the mean July temperature is 80 degrees F. The frost free season is 200 to 250 days. Hi Vista soils are well drained with medium to high or very high runoff, and drainage that has moderately slow permeability. Vegetation is mostly desert shrubs including creosote bush, buckwheat, sand rice grass, and Joshua tree.

Muroc Series (USDA 2015e)**:** The Muroc Series of soils consist of shallow to indurated duripan directly over rock in well drained soils that formed in material weathered from granitic rock. The textures include sandy loam and coarse sandy loam.

Muroc soils are found on hills and granitic rock pediments that have slopes of 2 to 15 percent, between 2,400 and 3,500 feet AMSL. The climate is arid with hot dry summers and cool moist winters. The annual precipitation is 4 to 6 inches with some as snow. Average January temperature is 45 degrees F and the average July temperature is 89 degrees F. The frost free season is 200 to 250 days. Muroc soils are well drained with low to medium runoff, and permeability that is moderately rapid in the soil until it reaches the duripan that caps the weathered granite. Vegetation is mostly desert shrubs including creosote bush, white bursage, Joshua tree, and annual grasses and forbs.

Neuralia Series (USDA 2001)**:** The Neuralia Series consists of very deep, well drained soils formed in alluvium from mixed sources. The textures include sandy loam, loamy sand, sand or gravelly sand.

Neuralia soils are found on alluvial fans, fan terraces, and plains with slopes of 0 to 15 percent, between 2,300 and 4,200 feet AMSL. The climate is arid with hot dry summers and cool moist winters. Mean annual precipitation is 4 to 6 inches with some snow. Mean January temperature is 45 degrees F. and the mean July temperature is 88 degrees F., and the mean annual temperature is 57 to 62 degrees F. Frost-free season is 200 to 250 days. Reaction is neutral to moderately alkaline to a depth of 10 inches and slightly alkaline or moderately alkaline below. Neuralia soils are well drained with slow and medium runoff and moderately slow permeability. Natural vegetation occurring within this series includes white bursage, creosote bush, and scattered annual grasses and forbs.

Pit Series (USDA 1997)**:** The Pit Series consists of very deep, poorly drained soils formed in fine-textured alluvium weathered from extrusive and basic igneous rocks. The textures include silty clay loam, silty clay, or clay.

Pit soils are found on flood plains and in basins and have slopes of 0 to 5 percent, between 2,500 and 5,300 feet AMSL. The climate is warm dry summers and cold moist winters. Mean annual precipitation is 8 to 18 inches, some as snow. The mean January temperature is about 27 to 30 degrees F. and the mean July temperature is about 67 to 70 degrees F., and the mean annual temperature is 44 to 52 degrees F. Frost-free season is 60 to 140 days. Pit soils are poorly drained with ponded to slow runoff, and slow permeability. Soils are flooded for brief to long durations from December through May. During this time the water table fluctuates at a depth of 2 to 3 feet. Drained phases have a water table between the depths of 5 and 6 feet. Vegetation in the desert regions includes silver sagebrush (*Artemisia cana*) as well as rushes (*Juncus* spp.) and sedges (*Carex* spp.) in soils that remain wet for long durations.

Randsburg Series (USDA 2015f)**:** The Randsburg Series of soils consist of shallow to soft rock in well drained soils that formed in residuum from granitic rock. The textures include sandy loam to silty clay loam.

Randsburg soils are found in the lower margins of fans, between the sloping fans and the basins and playas that have slopes of 0 to 2 percent, between 2,200 and 2,900 feet AMSL. The climate is arid with winters that have regional rains and a little snow and summers with infrequent local thunderstorms. Annual precipitation is 3 to 6 inches. Average January temperature is 45 degrees F and the average July temperature is 81 degrees F. The frost free season is 200 to 260 days. Randsburg soils are well drained with medium runoff, and moderate to moderately slow permeability. Vegetation is mostly desert shrubs including creosote bush, white bursage, Mormon tea, Joshua tree, and annual grasses and forbs.

Rosamond Series (USDA 2015g)**:** The Rosamond Series of soils consist of deep well drained soils that formed in material weathered mainly from granitic alluvium. The textures include sandy loam, coarse sandy loam, and fine gravel.

Rosamond soils are found on hills and granitic rock pediments that have slopes of 2 to 50 percent, between 2,375 and 3,500 feet AMSL. The climate is arid with hot dry summers and cool, slightly moist winters. The mean annual precipitation is 4 to 6 inches with brief periods of snow. Average January temperature is 45 degrees F and the average July temperature is 89 degrees F. The frost free season is 200 to 250 days. Rosamond soils are well drained with low to high runoff, and drainage with moderately rapid permeability. Vegetation is mostly desert shrubs including rabbitbrush (*Ericameria* spp.), sagebrush (*Artemisia* spp.), saltbush, and annual and perennial grass and weeds.

3.3 Vegetation Communities and Special Status Plant Species

The Project Area is located in the Mojave Desert Region of the Desert Floristic Province. Landforms in the region include granite-derived basin floors, flood plains, alluvial fans, small clay pans, and rock pediments. Mountains and hills, residuum weathered from basalt, granite, and sandstone, are also present. Cache Creek, a major stream on the east slope of the Tehachapi Mountains, traverses the north of the Project and ultimately drains into Koehn Dry Lake to the northeast. The southern portion of the Project drains southeast towards Rogers Dry Lake. Soil types are mapped on Figures 4a and 4b and described in Table 2. Soil textures throughout most of the Project Area are clay sands and sandy loams. Other soil textures include clay in the playas; sand on stabilized dunes in the northern portion of Project Area; gravel with some cobble on hills in the southern and eastern portions of Project Area; and coarse sand in washes. Native vegetation on-site is typical of that found throughout the Mojave Desert.

A vegetation community assessment was conducted throughout the Project Area in August and September of 2019 and April and May of 2020. Nine vegetation communities were identified within the Project. These included eight shrubland alliances, one woodland alliance, as defined by Sawyer et al. (2009). Three of the alliances are considered sensitive natural communities in California (CDFW 2018b). In addition, one shrubland alliance and one provisional shrubland alliance were found within the areal features associated with the Gen-tie Corridor. Each alliance is discussed in detail in Section 4.0.

The literature research conducted for special status plant species (Section 2.0) identified a total of 48 species within the USGS quadrangles in and around the Project Area (CNDDB 2019a, 2019b). Out of the 48 species identified, 22 species have the potential to occur within the Project Area (Table 1). Potentially occurring rare and special status plant species are discussed in detail in Section 5.1.

3.4 Wildlife

The literature research conducted for listed and special status wildlife species (Section 2.0) identified a total of 45 species within the USGS quadrangles in and around the Project Area (CNDDB 2019a, 2019b). This included 38 vertebrate species, 5 insects, and 2 mollusks. Out of the 45 species identified, 28 species have the potential to occur within the Project Area (Table 1).

Of the 28 species, there are 4 mammals, 1 reptile, 20 birds, and 3 insects. These species are discussed in detail in Section 6.1 and 6.2. Of the 28 species, six are federal and/or state listed. Of these six species, only two have the potential to inhabit the site: the state listed as Threatened Mohave ground squirrel (MGS) and the federal and state listed as Threatened Agassiz's desert tortoise (ADT). The federal and state Endangered California condor, the state Threatened Swainson's hawk, the federal Threatened western snowy plover, and the state Threatened tricolored blackbird are not known to nest within the limits of the Project Area but may potentially occur on site to forage, hunt, roost, perch, drink, or migrate through.

Because of the potential for on-site presence of both MGS and ADT, a habitat suitability assessment for MGS was conducted in September of 2019 and March of 2020 by Dr. Philip Leitner and a U.S. Fish and Wildlife Service (USFWS) protocol presence/absence ADT survey was completed in October 2019 and May of 2020 by EPC. All other potentially occurring special status and general wildlife and insect species were surveyed for during the ADT protocol survey.

4.0 Vegetation Community Assessment

4.1 Methods

As discussed in Section 2.0, various agency databases and recorded documents were reviewed and researched for the Project Area and surrounding lands for the presence of vegetation communities and associated plant species. Sensitive natural communities or vegetation communities are presumed to occur within the Project Area if there were locality records, either historic or recent, indicating presence. In order to determine which vegetation communities occur on site, a vegetation community assessment was conducted by EREMICO Biological Services, LLC between 26 August and 15 September of 2019 and on 27-28 April and 21 May of 2020.

The EREMICO Biological Services team included Denise LaBerteaux and Bruce Garlinger. Because of the timing of the survey, most special status plants that have some potential to occur within the Project Area were not expected to be observable. Therefore, the purpose of this survey was to 1) to ground-truth and edit, if necessary, the vegetation communities that were mapped in the Project Area as part of the DRECP; 2) identify habitats that may harbor special status plants; and 3) identify sensitive natural communities occurring on-site. Gen-tie Corridors were treated as linear features and mapping only included any sensitive habitats encountered along the centerline. However, vegetation was mapped for several areal features associated with the Gen-tie Corridors generally in the vicinity of Mojave and the Windhub Substation.

The team either walked or drove throughout the Project Area, visiting all habitats and topographic features in the area. The following information was recorded: plant alliances, dominant shrubs, other shrubs, soil texture, and habitat disturbances.

Prior to conducting the field surveys within the Project Area, each team member reviewed the physical description, habitat description, drawings, and photographs of each potentially occurring special status plant species. Sources for information on each species included floras (Abrams and Ferris 1923-1960, Baldwin et al. 2012, Munz 1974), field guides (Jaeger 1940, MacKay 2013), and other sources (CNPS 1978, 2019; Smithsonian Institution 1978; University of California, Berkeley 2017).

Once the habitat assessments were completed, those special status plant species identified initially as having potential to occur were ranked as having “Low”, “Moderate”, or “High” potential. Those species that are known to occur in the Project Area or were encountered during the habitat assessment were ranked as “Present.” Special status plant species are discussed in detail in Section 5.1.

4.2 Results

The Project supports a total of nine vegetation communities which include eight shrubland alliances and one woodland alliance, as defined by Sawyer et al. (2009) (Figures 5a and 5b). Three alliances are sensitive natural communities in California and include *Atriplex spinifera* Shrubland Alliance (Spinescale Scrub), *Krascheninnikovia lanata* Shrubland Alliance (Winter Fat Scrubland), and *Yucca brevifolia* Woodland Alliance (Joshua Tree Woodland) (CDFW 2018b).

These desert vegetation communities are defined by the predominant vegetation present on site. Where dominant plant species coincide and the majority of the land coverage is comprised of

more than one dominant vegetation type, it is considered an Alliance, as in the case of the Creosote Bush-White Bursage Scrub Shrubland Alliance or the Joshua Tree Woodland Alliance.

Kern County parcels and collector lines support seven and eight vegetation communities, respectively, of which three are sensitive. California City parcels and collector lines support seven and five vegetation communities, respectively, of which three are sensitive (Table 3).

The Gen-tie Corridor areal features support an additional non-sensitive vegetation community; *Ericameria cooperi* Provisional Shrubland Alliance (Cooper Goldenbush Scrub) (Klein and Keeler-Wolf 2014) and two sensitive vegetation communities (Sawyer et al. 2009) that include the following:

- *Atriplex spinifera* Shrubland Alliance (Spinescale Scrub)
- *Yucca brevifolia* Woodland Alliance (Joshua Tree Woodland)

Sensitive vegetation may be avoided in the construction of above ground gen-ties by adjusting the locations of electrical transmission towers.

The vegetation communities present on site are further defined as follows with nomenclature following *A Manual of California Vegetation, 2nd Ed.* (Sawyer et al. 2009). A list of annual and perennial plant species recorded during the vegetation community assessments are provided in Appendix C. Representative photographs of each vegetation community are provided in Appendix D.

4.2.1 Non-sensitive Vegetation Communities

***Larrea tridentata-Ambrosia dumosa* Shrubland Alliance (Creosote Bush-White Bursage Scrub)**

This vegetation community comprises a total of 3,447.75 acres or approximately 43.7% of the 7,883.82 acre Project. It is the most common vegetation community in the Project Area.

The Project acreages within the Kern County CUP consist of 2,496.31 acres (44.1% of the CUP) and within the collector lines 7.52 acres (7.5% of the collector lines). California City CUP acreage consists of 929.72 acres (44.2% of the CUP) and within the collector lines 14.20 acres (53.2% of the collector lines) (Table 3 and Figures 5a and 5b).

This habitat type commonly occurs on well-drained alluvial or colluvial soils, with or without a desert pavement surface, in minor washes and rills and on alluvial fans, bajadas, and upland slopes throughout the Mojave Desert, from -75 m to 1,200 m in elevation. Shrubs are typically less than 3 m in height, and the shrub canopy is open to intermittent and may be two-tiered (Sawyer et al. 2009).

Other shrubs that were identified during the vegetation community assessment in this habitat include goldenhead (*Acamptopappus sphaerocephalus* var. *hirtellus*), cheesebush, Cooper's goldenbush (*Ericameria cooperi* var. *cooperi*), horsebrush (*Tetradymia stenolepis*), spiny hop-sage (*Grayia spinosa*), winter fat, desert tomato (*Lycium andersonii*), and box-thorn (*Lycium cooperi*). Scattered Joshua trees were also present. Mojave Desert California buckwheat (*Eriogonum fasciculatum* var. *polifolium*) was another common shrub in this vegetation community in the Gen-tie Corridor west of

Table 3. Acreage of Vegetation Communities and Unvegetated Features on the Bellefield Solar Farm Project, California City and Kern County, California.

Vegetation Community[7]	Kern County CUP Acres (%)	Kern County Collector Lines Acres (%)	California City CUP Acres (%)	California City Collector Lines Acres (%)	Overall Acres (%)
***Larrea tridentata – Ambrosia dumosa* Shrubland Alliance (Creosote Bush - White Bursage Scrub)**	2,496.31 (44.1%)	7.52 (7.5%)	929.72 (44.2%)	14.20 (53.2%)	3,447.75 (43.7%)
***Atriplex polycarpa* Shrubland Alliance (Allscale Scrub)**	1,655.92 (29.3%)	58.28 (58.2%)	679.16 (32.3%)	6.81 (25.5%)	2,400.18 (30.5%)
***Larrea tridentata* Shrubland Alliance (Creosote Bush Scrub)**	567.73 (10.0%)	0.62 (0.6%)	240.43 (11.4%)	1.61 (6.0%)	810.39 (10.3%)
***Ambrosia dumosa* Shrubland Alliance (White Bursage Scrub)**	635.66 (11.2%)	11.12 (11.1%)	140.67 (6.7%)	1.54 (5.8%)	788.98 (10.0%)
***Atriplex spinifera* Shrubland Alliance (Spinescale Scrub) - Sensitive**	229.75 (4.1%)	7.22 (7.2%)	-	0.41 (1.5%)	237.39 (3.0%)
***Krascheninnikovia lanata* Shrubland Alliance (Winter Fat Scrubland) - Sensitive**	57.77 (1.0%)	7.29 (7.3%)	107.08 (5.1%)	-	172.15 (2.2%)
***Atriplex confertifolia* Shrubland Alliance (Shadscale Scrub)**	6.68 (0.1%)	4.43 (4.4%)	-	-	11.11 (0.1%)
***Yucca brevifolia* Woodland Alliance (Joshua Tree Woodland) - Sensitive**	-	2.73 (2.7%)	1.53 (0.1%)	-	4.26 (0.1%)
***Ericameria nauseosa* Shrubland Alliance (Rubber Rabbitbrush Scrub)**	-	-	1.13 (0.1%)	-	1.13 (0.0%)
Unvegetated (developed: paved roadways, structures, or other features and disturbed dirt roadways, etc.)	4.54 (0.1%)	0.91 (0.9%)	2.92 (0.1%)	2.13 (8.0%)	10.50 (0.1%)
Total Acres	**5,654.36 (100%)**	**110.12 (100%)**	**2,102.64 (100%)**	**26.70 (100%)**	**7,883.82 (100%)**

[7] Vegetation communities per Sawyer et al. 2009.

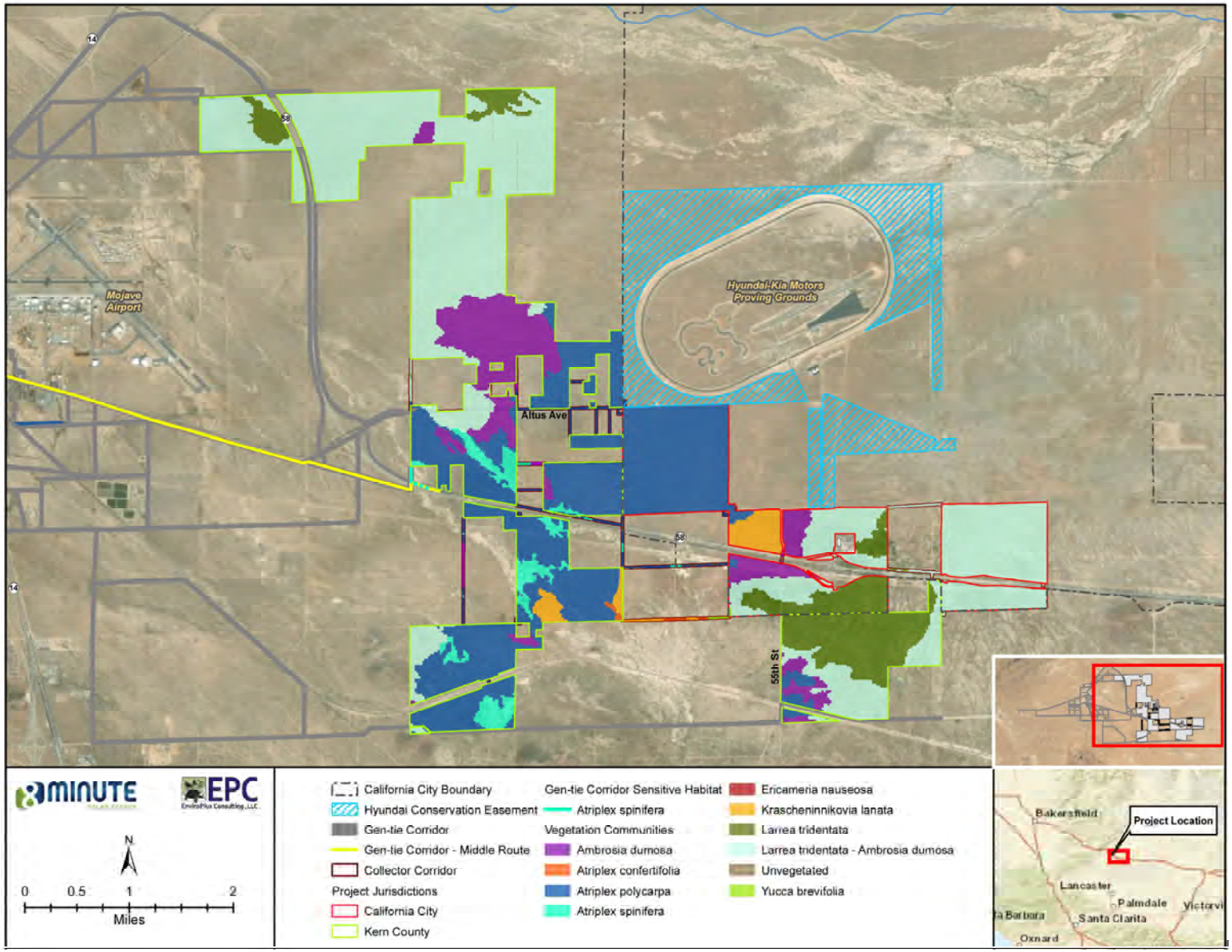

Figure 5a. Bellefield Solar Farm Project Vegetation Communities, California City and Kern County, CA

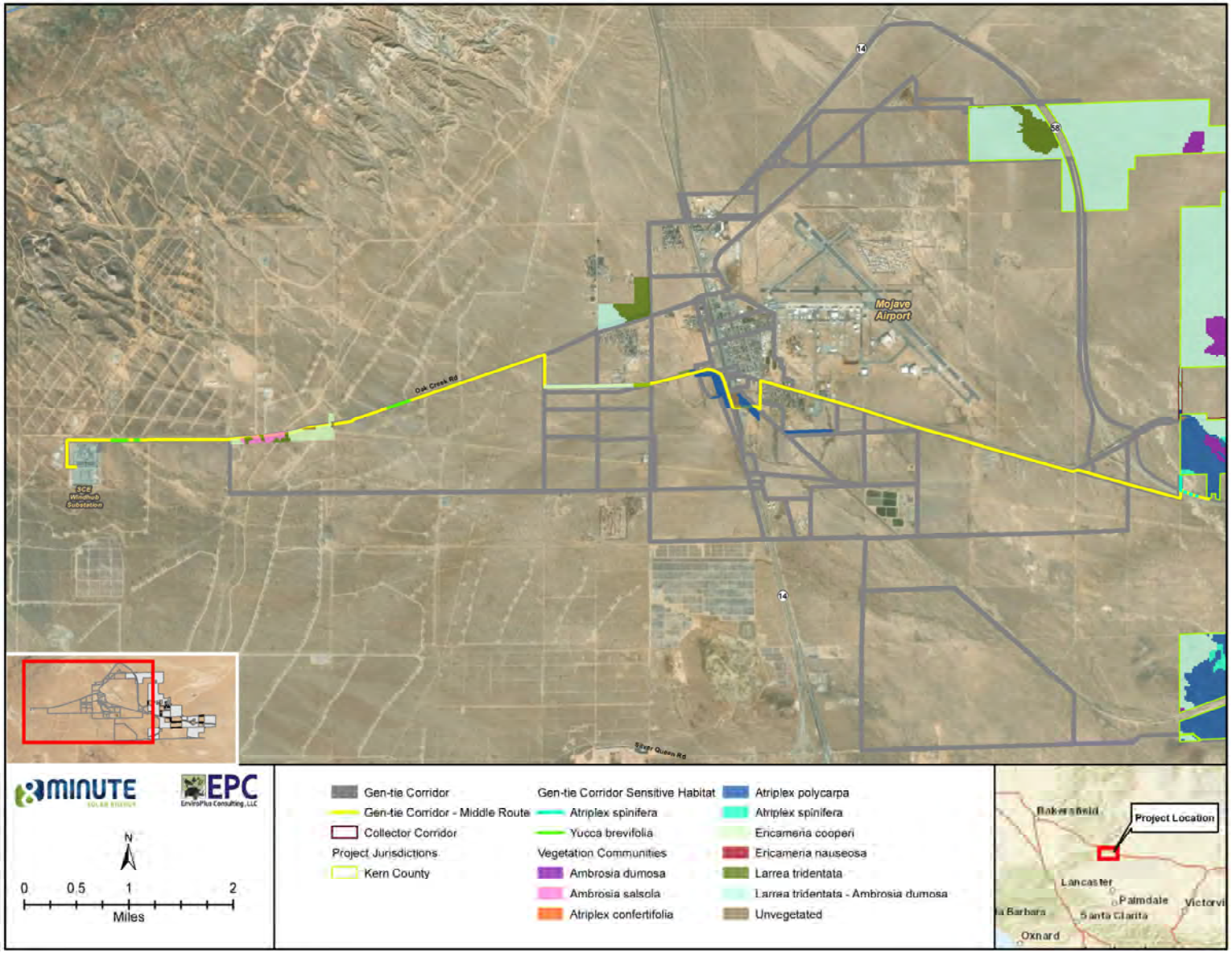

Figure 5b. Bellefield Solar Farm Project Gen-tie Corridor Vegetation Communities

SR14.

Occurrence and density of the associating shrubs in this alliance varied with soils and geomorphology. Other shrubs are few and scattered in gravelly, hilly areas (Photograph 1, Appendix D) and on alluvial plains with clayey sandy soil (Photograph 2, Appendix D). More species are present and denser in areas with sand, such as stabilized sand dunes (Photograph 3, Appendix D) and washes (Photograph 4, Appendix D).

This alliance and the shrub associations that occur in the Project and Gen-tie Corridor are not sensitive natural communities (CDFW 2018b).

Atriplex polycarpa Shrubland Alliance (Allscale Scrub)

This vegetation community comprises a total of 2,400.18 acres or approximately 30.5% of the 7,883.82 acre Project. It is the second most common vegetation community in the Project Area.

The Project acreages within the Kern County CUP consist of 1,655.92 acres (29.3% of the CUP) and within the collector lines 58.28 acres (58.2% of the collector lines). California City CUP acreage consists of 679.16 acres (32.3% of the CUP) and within the collector lines 6.81 acres (25.5% of the collector lines) (Table 3 and Figures 5a and 5b).

Allscale scrub is typically found in washes and on playa lake beds and shores, dissected alluvial fans, rolling hills, terraces, and edges of large, low gradient washes at an elevation of -75 m to 1500 m. Soils may be carbonate-rich, alkaline, sandy, or sandy loam. Shrub height is usually less than 3 m and the canopy is open to continuous (Sawyer et al. 2009). On the Project, it occurs primarily in the central area and along the southern portion of the Gen-tie Corridor east of SR14. Occurrence of allscale scrub is in monotypic stands (Photograph 5, Appendix D) as well as in more diverse associations (Photograph 6, Appendix D). Several dead allscale plants were observed in the monotypic stands. In the more diverse areas, other shrubs include goldenhead, white bursage, cheesebush, shadscale, spiny hop-sage, winter fat, desert tomato, box-thorn, and creosote bush. Joshua trees are scattered throughout this vegetation community. This alliance and the shrub associations that occur in the Project Area are not sensitive natural communities (CDFW 2018b).

Larrea tridentata Shrubland Alliance (Creosote Bush Scrub)

This vegetation community comprises a total of 810.39 acres or approximately 10.3% of the 7,883.82 acre Project. It also occurs within the Gen-tie Corridor.

The Project acreages within the Kern County CUP consist of 567.73 acres (10.0% of the CUP) and within the collector lines 0.62 acres (0.6% of the collector lines). California City CUP acreage consists of 240.43 acres (11.4% of the CUP) and within the collector lines 1.61acres (6.0% of the collector lines) (Table 3 and Figures 5a and 5b).

Creosote bush scrub typically has shrubs that are less than 3 m in height and occurs in well-drained soils on alluvial fans, bajadas, upland slopes and in minor, intermittent washes at an elevational range of -75 m to 1,000 m (Sawyer et al. 2009). It occurs in the

southeastern, northern, and western portions of the Project. This habitat is nearly monotypic, having creosote bush and very few other shrubs in most areas of the Project (Photograph 7, Appendix D). This alliance is not a sensitive natural community (CDFW 2018b).

Ambrosia dumosa Shrubland Alliance (White Bursage Scrub)

This vegetation community comprises a total of 788.98 acres or approximately 10.0% of the 7,883.82 acre Project. *Ambrosia dumosa* Shrubland Alliance also occurs within the Gen-tie Corridor.

The Project acreages within the Kern County CUP consist of 635.66 acres (11.2% of the CUP) and within the collector lines 11.12 acres (11.1% of the collector lines). California City CUP acreage consists of 140.67 acres (6.7% of the CUP) and within the collector lines 1.54 acres (5.8% of the collector lines) (Table 3 and Figures 5a and 5b).

White bursage scrub commonly occurs on alluvial fans, bajadas, rocky hills, partially-stabilized and stabilized sand fields, and upland slopes, between 0 and 1700 m in elevation. Soils are typically sandy, clay-rich, or calcareous and may have pavement surfaces (Sawyer et al. 2009). This alliance is scattered throughout the Project Area. The shrub diversity is very high, with several other species present (Photograph 8, Appendix D). These shrubs include goldenhead, cheesebush, Cooper's goldenbush, allscale, spiny hop-sage, winter fat, desert tomato, and box-thorn. Box-thorn is a very common associate on the stabilized sand fields and hummocks (Photograph 9, Appendix D). A few Joshua trees and creosote bushes are also present. Even though goldenhead is present, a white bursage-goldenhead association, a sensitive natural community (CDFW 2018b), was not identified as occurring in the Project Area.

Ambrosia salsola Shrubland Alliance (Cheesebush Scrub)

This vegetation community only occurs within an areal feature associated with the Gen-tie Corridor (Figure 5b and Photograph 10 in Appendix D).

Cheesebush scrub is dominant or co-dominant in the shrub canopy. It typically occurs on valley floors, flats, and rarely flooded, low gradient deposits and in arroyos, intermittent channels, and washes. Soils are alluvial, sandy and gravelly, and disturbed desert pavement. Cheesebush readily colonizes disturbed areas and is frequently associated with burned and heavily grazed areas, military camps, OHV areas, abandoned towns and old farming sites, and roadsides (Sawyer et al. 2009). This alliance occurs along the disturbed edges of Oak Creek Road and major dirt roads in the wind farm area. Other shrubs include Nevada ephedra (*Ephedra nevadensis*), goldenhead, brittle bush (*Encelia farinosa*), Copper goldenbush, rubber rabbitbrush, spiny hop-sage, jimson weed (*Datura wrightii*), desert tomato, and box-thorn. Desert needlegrass (*Stipa speciosa*) and sand rice grass (*Stipa hymenoides*) are also present.

Ericameria cooperi Provisional Shrubland Alliance (Cooper Goldenbush Scrub).

This vegetation community only occurs within an areal feature associated the Gen-tie Corridor (Figure 5b and Photograph 11 in Appendix D).

This provisional alliance typically occurs in recently disturbed areas, typically from fire, and is usually adjacent to stands of larger and longer-lived shrubs. In these areas, Cooper goldenbush is evenly disturbed and has a greater than 40% relative cover (Klein and Keeler-Wolf 2014). Other shrubs include cheesebush, narrowleaf goldenbush, and Mojave Desert California buckwheat. Desert needlegrass and scattered Joshua trees are also present. This provisional shrubland alliance is not a sensitive natural community (CDFW 2018b).

Atriplex confertifolia Shrubland Alliance (shadscale scrub)

This vegetation community comprises a total of 11.11 acres or approximately 0.1% of the 7,883.82 acre Project. It does not occur within the Gen-tie Corridor.

The Project acreages within the Kern County CUP consist of 6.68 acres (0.1% of the CUP) and within the collector lines 4.43 acres (4.4% of the collector lines) (Table 3 and Figure 5a).

Atriplex confertifolia Shrubland Alliance does not occur within the California City CUP or within the collector line acreages.

Shadscale scrub typically occurs at 450 m to 2,500 m elevation on bajadas, flats, lower slopes, rocky hills, valleys, minor rills, washes, and edges of playas. Soils are variable and may be carbonate rich, clay rich, or have a high sand content and may be covered with desert pavement (Sawyer et al. 2009). In the Project and Gen-tie Corridor it is confined to carbonate rich areas (up to 40% calcium carbonate) with clayey sand, in patches along the southern gen-tie route and along a collector line (Photograph 12, Appendix D) and adjacent solar panel installation area south of SR58. Other shrubs in these areas include goldenhead, cheesebush, budsage (*Artemisia spinescens*), desert horsebrush (*Tetradymia glabrata*), bush peppergrass (*Lepidium fremontii*), winter fat, and Mojave stillingia (*Stillingia paucidentata*). Scattered Joshua trees are also present. Shadscale – winter fat and shadscale – bush peppergrass are both sensitive associations in the shadscale scrub community (CDFW 2018b); however, neither one was identified as occurring in the Project or Gen-tie Corridor.

Ericameria nauseosa Shrubland Alliance (Rubber Rabbitbrush Scrub)

This vegetation community comprises a total of 1.13 acres or approximately 0.0% of the 7,883.82 acre Project (Table 3 and Figure 5a).

This vegetation community only occurs within the California City CUP. This vegetation community does not occur within the California City collector lines, the Kern County CUP or collector lines, or the Gen-tie Corridor.

Rubber rabbitbrush is a fast-growing, early seral shrub that establishes after disturbance. Stands can occur in any topographic setting, typically colonizing areas after disturbance

such as washes, areas disturbed by overgrazing, road cuts, and clearings. Stands often occur on mine tailings and fallow agricultural fields. Soils are primarily well-drained sands and gravel (Sawyer et al. 2009). Rabbitbrush scrub is a minor alliance in the Project, limited to a small area along the natural gas line corridors. Common shrubs occurring with rubber rabbitbrush include goldenhead, white bursage, and cheesebush. This alliance is not a sensitive natural community (CDFW 2018b).

4.2.2 Sensitive Vegetation Communities

Atriplex spinifera Shrubland Alliance (Spinescale Scrub)

Atriplex spinifera Shrubland Alliance is designated as a sensitive natural community by CDFW (2018b). This vegetation community comprises a total of 237.39 acres or approximately 3.0% of the 7,883.82 acre Project. *Atriplex spinifera* Shrubland Alliance does not occur within the Gen-tie Corridor.

The Project acreages within the Kern County CUP consist of 229.75 acres (4.1% of the CUP) and within the collector lines 7.22 acres (7.2% of the collector lines). It does not occur within the California City CUP acreage but it is present within the California City collector lines and consists of 0.41 acre (1.5% of the collector lines) (Table 3 and Figure 5a).

This scrub habitat is found between 50 and 800 meters in elevation on alluvial fans and on old lake beds perched above current drainages. Soils are moderately sandy clay loams to fine, silty clays that may be carbonate rich (Sawyer et al. 2009). In the Project Area, this alliance surrounds clay pans and silty areas (Photograph 13, Appendix D) and is confined to the flood zones of Cache Creek and other drainages originating in the Tehachapi Mountains. It occurs nearly as a monotypic stand. Allscale is an occasional associate shrub.

Krascheninnikovia lanata Shrubland Alliance (Winter Fat Scrubland)

Winter fat scrubland is designated as a sensitive natural community by CDFW (2018b). This vegetation community comprises a total of 172.15 acres or approximately 2.2% of the 7.883.82 acre Project. *Krascheninnikovia lanata* Shrubland Alliance does not occur within the Gen-tie Corridor.

The Project acreages within the Kern County CUP consist of 57.77 acres (1.0% of the CUP) and within the collector lines 7.29 acres (7.3% of the collector lines). California City CUP acreage consists of 107.08 acres (5.1% of the CUP) but does not occur within the California City collector lines (Table 3 and Figure 5a).

Winter fat scrubland typically occurs between 100 m to 2,700 m elevation on alkaline flats around playas and along drainages, plains, and old lakebeds above current drainages. Soils are thin to moderately deep rocky to silty clay loams that are calcareous, moderately alkaline, and sometimes saline. Shrubs are less than 1.5 m, and the canopy is open to continuous (Sawyer et al. 2009). In the Project, this habitat occurs in areas with sandy loam (Photograph 14, Appendix D). Other shrubs in this habitat include goldenhead, white bursage, cheesebush, desert tomato, and box-thorn. Joshua trees occur in low

densities.

Yucca brevifolia Woodland Alliance (Joshua Tree Woodland)

Joshua tree woodland is designated by CDFW (2018) as a sensitive natural community. This vegetation community comprises a total of 4.26 acres or approximately 0.1% of the 7,883.82 acre Project. *Yucca brevifolia* Woodland Alliance occurs within the Gen-tie Corridor.

This vegetation community does not occur within the Kern County CUP, but it is present within the collector lines with a total of 2.73 acres (2.7% of the collector lines). California City CUP acreage consists of 1.53 acres (0.1% of the CUP) but does not occur within the California City collector lines (Table 3 and Figures 5a and 5b).

The woodland alliance is recognized when Joshua trees are evenly distributed at greater than or equal to one percent cover over the landscape. It generally occurs at an elevation of 750-1800 m on alluvial fans, ridges, and gentle to moderate slopes with soils that are comprised of coarse sands, very fine silts, gravel, or sandy loams. The Joshua tree canopy and the shrub layer are open to intermittent (Sawyer et al. 2009). Understory shrubs within the Gen-tie Corridor vary by location and include either: 1) white bursage, cheesebush, sticky snakeweed (*Gutierrezia microcephala*), shadscale, allscale, winter fat, and box-thorn (Photograph 15, Appendix D) or 2) cheesebush, brittle bush, narrowleaf goldenbush, spiny hop-sage, and Mojave Desert California buckwheat (Photograph 16, Appendix D). In other habitats in the Project, Joshua trees are only scattered.

Although Joshua tree woodland was mapped during the vegetation community assessment individual Joshua trees were not recorded or mapped.

Joshua trees are protected under the CDNPA and are scattered throughout most of the Project Area. The Joshua tree is also a protected desert native plant species pursuant to Kern County's Department of Agriculture and Measurement Standards (Kern County 2002). Harvesting, cutting, and salvaging of Joshua trees in Kern County may only be completed under an approved permit by submitting a California Desert Native Plants Application to Harvest Native Plants (Kern County 2002).

Additionally, Joshua trees were petitioned for listing with the USFWS as an endangered or threatened species on 28 September 2015. The USFWS posted a 90-Day Finding of their review of the petition on 14 September 2016 and found that "…the petition presents substantial scientific or commercial information indicating that listing the Joshua tree (*Yucca brevifolia*) may be warranted…" (USFWS 2016). However, in August of 2019 the USFWS released their Notice of 12-month Petition Findings and determined that listing of the Joshua tree was not warranted at that time (USFWS 2019a).

On 15 October 2019, a petition was submitted to the California Fish and Game Commission (the Commission) to list the Joshua tree as a Threatened Species under CESA (Center for Biological Diversity 2019a). The Commission referred the petition to the CDFW for evaluation. In February of 2020, the CDFW determined that the petition provides sufficient scientific information to indicate that the petitioned actions may be warranted and recommended the Commission accept the petition for further consideration under CESA (CDFW 2020). To date, the Commission has not ruled on the petition.

5.0 POTENTIAL LISTED AND SPECIAL STATUS PLANT SPECIES

As discussed in Section 2.0, various agency databases and recorded documents were reviewed and researched for the Project Area and surrounding lands to identify the potential occurrence of sensitive, special status, and federal and/or state listed plant species. Sensitive, special status, and listed plant species are presumed to occur within the Project Area if there were locality records, either historic or recent, indicating presence, discovered through the research and literature review efforts.

The literature research conducted for special status plant species identified a total of 48 species within the USGS quadrangles in and around the Project Area (CNDDB 2019a, 2019b). Out of the 48 species identified, 22 species have the potential to occur within the Project Area (Table 1).

5.1 Literature Research Results

The literature research identified two special status plants within or immediately adjacent to the Project (Figure 6). These species were alkali mariposa lily (*Calochortus striatus*) and Mojave spineflower (*Chorizanthe spinosa*). Another 46 special status plants were identified as occurring in the search area (Figure 6). Based on habitat requirements and elevational range, 26 species were identified as having no potential of occurring in the Project Area. The 22 species that are known to occur or have some potential of occurring include: 12 species that are listed as CNPS Rank 1B, defined as plants that are rare and endangered in California and elsewhere and one species that is listed as CNPS Rank 2B, defined as plants that are rare, threatened, or endangered in California, but are more common elsewhere; and nine species that are listed as CNPS Rank 4, a watch list of plants with limited distribution (CNPS 2019) (Table 4). Potentially occurring special status plant species are discussed in detail in Section 5.2. No potentially occurring species that are listed as Threatened or Endangered under the state or federal ESA (CDFW 2019a, USFWS 2018a) were determined to be present in the Project Area.

The 22 special status plant species that have the potential to occur within the boundaries of the Project Area are included on special status lists where they meet one or more of the following categories (CDFW 2019a, 2019b; CNPS 2019; USFWS 2017a):

- Taxa that are officially listed or proposed for listing under the state and/or federal Endangered Species Acts;
- Taxa that are state or federal candidates for possible listing;
- Taxa listed in the California Native Plant Society's (CNPS) *Inventory of Rare and Endangered Plants of California*;
- Taxa which meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the California Environmental Quality Act (CEQA) Guidelines (e.g., all CNPS Rank 1 and 2 and some Rank 3 and 4 plants may fall under Section 15380 of CEQA);
- Taxa that are biologically rare, very restricted in distribution, or declining throughout their range but not currently threatened with extirpation;
- Populations in California that may be on the periphery of a taxon's range, but are threatened with extirpation in California; and

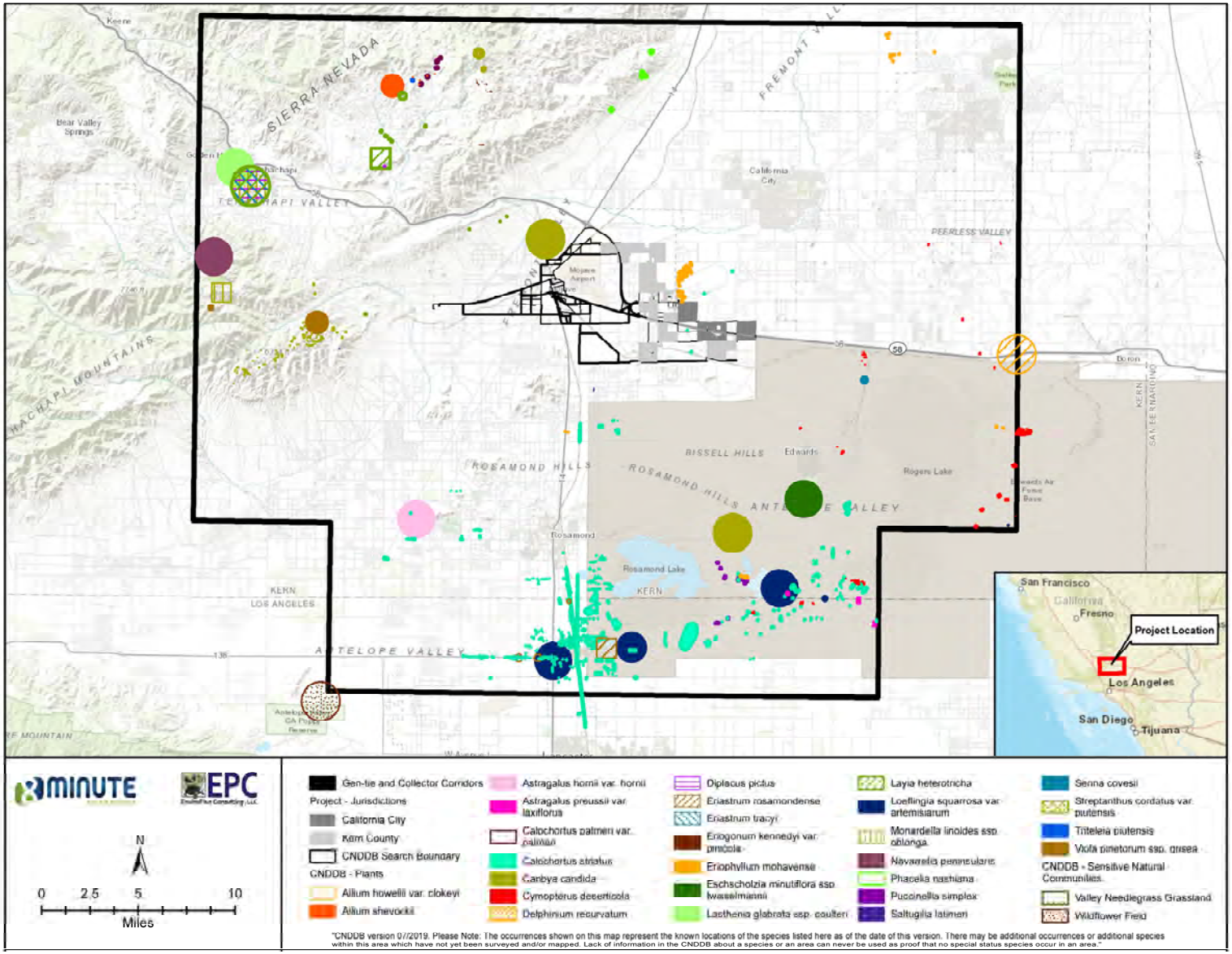

Figure 6. Bellefield Solar Farm Project Area Special Status Plants, CNDDB Search Result, California City and Kern County, CA

Table 4. Special Status Plant Species with Potential to Occur in the Region and within the Bellefield Solar Farm Project Area, California City and Kern County, California.

SCIENTIFIC NAME COMMON NAME PLANT FAMILY, LIFE FORM	RANK OR STATUS[8]					FLOWERING PERIOD	HABITAT AND DISTRIBUTION NOTES	POTENTIAL FOR OCCURRENCE WITHIN THE PROJECT
	FWS	CDFW	G-RANK	CNDDB S-RANK	CNPS			
CNPS Rank 1B								
Astragalus hornii* var. *hornii **Horn's milk-vetch** Fabaceae, annual herb	-	-	G1	S1	1B.1	May-October	60-850 m. Lake margins, alkaline; meadows and seeps, playas. Old record southwest of Project Area.	**LOW** – May occur on and around playas
Astragalus preussii* var. *laxiflorus **Lancaster milk-vetch** Fabaceae, perennial herb	-	-	G4	S1	1B.1	March-May	± 700 m. Alkaline flat. Chenopod scrub. Known only from near Lancaster and Edwards AFB.	**MODERATE** – Chenopod scrubs (saltbush and winter fat scrubs) are common on site
Calochortus striatus **alkali mariposa-lily** Liliaceae, perennial bulbiferous herb	–	–	G3	S2S3	1B.2	April-June	70-1595 m. Alkaline, mesic. Chaparral, chenopod scrub, Mojavean desert scrub, meadows and seeps. Known to occur in and near the Project Area.	**PRESENT** – One occurrence along a collector line. Additional records are in adjacent areas. Habitat is present.
Cymopterus deserticola **desert cymopterus** Apiaceae, perennial herb	–	–	G2	S2	1B.2E	March-May	630-1500 m. Sandy. Joshua tree woodland, Mojavean desert scrub. Known to occur in the vicinity and south of the Project Area.	**MODERATE** – Loose sandy soils, mainly north of SR58
Delphinium recurvatum **recurved larkspur** Ranunculaceae, perennial herb	–	–	G2	S2	1B.2E	March-June	3-790 m. Alkaline. Chenopod scrub, cismontane woodland, valley and foothill grassland. Old record in the vicinity of the Project Area.	**MODERATE** – Chenopod scrubs (saltbush and winter fat scrubs) with alkaline soils common on site
Eriastrum rosamondense **Rosamond eriastrum** Polemoniaceae, annual herb	–	–	G1	S1	1B.1E	April-May	700-715 m. Alkaline hummocks, often sandy. Chenopod scrub (openings), vernal pools (edges). Known only from Rosamond and Rogers Dry Lake areas.	**MODERATE –** In areas surrounding clay pans

[8] See Appendix B for the definition of all Rank codes.

SCIENTIFIC NAME COMMON NAME PLANT FAMILY, LIFE FORM	RANK OR STATUS[8]					FLOWERING PERIOD	HABITAT AND DISTRIBUTION NOTES	POTENTIAL FOR OCCURRENCE WITHIN THE PROJECT
	FWS	CDFW	G-RANK	CNDDB S-RANK	CNPS			
Eriophyllum mohavense **Barstow woolly sunflower** Asteraceae, annual herb	–	–	G2	S2	1B.2E	March-May	500-950 m. Gravelly, silty, sandy, or clay soils on level or sloping terrain, as well as in low-lying areas. Chenopod scrub, Mojavean scrub, playas. Known to occur in adjacent area to the north and east of the Project at the Hyundai-Kia Proving Grounds.	**HIGH –** In low lying areas, clay pans, and shrub-less gravelly patches, particularly in areas west of the Hyundai-Kia Proving Grounds
Eschscholzia minutiflora* ssp. *twisselmannii **Red Rock poppy** Papaveraceae, annual herb	–	–	G5	S2	1B.2E	March-May	680-1230 m. Volcanic tuff. Mohavean desert scrub. Known to occur north and east of the Project in the El Paso Mountains and on Edwards Air Force Base.	**LOW** – Volcanic tuff likely not present, but included due to an unconfirmed record on Edwards AFB
Layia heterotrichia **pale-yellow layia** Fabaceae, perennial herb	–	–	G2	S2	1B.1E	March-June	300-1705 m. Alkaline or clay. Cismontane woodland, coastal scrub, pinyon and juniper woodland, valley and foothill grassland. Occurrences northwest of Mojave.	**LOW** – On clay or alkaline soils west of SR14
Phacelia nashiana **Charlotte's phacelia** Hydrophyllaceae, annual	-	-	G3	S3	1B.2	March-June	600-2200 m. Usually granitic, sandy or rocky areas on steep slopes or flats. Joshua tree woodland, Mohavean desert scrub; pinyon-juniper woodland; Known to occur north of the Project Area.	**LOW** – In sandy washes
Puccinellia simplex **California alkali grass** Poaceae, annual grass	-	-	G3	S2	1B.2	March-May	2-930 m. Alkaline, vernally mesic; sinks, flats, and lake margins. Chenopod scrub, meadows and seeps, valley and foothill grassland, vernal pools. Occurs south of the Project on Edwards AFB.	**LOW** – In rivulets through larger clay pans
Saltugilia latimeri **Latimer's woodland-gilia** Polemoniaceae, annual herb	-	-	G3	S3	1B.2E	March-June	400-1900 m. Rocky or sandy, often granitic, sometimes washes. Chaparral, Mojavean desert scrub, pinyon and juniper woodland. One occurrence west of Project in Tehachapi Mountains.	**LOW** – On hills and slopes with gravelly soils and in coarse sandy washes

SCIENTIFIC NAME COMMON NAME PLANT FAMILY, LIFE FORM	RANK OR STATUS[8]					FLOWERING PERIOD	HABITAT AND DISTRIBUTION NOTES	POTENTIAL FOR OCCURRENCE WITHIN THE PROJECT
	FWS	CDFW	G-RANK	CNDDB S-RANK	CNPS			
CNPS Rank 2B								
Loeflingia squarrosa* var. *artemisiarium **sagebrush loeflingia** Caryophyllaceae, annual herb	–	–	G5	S2	2B.2	April-May	700-1615 m. Sandy. Desert dunes, Great Basin scrub, Sonoran Desert scrub. Known to occur south and east of the Project Area.	**MODERATE** – In sandy soils throughout the Project Area
CNPS Rank 4								
Camissonia kernensis* ssp. *kernensis **Kern County evening-primrose** Onagraceae, annual herb	-	-	G4	S3	4.3E	March-May	790-2130 m. Sandy or gravelly, granitic. Chaparral, Joshua tree woodland, pinyon and juniper woodland. Known to occur in the vicinity of the Project Area.	**LOW** – In sandy or gravelly soils
Canbya candida **white pygmy-poppy** Papaveraceae, annual herb	–	–	G3 G4	S3S4	4.2E	March-June	600-1460 m. Gravelly, sandy, granitic. Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland. Known to occur in the vicinity of the Project Area.	**MODERATE**– May occur throughout the area, especially north of Mojave
Castilleja plagiotoma **Mojave paintbrush** Orobanchaceae, perennial herb (hemiparasitic)	-	-	G4	S4	4.3E	April-June	300-2500 m. Great Basin scrub (alluvial), Joshua tree woodland, lower montane coniferous forest, pinyon and juniper woodland. Known to occur north and south of the Project Area.	**LOW** – on alluvium soils in shadscale or winter fat scrub
Chorizanthe spinosa **Mojave spineflower** Polygonaceae, annual herb	–	–	G4	S4	4.2E	March-July	600-1300 m. Sometimes alkaline. Chenopod scrub, Joshua tree woodland, Mojavean desert scrub, playas. Known to occur in adjacent area to the north and east at the Hyundai-Kia Proving Grounds.	**PRESENT** – Observed at 3 locations during the vegetation community assessment (Aug/Sept 2019)
Delphinium parryi* ssp. *purpureum **Mt. Pinos larkspur** Ranunculaceae, perennial herb	-	-	G4	S4	4.3E	May-June	1000-2600 m. Chaparral, Mojavean desert scrub, pinyon and juniper woodland. Known to occur in nearby mountains west of Project Area.	**LOW** – May occur along westernmost gen-ties routes

SCIENTIFIC NAME COMMON NAME PLANT FAMILY, LIFE FORM	RANK OR STATUS[8]					FLOWERING PERIOD	HABITAT AND DISTRIBUTION NOTES	POTENTIAL FOR OCCURRENCE WITHIN THE PROJECT
	FWS	CDFW	G-RANK	CNDDB S-RANK	CNPS			
Goodmania luteola **golden goodmania** Polygonaceae, annual herb	–	–	G3	S3	4.2	April-August	20-2200 m. Alkaline or clay. Mojavean desert scrub, meadows and seeps, playas, valley and foothill grassland. Known to occur south of the Project Area.	**MODERATE** – In clay or alkaline soils throughout the Project Area
Mentzelia eremophila **solitary blazing star** Loasaceae, annual herb	–	–	G4	S3S4	4.2	March-May	700-1220 m. Canyons, rocky slopes, washes. Mojavean desert scrub. Known to occur north of Project Area.	**LOW** – On gravelly hills and slope and in coarse sandy washes
Muilla coronata **crowned muilla** Themidaceae, perennial bulbiferous herb	–	–	G3	S3	4.2	March-April	670-1960 m. Chenopod scrub, Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland. Known to occur north of the Project Area.	**HIGH** – Likely occurs throughout the Project Area in most soil types
Syntrichopappus lemmonii **Lemmon's syntrichopappus** Asteraceae, annual herb	–	–	G4	S4	4.3E	April-May	500-1830 m. Sandy or gravelly. Chaparral, Joshua tree woodland, pinyon and juniper woodland. Known to occur southwest and west of Project Area.	**LOW** – In sandy and gravelly soils along westernmost gen-tie routes

- Taxa closely associated with a habitat that is declining in California at a significant rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands, vernal pools, etc.).

In addition, taxa protected under the CDNPA (Division 23 of the California Food and Agricultural Code, Section 80071-80075) (California Food and Agricultural Code 2005) were also considered. These taxa include:

- Smoke tree (Psorothamnus spinosus);
- All native species in the genus *Prosopis*, i.e., mesquites;
- All native species in the genus *Nolina*, i.e. beargrass;
- All native species in the family *Cactaceae*, i.e., cacti; and
- All native species in the family *Agavaceae*, i.e., century plants (*Agave* spp.), Joshua trees and other *Yucca* spp., and desert lilies (*Hesperocallis undulata*).

Although federal and/or state Threatened or Endangered species or proposed Threatened or Endangered species receive legal protection, special status species do not. However, local, state, and federal resource agencies typically require that these species be considered during the planning process for projects because 1) they either are declining at a rate that could result in a state and/or federal listing or they have historically occurred in low numbers, and 2) known threats to their persistence currently exist. Designations and rankings of special status species are intended to focus attention on the species to help avert the need for costly listing and recovery efforts required under federal and/or state endangered species laws.

Plants protected by the CDNPA that may occur within the Project Area include golden cholla (*Cylindropuntia echinocarpa*), beavertail cactus (*Opuntia basilaris* var. *basilaris*), and Joshua tree. These plant species are all common and widespread throughout the West Mojave Desert.

5.2 Special Status Plant Species Assessment Results

During the course of the vegetation community assessments conducted by EREMICO Biological Services in August through September of 2019 and April and May of 2020 (Section 4.0), each of the 22 special status plant species identified as having the potential to occur on site were notated as “Low,” “Moderate,” “High,” or “Present” (Figure 6 and Table 4). Further consideration of potential occurrence included vegetation communities, soils, and landforms.

A floristically-based, protocol-level survey (CDFW 2009) in all natural (or naturalized) habitats within the Project Area was not conducted during either of the vegetation community assessments in 2019 or 2020.

The 22 species identified in Table 4 with the potential to occur in the Project Area are further described below. Nomenclature throughout this document follows *The Jepson Manual, 2nd Ed.* (Baldwin et al. 2012).

Horn's Milk-vetch (*Astragalus hornii* var. *hornii*) - LOW Potential

Horn's milk-vetch is a CNPS Rank 1B plant, which includes plants that are rare, threatened, or endangered in California and elsewhere. It is a widely branched, long-lived annual herb in the pea family occurring at an elevation of 60-850 m AMSL. The leaves are 1.5 to 13 cm long and are often reflexed. The leaflets number from 11 to 33 and are 5-20 mm long. It blooms from May through October. The inflorescences are head-like and contain 10-35, white to pale lilac, flowers. The fruit is inflated, bladdery, papery with spreading hairs and a pointed, prominent beak (Baldwin et al. 2012). Because it was poisonous to sheep, this plant was subject to eradication efforts in the early 1900s. Current threats include habitat alteration (CNPS 2019). In the general region of the Project Area, this plant occurs on alkaline flats, lake shores, and playas on the west edge of the Mojave Desert. It has a LOW potential for occurrence on and around the edges of the clay pans within the Project Area.

Lancaster Milk-vetch (*Astragalus preussii* var. *laxiflorus*) - MODERATE Potential

Lancaster milk-vetch is a CNPS Rank 1B plant, which includes plants that are rare, threatened, or endangered in California and elsewhere. It is a robust, ill-scented perennial herb that blooms from March through May. Stems are more or less erect at 10-35 cm tall. Its leaves, with 7-25 leaflets, are 3.5-10 cm in length. The inflorescence is ascending and contains 4 to 22, pale to pink-purple, flowers. The flower banner is about 14 mm and recurved 40°, and the keel is 11-19 mm. The fruit is erect or ascending, inflated, glabrous or minutely hairy, and stiff-papery (Baldwin et al. 2012). This plant is known from near Lancaster and Edwards AFB, on alkaline flats in chenopod scrub at an elevation of 700 m AMSL (CNPS 2019, CNDDB 2019b). It has a MODERATE potential for occurrence within the Project Area based on the presence of saltbush scrub and winter fat scrub with silt or clay soils.

Alkali Mariposa-lily (*Calochortus striatus*) - PRESENT

The alkali mariposa lily is a is a CNPS Rank 1B plant, which includes plants that are rare, threatened, or endangered in California and elsewhere. This rare lily is threatened by down drafting of water tables from developments in nearby desert areas (CNPS 2019). The alkali mariposa-lily is a perennial herb arising from a bulb with a smooth, hairless stem. Basal leaves are few, grass-like, and 10-20 cm long; the leaves typically wither early. The elegant petals are white to lavender, conspicuously striated with purple veins. The nectary at the base of each petal is oblong and densely tufted with long, thickened hair (Baldwin et al. 2012). Its flowering season is from April through June. It is found at springs and alkali seeps, from 800-1,400 m elevation AMSL in moist creosote bush scrub and saltbush scrub. It also occurs in washes, low flats, and seasonal water courses, many of which drain into dry lakes (CNPS 2019). Known from the desert slopes of the San Bernardino and San Gabriel Mountains and in Kern and Tulare Counties and western Nevada, it is Present in the Project along a collector line (Photograph 17, Appendix D) and in nearby areas towards the south and southeast and at the Hyundai-Kia Proving Grounds (Figure 5).

Desert Cymopterus (*Cymopterus deserticola*) - MODERATE Potential

The desert cymopterus is a CNPS Rank 1B plant, which includes plants that are rare, threatened, or endangered in California and elsewhere. It is a deep-rooted, stemless perennial that usually grows to a height of 15 cm. Its leaf blades are 4-8 cm long, highly dissected and hairless. The inflorescence is compact and spherical with numerous purple flowers. The fruit is 5-7 mm long with narrowly winged ribs. With a flowering season from late March through early May, this rare species occurs at an elevation of 700 - 1,310 m AMSL (Baldwin et al. 2012). It grows in fine to coarse, sandy soil on flats in old dune areas that have deep, well-drained sand, typically in creosote bush scrub and Joshua tree woodland. Threats to the desert cymopterus include grazing, OHV, and development (Baldwin et al. 2012, CNPS 1978, 2019). Records show that it occurs from east of Victorville to Kramer Junction and Edwards AFB, in Kern, Los Angeles and San Bernardino Counties (CNDDB 2019b). The majority of known populations occur on Edwards AFB and vicinity. This species has a MODERATE potential for occurrence in the Project Area based on the presence of loose sandy soils and stabilized sandy flats and hummocks (Photograph 18, Appendix D).

Recurved Larkspur (*Delphinium recuvatum*) - MODERATE Potential

The recurved larkspur is a CNPS Rank 1B plant, which includes plants that are rare, threatened, or endangered in California and elsewhere. Found in poorly drained, fine, alkaline soils in *Atriplex* scrub, this larkspur has light blue, reflexed sepals with lower petals that are white. It has somewhat glabrous herbage and grows to 18-85 cm and blooms from March through June (Baldwin 2012). Recurved larkspur is endemic to California, with most populations occurring west of the Sierra Nevada crest at 3-790 m elevation AMSL. Threats include habitat conversion to agriculture, grazing, trampling, and invasive non-native plants. Two populations are known from the West Mojave Desert, one near Rosamond and one at a non-specific location near the community of Desert Lakes, east of the Project (Figure 5). Due to the presence of saltbush scrub and winter fat scrub in alkaline soils, it has a MODERATE potential for occurrence in the Project Area.

Rosamond Eriastrum (*Eriastrum rosamondense*) - MODERATE Potential

The Rosamond eriastrum is a CNPS Rank 1B plant, which includes plants that are rare, threatened, or endangered in California and elsewhere. It is an annual herb and a California endemic that is a newly described species in the phlox family. It is only known from the Rosamond and Rogers Dry Lake areas on hard-packed sandy cryptogamic soil among low alkaline hummocks in open chenopod scrub or on edges of vernal pools at an elevation of 700-715 m AMSL (CNPS 2019). Its leaves are 4-15 mm, widely linear, usually entire, and glabrous to woolly. The inflorescence is few-flowered and bracted. Corollas are pale blue, narrowly funnelform, and 5-7 mm long. The tube is 2.5-3.3 mm, throat is 0.2-0.8 mm, and lobes are elliptic-acute and 2 mm. Stamens are attached 1 mm below sinus and exserted less than ½ the corolla lobe (De Groot et al. 2015). The flowering period is April through May. This species is threated by development,

agriculture, and non-native plants (CNPS 2019). Due to the presence of clay pans, it has a MODERATE potential for occurrence in the Project Area.

Barstow Woolly Sunflower (*Eriophyllum mohavense*) - HIGH Potential

The Barstow woolly sunflower is a CNPS Rank 1B plant, which includes plants that are rare, threatened, or endangered in California and elsewhere. The Barstow woolly sunflower is a woolly, tufted, dwarf annual, measuring 1-2.5 cm tall and 2-3 cm wide. Leaves are spoon-to-wedge-shaped and sharply 3-toothed. Flower heads have 3-4 yellow disk flowers. It is found in fine gravelly, silty, sandy, or clay soils on level or sloping terrain, as well as in low-lying depressions/desert playas. It grows in creosote bush or saltbush scrub at elevations of 500-800 m AMSL and typically flowers between April and May. It occurs in a limited area that includes west-central San Bernardino County and eastern Kern County; known locations range from California City and northern Edwards Air Force Base to Boron, Kramer Hills, the Harper Dry Lake area, Opal Mountain, and Cuddeback Lake (CNDDB 2019b). In general, threats to this rare species include energy development, military activities, vehicles/road construction, and grazing (Baldwin et al. 2012, CNPS 2019). Populations are known to occur on Edwards AFB and at the Hyundai-Kia Proving Grounds, south and east of the Project, respectively (CNDDB 2019b). Due to the presence of clay pans in low lying areas and shrub-less gravelly patches scattered throughout the Project Area (Photograph 19, Appendix D), it has a HIGH potential for occurrence.

Red Rock Poppy (*Eschscholzia minutiflora* ssp. *twisselmannii*) - LOW Potential

The Red Rock poppy is a CNPS Rank 1B plant, which includes plants that are rare, threatened, or endangered in California and elsewhere. It is a hairless annual, erect or spreading, that grows between 5-35 cm tall. Leaves are bluntly tipped; petals are yellow and measure 10-26 mm in length; and the petals are longer, in general, than other subspecies. This subspecies is definitively distinguished from other subspecies only by its chromosome number (Clark and Faull 1991). The flowering season is from March through May. It grows in desert washes, flats and slopes from 680 to 1,260 m elevation AMSL (CNPS 2019). It is found only in Mojave Desert scrub in northeastern Kern County in the Rand and El Paso Mountains on rhyolite tuff, granitic, and similar rocks (Clark and Faull 1991). Threats to this plant include mining, grazing, and off-highway vehicles (CNPS 2019). The nearest known location of Red Rock poppy is in Red Rock Canyon State Park, over 20 miles north of the Project. Due to the presence of clayey soils in the Project Area, it has a LOW potential for occurrence.

Pale-yellow Layia (*Layia heterotricha*) - LOW Potential

The pale-yellow layia is a CNPS Rank 1B plant, which includes plants that are rare, threatened, or endangered in California and elsewhere. It is a glandular, apple- or banana-scented annual herb in the sunflower family that occurs at 300-1705 m elevation AMSL. It blooms from March through June. Ray flowers number 7-13 and are 3-22 mm in length, generally whitish but sometimes pale yellow or golden yellow. Disk flowers

number 15-90 and are 4-7 mm. Ray fruit is generally glabrous but sometimes sparsely hairy. Disk fruit have zero or 14-20 bristles or bristle-like scales that fall as a unit (Baldwin et al. 2012). This species is threatened by agricultural conversion, grazing, invasive non-native plants, and vehicles and is also potentially threatened by road maintenance and wind energy development (CNPS 2019). It has a LOW potential for occurrence within the Gen-tie Corridor west of SR14.

Charlotte's Phacelia (*Phacelia nashiana*) - LOW Potential

Charlotte's phacelia is a CNPS Rank 1B plant, which includes plants that are rare, threatened, or endangered in California and elsewhere. It is an annual with short, stiff hairs and black gland-tipped hairs on the stem; mature plants can vary between 4-18 cm in height. Its leaves are more or less basal, rounded and slightly lobed. The flower is bell-shaped, 10-18 mm long, with bright blue lobes, a white tube, and a blue throat typically with five white spots (Baldwin et al. 2012). This striking and rare species flowers April through June. Charlotte's phacelia prefers sandy to rocky and steep slopes, usually in Joshua tree or pinyon-juniper woodland, at elevations of 2,200 m AMSL or less. It is found in the Coso Mountains, the El Paso Mountains, and the east slopes of the southern Sierra Nevada on the western edge of the Mojave Desert (CNPS 2019). Threats to this plant include grazing, mining, OHV, off-trail hikers (some populations are alongside the Pacific Crest Trail), and invasive roadside/trailside non-native plants (CNPS 2019). Due to the presence of sandy washes in the Project Area, it has LOW potential for occurrence.

California alkali grass (*Puccinellia simplex*) - LOW Potential

California alkali grass is a CNPS Rank 1B plant, which includes plants that are rare, threatened, or endangered in California and elsewhere (CNPS 2019). It is a native annual grass that occurs on alkaline or vernally mesic sinks, flats, and lake margins at 2-930 m AMSL elevation. It is one of two annual species in the genus *Puccinellia* in California. The other is Parish's alkali grass (*Puccinellia parishii*). The distinguishing characteristic between the two species is the length of the lowest lemma and the lemma tip shape. The lowest lemma's length in *P. simplex* is 2.5-4 mm, and the lemma tip is acute, compared to a lowest lemma length of 1.8-2.2 mm and a lemma tip that is obtuse to truncate in *P. parishii* (Baldwin et al. 2019). The species is threatened by hydrological alterations, urbanization, agricultural conversion, development, and habitat fragmentation, disturbance, alteration, and loss (CNPS 2019). California alkali grass is known to occur between Buckhorn and Rosamond Dry Lakes on Edwards AFB, south of the Project (CNDDB 2019b). In the Project Area it has a LOW potential for occurrence in shadscale scrub or spinescale scrub along the edges of and in rivulets through clay pans (Photograph 20, Appendix D).

Latimer's Woodland-gilia (*Saltugilia latimeri*) - LOW Potential

Latimer's woodland-gilia is a CNPS Rank 1B plant, which includes plants that are rare, threatened, or endangered in California and elsewhere. It is in the phlox family and is an annual herb measuring 5-30 cm. The blooming period is March through June. The calyx

is 2-4 mm and glandular. Each calyx lobe has 6-35 glands. The corolla is 7.5-11 mm with a glabrous, purple, exserted tube and pink throat and lobes. The corolla lobes are acute. The stamens are attached at the corolla sinuses and the style is more or less exserted. It occurs on dry desert slopes that have coarse sand to rock soil at an elevation of 400-1900 m AMSL (Baldwin et al. 2012). In the vicinity of the Project it is known to occur in the foothills of the Tehachapi Mountains (CNDDB 2019b). Due to the presence of hills and slopes with gravelly soils and coarse sandy washes in the Project Area, it has a LOW potential for occurrence.

Sagebrush Loeflingia (*Loeflingia squarrosa* var. *artemisiarium*) - MODERATE Potential

Sagebrush loeflingia is a CNPS Rank 2B plant, one that is rare or endangered in California but common elsewhere. It is an annual plant, 1-7 mm tall, much branched at base and glandular-hairy and somewhat fleshy. Leaf blade is 2-4 mm, oblong, and erect to somewhat spreading. It is distinguished from the other variety (*Loeflingia squarrosa* var. *squarrosa*) by shorter and wider leaf blades, shorter sepals (with straighter tips when fruiting), shorter stipules, no lateral spurs, and smaller fruit. It blooms April through May and occurs on sandy flats and sand dunes at 700-1615 m in elevation AMSL. It occurs in southeast Kern County and northeast Los Angeles County as well as the Great Basin Desert region of California, Oregon, and Wyoming. Threats to this plant include grazing and vehicles (Baldwin et al. 2012, CNPS 2019). Populations are known from Edwards AFB, southeast of the Project. Due to the presence of sandy soils throughout the Project Area, it has a MODERATE potential for occurrence.

Kern County Evening-primrose (*Camissonia kernensis* ssp. *kernensis*) - LOW Potential

The Kern County evening-primrose is a CNPS Rank 4 plant that includes plants of limited distribution. It is and annual herb in the evening-primrose family and is known almost exclusively from eastern Kern County between 790 and 2130 m elevation AMSL, growing in sandy or gravelly granitic soils. It blooms March through May and it has yellow flowers. Each petal is 8-18 mm long and has two red spots at the base. The sepals are 5-11 mm and separate when flowers open. Leaves are clustered at the base of the stem. The fruit is 22-37 mm, 1.5-1.7 mm wide, and more or less swollen by the seeds. Fruit pedicel is 3-15 mm (Baldwin et al. 2012, CNPS 2019). Due to the presence of sandy and gravelly soils along the Gen-tie Corridor west of SR14, it has a LOW potential for occurrence.

White Pygmy-Poppy (*Canbya candida*) - MODERATE Potential

The white pygmy-poppy is a CNPS Rank 4 plant that includes plants of limited distribution. It is a diminutive, tufted, hairless annual that grows 10-30 mm tall. Its basal leaves are fleshy and linear-oblong. Each flower has six separate petals that are ovate and white. The fruit is a small capsule with tiny brown seeds. Flowering occurs April through May/June. It grows on sandy soil from 600 to 1,200 m elevation AMSL in

creosote-bush scrub, saltbush scrub, Joshua tree woodland, and pinyon-juniper woodland. It tends to be encountered in sandy wash areas where the mountains reach the desert floor. Endemic to California, white pygmy-poppy populations have been found in Inyo, Kern, Los Angeles and San Bernardino Counties. The nearest known populations to the Project are approximately 3 km north of Mojave (CNDDB 2019b). Although it is not considered threatened at this time, it has been placed on the CNPS "watch list" because of its tiny size and limited range. This poppy could be affected in the future by urbanization and invasive non-native plant species (Baldwin et al. 2012, CNPS 2019). Due to the presence of sandy soils throughout the Project Area, it has a MODERATE potential for occurrence.

Mojave Paintbrush (*Castilleja plagiotoma*) - LOW Potential

The Mojave paintbrush is a California endemic CNPS Rank 4 plant that includes plants of limited distribution (CNPS 2019). It is a hemiparasitic perennial herb in the broomrape family, but unlike the common desert paintbrush (*Castilleja chromosa*) with bright red inflorescence bracts, Mojave paintbrush has green ones. Its calyx is pale yellow and white-woolly, and flowers are yellowish and green. It blooms April through June (Baldwin et al. 2012). In vicinity of Project it occurs in Joshua tree woodland in the foothill of Tehachapi Mountains (CNDDB 2019a). It has some potential to occur along the westernmost Gen-tie Corridor and therefore has a LOW potential for occurrence on site.

Mojave Spineflower (*Chorizanthe spinosa*) - PRESENT

Mojave spineflower is a CNPS Rank 4 plant that includes plants of limited distribution. It is an annual herb and a member of the buckwheat family. It grows 3-40 cm tall: stems are prostate to ascending, with oblong leaves that can vary from 3-20 mm in length. Bracts of the inflorescence are usually 3 per node and lanceolate. The involucral tube is 2-2.5 mm, urn shaped, with one of five bracts longer than the others. Its white flowers are generally hairless, and the seeds are black. It blooms from April through July at elevations ranging from 600-1,300 m AMSL. Because of its stout stems and involucres, Mojave spineflower skeletal remains persist in the environment long after the flowering period. This species is endemic to California and is known from Rabbit Springs in Lucerne Valley, San Bernardino County, northwest to Red Rock Canyon, Kern County. It was once considered a rare plant before thousands of plants were reported from Rosamond to Boron, Kern County. It prefers sandy areas or low-lying open soils with fine gravels in desert scrub plant communities. Threats to the spineflower include surface mining, energy development, vehicles, and grazing (Charlton 1992, CNPS 2019). Senescent Mojave spineflowers were observed incidentally on three clay pans during the vegetation community assessment conducted in August through September 2019. Two locations were along collector lines and the third was in a proposed solar panel installation area (Photographs 21-22, Appendix D).

Mt. Pinos Larkspur (*Delphinium parryi* ssp. *purpureum*) - LOW Potential

The Mt. Pinos larkspur is a California endemic CNPS Rank 4 plant that includes plants of limited distribution. It is in the buttercup family and occurs at 1000-2600 m elevation AMSL (CNPS 2019). Leaves are basal and cauline on the lower third of the stem in flower and generally curly-puberulent. Sepals are generally reflexed, more or less purple to dark blue. Lateral sepal is 7-11 mm, spur is 10-13 mm, and the lower petal blades are 3-5 mm (Baldwin et al. 2019). The flowering period is May through June. Mt. Pinos larkspur occurs in chaparral, Mojavean desert scrub, and pinyon and juniper woodland. It is known to occur in the Tehachapi Mountains northwest of the Project (CNDDB 2019a). This plant has a LOW probability of occurring along the westernmost Gen-tie Corridor.

Golden Goodmania (*Goodmania luteola*) - MODERATE Potential

Golden goodmania is a CNPS Rank 4 plant that includes plants of limited distribution. In the buckwheat family, it is a spreading annual herb, 0.5 cm to 15 cm tall and wide. Leaves are opposite; the basal leaves are generally rounded while the cauline leaves are generally linear and awned. Inflorescences are terminal and cyme-like. The 5 involucral bracts are in one whorl and are narrow, glabrous and awned. The perianth consists of 6 yellow, entire lobes, and it has 9 stamens. The fruit is obconic and glabrous. Golden goodmania blooms April through August and occurs in alkaline or clay soils in Mojavean desert scrub, meadows and seeps, and on playas at 20-2200 m elevation AMSL. Formerly known from the southern San Joaquin Valley, it is now extirpated there. Possible threats to this species include invasive non-native plants, groundwater lowering, trampling by livestock, and development. Populations nearest to the Project occur to the southeast on Edwards AFB (CNDDB 2019b). Due to the presence of clay pans in the Project Area, it has a MODERATE potential for occurrence.

Solitary Blazing Star (*Mentzelia eremophila*) - LOW Potential

The solitary blazing star is a CNPS Rank 4 plant that includes plants of limited distribution. This plant is a large yellow-flowered (12-24 mm) annual herb with slender fruit (2-3.5 mm wide) in the Loasa family. Sepals are generally 9-16 mm and the style is 7-15 mm. Seeds are in 3 rows above mid-fruit and each is about 1 mm and tan with dark mottling. The recurved flap over the attachment scar of the seed is conspicuous (Baldwin et al. 2012). It blooms March through May and it occurs in creosote bush scrub in canyons, on rocky slopes, in washes, and along roadsides at elevations of 700-1220 m AMSL. Threats to this plant include vehicles, grazing, and (CNDDB 2019a, CNPS 2019). It is known from the West Mojave Desert, north of the Project, as well as Nevada and Arizona. Due to the presence of gravelly hills and slopes and coarse sandy washes in the Project Area, it has a LOW potential for occurrence.

Crowned Muilla (*Muilla coronata*) – HIGH Potential

Crowned muilla is a CNPS Rank 4 plant that includes plants of limited distribution. It is a diminutive monocot, approximately 3-5 cm tall, in the Brodiaea family. Its perianth is whitish to bluish with a green abaxial midvein. Stamens are 2-4 mm; filaments are dilated throughout with wide, overlapping margins forming the nectar tube with cylindric crown. It blooms March through April and it occurs in open desert scrub and woodland from 670-1960 m in elevation AMSL. It occurs in scattered locations throughout the Mojave Desert, including north of the Project (CNPS 2019). It has a HIGH potential for occurrence throughout the Project Area based on the presence of various appropriate soil types.

Lemmon's syntrichopappus (*Syntrichopappus lemmonii*) – LOW Potential

Lemmon's syntrichopappus is a California endemic CNPS Rank 4 plant that includes plants of limited distribution. This annual herb is 1-11 cm tall and is generally loosely woolly with leaves that are linear to narrowly oblanceolate. Leaf tip is entire and obtuse. Inflorescences have 5-8 phyllaries. There is one ray flower per phyllary. The ray flower is adaxially white and abaxially more or less pink-purple with red veins. Fruit is more or less glabrous either with no pappus or with 20-30 pappus bristles (Baldwin et al. 2012). The flowering period is April through June. It occurs in open sandy to gravel areas in chaparral, Joshua tree woodland, and pinyon and juniper woodland at 500-1830 m elevation AMSL. It is potentially threatened by invasive non-native plants, vehicles, and alternative energy developments (CNPS 2019). It is known to occur northwest of the Project in the Tehachapi Mountains (CNPS 2019a). It has a LOW potential for occurrence along the westernmost Gen-tie Corridor.

Joshua trees, protected under the CDNPA and within Kern County, were scattered throughout most of the Project Area and west of SR14. The current legal status of the Joshua tree is discussed in detail in Section 4.2.2. Additional plants protected under the CDNPA and within Kern County that occur or are expected to occur on site include golden cholla and beavertail, both in the cactus family. Silver cholla was noted at scattered locations during the vegetation community assessments. No beavertail was observed but it is expected to occur infrequently throughout the area.

6.0 POTENTIAL LISTED AND SPECIAL STATUS WILDLIFE SPECIES

As discussed in Section 2.0, various agency databases and recorded documents were reviewed and researched for the Project Area and surrounding lands to identify the potential occurrence of sensitive, special status, and federal and/or state listed wildlife species. Listed or special status wildlife species are presumed to occur within the Project Area if there were locality records, either historic or recent, indicating presence, discovered through the research and literature review efforts. Special status wildlife species are also referred to by CDFW as Special Animals (CDFW 2019c).

"Special Animals" is a broad term used to refer to all the animal taxa tracked by CDFW's CNDDB, regardless of legal or protective status. This list is also referred to as the list of "species at risk" or "special status species". The Special Animals list includes species, subspecies, or Evolutionarily Significant Units where at least one of the following conditions applies:

- Officially listed or proposed for listing under the state and/or federal Endangered Species Acts;
- Taxa considered by CDFW to be a Species of Special Concern (SSC);
- Taxa which meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the CEQA Guidelines (more information on CEQA is available at: http://resources.ca.gov/ceqa/guidelines);
- Taxa that are biologically rare, very restricted in distribution, or declining throughout their range but not currently threatened with extirpation;
- Population(s) in California that may be peripheral to the major portion of a taxon's range but are threatened with extirpation in California;
- Taxa closely associated with a habitat that is declining in California at a significant rate (e.g. wetlands, riparian, vernal pools, old growth forests, desert aquatic systems, native grasslands, valley shrubland habitats, etc.);
- Taxa designated as a special status, sensitive, or declining species by other state or federal agencies, or a non-governmental organization (NGO) and determined by the CNDDB to be rare, restricted, declining, or threatened across their range in California.

The literature research conducted for listed and special status wildlife species (Section 2.0) identified a total of 45 species within the USGS quadrangles in and around the Project Area (CNDDB 2019a, 2019b) (Figure 7). This included 38 vertebrate species, 5 insects, and 2 mollusks. Out of the 45 species identified, only a total of 28 species have the potential to occur within the Project (Table 1). Of the 28 species, there are 4 mammals, 1 reptile, 20 species of birds, and 3 species of insects.

Six of the 28 species are federal and/or state listed. Of these six species, only two have the potential to inhabit the site: the state listed as Threatened Mohave ground squirrel (MGS) and the federal and state listed as Threatened Agassiz's desert tortoise (ADT). The federal and state listed as Endangered California condor, the state listed as Threatened Swainson's hawk, the federal listed as Threatened western snowy plover, and the state listed as Threatened tricolored blackbird are not known to nest within the limits of the Project Area but may potentially occur on site to forage, hunt, roost, perch, drink, or migrate through.

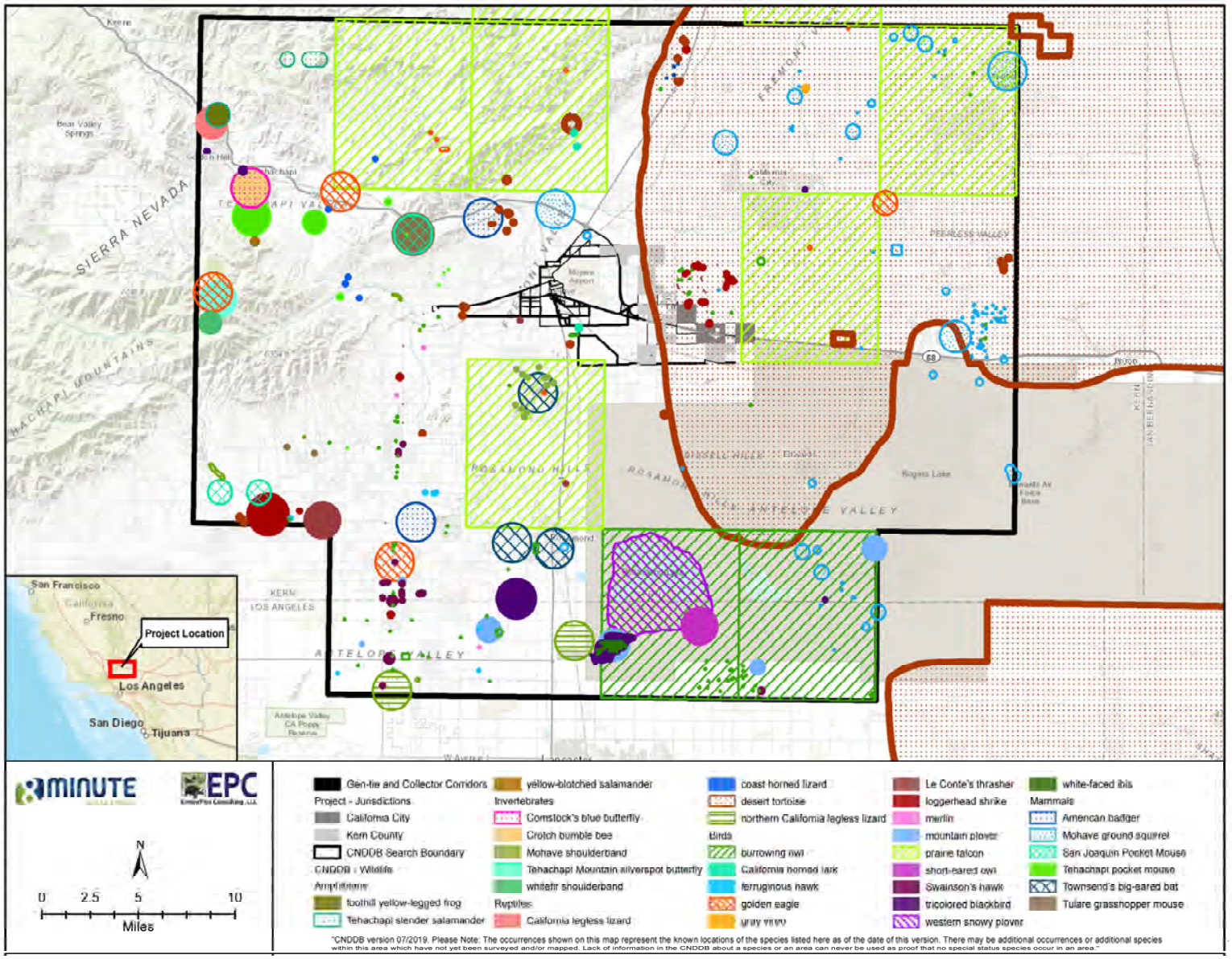

Figure 7. Bellefield Solar Farm Project Area Listed and Special Status Wildlife Observations Reported in CNDDB

Table 5 summarizes each of the 28 species including their state and/or federal listing status or designation, habitat requirements, and their potential for occurrence in the Project Area based on the provided analyses in this Section. Potential for occurrence is noted as, or in combination with the designation of "None," "Low," "Moderate," or "High."

Of the 28 species analyzed, three species have been determined to not have potential for occurrence in the Project Area or be affected by the Project for various reasons (Table 5 and Sections 6.1.5 and 6.2). These species include the western snowy plover, the mountain plover, and the gray vireo.

Because of the potential for on-site presence of both MGS and ADT, a habitat suitability assessment for MGS was conducted in September of 2019 and March of 2020 by Dr. Philip Leitner and a USFWS protocol presence/absence ADT survey was completed in October 2019 and May 2020 by EPC. All other potentially occurring special status and general wildlife and insect species were surveyed for during the ADT protocol survey. Wildlife survey results will be submitted to the Applicant under separate cover and are not included in this BE. MGS habitat suitability assessment results are incorporated into this BE in Section 6.1.1.2 and the completed report will be submitted to the Applicant under separate cover.

MGS, ADT, and the other potentially occurring state and federal listed species are discussed in detail in Section 6.1 and the remaining potentially occurring wildlife and insect species are discussed in detail in Section 6.2.

6.1 Listed Wildlife Species

6.1.1 Mohave Ground Squirrel (*Xerospermophilus mohavensis*)

6.1.1.1 Life History

The MGS was listed in 1971 by the State of California as a Threatened species throughout its endemic range in the northwestern Mojave Desert in San Bernardino, Los Angeles, Kern, and Inyo counties (Best 1995).

Habitat for MGS has been reduced by the development of agriculture, livestock grazing, urbanization, military activities, utility projects, and recreation. Additional impacts also include increased presence of domestic (pet dogs [*Canis familiaris*] and cats [*Felis catus*), feral (wild and semi-wild dogs and cats), and wild predators (e.g., fox [*Vulpes* sp.], coyote [*Canis latrans*], American badger [*Taxidea taxus*], golden eagle [*Aquila chrysaetos*], hawks [*Buteo* or *Accipiter*] prairie falcon [*Falco mexicanus*], owls [*Asio*, *Athene*, or *Bubo* species], snakes [*Crotalus*, *Masticophis*, *Pituophis* species], etc.).

Decades of studies and trapping efforts have been largely concentrated in the southern part of MGS range south of SR58, however, no range-wide systematic or statistically based random sampling has been conducted to characterize the status of MGS throughout its range (Dudek 2014).

The MGS occurs in a variety of desert shrubland habitats. Although most often found in creosote bush scrub it has also been recorded in desert saltbush scrub, desert sink scrub, desert greasewood scrub, shadscale scrub, Joshua tree woodland, and Mojave mixed woody scrub (Best 1995). MGS typically occupies areas with open vegetative cover and small bushes (< 0.6 meter

Table 5. Listed and Special Status Wildlife Species with Potential to Occur in the Region and within the Bellefield Solar Farm Project Area, California City and Kern County, California.

COMMON NAME *SCIENTIFIC NAME*	RANK OR STATUS[9]					HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE WITHIN THE PROJECT
	ESA	CESA CDFW	G-RANK	S-RANK	IUCN[10] XERCES[11]		
Pacific Townsend's Big-eared Bat (*Plecotus townsendii* ssp. *townsendii*)	-	SSC SGCN	G3G4	S2S3	-	Limestone caves, lava tubes, agricultural valleys, hillsides with mixed vegetation, abandoned mines, tunnels, buildings and bridge structures. Desert washes, shrublands.	**LOW to MODERATE –** May forage throughout or migrate through the area. Records nearby.
Mohave Ground Squirrel (*Xerospermophilus mohavensis*)	-	ST	G2G3	S2S3	-	Open desert shrubland habitats: creosote bush scrub, saltbush scrub, desert sink scrub, desert greasewood scrub, shadscale scrub, Joshua tree woodland, and mixed woody scrub. Deep, sandy to gravelly soils on flat to moderately sloping terrain.	**LOW to MODERATE** in the **Project Area:** a mix of appropriate habitat and degraded habitats along with known occurrences near the Project. Potential for dispersing juveniles to occupy habitat. **LOW** in the **Gen-tie Corridor:** some appropriate habitat but no nearby known occurrences.
Desert Kit Fox (*Vulpes macrotis arsipus*)	–	CCR, Title 14	-	-	-	Creosote bush scrub vegetation communities in friable soils with little or no relief for den excavation.	**MODERATE to HIGH –** Appropriate habitat and nearby known occurrences.
American Badger (*Taxidea taxus*)	–	SSC	G5	S3	-	Desert shrublands, open areas in grasslands, and agricultural areas. Friable soils for excavating deep burrows.	**LOW to MODERATE –** Appropriate habitat and nearby known occurrences.
Agassiz's Desert Tortoise (*Gopherus agassizii*)	FT	ST	G3	S2S3	-	Wide variety of desert habitats: alluvial fans, washes, canyons, and saltbush plains. Creosote bush scrub on alluvial fans and bajadas. Friable soils for excavating burrows.	**MODERATELY HIGH to HIGH –** Appropriate habitat and nearby known occurrences.
California Condor (*Gymnogyps californianus*)	FE	SE	G1	S1	-	Reintroduced resident population in the Tehachapi mountains of Kern County; long-distance flights to forage. Wide variety of habitat types for scavenging to include	**LOW to MODERATE –** Year-round foraging opportunities throughout the area and nearby known occurrences.

[9] See Appendix B for the definition of all Rank codes.
[10] IUCN – E = Endangered
[11] Xerces Society – E = Endangered; I = Imperiled

COMMON NAME *SCIENTIFIC NAME*	RANK OR STATUS[9]					HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE WITHIN THE PROJECT
	ESA	CESA CDFW	G-RANK	S-RANK	IUCN[10] XERCES[11]		
						roadways.	
Northern Harrier (*Circus hudsonius*)	–	SSC	G5	S3	-	Summer migrant; breeds and forage in a variety of open and treeless habitats with low growing vegetative shrubland cover, weedy fields, pastures, alfalfa and grain croplands, desert sinks. Nest on the ground in patches of dense, tall vegetation in undisturbed areas.	**MODERATE –** Appropriate habitat for foraging and perching in the area with suitable nesting habitats nearby; nearby known occurrences.
Cooper's Hawk (*Accipiter cooperii*)	–	WL	G5	S4	-	Summer migrant; variety of desert habitats and nest in deciduous trees preferably near water sources.	**LOW to MODERATE** – Appropriate habitat for foraging and perching in the area with suitable nesting habitats nearby; nearby known occurrences.
Swainson's Hawk (*Buteo swainsoni*)	BCC	ST	G5	S3	-	Summer migrant; nests in Joshua tree woodland, non-native roadside trees, pine, elm, and tamarisk, windrow trees in active or historical agricultural areas; high site fidelity. Forage in grasslands, native desert scrub and woodland habitats, agricultural lands, residential developments.	**MODERATE to MODERATELY HIGH –** Appropriate habitat for foraging and perching in the area with suitable nesting habitats nearby; nearby known occurrences.
Ferruginous Hawk (*Buteo regalis*)	BCC	WL	G4	S3S4	-	Winter resident/migrant September through mid-April; roost in open areas, lone trees, utility poles. Hunt cooperatively in a variety of desert habitats.	**LOW to MODERATE** – Appropriate foraging, perching, and roosting habitat and nearby known occurrences.
Golden Eagle (*Aquila chrysaetos*)	BCC BGEPA	FP WL	G5	S3	-	Year-round resident. Nests in tall trees, high rocky cliffs, or on electrical transmission towers. Forages in a variety of desert habitats with suitable prey or will scavenge for carrion.	**MODERATE to MODERATELY HIGH –** Appropriate habitat for foraging and perching in the area with suitable nesting habitats nearby; nearby known occurrences.
Prairie Falcon (*Falco mexicanus*)	BCC	WL	G3	S3	-	Year-round resident. Variety of desert habitats: annual and perennial grasslands, rangeland, some agricultural fields, and desert scrub. Sheltered cliff ledges for cover and nesting in cliffs, bluffs, or rock outcrops.	**MODERATE to MODERATELY HIGH –** Appropriate habitat for foraging and perching in the area with suitable nesting habitats nearby; nearby known occurrences.
Merlin (*Falco columbarius*)					-	Winter migrant that requires dense trees close to bodies of water. Forage in a variety of desert and developed habitats	**LOW to MODERATE** – Appropriate foraging, perching, and roosting habitat and nearby known occurrences.

COMMON NAME *SCIENTIFIC NAME*	RANK OR STATUS[9]					HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE WITHIN THE PROJECT
	ESA	CESA CDFW	G-RANK	S-RANK	IUCN[10] XERCES[11]		
American Peregrine Falcon (*Falco peregrinus anatum*)	BCC	FP	G4T4	S3S4	-	Uncommon breeder and transient winter migrant. Forages within large concentrations of shorebirds at water filled desert playas in the winter; other locations include spring-fed wetlands, alkali meadows and mudflats used by shorebirds.	**NONE to EXTREMELY LOW –** No appropriate habitat on site; direct or indirect effects from project not anticipated but this species may forage or migrate through the project.
Western Snowy Plover (*Charadrius alexandrinus nivosus*)	FT BCC	SSC	G3T3	S2S3	-	Summer resident and local breeder March through September within water filled alkali or saline lakes, agricultural evaporation and wastewater ponds, alkali playas, reservoirs, ponds, river channels, and salt evaporation ponds.	**NONE to EXTREMELY LOW –** No appropriate habitat on site; direct or indirect effects from project not anticipated. **No further consideration.**
Mountain Plover (*Charadrius montanus*)	BCC	SSC	G3	S2S3	-	Winter migrant between September and March to desert flats and plowed fields, water filled dry lakes, water treatment plants and other similar wet natural and man-made habitats.	**NONE to EXTREMELY LOW –** No appropriate habitat on site; direct or indirect effects from project not anticipated. **No further consideration.**
Burrowing Owl (*Athene cunicularia* ssp. *hypugaea*)	BCC	SSC	G4	S3	-	Year-round resident or migrant in arid and semi-arid habitats with well drained, level to gently sloping areas with sparse vegetation and bare ground: annual and perennial grasslands, deserts, and scrublands with low growing vegetation.	**MODERATE to HIGH –** Appropriate habitat and nearby known occurrences.
Long-eared Owl (*Asio otus*)	-	SSC	G5	S3	-	Year-round resident; nests in conifers, ornamental trees, tamarisk, Joshua tree, desert riparian, desert washes, pinyon-juniper, desert woodlands, or on the ground that are adjacent to open grasslands, meadows, and shrublands for foraging.	**LOW –** No appropriate nesting habitat nearby and very few known occurrences in the proximity of the project.
Short-eared Owl (*Asio flammeus*)	-	SSC	G5	S3	-	Winter migrant or rare breeder in wet years. Close association with water filled dry lakes and marshes adjacent to irrigated alfalfa or grain fields, salt- and fresh-water marshes, and ungrazed grassland or old pastures.	**LOW –** No appropriate nesting habitat nearby and very few known occurrences in the proximity of the project.
Loggerhead Shrike (*Lanius ludovicianus*)	BCC	SSC	G4	S4	-	Year-round or winter migrant; breeds in shrublands, open woodlands with grass cover, areas of bare ground. Tall shrubs, trees, desert	**HIGH –** Appropriate habitat and nearby known occurrences.

COMMON NAME *SCIENTIFIC NAME*	RANK OR STATUS[9]					HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE WITHIN THE PROJECT
	ESA	CESA CDFW	G-RANK	S-RANK	IUCN[10] XERCES[11]		
						scrub, sparse desert riparian, fence lines and posts, and power lines for perches, territory defense. Impaling sites required for prey.	
Gray Vireo (*Vireo vicinior*)	BCC	SSC	G4	S2	-	Winter migrant that possibly migrates through on the way to wintering grounds in Mexico.	**NONE to EXTREMELY LOW –** Not expected on site; direct or indirect effects from project not anticipated. **No further consideration.**
Black-tailed Gnatcatcher (*Polioptila melanura*)	-	WL	G5	S3S4	-	Year-round resident in desert wash habitat, desert riparian, creosote bush scrub, and mesquite bosque.	**NONE to LOW** – No appropriate habitat for nesting and nearest occurrences are not close to the project.
Yellow Warbler (*Setophaga petechia*)	BCC	SSC	G5	S3S4	-	Summer migrant and local breeder with high site fidelity. Desert riparian and upland desert scrub for breeding and in migration: desert wash, Joshua tree woodland, irrigated agricultural fields and deciduous orchards with open water nearby.	**MODERATE** – Appropriate habitat for migration movements and nearby known occurrences.
Tricolored Blackbird (*Agelaius tricolor*)	SC BCC	ST	G2G3	S1S2	-	Summer migrant and local colonial breeder in freshwater habitats: marshes with dense stands of cattails or bulrushes, agricultural fields and dairy farms. Forge in farm fields, pastures, cattle pens, and large lawns.	**EXTREMELY LOW** - No appropriate habitat for nesting. Nearest occurrences are not close to the project but they may be observed migrating to breeding sites nearby.
Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*)	-	SSC	G5	S3	-	Summer migrant and local colonial breeder in deep wet habitats: parks with ponds, water treatment plants, golf courses, dairy farms, and agricultural fields with tall emergent cattails and bulrush.	**EXTREMELY LOW** - No appropriate habitat for nesting. Nearest occurrences are not close to the project but they may be observed migrating to breeding sites nearby.
Crotch Bumble Bee (*Bombus crotchii*)	-	CS	G2G3	S1S2	E	Statewide distribution in a variety of habitats and agricultural fields. Wet years with wildflower bloom.	**VERY LOW** – Not expected in dry years. Occurrences recorded in the region.
Western Bumble Bee (*Bombus occidentalis*)	-	CS	G2G3	S1	V / I	Limited to agricultural lands and maybe other habitat types.	**VERY LOW** – Not expected on site. Occurrences recorded in the Fremont Valley region.
Mojave Dotted-blue Butterfly (*Euphilotes mojave*)	-	-	G2G3	S1S2	I	Restricted to two buckwheat host plants: yellow turbans and kidney-leaf wild buckwheat in desert habitats with sandy washes and sandy areas. One flight mid-March to June.	**MODERATE to HIGH** - Host plants are present throughout appropriate habitats within the Project Area..

(2 feet) in height) spaced approximately 6 to 9 meters (20 to 30 feet) apart (Best 1995). MGS prefers deep, sandy to gravelly soils on flat to moderately sloping terrain and will avoid rocky areas for the most part. The species is not known to occupy areas of desert pavement. Soil characteristics are particularly important because MGS construct burrows to provide temperature regulation, avoid predators, and use during the inactive season.

The MGS primarily feeds on plant material and specializes in foraging on certain plant species, but as these sources become less available throughout the active season, the MGS adapts its foraging strategy to maximize energy intake, exploiting food sources that are intermittently available (USFWS 2010b). High water content may be a component of their food selection as plants are eaten at different times depending on their water content (Best 1995; USFWS 2010b). MGS consume the leaves, fruits, and seeds of a variety of annual and perennial plants, fungi, and arthropods, including butterfly larvae. At various times of the year and depending on location, they may consume leaves, forbs, shrubs, and grasses of several species and genera, including creosote bush, winter fat, spiny hopsage, freckled milk-vetch (*Astragalus lentiginosus*), white mallow (*Eremalche exilis*), desert-marigold (*Baileya pleniradiata*), langloisia (*Langloisia setosissima*), Mojave monardella (*Monardella exilis*), saltbush, gilia (*Gilia* spp.), golden leptosiphon (*Leptosiphon aureus*), and Mediterranean grass (*Schismus arabicus*), as well as seeds of box thorn (*Lycium* spp.).

The MGS breeding season is from mid-February to mid-March (Best 1995; Laabs 2006). Males emerge from hibernation in February, up to two weeks before females, and during this time they may be territorial. Females generally only occupy male territories for one or two days then establish their own home ranges after copulation. Pregnant females are present from March through April and gestation lasts from 29 to 30 days. Litter sizes range from four to nine (Best 1995), though mortality of juveniles is high during the first year, especially for juvenile males (Mohave Ground Squirrel Working Group 2011). Parental care and lactation continue through mid-May. Litters generally appear above ground in early May (Harris and Leitner 2004). Females will breed at 1 year of age if environmental conditions are suitable, but males do not mate until 2 years of age. Because of the small geographic range of the species, low rainfall can lead to reproductive failure throughout the range (MGSWG 2011). During these periods, all available forage may be converted to body fat and squirrels can enter dormancy as early as April (Leitner 1999).

6.1.1.2 Mojave Ground Squirrel Preliminary Habitat Suitability Assessment Survey Results

Dr. Philip Leitner conducted a MGS habitat assessment survey of the Project and Gen-tie Corridors on 6 September through 13 September 2019 and on 25 through 29 March of 2020. The results of Dr. Leitner's surveys are included herein.

The purpose of the survey was to evaluate the potential for the 7,883.82 acre Project Area to support populations of MGS. The survey was carried out by visual observations of the soils and vegetation over all portions of the Project Area in which the 2019 survey area (Project and Gen-tie Corridor) was split into 17 survey units, B-01 through B-17 and the 2020 survey area was split into 18 survey units, BE1 through BE18. Each survey unit is either a conglomeration of Project parcels, portions of Project parcels, or entire Project parcels that made it convenient to survey and map each area (Figure 8). Special attention was focused on the distribution and occurrence of plant species that are known to provide food and cover for MGS.

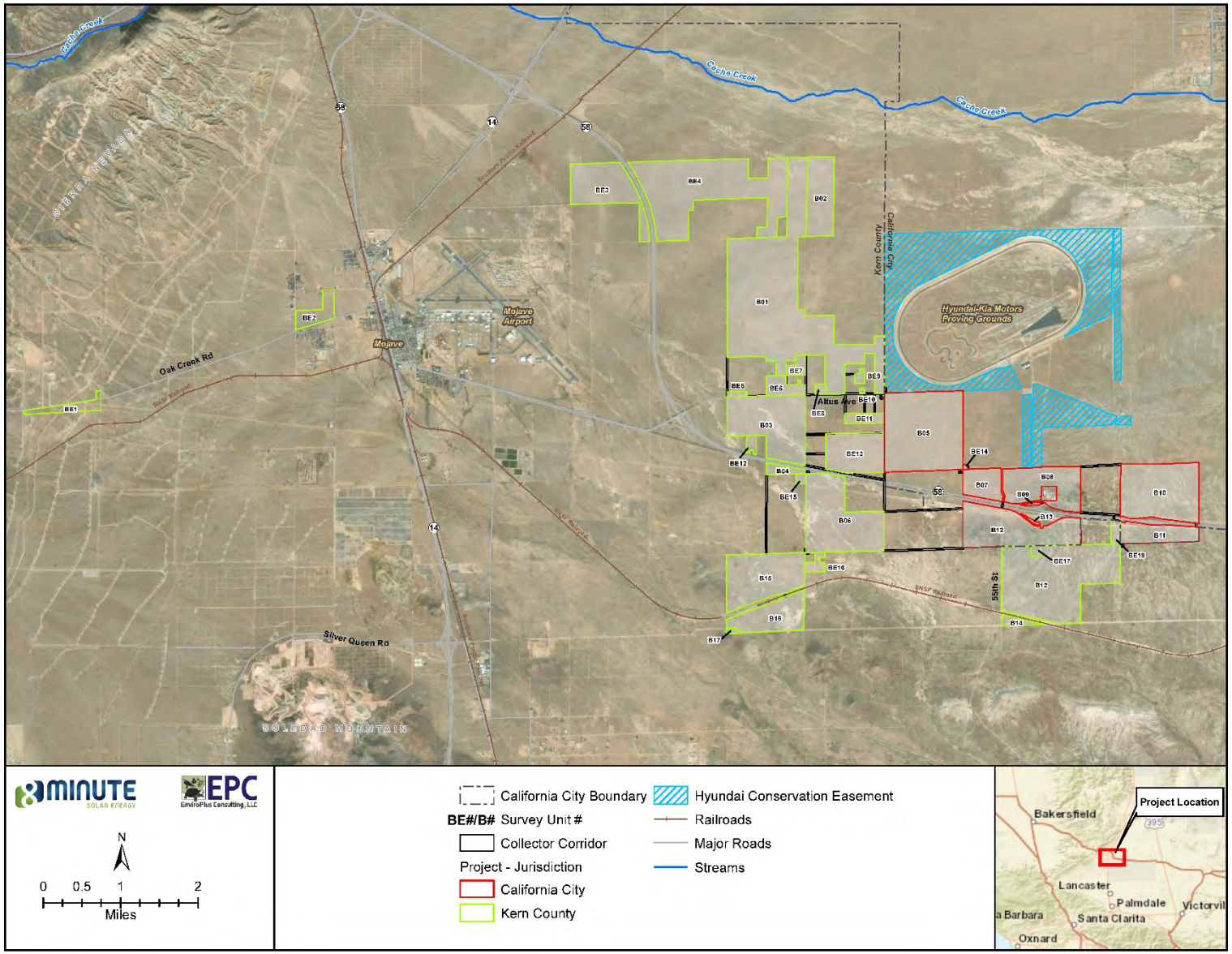

Figure 8. Bellefield Solar Farm Project Area Survey Units Map for the Mohave Ground Squirrel Habitat Suitability Assessment Survey

Regional Mohave Ground Squirrel Distribution

The Project Area is located on the western edge of the geographic range of MGS. The CNDDB (2019b) includes two records of visual observations of this species several miles north of Mojave, one in 1987 (Occurrence #284) and one in 1998 (Occurrence #300). The only other evidence of MGS presence in this area was a single individual observed and trapped in 2002 at the site of the Hyundai-Kia Proving Grounds east of Mojave (Leitner 2008; Leitner 2015). Multiple live-trapping surveys have been conducted at six grids on the Hyundai-Kia Proving Grounds property since 2002, but no MGS have been detected (Sundance Biology, Inc. 2012). Protocol trapping surveys have been carried out in recent years at more than 50 sites to the west and south of Mojave, but no MGS have been captured. In addition, camera trapping was conducted in 2011 and 2014 at 11 sites on BLM lands in the vicinity of the Project Area and failed to detect the species. The only recent MGS records in the region are at two sites approximately 6 miles to the east. Figure 9 shows the locations of all known MGS records and survey efforts.

General Habitat Assessment

MGS habitat requirements include soils suitable for burrow construction and native desert vegetation that provides adequate food resources and cover. The soils in the Project Area appear to meet the requirements for burrow construction. However, human land uses in the Project Area have resulted in significant degradation of native vegetation in some areas. Several hundred acres appear to have been in agricultural production in the past, with regrowth of very low diversity native vegetation. In addition, unregulated sheep grazing has been carried out over this entire region for over 100 years, resulting in severe impacts to both herbaceous and shrub community structure. The original diverse native herbaceous community has been replaced by invasive Mediterranean grasses (*Schismus* spp.) which have little to no food value for MGS. The region originally supported a diverse shrub community dominated by creosote bush scrub that included a number of other shrub species that provided important food resources for MGS. Sheep grazing has removed almost all shrub species that provide high quality forage for MGS.

Habitat Suitability of the Project and Gen-tie Corridor

The results of the habitat suitability assessments are broken into 17 survey units (Figure 8) plus the Gen-tie Corridor (See Figure 5b for location) in 2019 and 18 survey units (Figure 8) plus Gen-tie Corridor in 2020. The suitability of each survey unit is characterized as "Unsuitable or Not Suitable," "Very Low," "Low," or "Moderate." All of the survey units and Gen-Tie Corridors are described and characterized below. The overall suitability of the Project Area is summarized in Table 5.

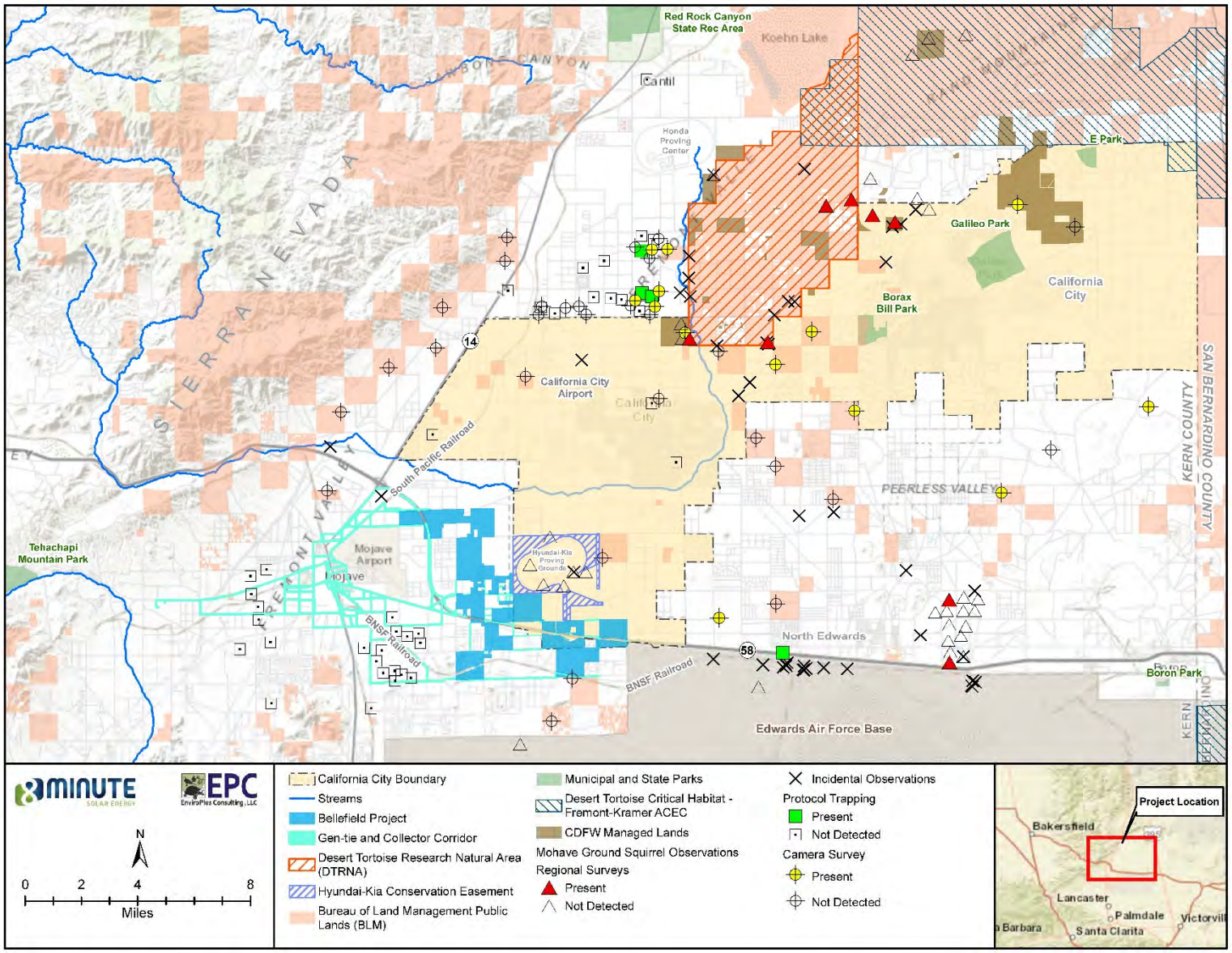

Figure 9. Bellefield Solar Farm Project Area and Vicinity, Mohave Ground Squirrel Survey Record Locations

2019 Survey Units:

Survey Unit B-01 – Low and Moderate Suitability

This large survey unit supports several vegetation communities. The western and northern areas are dominated by low diversity Creosote Bush-White Bursage Scrub and appear to have Low suitability for MGS. However, there are a number of small washes along the eastern side of the survey unit that contain shrubs important to MGS as cover and food sources: Cooper's boxthorn, desert tomato, winter fat, and spiny hopsage. This area has Moderate suitability for Mohave ground squirrels. The southern portion of the survey unit is lacking creosote bush (*Larrea tridentata*) and appears to have been farmed in the past. It supports White Bursage Scrub with Cooper's boxthorn, desert tomato, winter fat, and spiny hopsage as subdominants. This area has Moderate suitability for MGS. The eastern area of the survey unit, stretching toward the Hyundai-Kia Proving Grounds, is strongly dominated by Allscale Scrub and is generally of Low suitability.

Survey Unit B-02 – Moderate Suitability

The vegetation community within this survey unit is Creosote Bush-White Bursage Scrub. Other shrubs present include Cooper's boxthorn, winterfat, and spiny hopsage. This area has Moderate suitability for MGS.

Survey Unit B-03 – Low Suitability

Several desert plant communities are found within this survey unit. They include Creosote Bush-White Bursage Scrub to the north, with both Allscale Scrub and Spinescale Scrub in the south. Subdominants such as Cooper's boxthorn and winter fat are found in some areas. This area has Low suitability for MGS.

Survey Unit B-04 – Low Suitability

This survey unit is located just south of SR58 and it supports a low diversity shrub community dominated by Allscale Scrub. This area has Low suitability for MGS.

Survey Unit B-05 – Moderate Suitability

The dominant vegetation community within this survey unit is Allscale Scrub. There is a diversity of subdominant shrubs, including Cooper's boxthorn, winter fat, spiny hopsage, and shadscale. This area has Moderate suitability for MGS.

Survey Unit B-06 – Moderate Suitability

This survey unit is strongly dominated by Allscale Scrub (Photograph 23, Appendix D). Subdominant shrubs include shadscale, white bursage, winter fat, Cooper's boxthorn, and spiny hopsage. Small Joshua trees are scattered through the area. This survey unit has Moderate suitability for MGS.

Survey Unit B-07 – Moderate Suitability

The vegetation community on within this survey unit is Winter Fat Scrubland, with a diversity of other shrub species including white bursage, Cooper's boxthorn, and spiny hopsage (Photograph 24, Appendix D). There are scattered Joshua trees. This area has Moderate suitability for MGS.

Survey Unit B-08 – Moderate Suitability

This survey unit is just to the north of SR58 and surrounds an AT&T facility. The higher elevational portions of the survey unit are dominated by Creosote Bush-White Bursage Scrub. The lower elevation areas to the west support White Bursage Scrub, with scattered creosote bush, Cooper's boxthorn, winter fat, and Joshua trees. This area has Moderate suitability for MGS.

Survey Unit B-09 – Low Suitability

This small survey unit is immediately adjacent to SR58. This area has Low suitability for MGS.

Survey Unit B-10 – Moderate Suitability

This large survey unit is located north of SR58 and supports Creosote Bush-White Bursage Scrub. Although dominated by creosote bush and white bursage, there are a series of small washes that support Cooper's boxthorn, desert tomato, and winter fat. The herbaceous layer in this area was heavily impacted by sheep this year. The area has Moderate suitability for MGS.

Survey Unit B-11 – Moderate Suitability

This survey unit is south of SR58 on a south-facing hillside. Most of the area is strongly dominated by Creosote Bush Scrub, although a small wash on the east side supports both Cooper's boxthorn and winter fat. This area has Moderate suitability for MGS.

Survey Unit B-12 – Moderate Suitability

This large survey unit is located south of SR58. The dominant vegetation is Creosote Bush Scrub, with occasional Cooper's boxthorn and winter fat as subdominants. The northwestern and southwestern portions of the survey unit support Allscale Scrub. This area has Moderate suitability for MGS.

Survey Unit B-13 – Low Suitability

This small survey unit is immediately adjacent to SR58. This area has Low suitability for MGS.

Survey Unit B-14 – Moderate Suitability

This small survey unit is located on the south side of the BNSF railroad right-of-way. The western side of this parcel supports Allscale Scrub with scattered Joshua trees, transitioning to White Bursage Scrub to the east. Subdominant shrubs include creosote bush, winter fat, spiny hopsage, and Cooper's boxthorn. This area has Moderate suitability for MGS.

Survey Unit B-15 – Moderate Suitability

The more level eastern and central portions of this survey unit are strongly dominated by Allscale Scrub, with scattered Cooper's boxthorn, winter fat, and spiny hopsage. Occasional single-stem Joshua trees are present throughout. On the slopes in the western portion of the survey unit, Creosote Bush-White Bursage Scrub is dominant. This area has Moderate suitability for MGS.

Survey Unit B-16 – Low Suitability

The majority of this survey unit is a low-lying area with some barren pans that are dominated by Spinescale Scrub. It slopes upward to the west and supports a few scattered creosote bushes. This area has Low suitability for MGS.

Survey Unit B-17 – Low Suitability

This small survey unit is located on a slope rising up toward a rocky hillside. The shrub vegetation here consists of low density Creosote Bush-White Bursage Scrub. This area has Low suitability for MGS.

Survey Unit Gen-Tie Corridor – Very Low Suitability

The Gen-tie Corridor (see Figure 5b for location) appears to have Very Low suitability for MGS. In addition, in recent years there has been extensive protocol trapping in the vicinity of the Gen-tie Corridor and there have been no MGS detections.

2020 Survey Units:

Survey Unit BE1 – Very Low Suitability

This unit is located along the south side of Oak Creek Road about 3.5 miles west of Mojave. The vegetation community is dominated by rubber rabbitbrush with scattered creosote bush and Joshua trees. This area has Very Low suitability for MGS.

Survey Unit BE2 – Low Suitability

This unit extends along the north side of Oak Creek Road in the western outskirts of Mojave. It is strongly dominated by Creosote Bush-White Bursage Scrub. This area has Low suitability for MGS.

Survey Unit BE3 – Low Suitability

This parcel is just to the west of SR58 and supports low diversity Creosote Bush-White Bursage Scrub. The habitat in this location has Low suitability for MGS.

Survey Unit BE4 – Low to Moderate Suitability

This unit includes a large area just to the east of SR58. The vegetation community in the western portion of this unit is low diversity Creosote Bush-White Bursage Scrub and is considered to be of Low suitability for MGS. The eastern portion of this unit is also dominated by Creosote Bush-White Bursage Scrub but it supports significant shrub diversity that includes spiny hopsage, winter fat, and Cooper's boxthorn. This portion of the unit is considered to have Moderate suitability for MGS.

Survey Unit BE5 – Low Suitability

This small unit supports low diversity Creosote Bush-White Bursage Scrub and is considered to be of Low suitability for MGS.

Survey Units BE6 and BE7 – Moderate Suitability

These two units are adjoining and are located on previously farmed land. The vegetation is predominantly Creosote Bush-White Bursage Scrub, although there are large patches with no shrub cover at all. A number of large Cooper's boxthorn shrubs are scattered throughout and there are areas with abundant spiny hopsage and winter fat. These units have Moderate suitability for MGS.

Survey Unit BE8 – Low Suitability

This unit was formerly in agricultural production but now supports re-established Allscale Scrub with scattered winter fat. It is of Low suitability for MGS.

Survey Units BE9 and BE10 – Unsuitable

These two closely adjoining units are dominated by low diversity Allscale Scrub. There do not appear to be other subdominant shrubs present. These units are Unsuitable MGS habitat.

Survey Unit BE11 – Moderate Suitability

The vegetation community on this unit is strongly dominated by Allscale Scrub. However, other shrub components include low numbers of spiny hopsage, winter fat, and Cooper's boxthorn. This unit has Moderate suitability for MGS.

Survey Unit BE12 – Low Suitability

This small unit is just north of SR58 and is strongly dominated by Allscale Scrub. The vegetation community here is characterized as low density and low diversity. This unit has Low suitability for MGS.

Survey Unit BE13 – Moderate Suitability

The vegetation community on this unit is strongly dominated by Allscale Scrub. However, other shrub components include low numbers of spiny hopsage, winter fat, and Cooper's boxthorn. This unit has Moderate suitability for MGS.

Survey Unit BE14 – Low Suitability

This small connector unit is characterized by Allscale Scrub. It has Low suitability for MGS.

Survey Unit BE15 – Moderate Suitability

This small unit located just south of SR58 is dominated by Allscale Scrub. Other shrub components present include shadscale, spiny hopsage, winter fat, and Anderson's boxthorn. The habitat here is Moderately suitable for MGS.

Survey Unit BE16 – Moderate Suitability

The vegetation community on this unit is diverse and is dominated by Allscale Scrub. The other shrub species present are abundant and include spiny hopsage, winter fat, and Cooper's boxthorn with scattered Joshua trees throughout. This unit has Moderate suitability for MGS.

Survey Unit BE17 – Low Suitability

This small unit supports Creosote Bush-White Bursage Scrub and has Low suitability for MGS.

Survey Unit BE18 – Moderate Suitability

This unit extends south from SR58 and is dominated by Creosote Bush-White Bursage Scrub. There is a small wash that flows southward through the length of the unit. The

vegetation community is diverse and includes spiny hopsage, winter fat, Anderson's boxthorn, and Cooper's boxthorn. The habitat is Moderately suitable for MGS.

Survey Unit Gen-Tie Corridors – Not Suitable and Low Suitability

Four Gen-tie Corridor locations (see Figure 5b for location) were surveyed with the following results:

1. Alternative corridors located west of Mojave have Creosote Bush-White Bursage Scrub present. This habitat has Low suitability for MGS.
2. Alternative corridors that pass through the developed areas within Mojave have No Suitability for MGS at all due to the lack of vegetation and soils.
3. Alternative corridors that would primarily parallel highway and railroad routes north of Mojave contain habitat of Low suitability for MGS.
4. Alternative corridors located around the SR58 and the SR58 interchange located east of Mojave, contain habitat with Low suitability for MGS.

Summary of Habitat Assessment

Habitat conditions on the proposed development units and collector lines generally appear to be of Low to Moderate suitability for MGS. Although the native vegetation has been seriously impacted by agricultural activities and heavy sheep grazing for many decades, some of the existing plant communities still include a number of shrub species that are known to be utilized by MGS for cover and forage (Leitner and Leitner, 2017). However, the Gen-tie Corridor traverses through areas that do not appear to provide very suitable habitat for MGS. These Gen-tie lines pass through developed urban areas and along roadways with severely degraded habitat.

There is little evidence that the project area currently supports a resident MGS population. There have been no records of the species in the project area or the surrounding region for 17 years, in spite of extensive live-trapping and camera trapping surveys. The nearest recent documented occurrences are about 6 miles to the east. However, juvenile Mohave ground squirrels have been documented to disperse up to 4 miles from their natal sites, so there is some potential for the species to occur in the project area (Harris and Leitner, 2005).

6.1.2 Agassiz's Desert Tortoise (*Gopherus agassizii*)

The ADT was listed in 1989 by the State of California as a Threatened species and in the U.S. Fish and Wildlife Service (USFWS) as a Threatened species throughout its endemic range in the Sonoran and Mojave Deserts north and west from the Colorado River. It extends from the desert areas of California south of the San Joaquin Valley, eastward across the Mojave Desert into southern Nevada, the extreme southwestern corner of Utah (i.e., the Beaver Dam Slope), and the extreme northwestern corner of Arizona, as well as southeast across the Colorado Desert to the Colorado River on the California side.

The Project Area is located 10 miles southwest of the DTRNA (Section 1.2). The DTRNA is included within the DRECP and is managed by the DTPC.

Habitat for ADT has been reduced by the development of agriculture, livestock grazing, urbanization and highway and other infrastructure development, military activities, utility projects, recreation and off-highway vehicle use, collecting, invasive species, and disease. Additional impacts also include increased presence of domestic (pet dogs), feral (wild and semi-wild dogs), and wild predators (e.g., fox [*Vulpes macrotis*], coyote, badger, mountain lion [*Felis concolor*], and common raven [*Corvus corax*]). Young tortoises are routinely preyed upon by kit fox and common raven.

ADT can be found in a wide variety of desert habitats, such as alluvial fans, washes, canyons, and saltbush plains (Coachella Valley Conservation Commission 2007; Woodbury and Hardy 1948; Lovich and Daniels 2000; USFWS 1994). Whereas most tortoises in the Mojave Desert are usually associated with creosote scrub on alluvial fans and bajadas (USFWS 2011), they can also be found in saltbush scrub (Stewart 1991). The presence of shrubs in tortoise habitat is extremely important. Shrubs supply shade for the tortoises during hot weather (Marlow 1979), but their roots also provide support and protection for tortoise burrows. Several studies have also shown that edaphic (soil) conditions are important for desert tortoises. Tortoises spend up to 98% of their lives underground (Nagy and Medica 1986). Where soils are so sandy that they cannot support the roof of a burrow, tortoises are unlikely to utilize the area (Baxter 1988). Desert tortoise burrows supply important shade and thermoregulatory resources for a variety of species, including many species of snakes, insects and spiders, and small mammals.

ADT are herbivores and wildflowers, grasses, and in some cases, cacti make up the bulk of their diet (USFWS 2010a; Woodbury and Hardy 1948). Some of the more common herbaceous species utilized by the tortoise include desert dandelion (*Malacothrix glabrata*), evening-primrose (*Camissonia* spp., *Chylismia* spp., *Eremothera* spp., *Oenothera* spp.), gilia, desert marigold, and filaree (*Erodium* spp.). Additionally, tortoises may eat some grasses, such as sand rice grass or big galleta (*Hilaria rigida*), although the nutritional value may be less. Tortoises are known to eat some cacti such as prickly pear (*Opuntia mohavensis*), beavertail, and various cholla cacti (*Cylindropuntia* spp.). Spring desert annuals and grasses are particularly important in that they supply tortoises with much needed water (USFWS 2010a), which can be stored in the bladder of tortoises for long periods of time (Marlow 1979; Woodbury and Hardy 1948).

Home range size can vary dramatically, from 10 to over 450 acres (USFWS 1994). Females begin breeding at about 15 to 20 years of age and can store the male's sperm (Gist and Fisher 1993; Turner and Berry 1984). Egg laying occurs in the spring, but occasionally may also take place in the fall. Incubation is typically about 100 days, with the eggs hatching in the late summer and early fall. There is little or no parental care of the nest or the young. The sex of the offspring is determined by the incubation temperature; females being hatched at higher ground temperatures (above 89°F) while males are hatched below this temperature (Spotila et al. 1994). Average clutch size is 4.5 eggs (Turner et al. 1984, 1986).

ADT activity is focused on its home range and is primarily determined by temperature (USFWS 1994). Nevertheless, some relocated tortoises have moved significant distances from their release point, including crossing major highways (Stewart 1991). Duda et al. (1999) found that tortoise home ranges tend to shrink during periods of drought compared to years of high rains. Following winter hibernation, tortoises become active as low temperatures abate in the spring months. During the spring, tortoises are active throughout the day, foraging on the fresh shoots of annual plants. But as the heat continues to increase into the summer months, tortoises are active only in the cooler morning, late afternoon, and evening hours. During the hot daytime temperatures,

tortoises retreat to burrows to wait out the heat or, in some cases, will aestivate through the summer.

Based on the vegetative and soil characteristics of the Project Area and surrounding lands, as well as the extensive information available for ADT throughout the general region of the Project Area, the potential for occurrence is determined to be Moderately High to High (Figure 7 and Table 5). USFWS (2017b) protocol surveys commenced in September of 2019 and in April of 2020 within the Project Area to determine the extent of ADT presence. The survey results will be provided to the Applicant under separate cover.

6.1.3 California Condor (*Gymnogyps californianus*)

The California condor was listed in 1967 by the USFWS an Endangered species and in 1971 by the State of California as an Endangered species. In 1977 the USFWS republished this species Critical Habitat designation and map (USFWS 1977). In 1996 the USFWS issued the most recent version of the Condor Recovery Plan and created an Experimental, Non-Essential population for the Arizona, Utah, and Nevada portion of its range centered around the Grand Canyon. In April of 2019, the USFWS proposed that an Experimental, Non-Essential population be considered for reintroduction into the Pacific Northwest for the purposes of delisting the species to Threatened status at a future date (USFWS 2019b). The California condor is also protected under the federal Migratory Bird Treaty Act (MBTA).

The condor's historic range, as of the 1800's, was north from British Columbia and Alberta, Canada; east into western Montana, Wyoming, and Colorado; south into Arizona and Baja California, Mexico; and west to the coastlines of California, Oregon, Washington, and British Columbia, Canada.

Population studies between 1930 and 1950 estimated 60 to 150 condors in the wild (Robinson 1939, 1940; Koford 1953). By the time this species was listed in 1967, it was estimated that only 42 wild birds remained. By 1987 the last individuals were trapped out of the wild for captive breeding by the USFWS and only 27 individual birds remained in the global population (i.e., zoos and other similar facilities). The precipitous decline of the condor was due to many factors such as hunting, shooting, lead poisoning, pesticides and other chemical exposures, vehicle strikes, power line collisions, and nest site disturbances. Since 1992 there have been 83 documented deaths from lead poisoning, making up 40% of the total 207 deaths where deceased condors were recovered from the free-flying population (CDFW 2018c).

The California condor currently occurs in three distinct reintroduced populations: the southern and central coast of California where Critical Habitat is designated; the Grand Canyon area of Arizona; and in Baja, California, Mexico.

The condor is an opportunistic scavenger that relies solely on the consumption of the carcasses of dead animals, typically medium to large sized mammals such as coyote, mule deer, and elk. They will also consume dead livestock, ground squirrels, prairie dogs, reptiles, and birds. For this reason, they are typically associated with roadways, highways, and interstates where road killed animals are found in higher abundance. They will watch other scavengers, such as turkey vulture (*Cathartes aura*), golden eagle (*Aquila chrysaetos*), and common ravens (*Corvus corax*), to locate most of their food source. Condor's will search for food over vast areas that encompass hundreds of linear miles which they can travel on a daily basis (Meretsky and Snyder 1992).

They may travel between 44 miles and 112 miles from their nest site with core foraging areas for nesting birds ranging between 965 to 1,081 square miles (Meretsky and Snyder 1992) and for non-breeding birds up to 1,930 square miles (USFWS 1996). Within the Project, condors may forage in open terrain that includes grasslands and open desert scrub habitat.

Historical sightings near the Project Area prior to the 1950's included the area around Tehachapi and southwest of Lancaster. The condor is known to currently occur within the Tehachapi Mountains east of Interstate 5 (I-5) and in portions of the Los Padres National Forest west of I-5 (USFWS 2013). With the reintroduction of captive bred condors and successful nesting, the wild population in California was 125, with 69 inhabiting Southern California in 2013 (USFWS 2013). Within 5 years the California population increased to 188 wild condors with 80 in Southern California (CDFW 2018c; USFWS 2019c).

One GPS tracking location occurred approximately 15 miles north of Mojave (Dudek 2014). There is no current CNDDB observational data, however, multiple sightings have been recorded and input by scientists and "citizen-scientists" through The Cornell Lab of Ornithology eBird on-line program (Cornell University 2015a)[12]. The closest sighting to the Project Area was in April of 2019 at the Mojave lookout point, within 4 miles north and northwest of the Gen-tie Corridor and within 8 miles northwest of the Project. There are multiple observations throughout the Tehachapi Mountains and foothills to the west and southwest of the Project Area dating between 2013 and 2019.

The potential for California condor to be directly or indirectly affected by the Project is Low to Moderate (Table 5) based on loss of foraging habitat, additional road killed animals along major and minor collector routes into and out of the Project Area, construction of additional facilities that would allow for perching (i.e., power lines, solar panels, other similar structures), collision with overhead gen-tie lines, and potential addition of sources of drinking water during construction. This species will be included in the results of the Wildlife Survey Report, if it is observed.

6.1.4 Swainson's Hawk (*Buteo swainsoni*)

The Swainson's hawk was listed in 1983 by the State of California as a Threatened species pursuant to CESA. It is a USFWS Bird of Conservation Concern (BCC) (USFWS 2008) as well as protected under the federal MBTA. CESA regulates the taking of state-listed species (Fish and Game Code §86) and requires mitigation measures where the bird may be impacted.

The Swainson's hawk is an uncommon breeding resident and migrant in the Central Valley, Klamath Basin, Northeastern Plateau, Lassen County, and Mojave Desert. It winters in South America, however, the wintering destinations of the Mojave Desert population (referred to as the Antelope Valley population) are unknown. Breeding occurs late March to late August with peak

[12] Cornell University's eBird on-line database is contributed to by both amateur and professional birders and includes the ability to submit photographs, videos, and sound recordings with each checklist developed from a specific survey. Each birder's checklist is thoroughly reviewed by a qualified avian biologist. Checklist errors, questions, and revisions to the checklist are routinely requested by the eBird biologist to the checklist preparer. Revisions to the checklist must be made by the birder. For the purposes of this BE, eBird data is used herein to supplement the CNDDB list with the caveat that the information presented herein for each avian species may not be accurate.

activity in late May through July. They lay usually 2 or 3 eggs and incubate them for 34 to 35 days (Bechard et al. 2010).

The Antelope Valley population has historically nested in Joshua tree woodlands and foraged in grasslands and native desert scrub communities. With the increase in human population and subsequent development of the Antelope Valley in the 1980's, a majority of these habitats were initially type converted to agricultural lands and then residential developments. Consequently, Swainson's hawk have shifted their foraging strategy to rely more dependently upon agricultural crops (Bloom 1980, Estep 2009).

The statewide population estimate of Swainson's hawk in the early 1980's was 375 breeding pairs (Polite 2006). Bloom (1980) estimated that there had been a 90% decline in the population based on historical records dating back to 1880. This decline has been due to the loss of habitat for nesting and foraging and as a result this species was listed as Threatened by the State of California. In 1989, Estep (1989) recorded five breeding pairs in the Antelope Valley. As of 2010, the land uses in the Antelope Valley area supported approximately 10 breeding pairs (California Energy Commission and CDFG 2010). There has been no other formal breeding pair survey done in the Antelope Valley and the current number of breeding pairs is unknown (CDFG 2016).

Current nesting observations indicate that Swainson's hawk will nest in Joshua tree woodlands, ornamental non-native roadside trees (i.e., elm [*Ulmus* spp.], pine [*Pinus* spp.], and tamarisk [*Tamarisk* spp.]), and windrow or perimeter trees in active and historical agricultural areas (California Energy Commission and CDFG 2010). They typically mate for life and they have a high degree of site fidelity and return to the same nest or same territory year after year (Estep 1989, England et al. 1995, Woodbridge et al. 1995, Bechard et al. 2010). Foraging habitat is typically in close proximity to the nest sites and will include a combination of agricultural land types such as dry and irrigated pastures, alfalfa fields, fallow fields, low growing row or field crops, new orchards, and cereal grain crops. They may also forage in nearby grasslands, Joshua tree woodlands, and other desert scrub habitats that support suitable prey items. Pocket gophers (*Thomomys* spp.) are their main prey item in agricultural lands and native small mammals are their main prey item in open desert habitats.

The Antelope Valley comprises the southernmost edge of the known breeding range for this species in California. The small number of breeding Swainson's hawks in the Antelope Valley and the potential isolation from other Swainson's hawk populations makes the Antelope Valley population particularly susceptible to extirpation. Due to the geographical isolation of the Antelope Valley Swainson's hawk population from other breeding populations, together with the species' high site fidelity, it is reasonable to infer that rapid re-colonization of the Antelope Valley would be unlikely if nesting pairs were lost. Given these facts, CDFW (2016) considers impacts to breeding pairs to be potentially significant because they may cause the population to become less than self-sustaining.

Swainson's hawk is known to occur within the Project Area based on the most current CNDDB (2019b) observations (Figure 10). These observations include both nesting and general observations of this species between 1994 and 2012 within open desert and rural residential settings. The closest CNDDB occurrence is within 6 miles south of the SCE Windhub Substation. Other occurrences are within 13 miles south of the Windhub Substation and within 15 miles south of the southeastern portion of the Project. All of these occurrences are within the

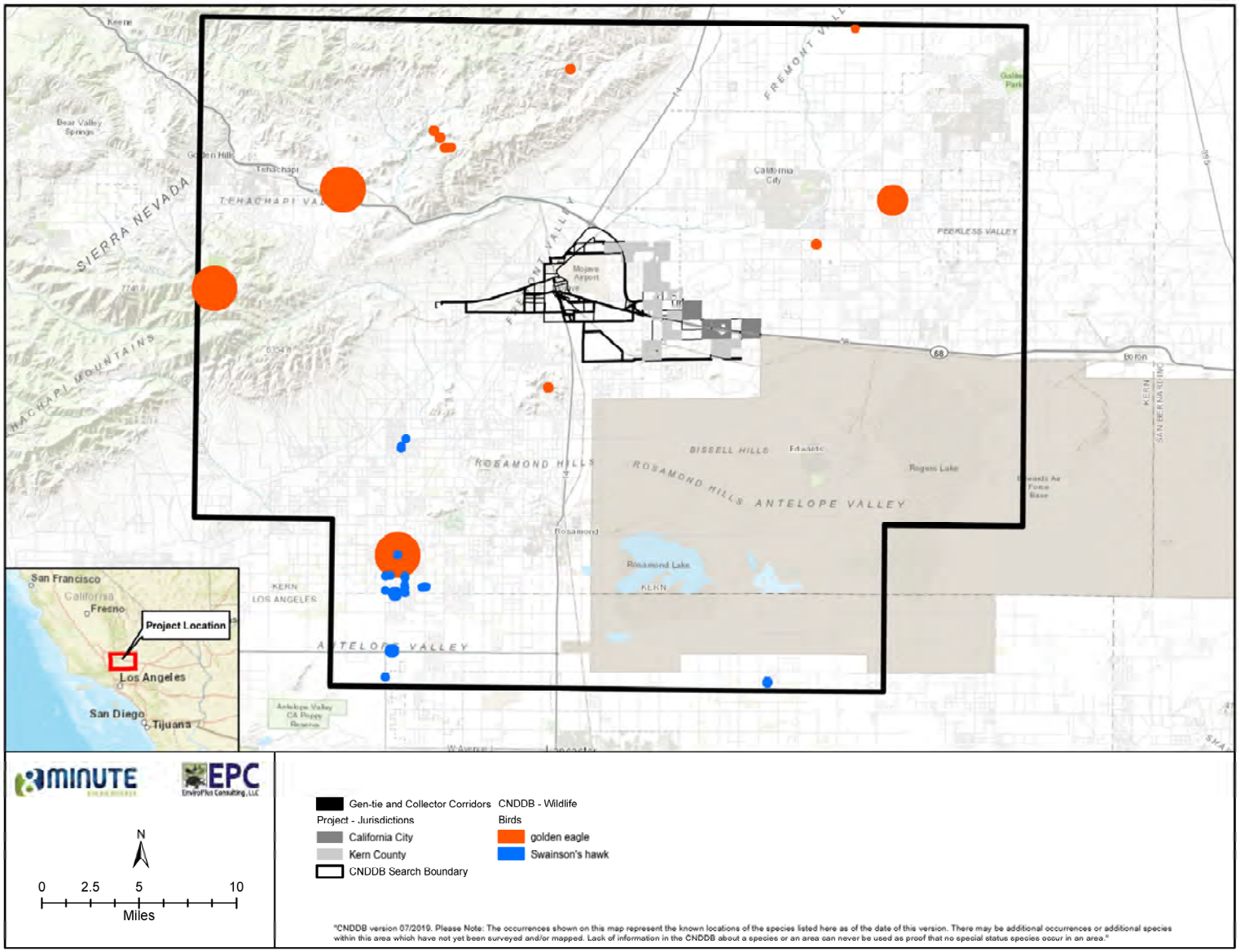

Figure 10. Bellefield Solar Farm Project Area Swainson's Hawk Locations and Golden Eagle Nesting Locations Map

proximity of agricultural fields.

More recent sightings have been recorded and input by scientists and "citizen-scientists" through The Cornell Lab of Ornithology eBird on-line program (Cornell University 2015b)[11]. The closest observation to the northwest of the Project Area was in May of 2016 north of SR58 in the foothills of the Tehachapi Mountains, approximately 5 miles north and northwest of the Gen-tie Corridor and within 9 miles northwest of the Project. Multiple observations have been recorded in the California City area dating from 1986 to 2019 and within 4 to 5 miles northwest of the Project Area. Observations from 2018 and 2019 are concentrated west and northwest of California City along Neuralia Road, most likely powerline related sightings. Observations from 2020 are concentrated within 7 to 8 miles south of the SCE Windhub Substation in active agricultural fields.

The potential for Swainson's hawk to be directly or indirectly affected by the Project is Moderate to Moderately High (Table 5) based on loss of foraging habitat, construction of additional facilities that would allow for perching and/or foraging (i.e., power lines, solar panels, and similar structures), collision with overhead gen-tie lines, and potential addition of sources of drinking water during construction. This species will be included in the results of the Wildlife Survey Report, if it is observed.

6.1.5 Western Snowy Plover (*Charadrius alexandrinus nivosus*)

The western snowy plover was listed in 1993 by the USFWS as a Threatened species. This listing is only for the Pacific coast population of the snowy plover that nests adjacent to tidal waters of the Pacific Ocean. This includes all nesting birds on the mainland coast, peninsulas, offshore islands, adjacent bays, estuaries, and coastal rivers (USFWS 2019d). Snowy plovers that nest at inland sites are not considered part of the Pacific coast population, although they migrate to coastal areas during winter months. The remainder of the discussion regarding snowy plovers will only include their CDFW status as a Species of Special Concern (SSC) (breeding) for the interior population (Remsen 1978; CDFG 1992; Shuford et al. 2008). The snowy plover is also protected under the federal MBTA.

It is a wide-ranging species that can be found in five continents. In North America it breeds on the Pacific and Gulf coasts of the United States and Mexico and within the Central Valley of California, into the southwest deserts. In the winter it occurs more widely in coastal areas and remains inland mainly in arid regions with mild temperatures in south-central and southern California. In the desert regions it will concentrate at alkali or saline lakes, agricultural evaporation and wastewater ponds, remnant alkali playas, reservoirs, ponds, braided river channels, and salt evaporation ponds (Page et al. 1995). In the winter months, snowy plovers concentrate in the San Joaquin Valley and at the Salton Sea (Page et al. 1995, Shuford et al. 2008) and some may not migrate at all. Resident snowy plovers will nest in these and other similar locations. In the desert regions their populations have declined due to habitat loss, water drawdown, water level fluctuations, water diversion, pesticide and herbicide use, increased saline, increasing levels of selenium and other heavy metals and trace elements, and recreational activities such as hiking and off-road vehicle use.

Western snowy plover breed from March through September, with nesting starting as early as mid-March in southern deserts (Owens Lake southward; Ruhlen et al. 2006). In the Mojave

Desert within the region around the Project, they are known to breed at Koehn Lake, Kern County; Rosamond Lake, Kern and Los Angeles Counties; and China Lake, Kern and San Bernardino Counties. They have also been documented nesting at sewage ponds on Edwards AFB, at the Piute Ponds near Rosamond Lake, and in Lancaster.

There is only one CNDDB occurrence dating back to 1978 at Rosamond Lake on Edwards AFB (CNDDB 2019b) (Figure 7). Six birds were observed and believed to be in breeding or nesting status at the time. Only one sighting has been recorded and input by a scientist or "citizen-scientist" through The Cornell Lab of Ornithology eBird on-line program (Cornell University 2015c)[11]. This observation was in August of 2007 at Piute Ponds located approximately 15 miles south of the Project.

The potential for western snowy plover to be directly or indirectly affected by the Project is None to Extremely Low (Table 5), due to lack of appropriate habitat for breeding or over-wintering, however, they may be observed flying through the area to appropriate water bodies during their migration periods in the fall and spring. Because the probability of encountering a western snowy plover in the Project Area is None to Extremely Low, this species will not be evaluated further in this BE.

6.1.6 Tricolored Blackbird (*Agelaius tricolor*)

The tricolored blackbird was recently listed by the State of California as a Threatened species pursuant to CESA on 19 April 2018 (CDFW 2019d). It is a USFWS BCC (USFWS 2008) as well as protected under the federal MBTA.

CESA regulates the taking of state-listed species (Fish and Game Code §86) and requires mitigation measures where the bird may be impacted. This species is broadly distributed throughout California with the majority of the population in the Central Valley. The tricolored blackbird breeds throughout California west of the Sierra Nevada Mountains and the eastern desert areas.

Tricolored blackbird populations have declined seriously in recent decades due to loss of freshwater habitats which include freshwater marshes with dense stands of cattails or bulrushes which they require for breeding and rearing young. In response to loss of natural wetland habitats colonies will inhabit agricultural fields and dairy farms.

In 2015, the Center for Biological Diversity petitioned for the emergency listing of the tricolored blackbird based on a dramatic decline in population estimates from 2008 to 2011 and 2011 to 2014 (Center for Biological Diversity 2015). This petition was sent to both the California Game and Fish Commission and the USFWS. In response to the petition, a statewide survey was conducted by CDFW in 2017 and they estimated the California population to be over 175,000 birds (CDFW 2018d, University of California Davis 2019) and the Commission warranted the listing of this bird as Threatened. The USFWS, in August of 2019 released their Notice of 12-month Petition Findings and determined that listing of the tricolored blackbird was not warranted at that time (USFWS 2019a).

Tricolored blackbirds congregate in dense colonies during the breeding season. They forage in flocks in open areas nearby that include farm fields, pastures, cattle pens, and large lawns that will include other similar bird species such as red-winged blackbird (*A. phoeniceus*) and

European starlings (*Sturnus vulgaris*). Their diet consists of mostly insects and seeds and in the winter, they will feed on grass seeds, weed seed, and waste grain.

During the breeding season hundreds to tens of thousands will colonize a freshwater marsh area in extremely small territories that are only 1 to 2 feet apart from each other or stacked vertically within cattails (*Typha* spp.) and bulrushes (*Scirpus* spp.). They will lay between 3 to 5 eggs and the young will fledge from the nest in 11 to 14 days after hatching.

Causes of mortality to nests, adults, eggs, and hatchlings include severe weather (Beedy and Hamilton 1999) with intense rainfall and strong winds; excessive heat over 100 degrees F over a 3 day period will cause an entire colony to desert that location (Beedy and Hayworth 1992, Hamilton 1998); predation by black-crowned night herons (*Nycticorax nycticorax*), white-faced ibis (*Plegadis chihi*), and racoons (*Procyon lotor*) in wetland colonies and coyote and cattle egrets (*Bubulcus ibis*) in upland and triticale (a wheat and rye hybrid) colonies. Other predators may include northern harrier, common ravens, Cooper's hawk, and California king snake (*Lampropeltis getula*).

There are six CNDDB (2019b) records of tricolored blackbirds near the Project Area (Figure 7). The closest record is at California City's Central Park, from 1993 and 1994 within 6 miles northeast of the Project Area where about 100 pairs were observed in 1993 and only 10 males in 1994 during a cattail removal project (CNDDB 2019b). The next closest records are from Tehachapi within 12 miles northwest of the Gen-tie Corridor where a large colony of about 400 breeding pairs were noted in 1992 and no birds in 2008. Records from Rosamond, Rosamond Lake, and Edwards AFB within 14 to 16 miles south and southeast of the Project Area date between 1975 and 2014 with large colonies of up to 500 birds. These CNDDB (2019b) observations are from locations with open water present to include parks and water treatment facilities.

Scattered observations have been recorded and input by scientists and "citizen-scientists" through The Cornell Lab of Ornithology eBird on-line program (Cornell University 2015d)[11]. The closest observations to the Gen-tie Corridor are dated from 1985 and 2012 within Mojave and at the Camelot Golf Course, both only single bird observations. Observations from 2010 included up to 250 birds at a water treatment plant in Tehachapi within 8 miles northeast of the SCE Windhub Substation. Northeast of the Project within California City at Central Park, records date from 1983 through 2015, with recent year's data of no more than 2 birds observed. Observations north and northwest of California City, within 8 to 10 miles of the Project Area, are from 2000 and 2018 with 150 birds observed and 12 birds observed, respectively. Observational records increase more consistently south of the Project Area from Rosamond, Rosamond Lake, and Edwards AFB where records date from 1978 through 2019. Branch Pond and Mesquite Bosque West at Edwards AFB have the highest numbers of tricolored blackbird in the Antelope Valley region, with a high of 4,000 birds in March of 2019 to a low of 10 birds by July of 2019 the Branch Pond. The closest observation from 2020 is within 3 miles southeast of the southern portion of the Project Area at Edwards AFB.

The potential for tricolored blackbirds to be directly or indirectly affected by the Project is Extremely Low (Table 5) due to lack of appropriate habitat for breeding, however, they may be observed flying through the area to appropriate water bodies during their migration periods in the fall and spring or if conditions warrant a colony site desertion. This species will be included in the results of the Wildlife Survey Report, if it is observed.

6.2 Special Status Wildlife Species

Special status wildlife species are presumed to occur within the Project Area if there were locality records, either historic or recent, indicating presence, discovered through the research and literature review efforts (Section 2.0 and Table 1).

Although a total of 45 special status vertebrate species, five insect species, and two mollusk species were identified during the literature review and database searches, only 28 species have the potential to occur within the Project Area (Figure 7 and Figure 8). Of the 28 species, six are state and/or federal listed (Section 6.1).

The remaining 22 species have special status designations and include the following:

- **Mammals:** Townsend's big-eared bat; desert kit fox; and American badger
- **Birds:** northern harrier; Cooper's hawk; ferruginous hawk; golden eagle; prairie falcon; merlin; American peregrine falcon; mountain plover; western burrowing owl; long-eared owl; short-eared owl; loggerhead shrike; gray vireo; black-tailed gnatcatcher; yellow warbler; and yellow-headed blackbird
- **Insects:** Crotch bumble bee; western bumble bee; and Mojave dotted-blue butterfly

These species and their potential for presence on site are discussed below. Surveys commenced for these species in August of 2019 and were completed in October of 2019.

Pacific Townsend's Big-eared Bat (*Plecotus townsendii townsendii*)

The Pacific Townsend's big-eared bat is a CDFW SSC (CDFW 2019c) as well as a Species of Greatest Conservation Need (SGCN) (CDFW 2019c). The Virginia and Ozark population of the big-eared bat, by contrast, was listed by the USFWS as Endangered and included Critical Habitat designation in 1979. The Pacific Townsend's big-eared bat does not have any current federal designation.

The Pacific Townsend's big-eared bat ranges throughout the western United States and Canada. It can be found in Washington, Idaho, Oregon, California, and Nevada (USFWS 2019e). In California the Townsend's big-eared bat occurs throughout the state with the exception of alpine and subalpine areas of the Sierra Nevada Mountains. Historical records (pre-1990) indicate substantial populations in the Owens Valley and areas east of the Sierra Nevada Range in Inyo County, the Providence Mountains in San Bernardino County, and the lower Colorado River in San Bernardino, Riverside, and Imperial counties (CDFG 1998).

In California, the Pacific Townsend's big-eared bat is associated with limestone caves and lava tubes located in coastal lowlands, agricultural valleys, hillsides with mixed vegetation, and in man-made structures such as abandoned mines, water diversion tunnels, abandoned railroad tunnels, abandoned and little-used buildings, and older bridge structures. These natural and man-made structures are used for roosting (diurnal and nocturnal) and as maternity roosts for birthing and raising their pups. In the Mojave Desert region they are frequently associated with abandoned mines. They may roost with other bat species such as the California myotis (*Myotis californicus*) (Kunz and Martin 1982).

Townsend's big-eared bats forage for insects from early evening through early morning in a variety of habitats, primarily between the canopy and mid-canopy of woodlands and riparian zones such as desert washes, and within shrublands (Dudek 2012). They are not known to forage in grasslands.

Breeding begins in the autumn and peaks November through February. Females form maternity colonies in the late spring and early summer after winter hibernation and within 8 to 14 weeks they will birth one pup. The pups are capable of flying in 2.5 to 3 weeks and weaned by 6 weeks. Males and females will become reproductive within their first autumn. The preferred maternity colony locations are utilized by generations of bats and are of the highest conservation concern for this species.

This species has had substantial declines in population attributable to human disturbances at maternity and hibernation sites. Other reasons for decline include loss of habitat for roosting and maternity colonies, intentional and non-intentional destruction and disruption of colony sites, intentional killing of bats, loss of foraging habitat, and loss of prey base through the use of pesticides. A more recent and potential threat to bat species is white-nose syndrome (*Pseudogymnoascus destructans*) (WNS) caused by a fungus that weakens and eventually kills bats that hibernate in colonies (WNS Response Team 2019). WNS has been confirmed in 38 states and seven Canadian provinces and was confirmed in Northern California in 2018. It has affected the listed Virginia and Ozark population of big-eared bat in the Ozark and Central Appalachian regions of West Virginia, Virginia, and Kentucky (WNS Response Team 2019).

Pacific Townsend's big-eared bat is known to occur within the Project Area based on one fairly recent record from 1997 at Soledad Mountain and two historical records from the Rosamond area in which 7 specimens were collected in 1942 (CNDDB 2019b) (Figure 7). The Soledad Mountain location is located with 2.5 miles to the south of the Gen-tie Corridor and within 5 miles southwest of the Project. The Rosamond area locations are approximately 10 miles further to the south of the Soledad Mountain location.

CDFW conducted a 3 year Statewide Assessment from 2014 to 2017 (CDFW 2018f). Results for the Mojave Basin and Range survey area found that this region contained the most roost sites and maternity colonies. It was the second highest for greater than 5 bats per roost site at 23% out of the total assessment, with a majority of the use occurring in the summer. Most of the maternity sites occur in abandoned mines and more than half exhibited little to no disturbance by humans. Specific details regarding the current population and status of this species within the Project Area and the larger Antelope Valley and Tehachapi Mountain regions was not included in the CDFW report and is therefore unknown.

The potential for Townsend's big-eared bat to be directly or indirectly affected by the Project is Low to Moderate (Table 5) based on the overall lack of information regarding its present status within the Antelope Valley and surrounding region. However, loss of foraging habitat, collision with overhead gen-tie lines, and potential addition of sources of drinking water during construction may be considered a factor in the potential affects to this species. This species will be included in the results of the Wildlife Survey Report if there is appropriate roosting habitat and/or if it is observed.

Desert Kit Fox (*Vulpes macrotis arsipus*)

The desert kit fox currently does not have federal or State of California special status designation, however, it is protected from "take" as a furbearing mammal pursuant to the California Code of Regulations (CCR), Title 14 [Natural Resources], Division 1 [Fish and Game Commission-Department of Fish and Game], Subdivision 2 [Game, Furbearers, Nongame, and Depredators], Chapter 5 [Furbearing Mammals], Section 460 [Fisher, Marten, River Otter, Desert Kit Fox and Red Fox] (Westlaw 2019a). Section 460 specifically states that desert kit fox "…may not be taken at any time."

In the California desert region, desert kit fox populations are closely associated with creosote bush scrub communities (McGrew 1979). In California, the desert kit fox lives in the Mojave and Colorado deserts in inland Southern California from Inyo County to the Mexican border. Desert kit fox range extends into southern Nevada, western Arizona, the southwest tip of Utah, and Mexico.

The kit fox is semi fossorial and primarily nocturnal, residing in subterranean dens with typical keyhole shaped entrances. They generally require friable soils with little or no relief for excavating dens which they use throughout the year for cover, thermoregulation, water conservation, and raising young (CEC 2012). Kit foxes prefer the presence of short, patchy vegetation in their denning habitat (Egoscue 1962, O'Farrell and Gilbertson 1986). Kit fox are also able to adapt to open habitats including creosote flats and grasslands. Egoscue (1962) suggested kit fox can also utilize sandy dune habitat for foraging.

The kit fox is an opportunistic primary, secondary and tertiary consumer and scavenger, likely regulated by prey abundance (Cypher 2003 in Meaney et al. 2006). The primary prey of kit fox is kangaroo rats (*Dipodomys* spp.) that are locally abundant. Several authors have emphasized the correlation between the ecological and geographical distribution of kit foxes and *Dipodomys* spp. (Meaney et al. 2006). Merriam's Kangaroo rat (*Dipodomys merriami*) is the primary prey of the desert kit fox in the Californian Desert (National Park Service 2012). Other common prey species include leporids (rabbits and hares), rodents, and insects. Kit fox also consume birds, reptiles, carrion, and rarely, plant material such as cactus fruits (List and Cypher 2004). Kit fox are known to cache food and consume anthropogenic food (Cypher 2003).

Nightly foraging distance is greater in males than females, home range sizes between sexes do not differ, with estimates of home range varying from 251 ha to 1,160 ha (Cypher 2003 in Meaney et al. 2006). Difference in the size of home ranges may be related to food availability (Spiegel 1996).

Litters of three to five young are born in February or March (Egoscue 1962; McGrew 1979). Kit fox can live for about seven years in the wild.

The desert kit fox is primarily threatened by large-scale industrial energy development, which causes habitat loss, degradation, and fragmentation (Kadaba 2014). This species is also affected by increased non-native plant cover, urbanization, mortality from vehicle strikes, mortality from off-road vehicle impacts, increased competition with other canids, depredation, agriculture, grazing, climate change, and disease such as rabies and canine distemper.

Due to a lack of population monitoring, population trends for the desert kit fox in California are unknown. The accelerating loss of habitat is likely to be contributing to population declines across the fox's range, concentrated in regions with the greatest habitat impacts (Center for Biological Diversity 2019b). Domestic and feral dogs that come in contact with desert kit fox can transmit canine distemper which can decimate the affected kit fox population. The potential for occurrence of desert kit fox within the Project Area is Moderate to High (Table 5). Surveys for this species were included in the August through October 2019 protocol wildlife surveys of the Project Area. This species will be included in the results of the Wildlife Survey Report, if it is observed.

American badger (*Taxidea taxus*)

The American badger is a furbearing mammal that is designated as a CDFW SSC (CDFW 2019c) and is also subject to hunting regulations under CCR, Title 14, Division 1, Subdivision 2, Chapter 5, Section 641 (Westlaw 2019b).

American badger occurs throughout most of California and is an uncommon and permanent resident of open desert shrublands, interior and coastal shrublands, forests, herbaceous habitats, and open areas in grasslands and agricultural areas. It digs large burrows in dry, friable soils and feeds mainly on fossorial mammals such as ground squirrels, gophers, rats, and mice. They may reuse older burrows, dig new a den every night (Messick and Hornocker 1981), or use the burrows of other animals such as coyote, desert tortoise, and kit fox. The American badger is primarily active during the day but may become somewhat nocturnal when occurring in proximity to humans. They will go into various stages of torpor during the winter months (Long 1973).

American badger are non-migratory and the home range of badgers varies both geographically and seasonally. Home range has been measured to be 1,327 to 1,549 acres for males and 338 to 751 acres for females in Utah (Lindzey 1978) and 400 to 600 acres in Idaho (Messick and Hornocker 1981). Males are generally solitary except during the breeding season in summer through early fall. Litters of 2 to 3 are born in March and April (Long 1973).

Threats to the American badger include road mortality, habitat loss, loss of prey base, poisoning of prey base, predator control/depredation, indiscriminate trapping, and largescale development that fragments its habitat.

There are currently five CNDDB records for American badger in the proximity of the Project Area (CNDDB 2019b) (Figure 7). Two are historic and three are very recent. The historic records indicate one observation near Willow Springs to the south and one to the northwest of Mojave, within 5 and 4 miles respectively, from the Gen-tie Corridor. The three most recent observations were of adult badgers in 2014 and 2015 via trail cameras located within 8 to 10 miles north of the Project Area.

Due to the mobility of this species and its preferred foraging habitat, this species is anticipated to potentially occur on site as an occasional transient or forager if no active dens are discovered. The potential for the occurrence of badger within the Project Area is Moderate to High (Table 5). Surveys for this species will be included in the Fall of 2019 protocol wildlife surveys of the Project Area. This species will be included in the results

of the Wildlife Survey Report, if it is observed.

Northern Harrier (*Circus hudsonius*)

The northern harrier is a CDFW SSC (CDFW 2019c) and is protected under the federal MBTA. It breeds widely but locally in North America from northern Alaska and Canada south to mid- and lower latitudes of the United States and northern Baja California. It occurs year-round in much of its breeding range in California and the contiguous United States. Some breeding populations may be migratory. It occurs more broadly and in much greater numbers during migration and winter than during the breeding season, which extends from March through August (Loughman and McLandress 1994). Northern harrier appears to be nomadic, ranging widely, both within the breeding season and across years (Pavelka 1992).

In the early part of the 20th Century, northern harrier were considered a "common" breeder in California (Dawson 1923, Mailliard 1927, Willett 1912). By the early 1940's the breeding population had declined substantially due to loss of suitable habitat, namely wetlands (Grinnell and Miller 1944). By 1939 up to 85% of wetlands had been modified for agricultural and development purposes (Hartman and Goldstein 1994). Another component of northern harrier habitat, native grasslands, was lost up to 70% to agricultural and urban development, livestock grazing, fire suppression, and exotic and invasive species by 1945 (Noss et al. 1995).

Suitable breeding habitat for northern harrier is extremely limited in the southern deserts of California (Shuford and Gardali 2008). They are known to breed in Saline and Panamint Valleys in Inyo County and in Fremont Valley near Cantil in eastern Kern County (Heindel 2000). The center of abundance in northern Los Angeles County is in the Antelope Valley near Lancaster. They breed and forage in a variety of open and treeless habitats that provide adequate vegetative cover, suitable prey, and scattered hunting, plucking, and lookout perches such as shrubs or fence posts. In the desert, they utilize weedy fields; ungrazed or lightly grazed pastures; alfalfa, grain, and other croplands; desert sinks; and natural areas with low growing shrubs. They nest on the ground in patches of dense, often tall, vegetation in undisturbed areas (MacWhirter and Bildstein 1996). They forage for a variety of small to medium sized prey species such as rodents and songbirds but will also consume rabbits and reptiles.

Primary threats to northern harrier are loss and degradation of nesting and foraging habitat and nest failure due to human disturbance, predator-control projects (i.e., removal of northern harriers where the federally listed western snowy plover breeds), and agricultural practices to include the spraying of pesticides and herbicides, affecting prey base populations and potentially affecting northern harrier eggs (i.e., DDT until it was regulated in the early 1970s).

CNDDB (2019b) records indicate that the closest observation of northern harrier to the Gen-tie Corridor was within 8 miles south of the SCE Windhub Substation, in the location of agricultural fields during the winter of 2010 – 2011. It was observed flying and foraging in proximity to a golden eagle and a ferruginous hawk.

By contrast, there have been multiple observations of northern harrier by scientists or

"citizen-scientists" through The Cornell Lab of Ornithology eBird on-line program (Cornell University 2015e)[11]. Multiple observations have been documented in eBird within the California City area and north of California City from 1983 to present. The closest observation of northern harrier was in 2018, within 4 miles northeast of the Project Area and immediately south of California City; east of the Project Area there was an observation within 12 miles in 2015; observations within 10 miles southeast of the Project Area at Edwards AFB; and south to Rosamond Water Treatment Plant within 12 miles of the Project Area to include concentrated observations from that point further south. The closest observation to the Gen-tie Corridor was in 2009 within 6 miles southwest of the SCE Windhub Substation. The most recent observation from 2020 is approximately 7 miles south of the SCE Windhub Substation in agricultural fields.

The potential for northern harrier to be directly or indirectly affected by the Project is Moderate (Table 5) based on loss of foraging habitat, construction of additional facilities that would allow for perching and/or foraging (i.e., power lines, solar panels, and similar structures), collision with overhead gen-tie lines, and potential addition of sources of drinking water during construction. This species will be included in the results of the Wildlife Survey Report, if it is observed.

Cooper's Hawk (*Accipiter cooperii*)

The Cooper's hawk is a CDFW SSC (CDFW 2019c) and is protected under the federal MBTA. In Southern California it is a breeding resident in wooded habitats that include Sierra Nevada foothills, New York Mountains, Owens Valley, and other similar localities (Zeiner et al. 1990). It ranges from sea level to 9,000 feet in elevation and most frequently utilizes dense stands of trees such oak, riparian, and forested habitats. It also occurs throughout the desert regions.

Cooper's hawk primarily consumes small birds, especially young during the nesting season. They also consume small mammals, reptiles, and amphibians. They prefer to hunt in broken woodland and habitat edges and catch their prey in the air, on the ground or in vegetation. They will also soar and make low gliding search flights.

Cooper's hawk nest in deciduous trees and prefer to be near water sources. They breed March through August with peak activity in May through July. They will produce a single brood of 4 to 5 eggs with incubation of between 35 and 65 days (Brown and Amadon 1968). Success is about 2 young per breeding pair (Craighead and Craighead 1956). Breeding numbers have declined in recent decades (Zeiner et al. 1990).

There are no CNDDB (2019a, 2019b) records for Cooper's hawk in the region around or within proximity to the Project Area.

There have been multiple observations of Cooper's hawk by scientists or "citizen-scientists" through The Cornell Lab of Ornithology eBird on-line program (Cornell University 2015f)[11]. Multiple observations have been documented within the California City area, north of California City, and within and around the community of Mojave from 1995 to 2019. The closest and most recent observations are within the Mojave area within the Gen-tie Corridor dating from 1987 to 2016; an additional observation from 2017 occurred south of Mojave and within 2 miles. Observations from Edwards AFB from

1994 to 2017 are within 8 miles southeast of the Project Area.

The potential for Cooper's hawk to be directly or indirectly affected by the Project is Low to Moderate (Table 5) based on loss of foraging habitat, construction of additional facilities that would allow for perching and/or foraging (i.e., power lines, solar panels, and similar structures), collision with overhead gen-tie lines, and potential addition of sources of drinking water during construction. This species will be included in the results of the Wildlife Survey Report, if it is observed.

Ferruginous Hawk (*Buteo regalis*)

The ferruginous hawk is a CDFW SSC (CDFW 2019c), is a USFWS BCC, and is protected under the federal MBTA. It only breeds from Oregon into Canada but is only a winter resident and migrant in California, with a higher known abundance in Southern California, throughout various habitat types such as open grasslands, sagebrush flats, desert scrub, low foothills surrounding valleys, and fringes of pinyon-juniper habitats. They arrive in California in September and depart by mid-April.

Ferruginous hawks will roost in open areas, usually in a lone tree or on a utility pole. In hot weather they will hunt in the early morning or late afternoon, otherwise they will hunt throughout the day. Their diet consists of rabbits, ground squirrels, and small rodents as well as birds, reptiles, and amphibians. Their population trends may follow the lagomorph population cycles (Polite and Pratt 1999). They will search for their prey from low flights, gliding to intercept prey on the ground. They will also hover, and they will hunt from high mound perches. Cooperative hunting and ground pursuit of their prey has been observed.

They may displace red-tailed hawks (*Buteo jamaicensis*) and Swainson's hawks. They will compete for food resources with other avian and mammalian species that prey upon small mammals. Factors in their loss of wintering habitat in Southern California include habitat loss and rodent and small mammal control and poisoning.

There were seven CNDDB (2019b) records for ferruginous hawk in the region around the Project Area (Figure 7). These observations include overwintering observations of this species between 1998 and 2011 within agricultural and open desert settings. The closest CNDDB occurrence is within 6 miles south of the SCE Windhub Substation. Other occurrences are within 12 miles southwest of the Windhub Substation and Gen-tie Corridor with other observations further south. Some of these occurrences include observations of golden eagle, Swainson's hawk, and northern harrier.

There have been multiple observations of ferruginous hawk by scientists or "citizen-scientists" through The Cornell Lab of Ornithology eBird on-line program (Cornell University 2015g)[11]. Multiple observations have been documented within the California City area, north of California City, west of the community of Mojave, and at Edwards AFB from 1995 to present. The closest and most recent observations are within the California City area within 5 miles of the Project Area, dating from 1987 to 2018. In 2019 there was an observation within 4 to 5 miles north of the SCE Windhub Substation. An older observation from 1993 occurred west of Mojave and within 2 miles northeast of the SCE Windhub Substation.

The potential for ferruginous hawk to be directly or indirectly affected by the Project is Low to Moderate (Table 5) based on loss of foraging habitat, construction of additional facilities that would allow for perching and/or foraging (i.e., power lines, solar panels, and similar structures), collision with overhead gen-tie lines, and potential addition of sources of drinking water during construction. This species will be included in the results of the Wildlife Survey Report, if it is observed.

Golden Eagle (*Aquila chrysaetos*)

The golden eagle is a California Fully Protected (FP) species (CDFW 2019c); a USFWS BCC (USFWS 2008); is a CDFW SSC (CDFW 2019c); and is designated as sensitive by the California Department of Forestry and Fire Protection (CALFIRE).

The golden eagle is also protected under the federal Migratory Bird Treaty Act (MBTA) and the federal Bald and Golden Eagle Protection Act, both of which prohibit 'take' of individual eagles or their active nests. 'Take,' under the ESA federal definition, means pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb.

The golden eagle occurs in open habitats, especially in the mountains and hills, where it can spot prey from the air. Its diet in the desert regions consists mainly of rabbits and ground squirrels but also includes small mammals; birds; reptiles; insects; and newborn or juvenile mule deer, bighorn sheep, and domestic livestock. It will also eat carrion to include roadkill animals.

Golden eagles nest atop tall trees, high on rocky cliffs, or on electrical transmission towers. Often, a breeding pair uses 2-3 or more nests, alternately, over their lifetime. Consequently, the nests can become very large. In the western United States, territories are occupied year-round and can be 22-33 sq km in size during the breeding season (Kochert et al. 2002).

Major threats to this species include habitat destruction and fragmentation, especially the conversion of grasslands to agriculture, shooting, and human disturbances at nest sites (Remsen 1978, Zeiner et al. 1990).

The CNDDB database search included the following USGS 7.5-minute quadrangle maps to obtain golden eagle records within at least 20 miles of the Project Area: Sanborn, California City South, Bissell, Mojave, Monolith, Redman, Tylerhorse Canyon, Tehachapi North, Tehachapi NE, Cache Peak, Mojave NE, California City North, Galileo Hill, North Edwards, Tehachapi South, Willow Springs, Soledad Mountain, Little Buttes, Rogers Lake North, Edwards, Rosamond Lake, and Rosamond. Quadrangles with golden eagle records include Tehachapi NE, Tehachapi South, Cache Peak, California City North, California City South, North Edwards, Soledad Mountain, Little Buttes, and Monolith (Figure 3).

The CNDDB and CNDDB QuickView database searches resulted in up to 10 confirmed and possible nesting locations for golden eagles in the region surrounding the Project Area (Figure 10). The most recent record of nesting was in 2012 at a location south of Jawbone Canyon, more than 20 miles north of the Project Area. Nesting at locations

nearest to the Project Area, in California City and west and south of Mojave, have not been recorded since the 1970s (CNDDB 2019b). No additional nesting information was provided by the BLM (Woods 2019) or Edwards AFB (Zimmerman 2019).

There have been multiple observations of golden eagles by scientists or "citizen-scientists" through The Cornell Lab of Ornithology eBird on-line program (Cornell University 2015h)[11]. These observations have been documented throughout the region around the Project Area. The closest observations to the Gen-tie Corridor have been in Mojave and within 1 mile north and west of the SCE Windhub Substation and within 2 miles southwest of the Gen-tie Corridor and 4 miles southwest of the Project. Multiple observations are further from the Gen-tie Corridor to the west, northwest, and south of Mojave. The closest and most recent observations near the Project Area to the north are within the California City area from 1983 through 2007 within 5 miles; additional observations north of California City are from 1985 to 2018. There are two observations from 2019 within 4 miles northwest of Mojave and within 1 to 2 miles south of Mojave.

While there is no nesting habitat on-site, the Project Area may be within the home range of nesting golden eagles. Foraging several kilometers from nest sites, golden eagles may use the area as it likely supports populations of black-tailed jackrabbits (*Lepus californicus*), California ground squirrels (*Otospermophilus beecheyi*), and other ground squirrel species.

The potential for golden eagles to be directly or indirectly affected by the Project is Moderate to Moderately High (Table 5) based on loss of foraging habitat, additional road killed animals along major and minor collector routes into and out of the Project Area, construction of additional facilities that would allow for perching (i.e., power lines, solar panels, other similar structures), collision with overhead gen-tie lines, and potential addition of sources of drinking water during construction. This species will be included in the results of the Wildlife Survey Report, if it is observed.

Prairie Falcon (*Falco mexicanus*)

The prairie falcon is a USFWS BCC (USFWS 2008) and is on the watch list of CDFW SSC (CDFW 2019). The prairie falcon is also protected under the MBTA.

Prairie falcons are uncommon permanent resident birds that range from the southeastern deserts, northwest throughout the Central Valley and along the inner Coast Ranges and Sierra Nevada Mountains. This species is distributed from annual grasslands to alpine meadows and is primarily associated with perennial grasslands, savannahs, rangeland, some agricultural fields, and desert scrub.

Prairie falcon require sheltered cliff ledges for cover and nesting where they nest in a scrape or utilize an old raven or eagle stick nest on cliff, bluff, or rock outcrop. Males will perform aerial courtship displays near the nest site. Prairie falcons breed from mid-February through mid-September, with the peak in April to early August. Clutch size is 3 to 6 eggs with an average of 5. Young birds begin to disperse in June and July (polite and Pratt 2005).

Water sources near the nest sites may be important for various life requirements such as

drinking and foraging (Denton 1975). The average home range of a breeding pair of prairie falcons in California is from 59-288 km^2 (Harmata et al. 1978, Haak 1982).

Prairie falcons mostly consume small mammals, small birds, and reptiles where the terrain is open or sparsely vegetated. They catch their prey in the air as well as on the ground, from either a perch or while in flight 15-90 m (50-300 feet) above the ground.

Threats to this species include poisoning by consuming rodents affected by poisoned baits; egg and nestling predation by mammals, owls, and golden eagles; and recreational uses in and around nest sites by rock climbers, hunters, and others.

The CNDDB data for prairie falcon records is considered sensitive by CDFW and there are no details available for the nine observations in the CNDDB (2019b). Records of occurrence are only provided for by USGS quadrangle. These included the Soledad Mountain, Cache Peak, Galileo Hill, Tehachapi NE, and California City South USGS quadrangles. The California City South and the Soledad Mountain quadrangles would be the closest records to the Project (Figure 7). Soledad Mountain is located south of the Gen-tie Corridor and southwest of the Project. The Project is located east of the California City South quadrangle with the southeastern portion of the Project extending into the southwestern quarter of the quadrangle.

Detailed observations of prairie falcon have been recorded by scientists or "citizen-scientists" through The Cornell Lab of Ornithology eBird on-line program (Cornell University 2015i)[11]. These observations have been documented throughout the region around the Project Area. The closest observations to the Project Area have been in Mojave at the Water Treatment Plant located near the central portion of the Gen-tie Corridor and within 3 miles west of the Project between 2011 and 2018. One observation was recorded in 2014 within 1 mile southwest of the Mojave Water Treatment Plant, between SR14 and the Gen-tie Corridor. An observation was recorded in 2019 from the Mojave lookout point within 4 miles north and northwest of the Gen-tie Corridor. An observation from 1984 was recorded within 2 miles west of the SCE Windhub Substation and multiple observations were recorded in 2016 within 8 miles south of Mojave and the Gen-tie Corridor. North of Mojave along SR14 there have been 3 observations between 2012 and 2018 with scattered observations east of SR14 and north and northwest of the Project Area into the California City area. Multiple observations around the California City area date from 1983 to 2019 with the closest observation within 4 miles northeast of the Project Area. Two observations east of the Project and within 4 to 6 miles of the southeastern portion of the Project are from 1981 and 2018. Further to the southeast of the Project Area within 6 miles, at Edwards AFB, observations have been recorded between 1984 and 2018.

While there is no appropriate nesting habitat on-site, the Project Area is within the home range of an unknown number of foraging and/or nesting prairie falcons based on the multiple species accounts described above. Foraging several kilometers from nest sites, prairie falcons may use the Project facilities, including but not limited to the gen-tie structures, for perching and foraging as the area likely supports populations of black-tailed jackrabbits, California ground squirrels, and other small mammal, reptile, and avian species.

The potential for prairie falcons to be directly or indirectly affected by the Project is

Moderately High to High (Table 5) based on loss of foraging habitat, construction of additional facilities that would allow for perching (i.e., power lines, solar panels, other similar structures), collision with overhead gen-tie lines, and potential addition of sources of drinking water during construction. This species will be included in the results of the Wildlife Survey Report, if it is observed.

Merlin (*Falco columbarius*)

The merlin is a CDFW SSC (CDFW 2019c) and is protected under the federal MBTA. It is found in California as an uncommon winter migrant from September to May in various habitats that include heavily wooded areas and open deserts. It frequents coastlines, open grasslands, savannahs, woodlands, lakes, wetlands, edges, and early successional stage vegetation communities. It is considered a rare winter migrant in the Mojave Desert (Polite 1999). It breeds in Alaska and Canada. Numbers of merlin have declined markedly in California in recent decades.

Merlins require dense tree stands close to bodies of water for cover, however, they will hunt in a wide variety of habitats foraging for small birds, small mammals, and insects during the daytime. They search for prey while flying low and attack with a short dive or dash from above. They will capture their prey on the ground or in the air. They are not known to defend a feeding territory and feeding home ranges tend to overlap between individuals (Becker and Sieg 1987, Warkentin and Oliphant 1990, and Sodhi and Oliphant 1992).

There are three CNDDB (2019b) records for Merlin in the vicinity of the Project Area (Figure 7). The closest record to the Gen-tie Corridor is within 2 miles southwest of the SCE Windhub Substation from 2011 in Joshua tree woodland. The other two CNDDB observations are located southwest and south of the Gen-tie Corridor within 5 miles and 14 miles, respectively.

Observations of merlins have been recorded by scientists or “citizen-scientists” through The Cornell Lab of Ornithology eBird on-line program (Cornell University 2015j)[11]. These observations are scattered and have been documented throughout the region around the Project Area. The closest observations to the Project Area are in California City within 6 miles northwest of the Project, recorded between 1983 and 2019. There is only one observation further to the north of California City from 2011 and three observations at Edwards AFB from 1999 and 2003. Regional observations increase to the south throughout Antelope Valley, south of Rosamond and Willow Springs.

The potential for merlins to be directly or indirectly affected by the Project is Low to Moderate (Table 5). They may be observed flying through the Project Area as they migrate to appropriate nearby habitats. Affects to merlins may include loss of foraging habitat, construction of additional facilities that would allow for perching and/or foraging (i.e., power lines, solar panels, and similar structures), collision with overhead gen-tie lines, and potential addition of sources of drinking water during construction. This species will be included in the results of the Wildlife Survey Report, if it is observed.

American Peregrine Falcon (*Falco peregrinus anatum*)

The American peregrine falcon was listed as Endangered by the USFWS in 1970 and Critical Habitat was designated in 1977. Due to restrictions in pesticide uses (i.e., the organochlorine pesticide known as DDT and other chemicals used for agricultural insecticide purposes) in the United States, Canada, and Mexico; nest and egg monitoring efforts; and breeding status surveys conducted by USFWS, state wildlife agencies, tribes, non-governmental organizations, volunteers, and others, this species was delisted in 1999 (USFWS 2003). It was delisted by California Fish and Game Commission in 2009 (California Fish and Game Commission 2009, Dudek 2012). However, due to continued habitat loss and other threats to the American peregrine falcon, CDFW considers it as a FP species for nesting birds (CDFW 2019c). The USFWS considers this species a BCC (USFWS 2008) and it is also protected under the federal MBTA.

In California it is an uncommon breeder and uncommon winter migrant (Zeiner et al. 1990). However, since the 1970s, the breeding population has dramatically increased and active nest sites are known from 40 counties, spanning the length of California (Comrack and Logsdon 2008). Active nests have been documented along the coast north of Santa Barbara, in the Sierra Nevada, and in other mountains of Northern California. As a transient winter species, it may occur almost anywhere in there is suitable habitat (Garrett and Dunn 1981). It is generally absent from desert regions, but occurs along the Colorado River, in the Coachella Valley and south in the Salton Sink, and the Imperial Valley to the U.S. – Mexico border where non-breeding individuals may occur year-round (Patten et al. 2003; Comrack and Logsdon 2008).

Peregrine falcons consume birds as a primary food source and can be found in close association with large concentrations of shorebirds at playas that provide important seasonal wetland resources for a variety of migratory and wintering birds. In the desert regions, Searles Dry Lake east of Trona and Koehn Dry Lake northeast of California City have spring-fed wetlands that expand with winter rains, producing highly productive alkali meadows and mudflats used by shorebirds (National Audubon Society 2011). Non-breeding peregrine falcons, including subadults and immatures, may use these seasonal resources as foraging habitat (Dudek 2012).

Range maps for California do not show the Project Area and surrounding desert regions to be inhabited by peregrine falcon. The CNDDB (2019a) only has one unprocessed record of peregrine falcon for the USGS quadrangles searched for the Project Area, on the Tehachapi South Quadrangle. Observations of peregrine falcon that have been recorded by scientists or "citizen-scientists" through The Cornell Lab of Ornithology eBird on-line program (Cornell University 2015k)[11] occur far to the north, northeast, and south of the Project Area. One observation was made in 2016 near Cinco within 12 miles north of the Project Area, another observation to the northeast in 2012 near Galileo Hill within 15 miles northeast of the Project Area, and an observation in 2018 at Piute Ponds south of Rosamond within 15 miles south of the Project Area.

The potential for peregrine falcons to be directly or indirectly affected by the Project is None to Extremely Low (Table 5), due to lack of appropriate habitat for breeding or over-wintering and foraging, however, they may be observed flying through the area to appropriate water bodies during the fall and spring migratory seasons or while foraging.

Construction of additional facilities that would allow for perching and/or foraging (i.e., power lines, solar panels, and similar structures), collision with overhead gen-tie lines, and potential addition of sources of drinking water during construction may also affect this species. This species will be included in the results of the Wildlife Survey Report, if it is observed.

Mountain Plover (*Charadrius montanus*)

The mountain plover is a USFWS BCC (USFWS 2008) and is a CDFW SSC (CDFW 2019c). The mountain plover is protected under the MBTA.

Mountain plovers are migratory birds that winter in California between September and March. Their populations are declining due to habitat loss and fragmentation in the United States on their breeding grounds where short-grass prairie has been converted to farmland or has been developed. In some areas, their decline may be linked to the decline in prairie dog (*Cynomys* spp.) colonies (Hunting and Edson 2008).

Mountain plovers are found in semi-arid plains, grasslands, and plateaus where they favor areas of very short grass and bare soils for nesting. Their nests are associated with prairie dog colonies. Their winter habitats include desert flats and plowed fields where they range widely in winter flocks of up to 100 or more individuals. Their diet consists primarily of insects such as grasshoppers, beetles, flies, and crickets. Water availability is not a factor (Hunting and Edson 2008).

Wintering mountain plover have been recorded in the CNDDB (2019b) as occurring more than 10-miles south of the Project Area associated with agricultural lands and water treatment facilities in the Antelope Valley area and at Edwards AFB (Figure 7). These observations occurred between 1981 and 2008 with varied results in the total numbers of mountain plovers counted.

Observations of mountain plovers that have been recorded by scientists or "citizen-scientists" through The Cornell Lab of Ornithology eBird on-line program (Cornell University 2015l)[11] occur far to the north, northeast, and south of the Project Area. Two observations were made in 1986 and 2011 within 6 to 8 miles north of California City and within 10 to 12 miles northeast of the Project Area, two more observations were recorded further to the northeast near Koehn Dry Lake in 1986 and 2002. To the south and southeast of the Project Area, there are records at Edwards AFB and Piute Ponds with the majority of observations throughout the Antelope Valley area further to the south.

The potential for mountain plovers to be directly or indirectly affected by the Project is None to Extremely Low (Table 5), due to lack of appropriate habitat for breeding or over-wintering, however, they may be observed flying through the area to appropriate water bodies during the fall and spring migratory seasons. Because the probability of encountering a mountain plover on the Project is None to Extremely Low, this species will not be evaluated further in this BE.

Western Burrowing Owl (*Athene cunicularia* ssp. *hypugaea*)

The burrowing owl is a USFWS BCC (USFWS 2008) and is a CDFW SSC (CDFW 2019c). The burrowing owl is protected under the MBTA. Under its designation as a CDFW SSC, this species must be observed at a burrow site or evidence of recent occupation such as whitewash and feathers must be present in order to positively determine its presence.

The burrowing owl is declining in numbers throughout its range due to fragmentation and loss of habitat in resident, breeding, or wintering grounds within the United States. Other threats include predation by domestic or feral dogs and cats, poisoning, urbanization, utility developments, and wild predators such as fox, coyote, bobcat, skunk, eagles, falcons, and even reptiles such as snakes that might predate on the eggs or chicks. Burrowing owls located within or adjacent to suburban or urbanized areas suffer a high mortality from vehicle strikes.

Human alteration of the landscape can inadvertently or intentionally create suitable habitat, but it can also make potential habitat unsuitable by way of "habitat loss, associated prey reduction, and human disturbance" (Lincer and Bloom 2007) and various pesticides are known to adversely affect burrowing owls, directly or indirectly (James and Fox 1987; Haug and Oliphant 1987). Agriculture and surface irrigation systems (i.e., earthen canals and ditches) can create habitat by providing bankside burrow sites and prey in the adjacent fields (Gervais et al. 2008; Poulin et al. 2011).

Burrowing owls typically use a variety of arid and semi-arid environments with well-drained, level to gently sloping areas characterized by sparse vegetation and bare ground. They occur in a wide variety of habitats including annual and perennial grasslands, deserts, and scrublands with low-growing vegetation. Suitable habitat may include trees and shrubs if the canopy cover is less than 30%. Burrows are an essential habitat component for this species, and both natural and artificial burrows will be used for nesting. The western burrowing owl typically uses burrows made by desert tortoise, ground squirrels, or badgers, but also may use structures such as cement culverts, wood debris piles; openings beneath cement or asphalt pavement, soil embankments, agricultural fields and canal embankments, stored pipe, and stored shipping pallets.

Nesting generally occurs between February and August, with peak activity from March to July (Zeiner et al. 1990; Thomsen 1971; Gervais et al. 2008). Nesting sites always have available perching sites, such as fences or raised rodent mounds (Johnsgard 1988). They are primarily monogamous and typically breed once per year (Poulin et al. 2011). One clutch per year of 6-12 eggs is produced and within approximately 44 days young burrowing owls fledge.

Approximately 6% of the California population of western burrowing owls occurs within the Western Mojave Desert (Wilkerson and Siegel 2010). California supports both year-round and resident burrowing owls as well as overwintering migrants (Gervais et al. 2008). Many owls remain resident throughout the year in their breeding locales (especially in central and southern California) while some apparently migrate or disperse in the fall (Haug et al. 1993; Poulin et al. 2011; Coulombe 1971; Barclay 2007).

CNDDB records for burrowing owls are numerous throughout the entire desert region

around the proximity of the Project Area (CNDDB 2019b). There are 21 records that fall within the USGS quadrangles associated with or that occur next to the Project Area out of a total of 73 records (Figure 7). The closest records are associated with previous burrowing owl surveys conducted in support of the Hyundai-Kia Proving Grounds with a total of 7 records from 2004 and 2006, with 1 pair, 4 individual birds, and 4 active burrows, all within native desert habitat and within 1 mile north and east of the Project. The next closest records are in proximity to the Gen-tie Corridor, east of SR14, with 1 adult and 1 young; 1 deceased young; and 1 active burrow, within native desert habitat and adjacent to the Gen-tie Corridor. There are two records near the SCE Windhub Substation, one from 2005 with 1 adult and 2 to 3 juvenile owls (recorded prior to the development of the Windhub Substation), and one from 2009 with a deceased bird in it. Surrounding the Project and Gen-tie Corridors there are more records with the closest one located within 2 miles of the southeastern portion of the Project with 2 adult owls in 2006; 1 owl in a burrow in 2004 within 4 miles east and north of the Project and east of the Hyundai-Kia Proving Grounds; 1 owl in a burrow in 2007 within 4 miles south of the Gen-tie Corridor; active burrows and owls recorded in 2009 and 2012 within 10 miles south of the SCE Windhub Substation; 1 owl in a burrow in 2015 within 8 miles north of the Project Area; and 2 adults, possibly a breeding pair, within 5 miles northeast of the Project Area in California City.

Observations of burrowing owl have been recorded by scientists or "citizen-scientists" through The Cornell Lab of Ornithology eBird on-line program (Cornell University 2015m)[11]. These observations are scattered and have been documented throughout the region around the Project Area. The closest and most recent 2020 observation to the Project Area is within 2 miles northeast of the Hyundai-Kia Proving Grounds. Multiple observations within 6 miles of the Project Area are in and around California City, between 1987 and 2016. There are three observations to the east of California City dated from 1998, 2016 and 2017 and 3 observation north and northeast of California City from 2017 and 2018 within the same vicinity as the earlier CNDDB records from that area. Within Edwards AFB there are records from between 1984 to 2011. Regional observations greatly increase to the south throughout the Antelope Valley, south of Rosamond and Willow Springs.

CDFW protocol surveys for burrowing owls commenced in August of 2019 to determine this species presence or absence on site. Due to the documented presence of burrowing owl within the Project Area, the potential for burrowing owls to be directly or indirectly affected by the Project is Moderate to High (Table 5) based on loss of foraging habitat, loss of nesting (burrowing) habitat, construction of additional facilities that would allow for perching and/or foraging (i.e., power lines, solar panels, and similar structures), collision with overhead gen-tie lines, and potential addition of sources of drinking water during construction. This species will be included in the results of the Wildlife Survey Report, if it is observed.

Long-eared Owl (*Asio otus*)

The long-eared owl is a CDFW SSC (CDFW 2019c) and is protected under the federal MBTA. It is distributed throughout North America across central Canada and south into

the United States through northern Baja California and east to Virginia. It is a year-round resident in California and breeds from February through July (Marks et al. 1994, Haas 2004). It has been described as an uncommon resident distributed widely but locally over the Mojave and Colorado Deserts in California, to include the Antelope Valley area in Los Angeles County (Garrett and Dunn 1981).

Long-eared owls nest in conifer, oak, riparian, pinyon-juniper, and desert woodlands that are either open or are adjacent to grasslands, meadows, or shrublands (Marks et al. 1994). In the desert this can include riparian areas and desert washes in native and non-native trees (i.e., tamarisk) where open water sources are available or where there is an abundance of prey. Key habitat components include some dense cover for nesting and roosting, suitable nest platforms, and open foraging areas. In the Antelope Valley area, long-eared owls have been found to nest in planted trees in ranch yards and elsewhere in natural desert woodlands such as Joshua tree (Shuford and Gardali 2008). They will nest mainly in old corvid or hawk nests but also in old woodrat and squirrel nests, mistletoe brooms, and on natural platforms of trees or within debris piles (Voous 1988, Bloom 1994, Marks et al. 1994). They will occasionally nest on cliffs, in tree cavities, in orchards or ornamental trees, in man-made structures, or on the ground.

Long-eared owls forage primarily at night by flying low over open ground, including grasslands, meadows, active or fallow agriculture, sagebrush, and desert scrub (Marti et al. 1986, Bloom 1994, Marks et al. 1994). They feed almost entirely on small mammals such as mice and kangaroo rats but will also consume small birds and rabbits.

The continued degradation and loss of breeding and foraging habitats has led to this species decline in population throughout California. Other threats include nest predation by common ravens (*Corvus corax*) and other corvids and the exposure to agricultural pesticides and indirect exposure to rodenticides.

The CNDDB (2019b) does not have any processed records of long-eared owl for the USGS quadrangles searched for the Project. However, there are 2 unprocessed records in the vicinity (CNDDB 2019a).

The closest observations of long-eared owl that have been recorded by scientists or "citizen-scientists" through The Cornell Lab of Ornithology eBird on-line program (Cornell University 2015n)[11] occur in California City at Central Park with only 2 records in 1993 and 2006 and located within 7 miles northeast of the Project Area. Over 20 miles to the north and northeast of the Project Area there are additional sightings at the Silver Saddle Ranch and Club dating from 1988 to 2018 and at the Rancho de Nada at Koehn Dry Lake in 1992 and 1993. Southeast, at Edwards AFB, there are records from 1984, 1994, and 2017 through 2020 within 6 to 10 miles of the Project Area. Records from Piute Ponds also include multiple observations between 1979 and 2018 within 15 miles south of the Project Area.

The potential for long-eared owl to be directly or indirectly affected by the Project is Low (Table 5) based on lack of appropriate nesting and roosting habitat, loss of foraging habitat, construction of additional facilities that would allow for perching and/or foraging (i.e., power lines, solar panels, and similar structures), collision with overhead gen-tie lines, and potential addition of sources of drinking water during construction. This species will be included in the results of the Wildlife Survey Report, if it is observed.

Short-eared Owl (*Asio flammeus*)

The short-eared owl is a CDFW SSC (CDFW 2019c) and is protected under the federal MBTA. It breeds throughout much of North America and their populations fluctuate with their prey cycles. In California it is restricted to parts of the Central Valley, eastern side of the Sierra Nevada, and in the northeast corner of the state on a year-round basis. It migrates into California from the north as well as locally during the fall to overwinter in the deserts and along the coastline. Their breeding season is from March through July (Dixon 1934, Gill 1977).

Breeding in Southern California is exceptional and limited to years of unusually wet weather patterns as seen with El Niño winter rains. These wet years produce increased amounts of herbaceous cover that coincide with peak cycles of vole (*Microtus* spp.) productivity in their breeding locations (Roberson 2008). Their breeding ranges retract dramatically in drought conditions and during prey reductions as seen with the 3 to 4 year cycle of the year-round breeding of California voles (*Microtus californicus*) (Krebs 1966).

Breeding records from the desert regions in California are limited and where recorded they have been in close association with water-filled dry lakes and marshes adjacent to alfalfa fields. Nesting short-eared owls required open country that supports concentrations of microtine rodents and herbaceous cover thick enough to conceal their ground nests from predators (Holt and Leasure 1993). Suitable habitats may include salt- and fresh-water marshes, irrigated alfalfa or grain fields, and ungrazed grasslands and old pastures.

Short-eared owls are crepuscular hunters and their diet is comprised of small mammals in their year-round and wintering locations.

There is one record in the CNDDB (2019b) for 1 short-eared owl observed in 1989 at Rosamond Lake located within 12 miles south of the Project Area (Figure 7).

Observations of short-eared owl that have been recorded by scientists or "citizen-scientists" through The Cornell Lab of Ornithology eBird on-line program (Cornell University 2015o)[11] are widely scattered throughout the region around the Project Area. The most recent 2020 observation to the Project Area and Gen-Tie Corridor is within 3 miles south of Mojave. The next most recent and closest occurrence to the Project Area was in 2005 at the western end of the Hyundai-Kia Proving Grounds within ½ mile east of the Project. There is one record from 2011 in California City located within 7 miles northeast of the Project Area. Further north of the Project Area there is one record from 1986 within 10 miles of the Project Area and multiple records near Koehn Dry Lake between 1984 and 2011. Records from around Rosamond Lake and Piute Ponds also include multiple observations between 1991 and 2018 within 15 miles south of the Project Area.

The potential for short-eared owl to be directly or indirectly affected by the Project is Low (Table 5) based on loss of foraging habitat, construction of additional facilities that would allow for perching and/or foraging (i.e., power lines, solar panels, and similar structures), collision with overhead gen-tie lines, and potential addition of sources of drinking water during construction. This species will be included in the results of the

Wildlife Survey Report, if it is observed.

Loggerhead Shrike (*Lanius ludovicianus*)

The loggerhead shrike is a USFWS BCC (USFWS 2008), is a CDFW SSC (CDFW 2019c), and is protected under the MBTA.

It occurs widely from Canada, south into the United States and into western Mexico. In the United States is can be found everywhere except the northeast and the northwest. They are present year-round throughout most of California and they breed as early as January or February through July in Southern California (Unitt 2004). Breeding populations in the northern part of the state are migratory with the remainder populations being primarily resident (Yosef 1996). Wintering individuals augment resident populations and occupy non-forested areas locally where none breed (Grinnell and Miller 1944, Unitt 2004). Breeding and overwintering abundance has been documented for many years and is high in the southeastern deserts (Sauer et al. 1996, Sauer et al. 2005) to include the Antelope Valley area.

Loggerhead shrikes breed mainly in shrublands or open woodlands with a fair amount of grass cover and areas of bare ground. They require tall shrubs or trees, fence line and fence posts, and powerlines for hunting perches, territory defense, and pair maintenance. Open areas of short grass, forbs, or bare ground are used for hunting and tall shrubs and trees for nesting. Of importance are impaling sites for prey manipulation or storage, which can include sharp spiny, thorny, or multi-stemmed plants as well as barbed wire fences, nails, and other similar objects or features (Yosef 1996, Pruitt 2000). In the deserts they can be in desert scrub and sparse riparian woodland habitats (Rosenberg et al. 1991) and occasionally found throughout rural and agricultural hedgerows.

Prey is taken by loggerhead shrikes from perch locations or on the ground. They will impale their prey on a sharp object in order to consume it or store it for later consumption (Craig 1978, Morrison 1980, Yosef 1996). Their diet varies by season and includes grasshoppers, crickets, beetles, caterpillars, reptiles, amphibians, small rodents, and songbirds (Craig 1978, Yosef 1996).

Threats to the loggerhead shrike include habitat loss or degradation in breeding and wintering locations and along their migratory routes, and pesticide and rodenticide contamination through the consumption of insects and small mammals in and around agricultural fields.

There are multiple processed and unprocessed records in the CNDDB (2019a, 2019b) for loggerhead shrike dated from 2004 through 2015 in and around the Project Area (Figure 7). These records include wintering and/or breeding loggerhead shrikes in various locations, the most numerous being in the conservation easement of the Hyundai-Kia Proving Grounds. A few of these Hyundai-Kia Proving Grounds observations are directly within the Project. Additional observations around the Project Area include loggerhead shrikes within 4 miles southwest of the SCE Windhub Substation; within 14 to 16 miles southwest of the SCE Windhub Substation; and within 10 miles north of the Project Area. Some are observations of birds within desert habitats like Joshua tree woodland or in association with solar and wind projects or powerlines.

Observations of loggerhead shrike that have been recorded by scientists or "citizen-scientists" through The Cornell Lab of Ornithology eBird on-line program (Cornell University 2015p)[11] are extremely numerous throughout the region around the Project Area. The closest observations are from 2015 along the perimeter of the Hyundai-Kia Proving Grounds and from 2017 and 2020 within 1 mile northeast of the Hyundai-Kia Proving Grounds. Additional and multiple sightings are from California City between 1983 and 2018 with scattered records north to concentrated sightings around the Honda Proving Center of California within 15 miles of the Project Area. The closest observations to the east of the Project are within 2 and 6 miles. There are numerous records from Edwards AFB to the south of the Project Area and numerous records in and around Mojave and west, northwest, and south and southwest of Mojave dating between 1985 and 2019.

The potential for loggerhead shrike to be directly or indirectly affected by the Project is High (Table 5) based on loss of foraging habitat, construction of additional facilities that would allow for perching and/or foraging (i.e., power lines, solar panels, and similar structures), collision with overhead gen-tie lines, and potential addition of sources of drinking water during construction. This species will be included in the results of the Wildlife Survey Report, if it is observed.

Gray Vireo (*Vireo vicinior*)

The gray vireo is a USFWS BCC (USFWS 2008), is a CDFW SSC (Shuford and Gardali 2008), and is protected under the MBTA.

The population status of gray vireo is not well known throughout its range. This small songbird inhabits brushy mountain slopes, mesas, open chaparral, scrub oak, and juniper habitats. It breeds in dry thorn scrub, chaparral, pinyon-juniper and oak-juniper scrub, or sagebrush and mesquites of arid foothills and mesas, between 2,000-6,500 feet in elevation in the eastern and southern portions of California. The gray vireo is a short-distance migrant that winters in northwestern Mexico near the coast in dry thorn scrub of elephant trees and giant cacti. It migrates to Mexico at the end of August and returns to the southwestern U.S. between March and early May (Unitt 2008).

The gray vireo forages within 5 feet of the ground, moving actively through the brush on dry slopes seeking out insects and fruits. It nests in shrubs, usually oak or juniper, and lays 3 to 5 eggs and has two broods per year. Nests are parasitized by brown-headed cowbirds (*Molothrus ater*) but the female gray vireo may build a second nest on top of the cowbird eggs to keep them from hatching. Young birds fledge the nest 13 to 14 days after hatching (Unitt 2008).

There is one CNDDB record from 1977 of a gray vireo within 10 miles northeast of the Project Area (CNDDB 2019b). The location is in the Fremont Valley area north of California City (Figure 7). There are no records of gray vireo that have been recorded by scientists or "citizen-scientists" through The Cornell Lab of Ornithology eBird on-line program (Cornell University 2015q)[11] anywhere in close proximity to the Project Area. The closest observations are at Edwards AFB from May of 2016, within 15 to 20 miles southeast of the Project Area.

The potential for gray vireo to be present on the Project or directly or indirectly affected by the Project is None to Extremely Low (Table 5) as they may only be detected during migration between nesting areas to wintering locations in Mexico. Additionally, because there is a lack of observational records for this species, the gray vireo will not be evaluated further in this BE.

Black-tailed Gnatcatcher (*Polioptila melanura*)

The black-tailed gnatcatcher is on the CDFW SSC (Shuford and Gardali 2008) and is protected under the federal MBTA. It is a fairly common resident below 1,000 feet AMSL in elevation, within desert wash habitat from Palm Springs and Joshua Tree National Monument south, and common along the Colorado River and into Arizona. As of 1997 it was considered rare in the eastern Mojave Desert north to the Amargosa River, Inyo County (Kucera 1997). Black-tailed gnatcatchers nest primarily in wooded desert wash and riparian habitats as well as within desert scrub habitat in proximity to desert wash or desert riparian habitats. These may include mesquite (*Prosopis* spp. and *Senegalia greggii),* paloverde (*Parkinsonia* spp.), and desert ironwood (*Olneya tesota*).

The black-tailed gnatcatcher gleans insects and spiders from foliage of shrubs. Desert shrubs are also required for roosting, nesting, and thermal cover. Nesting black-tailed gnatcatchers lay 3 to 5 eggs in April and May and both sexes feed the young. Nests are parasitized by brown-headed cowbirds (Friedmann 1963).

There are no CNDDB records for black-tailed gnatcatcher in or around the Project Area (CNDDB 2019b). However, there is an unprocessed record on the Monolith Quadrangle (CNDDB 2019a). Observations of black-tailed gnatcatcher that have been recorded by scientists or "citizen-scientists" through The Cornell Lab of Ornithology eBird on-line program (Cornell University 2015r)[11] are scattered to the southwest and southeast of the Project Area. The closest observation was in 2009 within 2 miles southwest of the SCE Windhub Substation. The next closest observations were also in 2009 within 6 miles southwest of the SCE Windhub Substation and Gen-tie Corridor. Recent observations are recorded at Edwards AFB from 2017 through 2019 within 8 to 12 miles southeast of the Project Area in creosote bush scrub and mesquite bosque habitats. The few scattered records to the south of the Project Area may indicate that this species has a range extension from its known year-round locations farther to the southeast.

The potential for black-tailed gnatcatcher to be directly or indirectly affected by the Project would be None to Low (Table 5) based on loss of foraging habitat and the very few observational records near the Project Area. This species will be included in the results of the Wildlife Survey Report, if it is observed.

Yellow Warbler (*Setophaga petechia*)

The yellow warbler is a USFWS BCC, a CDFW SSC (CDFW 2019c), and is protected under the federal MBTA. It is one of the most abundant warblers in North America and is found into northern South America and the Caribbean (Heath 2008). In California it occurs principally as a migrant and summer resident from late March through early

October and breeds from April through July (Dunn and Garrett 1997). Historically, it was not known to occur in the Colorado Desert or the Mojave Desert except in the Panamint and Grapevine Mountains and along the Mojave River (Grinnell and Miller 1944). Despite local declines throughout California, yellow warblers still occupy much of their historic breeding range with the inclusion of the desert regions as demonstrated by recent observational records (The Cornell Lab of Ornithology 2019t).

Yellow warblers have a high degree of site fidelity with over 60% of males and up to 44% of females returning to their previous year's breeding grounds and many to the same territory (Studd and Robertson 1989, Knopf and Sedgwick 1992). They prefer to nest in more dense habitats with cottonwoods, willows, and other riparian vegetation and a tree or shrub layer is essential for reproduction, cover, and foraging (Laudenslayer 2007). This strategy may reduce the risk of nest parasitism from brown-headed cowbirds and other predators (Staab and Morrison 1999, Cain et al. 2003). In the desert areas they will utilize areas that contain both riparian and upland desert scrub during migration and breeding which will include the following habitat types: desert riparian, desert wash, Joshua trees and Joshua tree woodland, irrigated agricultural fields, and deciduous orchards (Laudenslayer 2007).

The presence of open water is a requirement for yellow warblers and they will drink regularly in desert habitats. Along with water, edges between habitat types are also essential for yellow warblers. This is typically seen as a tree/shrub edge with some sort of a riparian inclusion. The riparian inclusion can be replaced with agricultural fields. Their diet consists primarily of insects.

There are no CNDDB (2019b) records for yellow warbler in or around the Project Area. However, there are unprocessed records in the vicinity (CNDDB 2019a).

There are numerous observations over many years for yellow warbler as recorded by scientists or "citizen-scientists" through The Cornell Lab of Ornithology eBird on-line program (Cornell University 2015s)[11]. There are 4 records within the proximity of the Gen-tie Corridor around the community of Mojave that comprise multiple observations from 1985 to 2016 associated with parks, hedgerows, and other locations where water and structural cover may be present. There is one record with multiple observations between 1984 and 2017 located adjacent to the south side of the Gen-tie Corridor at the Camelot Golf Course. Within 2 miles northwest of the SCE Windhub Substation there is one observation from 2012. Observations within 6 to 8 miles further to the south and southwest of the Gen-tie Corridor are from 2009 and 2016. Numerous and concentrated observations have been recorded further south and southeast in Rosamond and Edwards AFB and throughout the Antelope Valley region. Northeast of the Project Area in California City and northward to the Honda Proving Center of California and Koehn Dry Lake there have been numerous and concentrated observations dating from 1983 to 2020. The closest observation from California City to the Project is from 2019 within 4 miles to the northeast.

Although there is no appropriate breeding habitat for yellow warblers within the Project Area, the Project is within close proximity to appropriate breeding habitat based on the multiple observational records available. The Project is within potential migratory paths for yellow warbler moving to appropriate breeding habitat or to or from their

overwintering locations. The potential for yellow warbler to be directly or indirectly affected by the Project is Moderate (Table 5) based on potential migratory movements to appropriate breeding habitats, loss of foraging habitat, and potential addition of sources of drinking water during construction. This species will be included in the results of the Wildlife Survey Report, if it is observed.

Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*)

The yellow-headed blackbird is a CDFW SSC (CDFW 2019c) and is protected under the federal MBTA. It breeds widely and abundantly across western Canada and the United States but is distributed patchily in the southwestern portion of its breeding range. It migrates across western and central North America to wintering grounds in western and northern Mexico (Jaramillo and Burke 1999). The highest breeding densities are found in regions with large and productive marshes. In California it occurs primarily as a migrant and summer resident from April to early October and breeds from mid-April to late July (Twedt and Crawford 1995). Historically they were found breeding only along the lower Colorado River in the desert regions of California (Grinnell and Miller 1944).

Although yellow-headed blackbirds have declined overall in population there has been an increase in the western Mojave Desert since the early 1950's with the introduction of agricultural operations and other developments that created wet conditions and appropriate habitat for this species (Patten et al. 2003) such as parks, water treatment plants, and golf courses.

Yellow-headed blackbirds breed almost exclusively in marshes with tall emergent vegetation such as cattails and bulrush, generally in open areas and edges over relatively deep water. Males will choose territories with ample open water and within these females will choose edges with moderately dense vegetation that can support nests and provide safety from predators (Orians and Wittenberger 1991). One male may have up to six nesting females in his territory. Individuals show low site fidelity (Beletsky and Orians 1991) and considerable shifting of colonies to different locations may occur on a year to year basis.

Factors regulating populations in California are not well understood but water availability and quantity and quality of habitat, related to water levels, may have a direct effect on population sizes (Lederer et al. 1975). Other threats include habitat loss and degradation, pesticides and other chemicals used in agricultural and park settings.

There is only one CNDDB (2019b) record for yellow-headed blackbirds in the Project Area (Figure 7). This record is from 1983 through 1985 when yellow-headed blackbirds moved into the California City's Central Park during a cattail removal project that displaced tricolored blackbirds (see Section 5.2.6).

There are numerous observations over many years for yellow-headed blackbird as recorded by scientists or "citizen-scientists" through The Cornell Lab of Ornithology eBird on-line program (Cornell University 2015t)[11]. The closest observations to the Gen-tie Corridor are in the community of Mojave with the most recent 2020 record at Mojave East Park. Additional records from Mojave are from 2016 of up to 15 birds, records from 2006 through 2016 at the Mojave Water Treatment Plant with up to 4 birds in 2016, and 2

older records from 1984 and 1986 at the Camelot Golf Course.

Observations within 6 to 8 miles further to the south and southwest of the Gen-tie Corridor are from 2009 and 2016. Numerous and concentrated observations have been recorded further south and southeast in Rosamond and Edwards AFB and throughout the Antelope Valley region in appropriate habitats. Northeast of the Project Area in California City and northward to the Honda Proving Center of California and Koehn Dry Lake there have been numerous and concentrated observations dating from 1983 to 2019. In California City up to 27 birds were observed in 2019 and between 1983 and 20 north of California City up to 100 birds were observed in May of 2015. The closest and most recent observation from California City to the Project Area is from May of 2018 within 6 miles to the northeast.

Although there is no appropriate breeding habitat for yellow-headed blackbirds within the Project Area, the Project is within close proximity to appropriate breeding habitat based on the multiple observational records available. The Project is within potential migratory paths for yellow-headed blackbirds moving to appropriate breeding habitat or to or from their overwintering locations. The potential for yellow-headed blackbirds to be directly or indirectly affected by the Project is Extremely Low (Table 5) based on potential migratory movements to appropriate breeding habitats, loss of foraging habitat, and potential addition of sources of drinking water during construction. This species will be included in the results of the Wildlife Survey Report, if it is observed.

Crotch Bumble Bee (*Bombus crotchii*)

The Crotch bumble bee is an important pollinator of wild flowering plants and agricultural crops. Bumble bees are able to fly in cooler temperatures and lower light levels than many other bees, making them excellent pollinators, especially at higher elevations and latitudes. They also perform a behavior called “buzz pollination,” in which the bee grabs the flower in her jaws and vibrates her wing muscles to dislodge pollen from the flower. Many plants, including a number of wildflowers and crops like tomatoes, peppers, and cranberries, benefit from buzz pollination. Because bumble bees are essential pollinators, their population declines can have far ranging ecological consequences. Recent collaboration between the Xerces Society and the International Union for Conservation of Nature (IUCN) Bumble Bee Specialist Group, indicates that some species have experienced rapid and dramatic declines, with more than one quarter (28%) of all North American bumble bees facing some degree of extinction risk ((IUCN 2019; Hatfield et al. 2015a). The Crotch bumble bee is listed as Endangered on the IUCN Red List.

The Xerces Society, Defenders of Wildlife, and the Center for Food Safety submitted *A Petition to the State of California Fish and Game Commission to List the Crotch bumble bee (Bombus crotchii), Franklin’s bumble bee (Bombus franklini), Suckley cuckoo bumble bee (Bombus suckleyi), and western bumble bee (Bombus occidentalis occidentalis) as Endangered under the California Endangered Species Act* in October of 2018 (Xerces Society et al. 2018). The Commission designated all 4 of the petitioned bumble bees as candidate species for listing under CESA on June 12, 2019 in their Notice of Findings (Fish and Game Commission 2019). CDFW will prepare and publish a status

review report before the end of 2020 (CDFW 2020).

Bumble bees face many threats including habitat loss, disease, pesticide use, and climate change to include severe weather, drought, temperature extremes, flooding and habitat shifts. Unlike honeybees which have large (>10,000 individuals) perennial hives, bumble bees produce smaller annual colonies (50-1,500 individuals). Due to their smaller annual population sizes, life cycle, and genetic makeup, they are uniquely susceptible to extinction.

Although their combined historic ranges span most of the state of California, they currently exist in only a few areas.

California has recognized the importance of conserving important pollinators such as Crotch bumble bee by preparing and issuing the Biodiversity Initiative in November 2018, which calls for fallowed agricultural lands to be transformed into habitat for bees, thus creating "pollinator highways" across the state (California Governor's Office of Planning and Research 2018).

Currently, the Crotch bumble bee only persists in 20% of its historic range and has declined by 98% in relative abundance (its abundance relative to other species of bumble bees) (Xerces Society 2019a and Bumble Bee Watch 2019). Analysis suggests sharp declines in both relative abundance and persistence over the last ten years. This species was historically common in the Central Valley of California, but now appears to be absent from most of it, especially in the center of its historic range. Current range size relative to historic range is 74.67% (Xerces Society 2019a). This species occurs primarily in California, including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California. It has also been documented in southwest Nevada, near the California border.

Potential for occurrence within or in close proximity to the Project Area is Very Low (Table 5) based on two CNDDB (2019b) records from 1904 and 1956 within the Tehachapi Mountain foothills generally west of the SCE Windhub Substation and Gen-tie Corridor (Figure 7). This species will be included in the results of the Wildlife Survey Report, if it is observed.

Western Bumble Bee (*Bombus occidentalis*)

Like the Crotch bumble bee discussed above, the western bumble bee is an important pollinator of agricultural crops and wild plants. It too is imperiled by habitat loss, disease, pesticide use, and climate change to include severe weather, drought, temperature extremes, flooding and habitat shifts.

Historically, the western bumble bee was broadly distributed throughout western North America. The western bumble bee was one of the most common bumble bees within its range prior to the late-1990s, but in California is now found only in a few sites in the Sierra Nevada and the northern coast. Outside of California it is known to occur in the western interior of North America, from Arizona, New Mexico, north through the Pacific Northwest and into Alaska. Eastward, the distribution stretches to the northwestern Great Plains and southern Saskatchewan. Its relative abundance has declined by 84%. The

western bumble bee is listed as Vulnerable on the IUCN Red List (IUCN 2019; Hatfield et al. 2015b).

The Xerces Society, Defenders of Wildlife, and the Center for Food Safety submitted *A Petition to the State of California Fish and Game Commission to List the Crotch bumble bee (Bombus crotchii), Franklin's bumble bee (Bombus franklini), Suckley cuckoo bumble bee (Bombus suckleyi), and western bumble bee (Bombus occidentalis occidentalis) as Endangered under the California Endangered Species Act* in October of 2018 (Xerces Society et al. 2018). The Commission designated all 4 of the petitioned bumble bees as candidate species for listing under CESA on June 12, 2019 in their Notice of Findings (Fish and Game Commission 2019). CDFW will prepare and publish a status review report before the end of 2020 (CDFW 2020).

Although their combined historic ranges span most of the state of California, they currently exist in only a few areas.

California has recognized the importance of conserving important pollinators such as Crotch bumble bee by preparing and issuing the Biodiversity Initiative in November 2018, which calls for fallowed agricultural lands to be transformed into habitat for bees, thus creating "pollinator highways" across the state (California Governor's Office of Planning and Research 2018).

There are no records in the CNDDB (2019a, 2019b) for western bumblebee in or around the vicinity of the Project Area, however, there have been observations of the western bumble bee east of the Project Area near Kramer Junction. The potential for occurrence within or in close proximity to the Project Area is Very Low (Table 5). This species will be included in the results of the Wildlife Survey Report, if it is observed.

Mojave Dotted-blue Butterfly (*Euphilotes mojave*)

The Mojave dotted-blue butterfly does not currently have any federal or state designations. It is designated by the Xerces Society as Imperiled (Xerces Society 2019b, Vaughan and Shepherd 2005). The Mojave dotted-blue butterfly is found in the Mojave Desert region of southeastern California, southern Nevada, southeastern Utah, and northwestern Arizona. There is also a small isolated population in northern Baja California, Mexico. It is considered imperiled due to its limited range and an uncertain number of populations, probably less than twenty across its known range.

This butterfly lives in a fragile habitat characterized by dry desert washes and sandy areas with two host plants that include yellow turbans (*Eriogonum pusillum*) and kidney-leaf wild buckwheat (*E. reniforme*). Adults drink nectar mainly from the host plants.

There is a single flight from mid-March to June when males patrol around these host plants looking for females to mate with. Eggs are laid singly on flowers or buds and the caterpillars eat flowers and fruits. The larvae may be tended by ants. This butterfly hibernates as a chrysalid in leaf litter.

The desert habitat for the Mojave dotted-blue butterfly is increasingly invaded by fire-susceptible cheatgrass (*Bromus tectorum*) as well as other non-native invasive species of grasses and forbs. The Mojave dotted-blue butterfly is threatened by housing

developments and other types of developments that remove native habitat. Off-road vehicle use may also impact the habitat of the Mojave dotted-blue butterfly as desert washes and sandy areas serve as typical routes for this user group.

There are no processed records in the CNDDB (2019b) for the Mojave dotted-blue butterfly in or around the vicinity of the Project Area. However, there is an unprocessed record in the western portion of the Project Area on the Monolith Quadrangle (CNDDB 2019a). Potential for occurrence within or in close proximity to the Project Area is Moderate to High (Table 5) as the host plants, yellow turbans and kidney-leaf wild buckwheat, are known to occur in sandy washes scattered throughout the Project Area. EREMICO Biological Services, LLC recorded yellow turbans within the Project Area during the 2020 vegetation community assessment (Appendix C). This species will be included in the results of the Wildlife Survey Report, if it is observed.

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APPENDIX A. CONDITIONAL USE PERMIT (CUP) ASSESSOR'S PARCEL NUMBER (APN), OWNER, ACREAGE, AND CURRENT ZONING, BELLEFIELD SOLAR FARM PROJECT, CALIFORNIA CITY AND KERN COUNTY, CALIFORNIA

CALIFORNIA CITY

APN[1]	Owner	Zoning[2]	Acreage
235-061-02	HIGHWAY 58 PROP LLC	O/RA	658.81
235-101-51	SMY LAND LLC TR	O/RA	262.88
235-101-47	HIGHWAY 58 PROP LLC	O/RA	154.85
235-101-49	SMY LAND LLC TR	O/RA	464.68
235-101-48	SMY LAND LLC TR	O/RA	151.16
235-101-46	HIGHWAY 58 PROP LLC	O/RA	103.66
235-101-45	SMY LAND LLC TR	O/RA	304.05
235-282-22	WEST MOJAVE PROPERTIES LLC SOUTH AV PROPERTIES LLC	O/RA	2.55
TOTAL California City			**2102.64**

KERN COUNTY

APN[1]	Owner	Zoning[2]	Acreage
428-010-11	CHENG SUE HOE	M-3 PD	263.83
428-052-15	1987 DE MONTE A	M-2 PD	4.32
428-052-17	1987 DE MONTE A	M-2 PD	7.20
428-053-16	1987 DE MONTE A	M-2 PD	10.19
428-053-18	1987 DE MONTE A	M-2 PD	9.35
235-022-01	WEST MOJAVE PROP LLC[3]	A-1	229.50
235-024-14	WEST MOJAVE PROP LLC	A	82.19
235-024-15	WEST MOJAVE PROP LLC	A-1	79.94
235-024-41	WEST MOJAVE PROP LLC[3]	A-1	598.20
235-064-01	WEST MOJAVE PROP LLC[3]	A-1	181.92
235-065-04	SAHOTA BHUPINDER K	A-1	15.50
235-065-05	SAHOTA BHUPINDER K	A-1	0.98
235-065-07	SAHOTA BHUPINDER K	A-1	1.49
235-065-18	HIGHWAY 58 PROP LLC	A-1	442.64
235-081-01	PEREZ MANUEL & GLORIA P	A-1	10.17
235-081-02	HUYNH CHIN & NGUYEN BINH	A-1	10.18
235-081-03	WEST MOJAVE PROP LLC	A-1	10.19
235-081-04	WEST MOJAVE PROP LLC	A-1	10.20
235-081-05	WEST MOJAVE PROP LLC	A-1	10.21

235-081-07	WEST MOJAVE PROP LLC	A-1	10.20
235-081-09	WEST MOJAVE PROP LLC	A-1	61.19
235-081-10	WEST MOJAVE PROP LLC	A-1	20.43
235-081-11	WEST MOJAVE PROP LLC	A-1	10.19
235-081-12	WEST MOJAVE PROP LLC	A-1	10.18
235-082-01	WEST MOJAVE PROP LLC	A-1	5.10
235-082-06	MARGOLIN MALCOM L	A-1	25.53
235-082-07	HARKITAT GURMAIL	A-1	5.11
235-082-12	HUI JOHN	A-1	1.28
235-082-15	MARGOLIN MALCOM L	A-1	20.48
235-082-16	AFFONSO ROSE LIVING TRUST	A-1 MH	41.00
235-082-17	WEST MOJAVE PROP LLC	A-1	5.12
235-082-18	WEST MOJAVE PROP LLC	A-1	5.11
235-082-19	WEST MOJAVE PROP LLC	A-1	10.22
235-082-24	WEST MOJAVE PROP LLC	A-1	2.56
235-082-25	WEST MOJAVE PROP LLC	A-1	2.56
235-340-07	TEXAS LAND & CATTLE CORP	A-1	10.30
235-340-09	WEST MOJAVE PROP LLC	A-1	82.69
235-340-10	WEST MOJAVE PROP LLC	A-1	10.38
235-340-11	WEST MOJAVE PROP LLC	A-1	10.39
235-340-28	WEST MOJAVE PROP LLC	A-1	41.16
235-351-01	WEST MOJAVE PROP LLC	A-1	81.53
235-351-02	WEST MOJAVE PROP LLC	A-1	20.47
235-351-03	WEST MOJAVE PROP LLC	A-1	20.45
235-351-04	WEST MOJAVE PROP LLC	A-1	40.86
235-353-11	THOMAS PAUL R	A-1 MH	5.15
235-353-21	THOMAS PAUL R	A-1 MH	2.58
235-353-22	THOMAS PAUL R	A-1 MH	2.58
235-024-01	TREND CAPITAL GROUP INC	A-1 MH	123.47
235-024-17	PARNELL	A-1	63.66
235-024-40	WEST MOJAVE PROP LLC SOUTH AV PROPERTIES LLC	A-1	10.58
235-024-42	1987 DE MONTE A	A-1 MH	41.00
235-024-43	1987 DE MONTE A	A-1 MH	41.47
428-010-02	LEE MEI RUEY YANG	M-3 PD	171.16
428-010-03	BABBITT ROBERT J	M-3 PD	170.98
428-010-10	HENG LIPMENG	M-3 PD	42.62
428-041-02	1987 DE MONTE A	M-2 PD	20.51
428-041-03	1987 DE MONTE A	M-2 PD	20.56
428-041-04	1987 DE MONTE A	M-2 PD	20.61

428-041-05	1987 DE MONTE A	M-2 PD	5.22
428-041-38	1987 DE MONTE A	M-2 PD	15.69
428-042-02	1987 DE MONTE A	M-2 PD	20.44
428-042-03	1987 DE MONTE A	A	20.49
428-042-04	1987 DE MONTE A	A	20.54
428-042-35	1987 DE MONTE A	M-2 PD	7.36
235-065-17	HIGHWAY 58 PROP LLC	A-1	33.49
235-134-01	KHAN ZAMEER MOHAMMED & AZRA PERVEEN	A-1	490.81
235-191-01	TRUSKIER	A-1	10.33
235-410-02	NELSON TAWNEY LYNNE	A-1	10.16
235-410-04	BELL LAWRENCE W BELL VERA G	A-1	8.04
235-410-06	TOPETA MICHAEL	A-1	10.08
235-132-16	SAHOTA SOHAN S & BHUPINDER KAUR	A-1	601.60
235-101-29	LUONG KHANH DAN LE XUAN UYEN	A-1	23.56
235-102-01	SMY LAND LLC TR	A-1	11.58
235-102-02	SMY LAND LLC TR	A-1	305.10
235-221-01	SMY LAND LLC TR	A-1	489.82
235-340-19	WEST MOJAVE PROP LLC SOUTH AV PROPERTIES LLC	A-1 MH	10.37
235-340-36	WEST MOJAVE PROP LLC SOUTH AV PROPERTIES LLC	A-1 MH	2.60
235-340-29	DRAHOS CHET J DRAHOSE RITA MAY	A-1 MH	2.59
235-064-25	HOLLOSCHUTZ LEON	A-1	41.41
235-064-26	HOLLOSCHUTZ LEON	A-1	41.40
235-064-27	HOLLOSCHUTZ LEON	A-1	41.41
235-064-28	HOLLOSCHUTZ LEON	A-1	41.38
235-064-29	HOLLOSCHUTZ LEON	A-1	77.88
235-064-12	PROPERTY HONDA R TRUST	A-1	41.39
TOTAL Kern County			**5654.36**

Total Bellefield	**7757.00**

Footnotes

1 - APN - Accessor's parcel number

2 - Land use zoning codes

Kern County

A - Exclusive agriculture zoning district

A-1 - Limited agriculture zoning district - Combination of estate-type residential development, agricultural uses, and other compatible uses

A-1 MH - Limited agriculture. Mobile home combining
M-2 PD - Medium industrial. Precision development combining
M-3 PD - Heavy industrial. Precision development combining.

California City
O/RA - Open space and residential/agricultural district

3 - A portion of these parcels were excluded from the Project. The acreage reflects only that portion of the parcel which lies within the Project.

APPENDIX B. LIST OF FEDERAL, STATE, XERCES SOCIETY, AND CALIFORNIA NATIVE PLANT SOCIETY RANKING CODES FOR THE BELLEFIELD SOLAR FARM PROJECT AREA, CALIFORNIA CITY AND KERN COUNTY, CALIFORNIA

USFWS / ESA Listing Codes:
FE Federally listed as Endangered
FT Federally listed as Threatened
FPE Federally proposed for listing as Endangered
FPT Federally proposed for listing as Threatened
FPD Federally proposed for delisting
FC Federal candidate species (former Category 1)
BCC Birds of Conservation Concern
BGEPA Bald and Golden Eagle Protection Act

CDFW / CESA Listing Codes:
SE State listed as Endangered
ST State listed as Threatened
SCE State candidate for listing as Endangered
SCT State candidate for listing as Threatened
SCD State candidate for delisting
R Rare
FP Fully Protected
SGCN Species of Greatest Conservation Need
SSC Species of Special Concern
WL Watch List

Birds of Conservation Concern are species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act of 1973 (ESA, FWS 2008).

California Fully Protected Species are identified as those animals that are rare or face extinction and require additional protection. Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of bird species for the protection of livestock (CDFW 2019f).

Watch List of Species of Special Concern include species that are not on the current special concern list that 1) formerly were on the 1978 (Remsen 1978) or 1992 (CDFG 1992) special concern lists and are not currently listed as state threatened and endangered; 2) have been removed (delisted) from either the state or federal threatened and endangered lists (and remain on neither); or 3) are currently designated as Fully Protected in California (Shuford and Gardali 2008).

CALFIRE Sensitive Species are those species that warrant special protection during timber operations.

Global Rank (G-Rank):
G1 = **Critically Imperiled**—At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
G2 = **Imperiled**—At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.
G3 = **Vulnerable**—At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.
G4 = **Apparently Secure**—Uncommon but not rare; some cause for long-term concern due to declines or other factors.
G5 = **Secure**—Common; widespread and abundant.

Subspecies/variety level:
Subspecies/varieties receive a **T-rank** attached to the G-rank. With the subspecies/varieties, the G-rank reflects the condition of the entire species, whereas the T-rank reflects the global situation of just the subspecies or variety.

State CNDDB Rank (S-Rank):
S1 = **Critically Imperiled**—Critically imperiled in the state because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.
S2 = **Imperiled**—Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state.
S3 = **Vulnerable**—Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state.
S4 = **Apparently Secure**—Uncommon but not rare in the state; some cause for long-term concern due to declines or other factors.
S5 = **Secure**—Common, widespread, and abundant in the state.

Uncertainty about the rank of an element is expressed in two major ways: 1) by expressing the rank as a range of values: e.g., S2S3 means the rank is somewhere between S2 and S3; and 2) by adding a "?" to the rank: e.g., S2? This represents more certainty than S2S3, but less than S2

Xerces Society Red List of Bees, Butterflies, and Moths:
PE — Possibly Extinct: Missing; known from only historical occurrences, but still some hope of rediscovery.
CI — Critically Imperiled: At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
I — Imperiled: At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.
V — Vulnerable: At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.
DD — Data Deficient: Inadequate information to make an assessment of its risk category, either through lack of knowledge of population size, threats to it, or to taxonomic uncertainty of the validity of the taxon.

CNPS Rare Plant Rank:
1A Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B Plants Rare, Threatened, or Endangered in California and Elsewhere
2A Plants Presumed Extirpated in California But Common Elsewhere
2B Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
3 Plants About Which More Information is Needed
4 Plants of Limited Distribution

Threat Ranking:
0.1 Seriously Threatened in California
0.2 Moderately Threatened in California
0.3 Not Very Threatened in California

Plants with an "E" are endemic to CA

APPENDIX C. ANNUAL AND PERENNIAL PLANT SPECIES OBSERVED ON THE BELLEFIELD SOLAR FARM PROJECT AREA, CALIFORNIA CITY AND KERN COUNTY, CALIFORNIA, AUGUST - SEPTEMBER 2019 AND APRIL – MAY 2020

FAMILY / SCIENTIFIC NAME	COMMON NAME	HABIT
GYMNOSPERMS		
CUPRESSACEAE	**CONIFER FAMILY**	
Juniperus californica	California juniper	shrub/tree
EPHEDRACEAE	**EPHEDRA FAMILY**	
Ephedra nevadensis	Nevada ephedra	shrub
EUDICOT FLOWERING PLANTS		
APIACEAE	**CARROT FAMILY**	
Acamptopappus sphaerocephalus var. *hirtellus*	goldenhead	shrub
ASTERACEAE	**SUNFLOWER FAMILY**	
Acamptopappus sphaerocephalus var. *hirtellus*	goldenhead	shrub
Ambrosia acanthicarpa	annual bur-sage	annual herb
Ambrosia dumosa	burro bush	shrub
Ambrosia salsola	cheesebush	shrub
Artemisia spinescens	budsage	shrub
Chaenactis fremontii	Fremont pincushion	annual herb
Encelia actoni	Acton encelia	shrub
Encelia farinosa	brittlebush	shrub
Ericameria cooperi var. *cooperi*	Cooper's goldenbush	shrub
Ericameria linearifolia	narrowleaf goldenbush	shrub
Ericameria nauseosa	rubber rabbitbrush	shrub
Erigeron sp.	fleabane daisy	perennial herb
Eriophyllum wallacei	Wallace's woolly daisy	annual herb
Gutierrezia microcephala	sticky snakeweed	shrub
Lasthenia gracilis	common goldfields	annual herb
Layia glandulosa	white layia	annual herb
Lepidospartum squamatum	scale-broom	shrub
Leptosyne bigelovii	Bigelow's tickseed	annual herb
Leptosyne calliopsidea	leafy-stemmed tickseed	annual herb
Lessingia glandulifera	vinegar-weed	annual herb
Malacothrix coulteri	snake's-head	annual herb
Malacothrix glabrata	desert dandelion	annual herb
Matricaria discoidea[3]	pineapple weed	annual herb
Psathyrotes annua	turtleback	annual herb
Stephanomeria pauciflora	wire-lettuce	perennial herb/subshrub
Stylocline psilocarphoides	Peck neststraw	annual herb
Tetradymia axillaris var. *longispina*	cottonthorn	shrub
Tetradymia glabrata	desert horsebrush	shrub
Tetradymia stenolepis	Mojave horsebrush	shrub

FAMILY / SCIENTIFIC NAME	COMMON NAME	HABIT
Xylorhiza tortifolia var. tortifolia	Mojave-aster	perennial herb/subshrub
BORAGINACEAE	**BORAGE FAMILY**	
Amsinckia tessellata var. *tessellata*	desert fiddleneck	annual herb
Cryptantha circumscissa var. *circumscissa*	capped cryptantha	annual herb
Cryptantha micrantha var. *micrantha*	red-root cryptantha	annual herb
Cryptantha nevadensis var. nevadensis	Nevada cryptantha	annual herb
Cryptantha pterocarya var. *pterocarya*	winged-nut cryptantha	annual herb
Nama demissum var. *demissum*	purple mat	annual herb
Pectocarya heterocarpa	mixed-nut pectocarya	annual herb
Pectocarya linearis ssp. *ferocula*	narrow-toothed pectocarya	annual herb
Pectocarya penicillata	northern pectocarya	annual herb
Phacelia fremontii	yellow-throats	annual herb
Phacelia tanacetifolia	tansy phacelia	annual herb
Phacelia vallis-mortae	Death Valley phacelia	annual herb
Plagiobothrys arizonicus	Arizona popcornflower	annual herb
Plagiobothrys leptocladus	alkali plagiobothrys	annual herb
BRASSICACEAE	**MUSTARD FAMILY**	
Caulanthus lasiophyllus	California mustard	annual herb
Hirschfeldia incana[3]	Mediterranean mustard	annual/perennial herb
Lepidium fremontii	bush peppergrass	shrub
Lepidium dictyotum	alkali pepperweed	annual herb
Lepidium lasiocarpum ssp. *lasiocarpum*	peppergrass	annual herb
Sisymbrium altissimum[3]	tumble mustard	annual herb
Sisymbrium orientale[3]	oriental hedge mustard	annual herb
Stanleya pinnata var. *pinnata*	prince's plume	perennial herb/subshrub
Tropidocarpum gracile	slender keel-fruit	annual herb
CARYOPHYLLACEAE	**PINK FAMILY**	
Achyronychia cooperi	frost-mat	annual herb
Loeflingia squarrosa[5]	spreading pygmyleaf	annual herb
CACTACEAE	**CACTUS FAMILY**	
Cylindropuntia echinocarpa[2]	silver cholla	perennial stem succulent
CHENOPODIACEAE	**GOOSEFOOT FAMILY**	
Atriplex canescens var. *canescens*	four-wing saltbush	shrub
Atriplex confertifolia	shadscale	shrub
Atriplex polycarpa	allscale	shrub
Atriplex spinifera	spinescale	shrub
Grayia spinosa	spiny hope-sage	shrub
Krascheninnikovia lanata	winter fat	shrub
Salsola tragus[3]	Russian-thistle	annual herb

FAMILY / SCIENTIFIC NAME	COMMON NAME	HABIT
CUCURBITACEAE	**GOURD FAMILY**	
Marah fabaceus	California man-root	perennial herb
EUPHORBIACEAE	**SPURGE FAMILY**	
Croton setigerus	turkey-mullein	annual herb
Euphorbia albomarginata	Rattlesnake weed	perennial herb
Euphorbia micromera	Sonoran sandmat	annual herb
Euphorbia polycarpa	golondrina	perennial herb
Stillingia paucidentata	stillingia	perennial herb
FABACEAE	**LEGUME FAMILY**	
Acmispon brachycarpus	short-podded acmispon	annual herb
Astragalus acutirostris	keel beak	annual herb
Astragalus didymocarpus	two-seeded milkvetch	annual herb
Astragalus layneae	Layne milkvetch	annual herb
Astragalus lentiginosus var. *variabilis*	freckled milkvetch	perennial herb
Lupinus odoratus	Mojave lupine	annual herb
Parkinsonia sp. [4]	palo verde	tree/shrub
GERANIACEAE	**GERANIUM FAMILY**	
Erodium cicutarium[3]	red-stemmed filaree	annual herb
LAMIACEAE	**MINT FAMILY**	
Salvia carduacea	thistle sage	annual herb
LOASACEAE	**LOASA FAMILY**	
Mentzelia albicaulis	white-stemmed stick-leaf	annual herb
Mentzelia sp.	Blazing star	annual herb
MALVACEAE	**MALLOW FAMILY**	
Eremalche exilis	white mallow	annual herb
Sphaeralcea ambigua var. *ambigua*	apricot mallow	subshrub
MONTIACEAE	**MINER'S LETTUCE FAMILY**	
Calyptridium monandrum	wishbone bush	subshrub
NYCTAGINACEAE	**FOUR O'CLOCK FAMILY**	
Abronia pogonantha	Mojave sand-verbena	annual herb
Mirabilis laevis	wishbone bush	subshrub
ONAGRACEAE	**EVENING PRIMROSE FAMILY**	
Camissonia campestris ssp. *campestris*	Mojave sun cup	annual herb
Eremothera boothii ssp. *desertorum*	dwarf evening-primrose	annual herb
Tetrapteron palmeri	Palmer primrose	annual herb
OROBANCHACEAE	**BROOMRAPE FAMILY**	
Castilleja exserta ssp. *exserta*	purple owl's-clover	annual herb

FAMILY / SCIENTIFIC NAME	COMMON NAME	HABIT
POLEMONIACEAE	**PHLOX FAMILY**	
Gilia latiflora ssp. *davyi*	broad-flowered gilia	annual herb
Gilia minor	little gilia	annual herb
Gilia sp.	gilia	annual herb
Linanthus parryae	sand blossoms	annual herb
Loeseliastrum matthewsii	desert calico	annual herb
POLYGONACEAE	**BUCKWHEAT FAMILY**	
Chorizanthe spinosa[1]	Mojave spineflower	annual herb
Chorizanthe watsonii	Watson's spineflower	annual herb
Eriogonum brachyanthum	short-flower wild buckwheat	annual herb
Eriogonum fasciculatum var. *polifolium*	Mojave Desert California buckwheat	shrub
Eriogonum gracillimum	rose-and-white wild buckwheat	annual herb
Eriogonum maculatum	spotted wild buckwheat	annual herb
Eriogonum plumatella	yucca wild buckwheat	shrub
Eriogonum pusillum	yellow turbans	annual herb
Eriogonum viridescens	two-toothed wild buckwheat	annual herb
Rumex hymenosepalus	wild-rhubarb	perennial herb
SOLANACEAE	**NIGHTSHADE FAMILY**	
Datura wrightii	jimson weed	annual/perennial herb
Lycium andersonii	desert tomato	shrub
Lycium cooperi	box-thorn	shrub
TAMARICACEAE	**TAMARISK FAMILY**	
†*Tamarix aphylla*[4]	athel	tree
ZYGOPHYLLACEAE	**CALTROP FAMILY**	
Larrea tridentata	creosote bush	shrub
MONOCOT FLOWERING PLANTS		
AGAVACEAE	**CENTURY PLANT FAMILY**	
Yucca brevifolia[2]	Joshua tree	perennial leaf succulent
POACEAE	**GRASS FAMILY**	
Bromus diandrus[3]	ripgut grass	annual grass
Bromus madritensis ssp. *rubens*[3]	red brome, foxtail chess	annual grass
Bromus tectorum[3]	cheatgrass	annual grass
Elymus elymoides	squirreltail	perennial grass
Festuca microstachys	small fescue	annual grass
Hordeum murinum[3]	wall barley	annual grass
Schismus arabicus[3]	Arabian grass	annual grass
Schismus barbatus[3]	Mediterranean grass	annual grass
Stipa hymenoides	sand rice grass	perennial grass

FAMILY / SCIENTIFIC NAME	COMMON NAME	HABIT
Stipa speciosa	desert needlegrass	perennial grass
THEMIDACEAE	**BRODIAEA FAMILY**	
Dichelostemma capitatum ssp. *pauciflorum*	blue dicks	cormous perennial herb

[1] special status species
[2] CDNPA species
[3] non-native weed
[4] non-native ornamental
[5] variety could not be determined

APPENDIX D. VEGETATION COMMUNITY ASSESSMENT, SPECIAL STATUS PLANT SPECIES, AND MOHAVE GROUND SQUIRREL HABITAT SUITABILITY ASSESSMENT PHOTOS AT THE BELLEFIELD SOLAR FARM PROJECT AREA, CALIFORNIA CITY AND KERN COUNTY, CALIFORNIA

Photograph 1. *Larrea tridentata – Ambrosia dumosa* Shrubland Alliance on Hill

Photograph 2. *Larrea tridentata – Ambrosia dumosa* Shrubland Alliance in Silty Sand

Photograph 3. *Larrea tridentata – Ambrosia dumosa* Shrubland Alliance on Stabilized Sand Dune

Photograph 4. *Larrea tridentata – Ambrosia dumosa* Shrubland Alliance in Wash

Photograph 5. *Atriplex polycarpa* Shrubland Alliance

Photograph 6. *Atriplex polycarpa* Shrubland Alliance

Photograph 7. *Larrea tridentata* Shrubland Alliance

Photograph 8. *Ambrosia dumosa* Shrubland Alliance

Photograph 9. ***Ambrosia dumosa*** **Shrubland Alliance on Sand Field**

Photograph 10. ***Ambrosia salsola*** **Shrubland Alliance**

Photograph 11. *Ericameria cooperi* Shrubland Alliance

Photograph 12. *Atriplex confertifolia* Shrubland Alliance

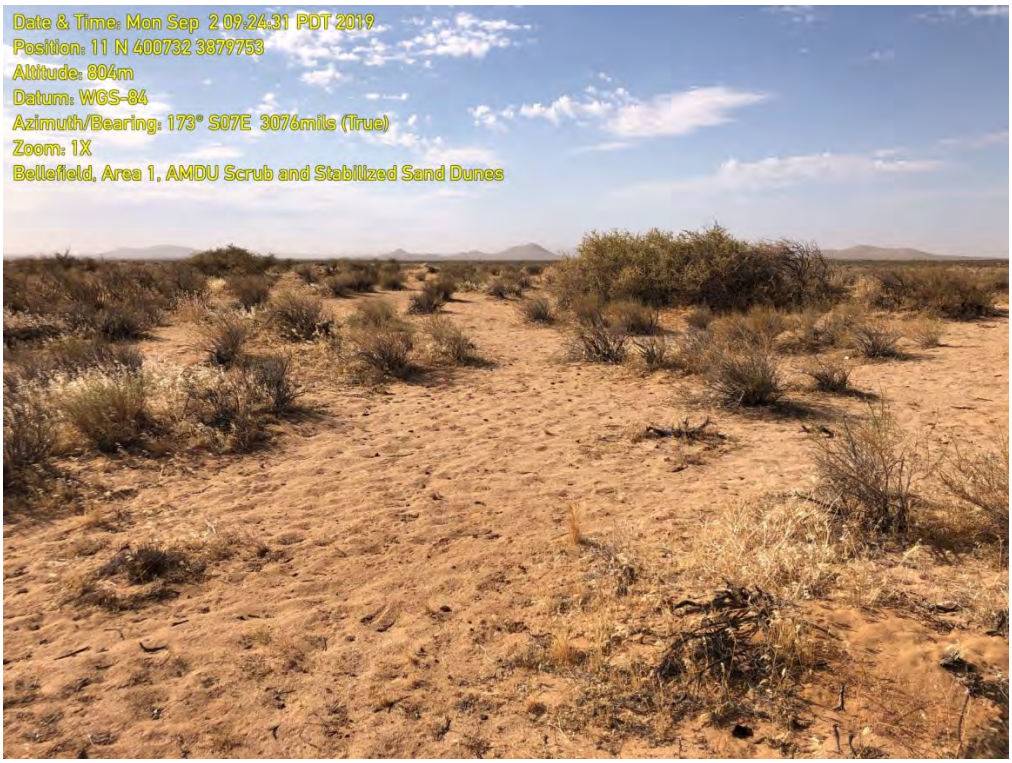
Photograph 13. ***Atriplex spinifera*** **Shrubland Alliance and Clay Pan**

Photograph 14. ***Krascheninnikovia lanata*** **Shrubland Alliance**

Photograph 15. *Yucca brevifolia* Woodland Alliance

Photograph 16. *Yucca brevifolia* Woodland Alliance

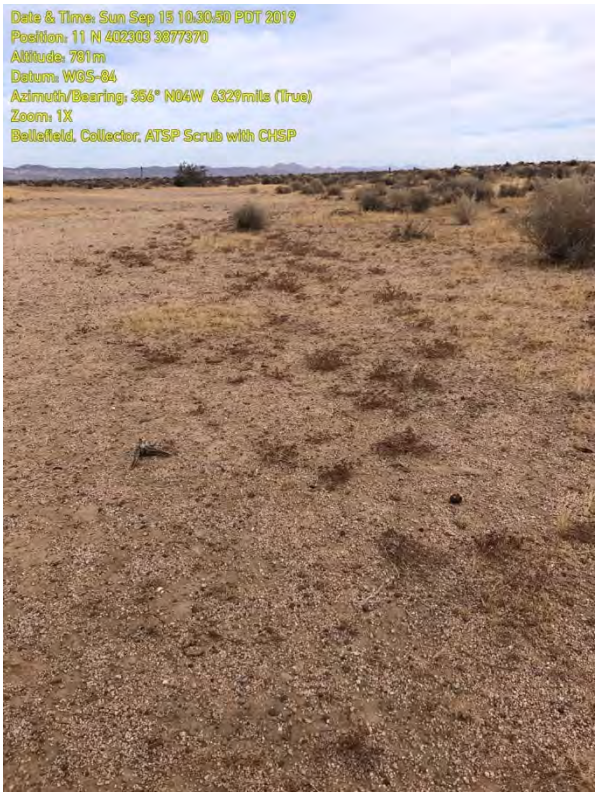
Photograph 17. Known Location for Alkali Mariposa Lily (*Calochortus striatus*)



Photograph 18. Potential Habitat for Desert Cymopterus (*Cymopterus deserticola*)

Photograph 19. Potential Habitat for Barstow Woolly Sunflower (*Eriophyllum mohavense*)

Photograph 20. Potential Habitat for California Alkali Grass (*Puccinellia simplex*)



Photograph 21. Mojave Spineflowers (*Chorizanthe spinosa*) and Habitat

Photograph 22. Mojave Spineflower (*Chorizanthe spinosa*)

Photograph 23. View to the South from Survey Unit B-06 of Dominant Allscale Shrubs (*Atriplex polycarpa)* and Scattered Joshua Trees (*Yucca brevifolia*)

Photograph 24. View to the South from Survey Unit B-07 of a Diverse Shrub Community with Winter Fat (*Krascheninnikovia lanata*), white bursage (*Ambrosia dumosa*), and Cooper's boxthorn (*Lycium cooperi*) and Scattered Joshua Trees (*Yucca brevifolia*)

D.2 Wildlife Survey

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WILDLIFE SURVEY REPORT

BELLEFIELD SOLAR FARM
CALIFORNIA CITY AND KERN COUNTY, CALIFORNIA

March 2021

EnviroPlus Consulting, Inc.

Wildlife Survey Report
Bellefield Solar Farm

Prepared for:

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San Francisco, California 94108
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March 2021

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APPENDICES

EXECUTIVE SUMMARY

50LW 8me LLC (Applicant) proposes to develop up to a 1,500 megawatt (MW)-alternating current utility-scale solar farm with an up to 2,000 MW-hour Energy Storage System (ESS) and associated electrical infrastructure known as the Bellefield Solar Farm Project (Project) in unincorporated Kern County and California City, California. The Project Area, for the purpose of this Wildlife Survey Report (Report) and the biological studies described herein, includes all areas where the proposed Project's solar facility area includes the solar array, collector lines, ESS, substation, and ancillary facilities; the generation tie-in (gen-tie)[1] corridors that could be installed as a result of the Project and a few areal features associated with the gen-tie corridor (i.e., the Project Area covers a larger area than is expected for Project impacts).

The solar facility area is composed of privately owned parcels within Kern County and the City of California (California City) in which the potential construction for the solar development (e.g., solar panel array, administrative offices, etc.) and collector lines may occur (i.e., not all lands within the solar facility area will be used for the solar development and collector lines). The solar facility area is comprised of 90 assessor's parcels (approximately 7,944 gross acres), 82 of which are located within unincorporated Kern County (approximately 5,841 gross acres) and eight of which are located within California City (approximately 2,103 gross acres). The linear distance of collector lines alternatives is 11.5 miles with a corridor width of approximately 91 feet. The collector lines within Kern County comprise approximately 100 acres and within California City they comprise approximately 27 acres, for a total of approximately 127 acres. The overall acreage of the solar facility area evaluated for the purposes of this BE, is approximately 8,071 acres[2]. Power generated from the Project would be delivered by up to a 230 kilovolt (kV) overhead and/or underground electrical transmission line(s) originating from one or more on-site substation(s)/switchyard(s) and terminating at the Southern California Edison (SCE) Windhub Substation. The linear distance of the gen-tie alternatives is 89.6 miles with a width of 200 feet (approximately 2,172 acres). The total overall acreage evaluated for the purposes of this BE is approximately 10,056 acres[2].

The permanent disturbance acreage associated with development of the solar facility and associated infrastructure (e.g., collector lines) would be located within, but less than, the gross acreage of the Project Area. The Applicant will be applying for Conditional Use Permits from Kern County and from California City for development of this Project.

The Project Area is generally located north and south of State Route 58 (SR58), east of the community of Mojave and west and south of the Hyundai-Kia California Motors Proving Grounds (Hyundai-Kia Proving Grounds). Within the Project Area, the collector lines are generally located within or adjacent to the Kern County and/or California City parcels, while the gen-tie alternatives generally originate from the central portion of the proposed solar field heading west around the community of Mojave, before reaching Oak Creek Road and SCE's Windhub Substation.

This report details the results of protocol wildlife surveys for Agassiz's desert tortoise (*Gopherus agassizii*) and western burrowing owl (*Athene cunicularia* ssp. *hypugaea*; burrowing owl)

1 A generation tie-in is an electrical transmission line that connects the generation location (solar field) to a substation which then connects to the electrical grid.

2 Construction would not occur within the entirety of all the alternatives evaluated for the purposes of this report (i.e., potential project impacts would be limited to a smaller area).

conducted between August through October of 2019. Additional surveys were conducted in April and May of 2020 and in February of 2021 when parcels were added to the Project Area by the Applicant. Other protected, special-status, listed, and general wildlife species were concurrently included in these surveys. All survey results are included in this Report.

The desert tortoise protocol survey effort adhered to the 2019 U.S. Fish and Wildlife Service (USFWS) requirements (USFWS 2019). Under this protocol the USFWS defines the "action area" of a project to include all areas to be affected directly or indirectly by a project action. The Bellefield Solar Farm desert tortoise protocol survey "action area" included all Project parcels to be developed and collector and gen-tie line alternatives. The "action area" boundary is consistent with the Project Area boundary, as defined above.

The burrowing owl protocol survey effort adhered to the 2012 California Department of Fish and Wildlife (CDFW) requirements. This included survey efforts within the Project Area as well as survey efforts within the required 150-meter wide buffer areas around the Project Area.

A combined total of 73 wildlife species and/or their sign were observed during the 2019, 2020, and 2021 survey periods. The results included a total of 44 bird species, 13 mammal species, 15 reptile species, and one domesticated species (sheep). Nine of these species are either listed or designated as special status species and included Agassiz's desert tortoise (ADT), desert kit fox (*Vulpes macrotis arsipus*), American badger (*Taxidea taxus*), prairie falcon (*Falco mexicanus*), northern harrier (*Circus cyaneus*), Cooper's hawk (*Accipiter cooperii*), western burrowing owl, loggerhead shrike (*Lanius ludovicianus*), and black-tailed gnatcatcher (*Polioptila melanura*).

Definitive sign of habitation by the state and federally Threatened desert tortoise was detected in the Project Area. A total of five live desert tortoises were recorded within unincorporated Kern County. No live desert tortoises were found within California City. A total of 60 desert tortoise burrows were recorded. Within California City there were seven inactive burrows (Classes 2 and 4) and within unincorporated Kern County there were 53 burrows of which nine were actively being used or had recently been used by desert tortoise (Class 1). A total of eight desert tortoise carcass remains were recorded. Seven occur in unincorporated Kern County and one occurs in California City. Desert tortoise sign in the form of tracks and scat were noted and recorded. No scat was recorded in California City. A total of 124 scat were recorded at 29 separate locations in unincorporated Kern County. A total of 116 scat were noted as 'This Year' and eight were noted as 'Not This Year.' Desert tortoise sign was generally located throughout the central portion of the Project Area parcels.

Detection of the California Threatened Mohave ground squirrel (*Xerospermophilus mohavensis;* MGS) requires trapping surveys during specific time periods. MGS trapping was outside the scope of the current surveys and therefore not conducted. However, habitat suitability assessment surveys of the Project Area and gen-tie corridors were conducted for MGS by Dr. Philip Leitner on 6 September through 13 September of 2019 (Leitner 2019) and on additional parcels added by the Applicant from 25 through 29 March of 2020 (Leitner 2020). This habitat assessment was completed to determine the potential for occurrence as well as impacts to this species from proposed project development. Dr. Leitner's completed reports can be found in the Appendices.

Habitat conditions on the proposed development units and collector lines generally appear to be of low to moderate suitability for MGS. However, the gen-tie corridor traverses through areas that provide no to low quality habitat for MGS. These gen-tie lines pass through developed urban

areas and along roadways with severely degraded habitat. There is little evidence that the Project Area currently supports a resident MGS population. There have been no records of the species in the Project Area or the surrounding region for 17 years, in spite of extensive live-trapping and camera trapping surveys that have occurred adjacent to the Project Area.

A total of five live burrowing owls were recorded during the 2019 and 2020 survey periods in unincorporated Kern County. No live burrowing owls were recorded within California City. Both active and inactive burrows were recorded and there was a total of four burrows in California City (one active and three inactive), a total of 39 burrows in unincorporated Kern County (nine active and 30 inactive), and one perch location in unincorporated Kern County. No live burrowing owls were recorded in the burrowing owl buffer survey area or gen-tie corridor. One inactive burrow was detected within the buffer survey area in the gen-tie corridor.

A total of 380 desert kit fox (DKF) dens and/or den complexes were located in the Project Area. Dens and/or den complexes varied in the number of entrances from one to 23. Within California City a total of 81 dens and/or den complexes were recorded of which 12 were active and 69 were inactive. Within unincorporated Kern County a total of 299 dens and/or den complexes were recorded of which 58 were active and 241 were inactive. Active and inactive dens and/or den complexes were recorded within the burrowing owl buffer survey area as well as within the gen-tie corridor. No pupping dens were detected in either unincorporated Kern County or California City.

Nine American badger dens and/or sign were recorded in unincorporated Kern County. No badgers or sign were recorded within California City. Twelve loggerhead shrike observations were recorded with eleven of those in unincorporated Kern County. An observation of a prairie falcon was recorded as well as observations of Cooper’s hawk and northern harrier. One pair of active black-tailed gnatcatchers was observed in unincorporated Kern County.

PROJECT DESCRIPTION AND LAND OWNERSHIP

50LW 8me LLC (Applicant) proposes to develop up to a 1,500 megawatt (MW)-alternating current utility-scale solar farm with an up to 2,000 MW-hour Energy Storage System (ESS) and associated electrical infrastructure known as the Bellefield Solar Farm Project (Project) in unincorporated Kern County and California City, California (Figure 1). The Project Area, for the purpose of this Biological Evaluation (BE) and the biological studies described herein, includes all areas where the proposed Project's solar facility area includes the solar array, collector lines, ESS, substation, and ancillary facilities; the generation tie-in (gen-tie)[1] corridors could be installed as a result of the Project and a few areal features associated with the gen-tie corridor (i.e., the Project Area covers a larger area than is expected for the Project impacts). The solar facility portion of the Project Area is generally located north, south, and west of State Route 58 (SR58), east of the community of Mojave and west and south of the Hyundai-Kia California Motors Proving Grounds (Hyundai-Kia Proving Grounds) (Figure 2). The collector lines are generally located within or adjacent to the Kern County and/or California City parcels where the solar facility would be constructed, while the gen-tie alternatives generally originate from the central portion of the solar facility area and run west around the community of Mojave, before reaching Oak Creek Road and Southern California Edison's (SCE) Windhub Substation (Figure 2).

The solar facility area is composed of privately owned parcels within Kern County and the City of California City (California City) in which the potential construction for the solar development (e.g., solar panel array, administrative offices, etc.) and collector lines may occur (i.e., not all lands within the solar facility area will be used for the solar development and collector lines). The solar facility area is comprised of 90 assessor's parcels (approximately 7,944 gross acres), 82 of which are located within unincorporated Kern County (approximately 5,841 gross acres) and eight of which are located within California City (approximately 2,103 gross acres). The linear distance of collector line alternatives is 11.5 miles with a corridor width of approximately 91 feet. The collector lines within Kern County comprise approximately 100 acres and within California City they comprise approximately 27 acres, for a total of approximately 127 acres. The overall acreage of the solar facility area evaluated for the purposes of this BE is approximately 8,071 acres[2]. Power generated from the Project would be delivered by up to a 230 kilovolt (kV) overhead and/or underground electrical transmission line(s) originating from one or more on-site substation(s)/switchyard(s) and terminating at the Southern California Edison (SCE) Windhub Substation. The linear distance of the gen-tie alternatives is 89.6 miles with a width of 200 feet (approximately 2,172 acres). The total overall acreage evaluated for the purposes of this BE is approximately 10,243 acres[2].

Construction of the proposed Project will include the following activities:

- Site preparation
- Grading and earthwork
- Concrete foundations
- Structural steel work
- Electrical/instrumentation work

Table 1. Assessor's Parcel Number (APN), Owner, Acreage, and Current Zoning, Bellefield Solar Farm Project, California City and Kern County, California

CALIFORNIA CITY

APN[1]	Owner	Zoning[2]	Acreage
235-061-02	HIGHWAY 58 PROP LLC	O/RA	658.81
235-101-51	SMY LAND LLC TR	O/RA	262.88
235-101-47	HIGHWAY 58 PROP LLC	O/RA	154.85
235-101-49	SMY LAND LLC TR	O/RA	464.68
235-101-48	SMY LAND LLC TR	O/RA	151.16
235-101-46	HIGHWAY 58 PROP LLC	O/RA	103.66
235-101-45	SMY LAND LLC TR	O/RA	304.05
235-282-22	WEST MOJAVE PROPERTIES LLC SOUTH AV PROPERTIES LLC	O/RA	2.55
TOTAL California City			**2102.64**

KERN COUNTY

APN[1]	Owner	Zoning[2]	Acreage
428-010-11	CHENG SUE HOE	M-3 PD	263.77
428-052-15	1987 DE MONTE A	M-2 PD	4.32
428-052-17	1987 DE MONTE A	M-2 PD	7.20
428-053-16	1987 DE MONTE A	M-2 PD	10.19
428-053-18	1987 DE MONTE A	M-2 PD	9.35
235-022-01	WEST MOJAVE PROP LLC[3]	A-1	229.50
235-024-14	WEST MOJAVE PROP LLC	A	82.34
235-024-15	WEST MOJAVE PROP LLC	A-1	79.94
235-024-41	WEST MOJAVE PROP LLC[3]	A-1	655.00
235-064-01	WEST MOJAVE PROP LLC[3]	A-1	332.71
235-065-04	SAHOTA BHUPINDER K	A-1	15.50
235-065-05	SAHOTA BHUPINDER K	A-1	0.99
235-065-07	SAHOTA BHUPINDER K	A-1	1.49
235-065-18	HIGHWAY 58 PROP LLC	A-1	442.64
235-081-03	WEST MOJAVE PROP LLC	A-1	10.19
235-081-04	WEST MOJAVE PROP LLC	A-1	10.20
235-081-05	WEST MOJAVE PROP LLC	A-1	10.21
235-081-07	WEST MOJAVE PROP LLC	A-1	10.20
235-081-09	WEST MOJAVE PROP LLC	A-1	61.19
235-081-10	WEST MOJAVE PROP LLC	A-1	20.43
235-081-11	WEST MOJAVE PROP LLC	A-1	10.19
235-081-12	WEST MOJAVE PROP LLC	A-1	10.18

APN[1]	Owner	Zoning[2]	Acreage
235-082-01	WEST MOJAVE PROP LLC	A-1	5.10
235-082-06	MARGOLIN MALCOM L	A-1	25.53
235-082-07	HARKITAT GURMAIL	A-1	5.11
235-082-12	HUI JOHN	A-1	1.28
235-082-15	MARGOLIN MALCOM L	A-1	20.48
235-082-16	AFFONSO ROSE LIVING TRUST	A-1 MH	40.99
235-082-17	WEST MOJAVE PROP LLC	A-1	5.12
235-082-18	WEST MOJAVE PROP LLC	A-1	5.11
235-082-19	WEST MOJAVE PROP LLC	A-1	10.22
235-082-24	WEST MOJAVE PROP LLC	A-1	2.56
235-082-25	WEST MOJAVE PROP LLC	A-1	2.56
235-340-07	TEXAS LAND & CATTLE CORP	A-1	10.30
235-340-09	WEST MOJAVE PROP LLC	A-1	82.69
235-340-10	WEST MOJAVE PROP LLC	A-1	10.38
235-340-11	WEST MOJAVE PROP LLC	A-1	10.39
235-340-28	WEST MOJAVE PROP LLC	A-1	41.16
235-351-01	WEST MOJAVE PROP LLC	A-1	81.53
235-351-02	WEST MOJAVE PROP LLC	A-1	20.47
235-351-03	WEST MOJAVE PROP LLC	A-1	20.45
235-351-04	WEST MOJAVE PROP LLC	A-1	40.86
235-353-11	THOMAS PAUL R	A-1 MH	5.15
235-353-21	THOMAS PAUL R	A-1 MH	2.57
235-353-22	THOMAS PAUL R	A-1 MH	2.58
235-024-01	TREND CAPITAL GROUP INC	A-1 MH	123.47
235-024-17	PARNELL	A-1	63.66
235-024-40	WEST MOJAVE PROP LLC SOUTH AV PROPERTIES LLC	A-1	10.57
235-024-42	1987 DE MONTE A	A-1 MH	40.99
235-024-43	1987 DE MONTE A	A-1 MH	41.08
428-010-02	LEE MEI RUEY YANG	M-3 PD	171.12
428-010-03	BABBITT ROBERT J	M-3 PD	170.95
428-010-10	HENG LIPMENG HENG LYCHHENG	M-3 PD	42.61
428-041-02	1987 DE MONTE A	M-2 PD	20.51
428-041-03	1987 DE MONTE A	M-2 PD	20.56
428-041-04	1987 DE MONTE A	M-2 PD	20.61
428-041-05	1987 DE MONTE A	M-2 PD	5.21
428-041-38	1987 DE MONTE A	M-2 PD	15.69
428-042-02	1987 DE MONTE A	M-2 PD	20.43
428-042-03	1987 DE MONTE A	A	20.48

APN[1]	Owner	Zoning[2]	Acreage
428-042-04	1987 DE MONTE A	A	20.53
428-042-35	1987 DE MONTE A	M-2 PD	7.36
235-065-17	HIGHWAY 58 PROP LLC	A-1	33.49
235-134-01	KHAN ZAMEER MOHAMMED & AZRA PERVEEN	A-1	490.81
235-191-01	TRUSKIER	A-1	10.32
235-410-02	NELSON TAWNEY LYNNE	A-1	10.16
235-410-04	BELL LAWRENCE W BELL VERA G	A-1	8.04
235-410-06	TOPETA MICHAEL	A-1	10.08
235-132-16	SAHOTA SOHAN S & BHUPINDER KAUR	A-1	601.47
235-101-29	LUONG KHANH DAN LE XUAN UYEN	A-1	23.83
235-102-01	SMY LAND LLC TR	A-1	11.58
235-102-02	SMY LAND LLC TR	A-1	305.10
235-221-01	SMY LAND LLC TR	A-1	489.82
235-340-19	WEST MOJAVE PROP LLC SOUTH AV PROPERTIES LLC	A-1 MH	10.37
235-340-36	WEST MOJAVE PROP LLC SOUTH AV PROPERTIES LLC	A-1 MH	2.59
235-340-29	DRAHOS CHET J DRAHOSE RITA MAY	A-1 MH	2.59
235-064-25	HOLLOSCHUTZ LEON	A-1	41.40
235-064-26	HOLLOSCHUTZ LEON	A-1	41.39
235-064-27	HOLLOSCHUTZ LEON	A-1	41.40
235-064-28	HOLLOSCHUTZ LEON	A-1	41.38
235-064-29	HOLLOSCHUTZ LEON	A-1	77.86
235-064-12	PROPERTY HONDA R TRUST	A-1	41.38
TOTAL Kern County			**5841.21**
Total Bellefield			**7943.85**

Footnotes:

1 – APN – Assessor's parcel number
2 – Land use zoning codes
Kern County
A – Exclusive agriculture zoning district
A-1 – Limited agriculture zoning district – Combination of estate-type residential development, agricultural uses, and other compatible uses
A-1 MH – Limited agriculture. Mobile home combining
M-2 PD – Medium industrial. Precision development combining
M-3 PD – Heavy industrial. Precision development combining
California City
O/RA – Open space and residential/agricultural district
3 – A portion of this parcel was excluded from the Project Area. The acreage reflects only that portion of the parcel which lies within the Project Area.

- Collector line installation
- Architecture and landscaping

Construction traffic would access the Project Area from SR58, Altus Avenue, Silver Queen Road, and 55th Street. It is estimated that up to 1,000 workers per day, during peak construction periods, will be required for the construction of the Project and gen-tie corridor lines.

The majority of construction activities are expected to occur between 6:00 am and 5:00 pm, Monday through Friday. Additional hours may be necessary to make up schedule deficiencies or to complete critical construction activities. Some activities may continue 24 hours per day, 7 days per week. Low-level noise activities may potentially occur between the hours of 10:00 pm and 7:00 am. Nighttime activities could potentially include, but are not limited to, refueling equipment, staging material for the following day's construction activities, quality assurance/control, and commissioning.

The Project could require an operational staff of up to 20 full-time employees. As discussed, the Project may share operations and maintenance, substation, and/or transmission facilities with future energy projects. In such a scenario, the facilities would share personnel, thereby potentially reducing the Project's on-site staff.

The facility would operate 7 days a week, 24 hours a day, generating electricity during normal daylight hours when the solar energy is available. Maintenance activities may occur 7 days a week, 24 hours a day to ensure photovoltaic panel output when solar energy is available.

After the useful life of the Project, the panels will be disassembled from the mounting frames and the solar facility area would be restored to its pre-development condition.

SITE DESCRIPTION

The Project Area is situated partially within an unincorporated portion of southeastern Kern County and partially within the limits of California City, California (Figure 2). The Project is generally located north and south of SR58, east of the community of Mojave and northwest, west, southwest, and south of the Hyundai-Kia Proving Grounds. The primary gen-tie corridor originates from the central portion of the solar facility portion of the Project Area and heads west around the developed portions of the community of Mojave, before following Oak Creek Road to SCE's Windhub Substation. Several alternative routes are also under consideration by the Applicant.

The Project is located on privately owned lands with a majority of the Project falling within the lower ¾ portion of the Sanborn USGS 1:24,000 topographic map (7.5-minute quadrangle). The Project extends east into the southwest portion of the California City South quadrangle and into the upper northern portion of the Bissell quadrangle, and into the eastern portion of the Mojave quadrangle. The gen-tie corridor crosses the western portion of the Sanborn quadrangle and extends from the southern end into the upper northern portion of the Bissell and Soledad Mountain quadrangles, the southern portion of the Mojave quadrangle, and the southeastern portion of the Monolith quadrangle. The cadastral description of the Project is as follows: Township 11N, Range 11W, all or portions of Sections 5, 6, 7, 17, 18, 19, 20, 21 (all), 22, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, and 35 and Township 11N, Range 12W, portions of Sections 1 and 2.

The Project Area is generally bounded as follows:

- North – Cache Creek
- West – Tehachapi Mountains
- South – Edwards Air Force Base (Edwards AFB), Soledad Mountain, and the Rosamond Hills
- East – Similar vacant land in the north-south portion of California City Boulevard a few miles further to the east

The Project Area is located within the southern portion of Fremont Valley with the eastern slopes of the Sierra Nevada and Tehachapi Mountains to the west (Figure 3). Antelope Valley, located to the south of the Project Area, generally lies between the Tehachapi and San Gabriel Mountains. The Project Area is relatively flat with increases in elevation to the west and east. Elevations within the solar facility area range from 2,798 feet above mean sea level (AMSL) in the northwest corner to 2,532 feet AMSL in the southern portion. The Project is relatively flat with increases in elevation to the west and east. The gen-tie corridor ranges in elevation from 2,541 feet AMSL in the southeastern portion to 3,468 feet AMSL at the northwestern corner of the SCE Windhub Substation.

Drainage in the northern portion of the Project Area is very gradual to the southeast along several washes. A few miles to the east, this drainage pattern turns to the northeast where it intercepts Cache Creek, a large wash that emanates from Tehachapi Canyon. This eventually drains into Koehn Lake 18 miles to the northeast. The terrain in the southeastern portion of the Project Area is dominated by a large, gradual grade with hills and undulating relief. The southeastern two-thirds of this area drains to the southwest along many washes into Rogers Lake located 12 miles

to the southeast. The northwestern one-third of this area drains to the northwest along a few washes.

Population centers and employers within the vicinity of the Project Area include but are not limited to the community of Mojave, California City, Edwards AFB, the Hyundai-Kia Proving Grounds, the Burlington, Northern, and Santa Fe (BNSF) railroad, and the Union Pacific (UP) railroad. A facility that handled long line communications is located south of the Hyundai-Kia Proving Grounds and north of SR58. There is a 1,626 acre conservation easement that lies immediately adjacent to the eastern portion of the Project Area on the Hyundai-Kia property (CDFW 2018a).

The Project Area is located 10 miles southwest of the Desert Tortoise Research Natural Area (DTRNA). The DTRNA was established in 1974 and includes 39.5 square miles of desert habitat of which a majority of the private land inholdings have been purchased by the Bureau of Land Management (BLM), by the California Department of Fish and Wildlife (CDFW), and by the Desert Tortoise Preserve Committee (DTPC), a 501(3)c non-profit organization (DTPC, 2019) (Figure 3). The southern and eastern boundary of the DTRNA is shared with California City. In 1980 the BLM designated the DTRNA as an Area of Critical Environmental Concern (ACEC) and perimeter fencing was installed as well as a visitor's center. The DTPC manages the DTRNA and over 30 years of research has been conducted there on the desert tortoise (ADT) (*Gopherus agassizii*), the Mohave ground squirrel (MGS) (*Xerospermophilus mohavensis*), and many other species of wildlife and plants.

The Project Area, at its closest point, is located 16 miles southwest of designated desert tortoise critical habitat at the BLM Fremont-Kramer ACEC.

SR58, a four-lane divided highway traverses the southern portion of the Project Area in a generally east-west direction and a Mojave bypass section turns northward and passes through the western portion of the Project Area. The sections of SR58 that pass through the Project Area are not separated from adjacent habitat by a desert tortoise-proof fence. Many unmaintained dirt roads crisscross the Project Area. The BNSF railway is a single track through the gen-tie corridor that becomes a double track line railroad through the Project Area. The railroad generally parallels the east-west portion of SR58 a little over a mile to the south. The UP railway converges in the community of Mojave with three lines. One line is located south of Oak Creek Road; one line parallels SR14 south of the community of Mojave and then turns west along SR58; and one line parallels the east side of SR14 north of the community of Mojave.

A large east-west utility corridor is located just south of SR58. This corridor includes at least three gas pipelines and a petroleum products pipeline. One of these pipeline rights-of-ways crosses to the north side of SR58 in the eastern portion of the Project Area. An AT&T fiber optic line also passes through the Project Area in an east-west direction south of SR58 in the west and then just north of SR58 where it exits the Project Area to the east. The Antelope Valley East Kern Water Agency water pipeline and its associated right-of-way road is located along the southern boundary of the Project Area.

Evidence of human activity was prevalent throughout the Project Area and included domestic sheep (*Ovis aries*) grazing as the most widespread human impact to the landscape. In addition to the numerous sheep trails, pellets, and heavily impacted watering areas and trampled vegetation, there is also widespread sporadic shooting activity to include a heavily used area located in the southwestern portion of the Project Area where the solar facilities are proposed to be placed;

illegal dump sites as well as blown trash; and limited off-highway vehicle (OHV) use was observed throughout the Project Area.

The Project Area includes a variety of vegetation communities (Figures 4a and 4b and Photographs 1 - 12). These are summarized in Table 2. Vegetation communities are discussed in detail in the Biological Evaluation, submitted under separate cover, dated March 2021 (EnviroPlus 2021).

Table 2. Acreage of Vegetation Communities and Unvegetated Features within the Proposed Solar Facility and Collector Lines for the Bellefield Solar Farm Project, California City and Kern County, California.

Vegetation Community, Rarity and/or Sensitivity Rank [3]	Kern County Parcel Acres (%)	Kern County Collector Lines Acres (%)	California City Parcel Acres (%)	California City Collector Lines Acres (%)	Overall Acres (%)
***Larrea tridentata – Ambrosia dumosa* Shrubland Alliance (Creosote Bush - White Bursage Scrub) – Rarity Rank G5/S5**	2,546.32 (43.6%)	7.52 (7.5%)	929.65 (44.2%)	13.68 (49.4%)	3,497.17 (43.3%)
***Atriplex polycarpa* Shrubland Alliance (Allscale Scrub) – Rarity Rank G4/S4**	1,802.86 (30.9%)	58.28 (58.2%)	679.20 (32.3%)	7.54 (27.2%)	2,547.88 (31.6%)
***Larrea tridentata* Shrubland Alliance (Creosote Bush Scrub) – Rarity Rank G5/S5**	547.50 (9.8%)	0.62 (0.6%)	240.45 (11.4%)	1.55 (5.6%)	817.12 (10.1%)
***Ambrosia dumosa* Shrubland Alliance (White Bursage Scrub) – Rarity Rank G5/S5**	618.87 (10.6%)	11.11 (11.1%)	140.67 (6.7%)	1.48 (5.3%)	772.14 (9.6%)
***Atriplex spinifera* Shrubland Alliance (Spinescale Scrub) – Rarity Rank G4/S4; Sensitive**	229.69 (3.9%)	7.22 (7.2%)	--	0.40 (1.4%)	237.31 (2.9%)
***Krascheninnikovia lanata* Shrubland Alliance (Winter Fat Scrubland) – Rarity Rank G4/S3; Sensitive**	57.76 (1.0%)	7.29 (7.3%)	107.09 (5.1%)	-	172.14 (2.1%)
***Atriplex confertifolia* Shrubland Alliance (Shadscale Scrub) – Rarity Rank G5/S4**	6.67 (0.1%)	4.43 (4.4%)	-	-	11.11 (0.1%)
***Yucca brevifolia* Woodland Alliance (Joshua Tree Woodland) – Rarity Rank G4/S3; Sensitive**	-	2.73 (2.7%)	1.53 (0.1%)	-	4.26 (0.1%)
***Ericameria nauseosa* Shrubland Alliance (Rubber Rabbitbrush Scrub) – Rarity Rank G5/S5**	-	-	1.13 (0.1%)	-	1.13 (0.0%)
Unvegetated (developed: paved roadways, structures, or other features and disturbed: dirt roadways, etc.)	4.53 (0.1%)	0.91 (0.9%)	2.92 (0.1%)	2.05 (7.4%)	10.42 (0.1%)
Total Acres	**5,841.21 (100%)**	**100.12 (100%)**	**2,102.64 (100%)**	**26.70 (100%)**	**8,070.67 (100%)**

3 Vegetation communities per Sawyer et al. 2009.

METHODS

Literature Review and Database Search

Information on potential species occurrences has been obtained from existing databases and published and non-published resources. Databases were reviewed to assess whether occurrences of special-status species have been documented in the Project Area and vicinity (Figure 3 and Table 3). Databases and resources reviewed and researched included but were not limited to the following:

- Review of the U.S. Geological Survey 7.5-minute topographic quadrangle maps within 20-miles of the Project Area including: the *Redman, Tylerhorse Canyon, Tehachapi North, Tehachapi NE, Cache Peak, Mojave NE, California City North, Galileo Hill, North Edwards, Tehachapi South, Willow Springs, Soledad Mountain, Little Buttes, Rogers Lake North, Edwards, Rosamond Lake*, and *Rosamond California* quadrangles.
- The California Natural Diversity Database (CNDDB) (CNDDB 2021b) and CNDDB QuickView (CNDDB 2021a) within a 20-mile radius of the Project
- California Department of Fish and Wildlife (CDFW) Natural Communities List (CDFW 2020a) and California Wildlife Habitat Relationships System Maps and Descriptions (CDFW 2014)
- Bureau of Land Management (BLM) (BLM 2015) species databases
- CDFW Special Animals List (CDFW 2021a) and the CDFW and U.S. Fish and Wildlife Service (USFWS) Threatened or Endangered Animal Species List (CDFW 2021b)
- Desert Renewable Energy Conservation Plan (DRECP) (Dudek 2014), DRECP Data Basin (Dudek 2014), and DRECP Kern County Gateway (Dudek 2014)
- CDFW West Mohave Desert Ecological Reserve (CDFW 2019c)
- U.S. Department of Agriculture Web Soil Survey (USDA 1982)
- Weather and precipitation data were obtained from the Western Regional Climate Center (Western Regional Climate Center 2019).

The full literature review and database search included plants, natural communities, sensitive habitats, soils, and flood potential. Table 3 includes all of the special status wildlife species that have the potential to occur in the Project Area and were noted as, or in combination with the designation of "None," "Low," "Moderate," or "High." The Biological Evaluation (EnviroPlus 2021) discusses in detail the potential for occurrence of all special-status species that have potential to occur in the Project Area including sensitive natural communities and special-status plant species. The Biological Evaluation also includes a discussion of the natural history and previously recorded observations (based on CNDDB, eBird[4], or other sources or documents) of

[4] Cornell University's eBird on-line database (2015) is contributed to by both amateur and professional birders and includes the ability to submit photographs, videos, and sound recordings with each checklist developed from a specific survey. Each birder's checklist is thoroughly reviewed by a qualified avian biologist. Checklist errors, questions, and revisions to the checklist are routinely requested by the eBird biologist to the checklist preparer. Revisions to the checklist must be made by the birder. For the purposes of this BE, eBird data is used herein to supplement the CNDDB list with the caveat that the information presented herein for each avian species may not be accurate.

Table 3. Federal and State Listed and Special-Status Wildlife Species and IUCN Red List Species with Potential for Occurrence and Occurrence Status in the Bellefield Solar Farm Project Area, California City and Kern County, California.

SPECIES	FEDERAL	STATE / CDFW	G-RANK / S-RANK	POTENTIAL FOR OCCURRENCE WITHIN THE PROJECT AREA	OCCURRENCE STATUS 2019, 2020, AND 2021
Townsend's Big-eared Bat (*Corynorhinus townsendii*)	-	SSC and WBWG:H	G4 / S2	**LOW** – May forage throughout or migrate through the Project Area. Records nearby.	Not surveyed for.
Mohave Ground Squirrel (*Xerospermophilus mohavensis*)	-	ST	G2G3 / S2S3	**LOW to MODERATE** - A mix of appropriate habitat and degraded habitats along with known occurrences near the Project Area. Potential for dispersing juveniles to occupy habitat. **LOW** in the **gen-tie Corridor:** some appropriate habitat but no nearby known occurrences.	Not surveyed for; habitat suitability assessments in 2019 and 2020 indicate Low to Moderate presence on site.
Desert Kit Fox (*Vulpes macrotis arsipus*)	-	CCR, Title 14	-	**HIGH** – Appropriate habitat and nearby known occurrences.	12 Active Dens recorded in California City. 58 Active Dens recorded in Kern County.
American Badger (*Taxidea taxus*)	-	SSC	G5 / S3	**MODERATE** – Appropriate habitat and nearby known occurrences.	One active den, two possible inactive dens, one recent scat, and five hunting site excavations in Kern County.
Agassiz's Desert Tortoise (*Gopherus agassizii*)	FT	SCE	G3 / S2S3	**HIGH** – Appropriate habitat and nearby known occurrences.	No live tortoises, one Class 2 burrow, and one carcass in California City. Five live adult tortoises (three male and two female), multiple Class 1 and 2 burrows, numerous scat, and multiple carcasses in Kern County.

SPECIES	FEDERAL	STATE / CDFW	G-RANK / S-RANK	POTENTIAL FOR OCCURRENCE WITHIN THE PROJECT AREA	OCCURRENCE STATUS 2019, 2020, AND 2021
California Condor (*Gymnogyps californianus*)	FE	SE / FP	G1 / S1	**LOW –** Year-round foraging opportunities throughout the Project Area and nearby known occurrences.	Not observed during the survey periods.
Northern Harrier (*Circus hudsonius*)	-	SSC	G5 / S3	**MODERATE –** Appropriate habitat for foraging and perching in the Project Area with suitable nesting habitats nearby; nearby known occurrences.	One northern harrier observed during the survey periods.
Cooper's Hawk (*Accipiter cooperii*)	-	WL	G5 / S4	**MODERATE** – Appropriate habitat for foraging and perching in the Project Area with suitable nesting habitats nearby; nearby known occurrences.	One Cooper's hawk observed during the survey periods.
Swainson's Hawk (*Buteo swainsoni*)	BCC	ST	G5 / S3	**MODERATE –** Appropriate habitat for foraging and perching in the Project Area with suitable nesting habitats nearby; nearby known occurrences.	Not observed during the survey periods.
Ferruginous Hawk (*Buteo regalis*)	BCC	WL	G4 / S3S4	**MODERATE** – Appropriate foraging, perching, and roosting habitat and nearby known occurrences.	Not observed during the survey periods.
Golden Eagle (*Aquila chrysaetos*)	BCC BGEPA	FP WL	G5 / S3	**MODERATE –** Appropriate habitat for foraging and perching in the Project Area with suitable nesting habitats nearby; nearby known occurrences.	Not observed during the survey periods.
Merlin (*Falco columbarius*)	-	WL	G5 / S3S4	**MODERATE** – Appropriate foraging, perching, and roosting habitat and nearby known occurrences.	Not observed during the survey periods.
Prairie Falcon (*Falco mexicanus*)	BCC	WL	G5 / S4	**MODERATE –** Appropriate habitat for foraging and perching in the Project Area with suitable nesting habitats nearby; nearby known occurrences.	One prairie falcon observed during the survey periods.
American Peregrine Falcon (*Falco peregrinus anatum*)	BCC	FP	G4T4 / S3S4	**LOW –** No appropriate habitat on site; direct or indirect effects from project not anticipated but this species may forage or migrate through the Project Area.	Not observed during the survey periods.

SPECIES	FEDERAL	STATE / CDFW	G-RANK / S-RANK	POTENTIAL FOR OCCURRENCE WITHIN THE PROJECT AREA	OCCURRENCE STATUS 2019, 2020, AND 2021
Western Snowy Plover (*Charadrius nivosus nivosus*)	FT BCC	SSC	G3T3 / S2	**LOW –** Alkali and saline lakes to support the species are absent from the Project Area. The species could migrate through the Project Area.	Not observed during the survey periods.
Mountain Plover (*Charadrius montanus*)	BCC	SSC	G3 / S2S3	**LOW –** No appropriate habitat on site but this species may forage or migrate through the Project Area.	Not observed during the survey periods.
Western Burrowing Owl (*Athene cunicularia* ssp. *hypugaea*)	BCC	SSC	G4 / S3	**HIGH** – Appropriate habitat and nearby known occurrences.	No live burrowing owls observed, one active burrow recorded in California City. Five live burrowing owls observed, nine active burrows recorded in Kern County.
Long-eared Owl (*Asio otus*)	-	SSC	G5 / S3?	**LOW** – No appropriate nesting habitat nearby and very few known occurrences in the proximity of the Project Area.	Not observed during the survey periods.
Short-eared Owl (*Asio flammeus*)	-	SSC	G5 / S3	**LOW** – No appropriate nesting habitat nearby and very few known occurrences in the proximity of the Project Area.	Not observed during the survey periods.
Loggerhead Shrike (*Lanius ludovicianus*)	BCC	SSC	G4 / S4	**HIGH** – Appropriate habitat and nearby known occurrences.	1 loggerhead shrike was observed in California City. 11 loggerhead shrikes were observed in Kern County.
Gray Vireo (*Vireo vicinior*)	BCC	SSC	G5 / S2	**LOW –** No appropriate nesting habitat nearby and very few known occurrences in the proximity of the project.	Not observed during the survey periods.
Black-tailed Gnatcatcher (*Polioptila melanura*)	-	WL	G5 / S3S4	**LOW** – No appropriate habitat for nesting and nearest occurrences are not close to the Project Area.	One pair of black-tailed gnatcatchers observed during the survey periods.
Yellow Warbler (*Setophaga petechia*)	BCC	SSC	G5 / S3S4	**MODERATE** – Appropriate habitat for migration movements and nearby known occurrences.	Not observed during the survey periods.

SPECIES	FEDERAL	STATE / CDFW	G-RANK / S-RANK	POTENTIAL FOR OCCURRENCE WITHIN THE PROJECT AREA	OCCURRENCE STATUS 2019, 2020, AND 2021
Tricolored Blackbird (*Agelaius tricolor*)	BCC	ST / SSC	G1G2 / S1S2	**LOW** - No appropriate habitat for nesting. Nearest occurrences are not close to the Project Area but they may be observed migrating to breeding sites nearby.	Not observed during the survey periods.
Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*)	-	SSC	G5 / S3	**LOW** - No appropriate habitat for nesting. Nearest occurrences are not close to the Project Area but they may be observed migrating to breeding sites nearby.	Not observed during the survey periods.
Crotch Bumble Bee (*Bombus crotchii*)	-	SCE	G3G4 / S1S2 IUCN - Endangered	**LOW** – Not expected in dry years. Five occurrences recorded in the region with a recent occurrence recorded south of Tehachapi 2017.	Not observed during the survey periods.
Western Bumble Bee (*Bombus occidentalis*)	-	SCE	G2G3 / S1 IUCN – Vulnerable	**LOW** – Not expected on site. Occurrences recorded in the Fremont Valley region.	Not observed during the survey periods.
Mojave Dotted-blue Butterfly (*Euphilotes mojave*)	-	-	G2G3 / S1S2	**MODERATE** - Host plants are present throughout appropriate habitats within the Project Area.	Not observed during the survey periods.

Note: See Appendix 1 for the definition of all Rank codes.

the species with potential to occur.

The literature research conducted for listed, candidate, and special status wildlife species identified a total of 45 species within the USGS quadrangles in and around the Project Area (CNDDB 2021a, 2021b) (Figure 5). Out of the 45 species identified, 28 species have the potential to occur within the Project Area (Table 3). Of the 28 species, there were four mammals, one reptile, 20 species of birds, and three species of insects.

Eight of the 28 species are federal and/or state listed and three are state candidate species for listing as Endangered. Of these eight species, two have the potential to occur at the site: the state listed as Threatened MGS and the ADT, a federal listed as Threatened and state candidate for Endangered listing. The federal and state Endangered California condor (*Gymnogyps californianus*), the state Threatened Swainson's hawk (*Buteo swainsoni*), the federal Threatened western snowy plover (*Charadrius alexandrinus nivosus*), and the state Threatened tricolored blackbird (*Agelaius tricolor*) are not known to nest within the limits of the Project Area but may potentially occur on site to forage, hunt, roost, perch, drink, or migrate through. The other state candidate species for listing as Endangered are the Crotch bumble bee (*Bombus crotchii*) and the western bumble bee (*Bombus occidentalis*) which have a low potential for occurrence within the limits of the Project Area during average and above average wet years.

Protocols

The focus of this report is to address the results of focused wildlife surveys conducted for ADT, MGS, and burrowing owl. Other special-status species surveyed for during the focused surveys included DKF, American badger, and migratory bird species. A comprehensive list of all special-status and general wildlife species observed during these surveys can be found in Appendix 3.

Desert Tortoise

ADT is a federally listed Threatened species (USFWS 1990) and a state candidate for Endangered listing (Table 3). It is the only *Gopherus* species that occurs in California. It is also the State reptile.

On 23 March 2020, a petition to the FGC was submitted by Defenders of Wildlife, the Desert Tortoise Council, and the DTPC requesting that the ADT be moved from listed as threatened to endangered (CFGC 2020a). In August of 2020, CDFW submitted their *Report to the Fish and Game Commission; Evaluation of a Petition from the Desert Tortoise Council, the Desert Tortoise Preserve Committee, and Defenders of Wildlife to Change the Status of Mohave Desert Tortoise* (Gopherus agassizii) *from Threatened to Endangered Under the California Endangered Species Act* (CDFW 2020b). CDFW's Petition Evaluation determined that the petition provided sufficient scientific information to indicate that the petitioned action may be warranted. On 14 October 2020, the FGC formally accepted for consideration the petition submitted to change the status of ADT from threatened to endangered under the California Endangered Species Act (CFGC 2020b). CDFW will provide a written report to the FGC in October 2021 indicating whether the petition action is warranted or not.

USFWS protocols (USFWS 2019) define the "action area" of a project to include all areas to be affected directly or indirectly by a project action. The Bellefield Solar Farm desert tortoise protocol survey "action area" boundary is consistent with the Project Area boundary, as defined

above. The "action area" excluded all existing public use paved and/or dirt roads.

A 100 percent (%) coverage survey as defined in the USFWS's 2019 protocol (USFWS 2019) was conducted for desert tortoise within the "action area." In brief, these protocols specify the following:

- An option to conduct 100% coverage surveys or probabilistic sampling if the site is large enough. The threshold to allow probabilistic sampling for the Western Mojave Desert is 3,290 acres.
- An option to conduct desert tortoise surveys at any time of the year on project sites with less than 500 acres.
- Transects spaced at 10-meter intervals if 100% coverage surveys are utilized.
- Surveys for large projects to be conducted during tortoise active periods, April 1 to May 31 or September 1 to October 31 when the shaded air temperatures are below 40 degrees Celsius (ºC) (104 degrees Fahrenheit [ºF]) at 5 centimeters (cm) (2 inches) above ground.
- Surveys to cover the "action area" which includes all areas to be affected directly or indirectly by a project action.

Burrowing Owl

The burrowing owl is a USFWS Bird of Conservation Concern (BCC) (USFWS 2008) and is a CDFW Species of Special Concern (SSC) (CDFW 2019c) (Table 3). It is also protected under the federal Migratory Bird Treaty Act.

A survey for burrowing owl was conducted according to CDFW protocols (CDFG 2012; note: prior to 2013 CDFW was known as the California Department of Fish and Game [CDFG]).

In brief, these protocols specify the following:

- A total of four site surveys either within the breeding season (1 February to 31 August) or outside of the breeding season with breeding season surveys conducted at least 3 weeks apart between April 15 and July 15 with at least one visit after June 15. One survey must be conducted between February 15 and April 15 and the non-breeding season protocol requires four surveys spaced evenly apart between September 1 and January 31. The 2019 survey was a non-breeding season survey, the 2020 survey was a breeding season survey, and the 2021 survey was a breeding survey.
- Transects spaced at 7- to 20-meters apart and adjusted for vegetation height and density.
- Occupancy of burrowing owl habitat is confirmed and recorded when at least one burrowing owl, or its sign (pellets, prey remains, whitewash, or decoration) is located at or near a burrow entrance.
- Survey of a 150-meter wide buffer around the perimeter of the Project Area.
- A provision by CDFW to propose alternate survey methods for large projects.

Mohave Ground Squirrel

Detection of the state Threatened MGS requires that trapping surveys be conducted during specific time periods. MGS trapping was outside the scope of this wildlife survey. However, habitat suitability assessments were conducted for MGS by Dr. Philip Leitner on September 6 to 13, 2019 and on March 25 to 29, 2020. The habitat assessments were completed to determine the potential for occurrence as well as impacts to this species from proposed project development (Table 3 and Appendix 2). The habitat assessment also included a review of the CNDDB and maps for MGS occurrences within the project vicinity.

Other Species

In addition to protocol surveys for desert tortoise and burrowing owls, the entire Action Area was surveyed concurrently for other wildlife species. All other special-status species and their sign were noted if observed. This included, but was not limited to, DKF American badger, sensitive bird species, and nesting birds and/or nests.

The DKF currently does not have federal or state special status designation, however, it is protected from "take" as a furbearing mammal pursuant to the California Code of Regulations (CCR), Title 14 [Natural Resources], Division 1 [Fish and Game Commission-Department of Fish and Game], Subdivision 2 [Game, Furbearers, Nongame, and Depredators], Chapter 5 [Furbearing Mammals], Section 460 [Fisher, Marten, River Otter, Desert Kit Fox and Red Fox] (Westlaw 2019). Section 460 specifically states that DKF "…may not be taken at any time." Current population trends for the DKF are unknown due to a lack of population monitoring by CDFW.

Field Methods

The entire Project Area was surveyed at 10-meter transect intervals for an approximate total of 2,150 transect miles. In accordance with CDFW burrowing owl protocols (CDFG 2012), 150-meter wide buffer areas adjacent to the Project Area were surveyed at 20 meter intervals. Burrowing owl buffers were not walked adjacent to the gen-tie corridor or collector lines. Burrowing owl buffers were established around the perimeter of the Project parcels.

All transects were walked in a north-south direction except for some east-west oriented gen-tie routes and east-west burrowing owl buffer areas. North-south transects were preferred to increase visibility by reducing glare from walking directly into the sun in the early morning.

USFWS protocol surveys within the Project Area (USFWS 2019b) in 2019, 2020, and 2021. In 2019, a majority of the current Project Area was surveyed between 20 August and 10 October. The Applicant added parcels and additional surveys were conducted between 17 April and 25 May of 2020 (USFWS 2019b). Another addition of parcels totaling 214 acres was added to the Project Area in January 2021, with subsequent surveys conducted between 5 February and 12 February 2021. The February 2021 surveys were conducted pursuant to the USFWS survey protocol which allows for surveys to be conducted at any time of the year for projects below the acreage threshold of 500 acres in the western Mojave Desert. Approximately 2,210 miles of transects were walked in 10-meter wide transects by seven highly qualified and experienced biologists. The Project Area is consistent with and comprises the same area as the USFWS protocol survey definition of "action area."

All transects and the boundaries of the survey areas were downloaded to handheld GPS units for

ease of navigation. Each team member was equipped with a GPS unit. For efficiency, team members worked independently. Team members nominally completed 8 miles of transects per day.

Biologists focused their search within an approximate 180 degree arc and 5-meter radius centered in front of them. The survey team generally remained on their transect centerline except to investigate shrubs, trees, and other landscape features which prevented the biologist from seeing an item of interest. After investigation of a feature, the biologist returned to the transect centerline. This ensured accurate coverage of the survey area. Biologists avoided staring at the GPS units to maintain their track. Instead, they selected an object on the horizon to use as a target and occasionally checked the GPS for their position with respect to the intended transect. Less than 10% of the biologist's time was spent looking at the GPS. The survey team has substantial prior experience in this type of GPS navigation.

The following desert tortoise related data was collected:

- Observer name
- Date
- Location of observation (UTM, WGS84)
- Burrows and coversites
- Burrow class
    - Class 1 - Currently active, with tortoise or recent tortoise sign
    - Class 2 - Good condition, definitely tortoise, no evidence of recent use
    - Class 3 - Deteriorated condition; definitely tortoise
    - Class 4 - Deteriorated condition; possibly tortoise
    - Class 5 – Good condition; possibly tortoise
- Burrow dimensions (length, width, height, soil cover [mm])
- Burrow aspect – direction mouth of burrow is facing
- Scat
    - Class (this year [TY] or not this year [NTY])
    - Number of individual items of scat
- Live tortoise
    - Maximum carapace length (MCL, mm)
    - Sex – male, female, or unknown. Sex cannot be reliably determined for animals under 180 mm MCL
    - Location – in burrow, under shrub, in open, etc.
    - Activity - resting, basking, walking, feeding, interacting, other
    - Health notes - signs of upper respiratory tract disease, cutaneous dyskeratosis, etc.

- Carcasses
    - MCL (mm)
    - Sex – male, female, or unknown. Sex cannot be reliably determined for animals under 180 mm MCL.
    - Sun exposure – percentage of time carcass is exposed to sun – for a carcass in the open the value is 100%
    - Position - upright, inverted, disarticulated
    - Cause of death – often unknown; detectable indications of cause of death could include predator chew marks, predator scat nearby, or gunshot wounds.
    - Time-since-death in standard categories (Berry and Woodman, 1984)
        - < 1 year
        - 1 to 2 years
        - 2 to 4 years
        - > 4 years
- Other sign such as tracks, drinking depressions (tortoise created water catchments), courtship rings (circular disturbed areas in the soil created by tortoise courtship activities), etc.
- Additional notes

The following DKF related data was collected:

- Observer name
- Date
- Location of observation (UTM, WGS84)
- Status of den
    - Inactive
    - Active
    - Pupping
- Number of entrances to den
- Detailed notes on observation

The following burrowing owl related data was collected:

- Observer name
- Date
- Location of observation (UTM, WGS84)

- Status of burrow
    - Inactive
    - Active
- Burrowing owl sign observed at burrow.
    - Feathers
    - Pellets
    - Prey items
    - Whitewash
- Observation of a live burrowing owl
    - At a burrow
    - Not associated with a burrow
- Detailed notes on observation

The following data was collected for special status species observations:

- Observer name
- Date
- Location of observation (UTM, WGS84)
- Species
- Detailed notes on observation

In the field, all data were collected using an Apple iPhone® and the application Avenza Maps for which a custom data collection schema was developed. The cumulative data were uploaded daily to a cloud storage site (Dropbox.com). Photographs were taken of every item of sign trackable to a unique sequential sign identification number assigned in Avenza Maps. Photographs were also taken of typical habitat features. The application Theodolite was used to take all photographs. Theodolite imprints data to a digital photograph. These data include the date and time, location in Universal Transverse Mercator (UTM) coordinates (WGS 84, Zone 11S), altitude, datum, direction the camera is pointed, elevation and horizon angles, zoom level, and custom notes.

At 0800 and 1200, weather conditions were recorded. Weather conditions included the shaded air temperature at 1.5 meters measured with a 0.1 °C precision thermistor, an estimated percentage of cloud cover and type of clouds, and wind speeds and direction. Winds speeds were measured with a Kestrel® brand electronic wind meter. Measurements were taken until average wind speeds stabilized. The average and maximum wind speeds were recorded. Wind direction was estimated by observing the drift direction of a handful of fine soil that was dropped. These data are listed in Appendix 3.

In addition to recorded temperature data, 5 cm shaded air temperatures were routinely taken on warm days during the active survey period to ensure that the peak desert tortoise survey temperature of 40 ºC at 5 cm was not exceeded. Cooler temperatures prevailed during the survey

and the 5 cm temperature never approached the maximum.

Specific to desert tortoises, no animals were handled during the survey. All burrows and potential cover sites were investigated by using a mirror to reflect sunlight into the burrow. Neither probes nor downhole cameras were utilized to investigate burrows to prevent potentially harassing tortoises.

Specific to burrowing owls, sign observations were placed in the following categories: live burrowing owls that did not appear to be associated with a burrow, live burrowing owls at or otherwise associated with a burrow or burrows, active burrowing owl burrows, and inactive burrowing owl burrows. Active burrowing owl burrows were of an appropriate size for use by a burrowing owl and one or more of the following recent items of sign were present – whitewash (uric acid excretions which are the equivalent of urine in mammals), owl feathers, pellets (undigested parts of owl's food that are regurgitated), remains of prey items, and disturbed area in the mouth of a burrow consistent with owls. Inactive burrows were similar to active burrowing owl burrows except that the sign was not recent. Inactive burrows are often difficult to determine because the sign persists for a limited time after a burrow becomes inactive.

Specific to DKF, sign observations included pupping, active, and inactive kit fox dens. Pupping or natal dens were identified by observation of pups, hearing pups in the den, or den characteristics. Pupping den characteristics include multiple entrances to a den that show evidence of heavy use. The presence of prey items and scat tended to confirm a den's designation as a pupping den.

An active kit fox den was identified as an appropriately sized den with a typically narrow entrance, often with multiple access points, and with one or more of the following recent items of sign present: disturbance in one or more entrances showing recent use, fox tracks in the vicinity, remains of prey items nearby, live foxes heard or seen in the den, or flies in the burrow indicating a likely uneaten or decomposing prey item inside. Inactive kit fox dens possess the same general characteristics less the recent sign and are more difficult to identify than active kit fox dens.

Species Identification Resources

Identification of plants followed The Jepson Manual: Vascular Plants of California (Baldwin, 2012) and plant communities followed A Manual of California Vegetation: Second Edition (Sawyer and Keeler-Wolf and Evens, 2009).

Bird identification resources included A Field Guide to Western Birds (Peterson, 1993), Field Guide to the Birds of North America (National Geographic Society, 1987), and Stokes Field Guide to Birds: Western Region (Stokes, 1996).

Mammal identification resources included California Mammals (Jameson, 1988) and A Field Guide to the Mammals of North America North of Mexico (Burt and Grossenheider, 1980).

Reptile identification resources included A Field Guide to Western Reptiles and Amphibians (Stebbins, 1985).

RESULTS

Figure 6 shows observations of listed and special-status species and their sign within the Bellefield Solar Farm Project Area and buffer survey areas. Table 3 includes information on the survey results for listed and special-status species. Appendix 4 includes the comprehensive list of wildlife species observed during the survey. MGS were not included on the list because only a habitat suitability assessment was conducted. The MGS habitat suitability assessment results are summarized below from the Biological Evaluation (EnviroPlus 2021). The completed MGS habitat suitability assessments can be found in Appendix 2.

Desert Tortoise

California City

Although desert tortoise was not detected within California City, a total of seven burrows were recorded (Table 4; Figure 7; Photographs 13 - 15). The Class 2 burrow, although not exhibiting any recent use, was located 515 feet south of a live desert tortoise male (250 millimeter [mm] MCL) located within Kern County. It is highly probable that this burrow has been utilized by this male desert tortoise in the past and may be used by this or another animal in the future. Six of the seven burrows were designated as Class 4 burrows. No Class 1 burrows, scat, tracks, courtship rings, eggs or eggshell fragments, or drinking depressions were detected.

One adult sized carcass was located within California City, sex unknown, with disarticulated bones, and was estimated to have died over 4 years prior to the observation (Berry and Woodman 1984) (Table 4 and Figure 7). This carcass was located in an area with no desert tortoise sign present, south of East Altus Avenue. The closest desert tortoise sign was a Class 4 burrow located west of the carcass within 4,600 feet (Table 4 and Figure 7).

Kern County

A total of five desert tortoise were detected within Kern County. This included three adult males and two adult females in observable healthy condition (Table 4; Figure 7; Photographs 16 - 18). Only one of these animals was not associated with a burrow at the time of the 2019 survey. Two of these desert tortoises were located within 850 feet of each other within upland and wash habitats during the 2019 survey, with the surrounding area exhibiting an abundance of This Year scat along with multiple Class 1 and Class 2 burrows. The other three desert tortoises were located north of SR58 in upland and/or wash habitats during the 2019 and 2020 surveys. The spacing between these tortoises, from south to north, was approximately 5,500 feet between the 325 mm MCL male and the 250 mm MCL female, and approximately 12,000 feet between the 250 mm MCL female and the 242 mm MCL male. The 325 mm MCL male was located in proximity to four other burrows (Class 1, 2, 4, and 5) with This Year scat present. The 250 mm MCL female was located in proximity to Class 4 burrows with no other sign present other than This Year scat at the burrow with which it was associated. The 242 mm MCL male was not recorded in association with a burrow, however, it was located within 500 to 3,000 feet from several Class 2, 3, and 4 burrows.

Table 4. Desert Tortoise and Desert Tortoise Sign Detected within the Bellefield Solar Farm Project Area, California City and Kern County, California, 20 August – 10 October 2019 and 17 April through 25 May 2020

All coordinates in Universal Transverse Mercator (UTM), Zone 11S, Datum WGS-84 meters

LIVE DESERT TORTOISES*

Date	Easting	Northing	Location	MCL (mm)	Sex	Location of Tortoise	Activity	Health
8/20/2019	401671.8	3877128	Kern County	325	Male	In the open	Basking; associated with burrow	No observable health issues.
9/12/2019	402225	3882330	Kern County	242	Male	Shade of shrub	Resting	Healthy carapace and limbs; no injuries; eyes and nares clear; anomaly at L C3 scute.
9/15/2019	401931.7	3875786	Kern County	240	Female	Inside burrow	Resting	Not observable.
9/16/2019	402103	3875590	Kern County	250	Male	Inside burrow	Resting	Palpebrals appear swollen.
4/22/2020	401332	3878762	Kern County	250	Female	Burrow apron	Resting	Appeared healthy.

All coordinates in Universal Transverse Mercator (UTM), Zone 11S, Datum WGS-84 meters

DESERT TORTOISE BURROWS**

Date	Easting	Northing	Location	Class	Length (mm)	Width (mm)	Height (mm)	Burrow Aspect	Notes
8/23/2019	409834.3	3876631	California City	4	493	213	152	East	-
9/16/2019	402154.3	3875442	California City	2	>1000	320	200	South	-
10/1/2019	409704.5	3875665	California City	4	450	175	165	East	Associated with 2 probable DKF digging sites; may be a modified desert tortoise burrow.
10/1/2019	409687.9	3875583	California City	4	700	210	165	South	Entrance clear of vegetation and could have been recently modified by other species.
10/3/2019	409451	3876696	California City	4	>1000	220	180	Southwest	Dig by possible coyote into the tortoise burrow through the roof of the burrow.
10/3/2019	409428	3876428	California City	4	120	145	100	South	-
10/3/2019	409437	3876631	California City	4	>1000	195	115	Northeast	Annuals growing in entrance.

Date	Easting	Northing	Location	Class	Length (mm)	Width (mm)	Height (mm)	Burrow Aspect	Notes
8/19/2019	401671.8	3877128	Kern County	1	>1000	350	225	South	Desert tortoise tracks near burrow entrance. Tortoise observed basking nearby (Male 325mm MCL).
8/22/2019	408055.7	3875148	Kern County	4	430	175	113	North	-
8/22/2019	400751	3878929	Kern County	4	>1000	210	160	East	Two class 4 burrows.
8/23/2019	401334	3878764	Kern County	2	>1000	300	150	North	20 separate scats varying in age from recent year to older within burrow entrance and outside of burrow in DKF excavation sites.
8/27/2019	405638.7	3873768	Kern County	4	740	232	142	Southeast	-
8/28/2019	403092	3879918	Kern County	4	>1000	250	220	Southeast	-
9/1/2019	401355	3882084	Kern County	4	>1000	160	105	South	Annuals growing in entrance.
9/3/2019	401537.2	3882941	Kern County	4	>1000	110	80	Southeast	Associated with a 2nd collapsed burrow.
9/3/2019	401530.9	3882933	Kern County	4	>1000	95	75	Southwest	-
9/3/2019	401533	3882910	Kern County	4	>1000	120	100	Northeast	-
9/4/2019	401605.3	3882769	Kern County	4	>1000	105	75	South	-
9/5/2019	401680	3882506	Kern County	3	>1000	260	190	Northeast	Scat not of this year associated with the burrow.
9/6/2019	401786	3882690	Kern County	3	>1000	240	180	South	No sign but floor at back of burrow in good condition; partial roof deterioration at entrance.
9/7/2019	401847	3882609	Kern County	4	550	190	140	Northeast	-
9/7/2019	401856	3881564	Kern County	3	550	220	150	East	-
9/8/2019	401903	3882865	Kern County	2	>1000	250	150	Northeast	-
9/8/2019	401943.8	3882632	Kern County	4	>1000	210	190	Southwest	-
9/9/2019	407241.7	3874055	Kern County	4	743	180	92	Southwest	-
9/10/2019	401971	3882346	Kern County	4	560	260	205	South	Collapsed roof.
9/11/2019	402064.5	3882945	Kern County	2	>1000	245	205	Southeast	Sparse annuals at entrance; flat floor; good ramp angle.
9/11/2019	402125	3882441	Kern County	4	>1000	180	95	Northeast	Roof is flat from deterioration.
9/12/2019	402122	3881591	Kern County	4	320	185	165	West	-
9/12/2019	400515	3880551	Kern County	4	>1000	330	250	South	-
9/12/2019	400518.4	3880777	Kern County	4	>1000	180	120	Southeast	-
9/14/2019	401903.7	3875855	Kern County	1	1000	280	100	North	20 scats in burrow.
9/14/2019	401894.8	3875717	Kern County	1	360	320	110	Northwest	Pallet
9/15/2019	401923.3	3875778	Kern County	1	>900	290	110	East	Desert tortoise in burrow (Female 240mm MCL).
9/15/2019	401941.9	3875641	Kern County	2	>1000	250	120	North	-
9/15/2019	401950.3	3875350	Kern County	2	>1000	300	120	Northeast	-
9/15/2019	401987.5	3875862	Kern County	1	1000	270	130	West	Eggshell fragments in burrow.

Date	Easting	Northing	Location	Class	Length (mm)	Width (mm)	Height (mm)	Burrow Aspect	Notes
9/16/2019	400329	3878083	Kern County	5	190	200	175	South	Pallet with shallow cover in embankment of wash.
9/16/2019	402101.2	3875592	Kern County	1	>900	290	150	Northeast	Desert tortoise in burrow (Male 250mm MCL) with 40 scat in and around burrow site.
9/16/2019	400473.4	3877949	Kern County	4	450	410	180	North	Located on the south bank of a large wash.
9/17/2019	402181	3878193	Kern County	4	>1000	200	155	Southeast	Annuals at burrow entrance.
9/17/2019	402155	3875565	Kern County	1	400	300	120	Northwest	-
9/17/2019	406782.3	3875087	Kern County	4	473	203	155	Southwest	-
9/19/2019	406604.8	3873981	Kern County	4	417	229	157	Southeast	-
9/21/2019	402381.4	3875659	Kern County	2	600	270	120	North	-
9/21/2019	401004	3879565	Kern County	4	>1000	180	110	North	-
9/21/2019	401000.1	3879566	Kern County	4	>500	200	120	North	-
9/23/2019	401069.2	3881127	Kern County	4	>1000	600	200	North	-
9/24/2019	401093.1	3878720	Kern County	4	>1000	150	100	Southeast	-
9/26/2019	402527.5	3875627	Kern County	2	>1000	300	120	Northwest	Used this year but does not meet Class 1 criteria.
9/27/2019	401291	3880932	Kern County	4	>1000	320	180	North	-
9/27/2019	401409	3877445	Kern County	2	>1000	275	85	West	Webs present but burrow exhibits classic tortoise ½ moon shape; may have been used this year; east side of a north-south road.
9/28/2019	401446	3877505	Kern County	4	220	385	190	Northeast	Associated with a DKF den complex; classic dome but shallow in height; no tortoise sign.
9/28/2019	401331	3880309	Kern County	4	>1000	300	220	North	-
9/29/2019	401516.7	3877382	Kern County	5	210	280	190	East	Pallet.
9/29/2019	401504.9	3877401	Kern County	1	>1000	375	175	Southeast	Impressions of tracks, appears to turn left in back of burrow.
9/30/2019	401622.2	3876771	Kern County	5	160	190	100	East	Shallow, recently excavated; dome shape but dirt clods present above burrow.
10/2/2019	402770.8	3875369	Kern County	3	>200	130	70	East	-
10/4/2019	401709.4	3879744	Kern County	4	>1000	180	120	South	-
4/22/2020	401333	3878764	Kern County	1	>500	300	200	North	Desert tortoise at burrow (Female 250mm MCL); *Amsinkia* sp. blocking view into burrow.

				DESERT TORTOISE CARCASSES***		
Date	**Easting**	**Northing**	**Location**	**MCL (mm)**	**Sex**	**Time Since Death**
9/3/2019	403608.1	3878099	California City	Adult sized; disarticulated; no scutes; 30% of the bones present	Unknown	Unknown cause of death, greater than 4 years.
8/25/2019	401675.9	3874090	Kern County	Adult sized; disarticulated; 5% of the scutes present; 30% of the bones present	Unknown	Unknown cause of death, greater than 4 years.
8/27/2019	402109	3879865	Kern County	Adult sized; disarticulated; 10% of the scutes present; 5% of the bones present	Unknown	Unknown cause of death, greater than 4 years.
9/4/2019	401662.4	3882823	Kern County	210 mm MCL; inverted; no scutes; 25% of the bones present	Unknown	Unknown cause of death, greater than 4 years.
9/7/2019	401893	3881777	Kern County	230 mm MCL; upright position; 75% of the scutes present; 95% of the bones present	Female	Unknown cause of death, 1 – 2 years.
9/15/2019	402074.3	3875388	Kern County	320 mm MCL; upright; 60% of the scutes present; 30% of the bones present	Male	Unknown cause of death, 2 – 4 years.
9/25/2019	402504	3875557	Kern County	Unknown size; disarticulated; no scutes; 5% of the bones present	Unknown	Unknown cause of death, greater than 4 years.
10/3/2019	398640.9	3878753	Kern County	Unknown size; disarticulated; no scutes; 5% of the bones present	Female	Unknown cause of death, greater than 4 years.

				OTHER DESERT TORTOISE SIGN****
Date	**Easting**	**Northing**	**Location**	**Notes**
8/20/2019	401704.1	3877030	Kern County	1 Scat – This Year
8/23/2019	401334	3878809	Kern County	20 Scat – This Year; Class 2 Burrow with twenty scats; mix of dark brown and glazed, slightly odorous and older scar beginning to bleach; all scat either inside burrow entrance or present in long mounds excavated by DKF with recent DKF tracks.
9/5/2019	401681	3882505	Kern County	2 Scat – Not This Year; associated with burrow at 3882506.0 / 401680.0.
9/14/2019	401908.7	3875852	Kern County	20 Scat – This Year

Date	Easting	Northing	Location	Notes
9/14/2019	401907.6	3875832	Kern County	3 Scat – This Year
9/15/2019	401953.7	3875460	Kern County	1 Scat – This Year; 10 mm width, possible immature desert tortoise.
9/15/2019	402009.5	3875820	Kern County	5 Scat – Not This Year
9/15/2019	402014.9	3875702	Kern County	1 Scat – Not This Year
9/15/2019	401931.7	3875705	Kern County	1 Scat – This Year
9/15/2019	401941.9	3875641	Kern County	1 Scat – This Year
9/15/2019	401952	3875715	Kern County	1 Scat – This Year
9/15/2019	401958.8	3875636	Kern County	2 Scat – This Year
9/15/2019	401968.9	3875657	Kern County	2 Scat – This Year
9/15/2019	401975.7	3875656	Kern County	1 Scat – This Year
9/15/2019	401994.3	3875681	Kern County	2 Scat – This Year
9/15/2019	401997.7	3875732	Kern County	1 Scat – This Year
9/15/2019	402001.1	3875801	Kern County	2 Scat – This Year
9/15/2019	402009.5	3875696	Kern County	2 Scat – This Year
9/15/2019	402011.7	3875619	Kern County	2 Scat – This Year
9/15/2019	402014.4	3875635	Kern County	1 Scat – This Year
9/16/2019	402106.7	3875591	Kern County	40 Scat – This Year; scat in and around Class 1 Burrow with desert tortoise inside.
9/16/2019	402024.5	3875641	Kern County	1 Scat – This Year

Date	Easting	Northing	Location	Notes
9/16/2019	402031.4	3875720	Kern County	1 Scat – This Year
9/16/2019	402100	3875574	Kern County	2 Scat – This Year
9/17/2019	402130.3	3875581	Kern County	1 Scat – This Year; 10 mm width, possible immature desert tortoise.
9/17/2019	402141.9	3875561	Kern County	2 Scat – This Year
9/17/2019	402198	3875495	Kern County	2 Scat – This Year
9/29/2019	401555.5	3877263	Kern County	2 Scat – This Year; adult, 20 mm
9/30/2019	401614	3877226	Kern County	2 Scat – This Year; 20 mm width and glossy

* **Live Desert Tortoise**
MCL - Maximum carapace length in mm
Sex – male, female, or unknown. Sex cannot be reliably determined for animals under 180 mm MCL
Location – in burrow, under shrub, in open, etc.
Activity - resting, basking, walking, feeding, interacting, other
Health notes - signs of upper respiratory tract disease, cutaneous dyskeratosis, etc.

****Desert Tortoise Burrow Class**
Class 1 – Currently active, with tortoise or recent tortoise sign
Class 2 – Good condition, definitely tortoise, no evidence of recent use
Class 3 – Deteriorated condition; definitely tortoise
Class 4 – Deteriorated condition; possibly tortoise
Class 5 – Good condition; possibly tortoise
Burrow Aspect – Direction mouth of burrow is facing

*****Desert Tortoise Carcass**
MCL – maximum carapace length in mm or size class
Sex – male or female
Time Since Death – based on Berry and Woodman, 1984:
<1Year
1-2 Years
2-4 Years
>4 Years

******Other Desert Tortoise Sign**
Desert Tortoise Scat:
This Year = this survey season or survey year
Not This Year = older than the current survey season or year
Tracks, Drinking Depressions, and Courtship Rings

Fifty-three burrows were recorded within Kern County of which nine were designated as Class 1 burrows, eight were designated as Class 2 burrows, four were designated as Class 3 burrows, 29 were designated as Class 4 burrows, and three were designated as Class 5 burrows (Table 4 and Figure 7). The majority of the Class 1 and Class 2 burrows were found in the active desert tortoise locations. A Class 2 burrow recorded in 2019 was found to have a live desert tortoise residing in it during the 2020 survey, indicating that Class 2 burrows can be upgraded to Class 1 burrows within a season (Photograph 17).

Desert tortoise sign was found in abundance which supports the detection of five live tortoises and 17 Class 1 and 2 burrows. A Class 1 burrow had eggshell fragments in it and a total of 29 separate locations were recorded with scat observations of which there were a total of 116 scat that were determined to be deposited within the same year as the survey season (This Year) (Table 4 and Figure 7). Only eight scat were determined to be older than the survey season or year (Not This Year).

A total of seven desert tortoise carcass remains were recorded. Four were adult sized, one was a possible subadult size, and two were unknown due to the lack of a sufficient number of bones and scutes (Table 4; Figure 7; and Photograph 19). Of the seven carcasses, two were determined to be female and one was determined to be male with the remaining four unknown. Cause of death is unknown with five of the remains estimated to have died over 4 years prior to the observation, one estimated to have died between 2 and 4 years prior to the observation, and one estimated to have died between 1 and 2 years prior to the observation (Berry and Woodman 1984). Five of the carcasses were located in the proximity of recent and older desert tortoise sign to include burrows, scat, and live desert tortoises. Two of the carcasses were not located in proximity to any other desert tortoise sign. They were recorded near railroad tracks and SR58.

No desert tortoise or sign was detected during the 2021 survey.

Mohave Ground Squirrel

The Project Area is located on the western edge of the geographic range of MGS. The CNDDB (2021b) includes two records of visual observations of this species several miles north of Mojave, one in 1987 (Occurrence #284) and one in 1998 (Occurrence #300). The only other evidence of MGS presence in this area was a single individual observed and trapped in 2002 at the site of the Hyundai-Kia Proving Grounds east of Mojave (Leitner 2008; Leitner 2015). Multiple live-trapping surveys have been conducted at six grids on the Hyundai-Kia Proving Grounds property since 2002, but no MGS have been detected (Sundance Biology, Inc. 2012). Protocol trapping surveys have been carried out in recent years at more than 50 sites to the west and south of Mojave, but no MGS have been captured. In addition, camera trapping was conducted in 2011 and 2014 at 11 sites on BLM lands in the vicinity of the Project Area and failed to detect the species. The only recent MGS records in the region are at two sites approximately 6 miles to the east. Figure 8 shows the locations of all known MGS records and survey efforts.

MGS habitat requirements include soils suitable for burrow construction and native desert vegetation that provides adequate food resources and cover. The soils in the Project Area appear to meet the requirements for burrow construction. However, human land uses in the Project Area have resulted in significant degradation of native vegetation in some areas. Several hundred acres appear to have been in agricultural production in the past, with regrowth of very low diversity native vegetation. In addition, unregulated sheep grazing has been carried out over this entire

region for over 100 years, resulting in severe impacts to both herbaceous and shrub community structure. The original diverse native herbaceous community has been replaced by invasive Mediterranean grasses (*Schismus* spp.) which have little to no food value for MGS. The region originally supported a diverse shrub community dominated by creosote bush scrub that included a number of other shrub species that provided important food resources for MGS. Sheep grazing has removed almost all shrub species that provide high quality forage for MGS.

Habitat conditions on the proposed development units and collector lines generally appear to be of low to moderate suitability for MGS. Although the native vegetation has been seriously impacted by agricultural activities and heavy sheep grazing for many decades, some of the existing plant communities still include a number of shrub species that are known to be utilized by MGS for cover and forage (Leitner and Leitner, 2017). The gen-tie corridor traverses through areas with low quality habitat for MGS. These gen-tie lines pass through developed urban areas and along roadways with severely degraded habitat.

There is little evidence that the Project Area currently supports a resident MGS population. There have been no records of the species in the project area or the surrounding region for 17 years, in spite of extensive live-trapping and camera trapping surveys. The nearest recent documented occurrences are about six miles to the east. However, juvenile Mohave ground squirrels have been documented to disperse up to four miles from their natal sites, so there is some potential for the species to occur in the Project Area (Harris and Leitner, 2005).

Burrowing Owl

California City

Although no live burrowing owls were observed during the 2019 and 2020 survey seasons, one active burrow was recorded within California City (Table 5 and Figure 6). This active burrow, along with three nearby inactive burrowing owl burrows and multiple DKF dens and/or den complexes, was located at the eastern most portion of the Project Area, west of Neuralia Road. A total of three inactive burrows were recorded. No burrowing owl sign was found within the burrowing owl buffer survey areas within the gen-tie corridor.

Kern County

A total of five burrowing owls were observed during the 2019 and 2020 survey seasons (Table 5 and Figure 6). Four of these owls were associated with a burrow site and the remaining individual was observed flushing and then flying southwest from the railroad tracks. The owl observed flushing was seen within 1,200 feet from a perch site located within the burrowing owl buffer survey area north of the railroad tracks. No active burrows were recorded in the area around this owl; however, two inactive burrows were recorded within 3,300 feet northwest of the owl. The remaining four owls were observed in close proximity to each other with both active and inactive burrows being recorded as well as numerous inactive and active DKF dens and one Class 4 desert tortoise burrow nearby.

A total of 9 active and 30 inactive burrowing owl burrows as well as the one perch location were recorded in Kern County (Table 5; Figure 6; Photographs 20 and 21). Within the gen-tie corridor

Table 5. Burrowing Owls and Burrowing Owl Sign Detected within the Bellefield Solar Farm Project Area, California City and Kern County, California, 20 August – 10 October 2019 and 17 April – 25 May 2020

DATE	EASTING	NORTHING	LOCATION	OBSERVATION
9/27/2019	408386.3	3875298	California City	**Inactive Burrow** with whitewash.
10/3/2019	409419	3876352	California City	**Active Burrow** with whitewash within a possible canine dig.
10/6/2019	409039	3876177	California City	**Inactive Burrow** with whitewash; probable prior DKF excavation.
10/6/2019	409035	3875740	California City	**Inactive Burrow** with 1 old pellet.
8/23/2019	401776	3878937	Kern County	**Inactive Burrow**; whitewash and pellets present at 3 north facing burrows; one pellet present.
8/24/2019	399888	3874159	Kern County	**Perch Site** with whitewash and pellets.
9/3/2019	400056	3880310	Kern County	**Inactive Burrow**; whitewash and old pellets with insect and rodent remains on mound north of north facing burrow.
9/4/2019	400940.2	3874808	Kern County	**Inactive Burrow** with 7 pellets that has been excavated.
9/4/2019	400977.8	3874577	Kern County	**Inactive Burrow** with whitewash and pellets.
9/5/2019	400255.4	3874074	Kern County	**Live Burrowing Owl**; flushed when the train passed near the south border, flying toward southwest quadrant of the site; not associated with a burrow.
9/11/2019	400453.8	3880391	Kern County	**Inactive Burrow** with whitewash and pellets.
9/16/2019	402087.8	3875584	Kern County	**Inactive Burrow** located within a prior DKF den site.
9/17/2019	402160.1	3875435	Kern County	**Inactive Burrow** with whitewash and pellets.
9/18/2019	400672.4	3877520	Kern County	**Inactive Burrow** with whitewash; associated with an inactive DKF den complex.
9/18/2019	400672	3877956	Kern County	**Inactive Burrow** with whitewash and pellets; associated with an inactive DKF den complex.
9/18/2019	400707	3878149	Kern County	**Inactive Burrow** with whitewash; associated with an inactive DKF den complex.
9/21/2019	402340.4	3875550	Kern County	**Inactive Burrow** with whitewash.
9/23/2019	400989.4	3877399	Kern County	**Inactive Burrow** with whitewash; associated with an inactive DKF den complex.
9/23/2019	400997.2	3877276	Kern County	**Inactive Burrow** with whitewash; associated with an inactive DKF den complex.
9/24/2019	403119.4	3879144	Kern County	**Inactive Burrow** with whitewash and pellets.
9/24/2019	403151.1	3878454	Kern County	**Inactive Burrow** with whitewash and pellets.
9/24/2019	402962.8	3879159	Kern County	**Inactive Burrow** with whitewash, pellets, and feathers.
9/25/2019	401194	3877295	Kern County	**Inactive Burrow** with whitewash; associated with an active DKF den.
9/28/2019	401332.5	3879992	Kern County	**Inactive Burrow** with whitewash.
9/28/2019	401429	3873977	Kern County	**Inactive Burrow** with whitewash and pellets.
9/28/2019	401456.1	3873889	Kern County	**Inactive Burrow** with whitewash and pellets.
9/28/2019	401501	3873785	Kern County	**Inactive Burrow** with whitewash and pellets.
9/28/2019	401426.1	3873791	Kern County	**Inactive Burrow** with whitewash, pellets, and feathers.
10/1/2019	405965.2	3874591	Kern County	**Inactive Burrow** with whitewash and pellets; DKF scat at entrance to burrow.
10/1/2019	405944.6	3874534	Kern County	**Inactive Burrow** with whitewash.

DATE	EASTING	NORTHING	LOCATION	OBSERVATION
10/1/2019	405923.6	3874886	Kern County	**Inactive Burrow** with whitewash and pellets.
10/2/2019	402747.6	3875619	Kern County	**Inactive Burrow** with whitewash.
10/2/2019	402612.5	3875354	Kern County	**Inactive Burrow** with whitewash and pellets.
10/4/2019	401751.2	3879129	Kern County	**Active Burrow** with whitewash, pellets, feathers, and prey items; associated with an inactive DKF den complex; 4 entrances with whitewash at 3, feathers, whitewash, and a kangaroo rat carcass at the eastern most entrance, and an old pellet at the west entrance.
10/4/2019	401999.4	3879719	Kern County	**Live Burrowing Owl** at the burrow.
10/5/2019	394225.4	3882117	Kern County	**Inactive Burrow** within a 12-inch culvert; whitewash, pellets, and feathers present.
10/5/2019	401998.6	3879721	Kern County	**Active Burrow** with feathers.
10/5/2019	401999.9	3879589	Kern County	**Active Burrow** with whitewash.
10/5/2019	402024.8	3879255	Kern County	**Active Burrow** with whitewash, pellets, and feathers.
10/5/2019	402038.2	3879248	Kern County	**Active Burrow** with whitewash, pellets, and feathers.
10/5/2019	401972.1	3879618	Kern County	**Active Burrow** with whitewash, pellets, feathers, and prey items.
10/5/2019	402061.4	3879246	Kern County	**Live Burrowing Owl** at burrow and observed flying between 4 other Active Burrows.
10/5/2019	402113.8	3879338	Kern County	**Live Burrowing Owl** flying from the burrow (feathers present) to the east and then back towards 4 other Active Burrows.
10/5/2019	402114.8	3879334	Kern County	**Live Burrowing Owl** at burrow.
10/6/2019	409035	3875740	Kern County	**Inactive Burrow** with 1 old pellet.
10/6/2019	402107.5	3879154	Kern County	**Active Burrow** with whitewash.
5/19/2020	400867.6	3883123	Kern County	**Inactive Burrow** with whitewash and feathers; 2 entrances in an old DKF den.

only one inactive burrow was recorded within a 12-inch road culvert. No other burrowing owl sign was found within the burrowing owl buffer survey areas (Figure 6). No burrowing owls or sign were detected during the 2021 survey.

Desert Kit Fox

A total of 380 active and inactive DKF dens and/or den complexes were located within the Project Area (Appendix 4; Figure 9; Photographs 22 - 25). A total of 81 dens and/or den complexes were recorded within California City in which 12 were active and 69 were inactive. A total of 299 dens and/or den complexes were recorded within Kern County in which 58 were active and 241 were inactive. Den complexes varied in the number of entrances from one to 23. Eleven active and 59 inactive dens and/or den complexes were recorded within the burrowing owl buffer survey area as well as within the gen-tie corridor. There were no pupping dens detected during either the 2019 or 2020 survey seasons. No DKF or sign was detected during the 2021 survey.

American Badger

A total of nine sign locations attributed to American badger were located within the Project Area (Table 6, Figure 9, Photographs 26 – 28). These included one active den, two possible inactive dens, one recent scat, and five hunting site excavations. All American badger sign was detected within Kern County. No American badgers or sign were detected during the 2021 survey.

Table 6. American Badger Sign Detected Within the Bellefield Solar Farm Project Area, California City and Kern County, California, 20 August – 10 October 2019 and 17 April – 25 May 2020

Date	Easting	Northing	Location	Observation
9/1/2019	401341	3882982	Kern County	Potential inactive den site with a southern aspect
9/16/2019	402110.4	3875829	Kern County	Hunting site excavation with claw marks and clods of dirt present.
10/1/2019	405918.7	3874214	Kern County	Hunting site excavation with claw marks present.
10/1/2019	405917.7	3873698	Kern County	Hunting site excavation with claw marks present.
10/1/2019	405939.3	3873646	Kern County	Hunting site excavation with claw marks present.
10/1/2019	405954.7	3873783	Kern County	Hunting site excavation with claw marks present.
10/1/2019	405976	3873925	Kern County	Potential den location with 2 openings.
10/1/2019	405932	3873838	Kern County	Scat, Recent
5/8/2020	385765	3878043	Kern County	Active den with 2 entrances in burrowing owl buffer south of Oak Creek Road along Gen-tie Corridor.

Other Special Status Species

A total of five additional special status species and/or their sign were observed during the 2019, 2020, and 2021 survey seasons (Figure 6; Appendix 3). These species included Cooper's hawk, northern harrier, prairie falcon, loggerhead shrike (Photograph 29), and black-tailed gnatcatcher.

General Species Observations

A combined total of 73 wildlife species and/or their sign were observed during the 2019, 2020, and 2021 survey periods. The results include a total of 44 bird species, 13 mammal species, 15 reptile species, and one domesticated species (sheep) (Appendix 4). This included the seven special-status species discussed in Table 3. MGS is not included on this list as protocol trapping surveys were not conducted during this time period.

Survey Weather Conditions

The 2019, 2020, and 2021 surveys were conducted when weather conditions were conducive to the observation of active desert tortoises. In cooler temperatures, surveys could be conducted during the mid-day while in warmer conditions bimodal surveys in the early morning and late afternoon were utilized. In general, though, the survey effort was skewed towards the morning, hence the collection of weather data at 0800 and 1200 (Appendix 3, Figures 10 - 12).

2019 survey weather conditions were recorded from 20 August to 10 October with an average 0800 temperature of 66.4 °F and an average 1200 temperature of 84.3 °F. The minimum 0800 temperature was 44.0 °F and the maximum 0800 temperature was 84.2 °F. The minimum 1200 temperature was 62.4 °F and the maximum 1200 temperature was 102.2 °F.

Temperatures throughout the 2019 survey period were relatively cool and below the protocol maximum of 40 °C (104 °F) shaded air temperature at 5 cm on all survey days. No precipitation events occurred during the survey.

Winds blew from all directions during the 2019 survey season with southwesterly winds most common. The average wind speed for the 0800 time frame was 2.8 mph and the maximum average wind speed was 10.0 mph. The average wind speed for the 1200 time frame was 5.0 mph and the maximum average wind speed was 12.0 mph. Maximum winds recorded were 18.0 mph on 1 October 2019.

2020 survey weather conditions were recorded from 17 April to 25 May with an average 0800 temperature of 65.5 °F and an average 1200 temperature of 76.4 °F. The minimum 0800 temperature was 52.9 °F and the maximum 0800 temperature was 79.2 °F. The minimum 1200 temperature was 59.1 °F and the maximum 1200 temperature was 89.2 °F.

Temperatures throughout the 2020 survey period were relatively cool and below the protocol maximum of 40 °C (104 °F) shaded air temperature at 5 cm on all survey days. No precipitation events occurred during the survey.

Winds blew from all directions during the 2020 survey season with westerly winds most common. The average wind speed for the 0800 time frame was 4.1 mph and the maximum average wind speed was 19.0 mph. The average wind speed for the 1200 time frame was 5.4

mph and the maximum average wind speed was 16.0 mph. Maximum winds recorded were 25.0 mph on 2 May 2020.

2021 survey weather conditions were recorded on 5 – 7, 9, 11, and 12 February with an average 0800 temperature of 44.3 °F and an average 1200 temperature of 60.0 °F. The minimum 0800 temperature was 38.0 °F and the maximum 0800 temperature was 53.0 °F. The minimum 1200 temperature was 51.0 °F and the maximum 1200 temperature was 64.0 °F.

Temperatures throughout the 2021 survey period were relatively cold and below the protocol maximum of 40 °C (104 °F) shaded air temperature at 5 cm on all survey days. No precipitation events occurred during the survey.

Winds blew from all directions during the 2021 survey season with easterly winds most common. The average wind speed for the 0800 time frame was 8.2 mph and the maximum average wind speed was 22.0 mph. The average wind speed for the 1200 time frame was 13.3 mph and the maximum average wind speed was 32.0 mph. Maximum winds recorded were 32.0 mph on 12 February 2021.

DISCUSSION

Desert tortoise sign was detected and recorded by the biological team during the 2019 and 2020 survey seasons in Kern County. This sign included five live desert tortoises, a number of Class 1, 2, 3, 4 and 5 burrows (nine Class 1 burrows), and abundant This Year scat. A total of seven Class 2 burrows were recorded in California City. A total of eight carcass remains were discovered of which occurred in California City. No desert tortoise or associated sign were detected within the 150-meter wide burrowing owl buffer survey areas or within the gen-tie corridor. With an approximate total of 2,150 miles of transects walked in 2019 and 2020 by seven highly experienced biologists, coupled with the total amount of desert tortoise sign encountered and appropriate habitat types and soils, the Project Area seems to support a low population of desert tortoise. No desert tortoise or sign was detected during the 2021 survey on the parcels added by the Applicant in which 60 miles of transects were walked by one highly experienced biologist.

Five live burrowing owls were observed with four associated with burrows within Kern County. Those four owls were all in close proximity with each other. A total of 44 burrows were recorded in which four occurred in California City (one active and three inactive) and 40 occurred in Kern County (nine active, one perch, and 30 inactive). Within the gen-tie corridor only one inactive burrow was recorded. No other burrowing owl sign was found within the burrowing owl buffer survey areas. No burrowing owls or sign were detected during the 2021 survey on the parcels added by the Applicant.

A total of 380 DKF dens and/or den complexes were identified throughout the Project Area and gen-tie corridor to include the burrowing owl buffer survey areas. A total of 81 dens and/or den complexes occur within California City (12 active and 69 inactive) and a total of 299 dens and/or den complexes occur within Kern County (58 active and 241 inactive). No pupping dens were detected. No DKF or sign were detected during the 2021 survey on the parcels added by the Applicant.

Nine American badger dens and/or sign were recorded in Kern County. No badgers or sign were recorded within California City. No American badgers or sign were detected during the 2021 survey on the parcels added by the Applicant.

Other special-status species recorded during the 2019 and 2020 survey seasons included 12 loggerhead shrike observations with 11 of those in Kern County. An observation of a prairie falcon was recorded as well as observations of Cooper’s hawk and northern harrier. One pair of active black-tailed gnatcatchers was observed in Kern County. The overall number of wildlife species recorded totaled 73 with 44 avian species, 13 mammal species, 15 reptiles, and one domestic species (sheep) being observed. The high number of species detected likely had to do with the timing of the surveys in the late summer through early fall of 2019 and the spring season of 2020. No special-status species were observed during the 2021 survey season on the parcels added by the Applicant.

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FIGURES

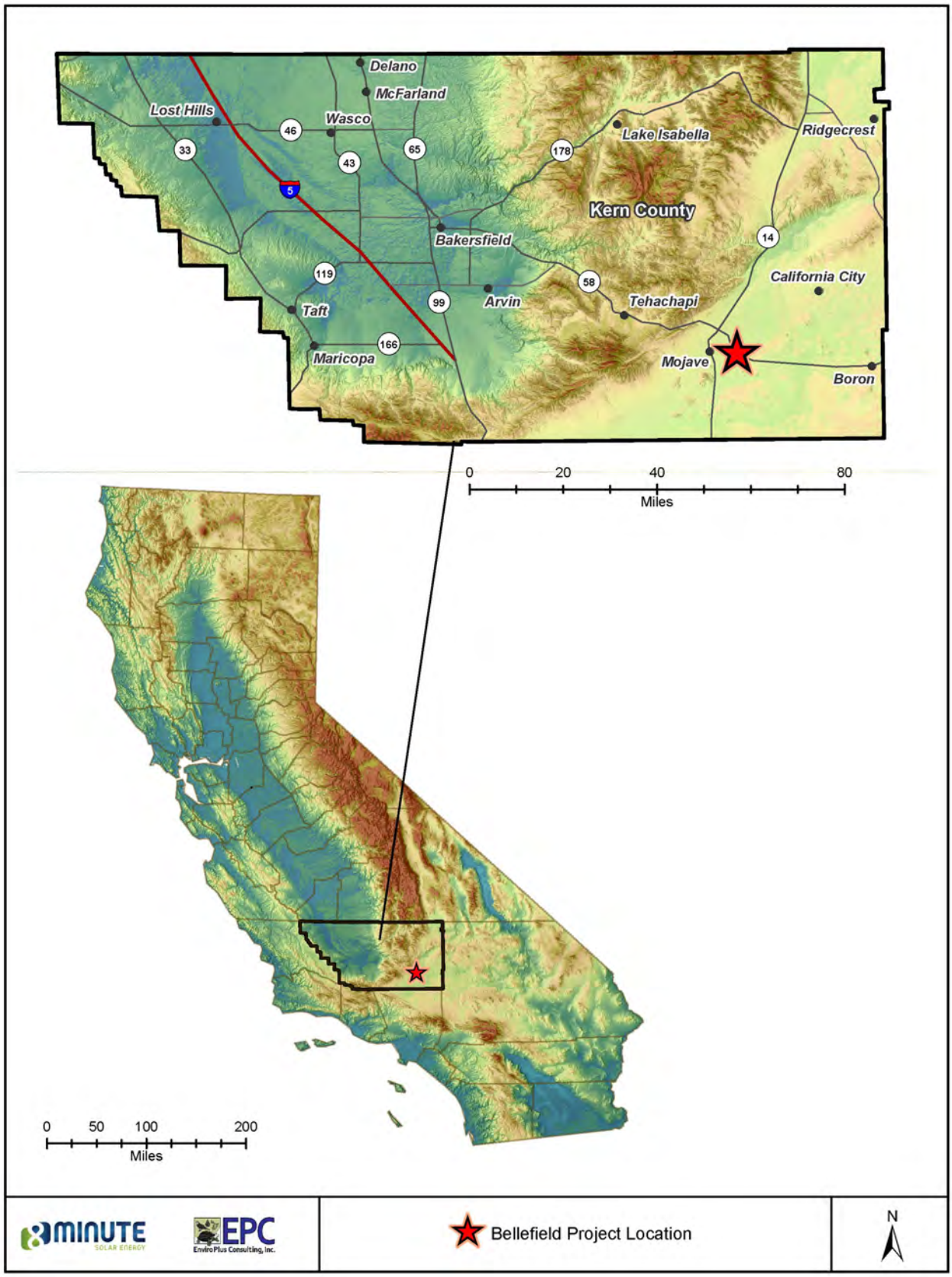


Figure 1. Bellefield Solar Farm Project Area Vicinity Map, California City and Kern County, CA

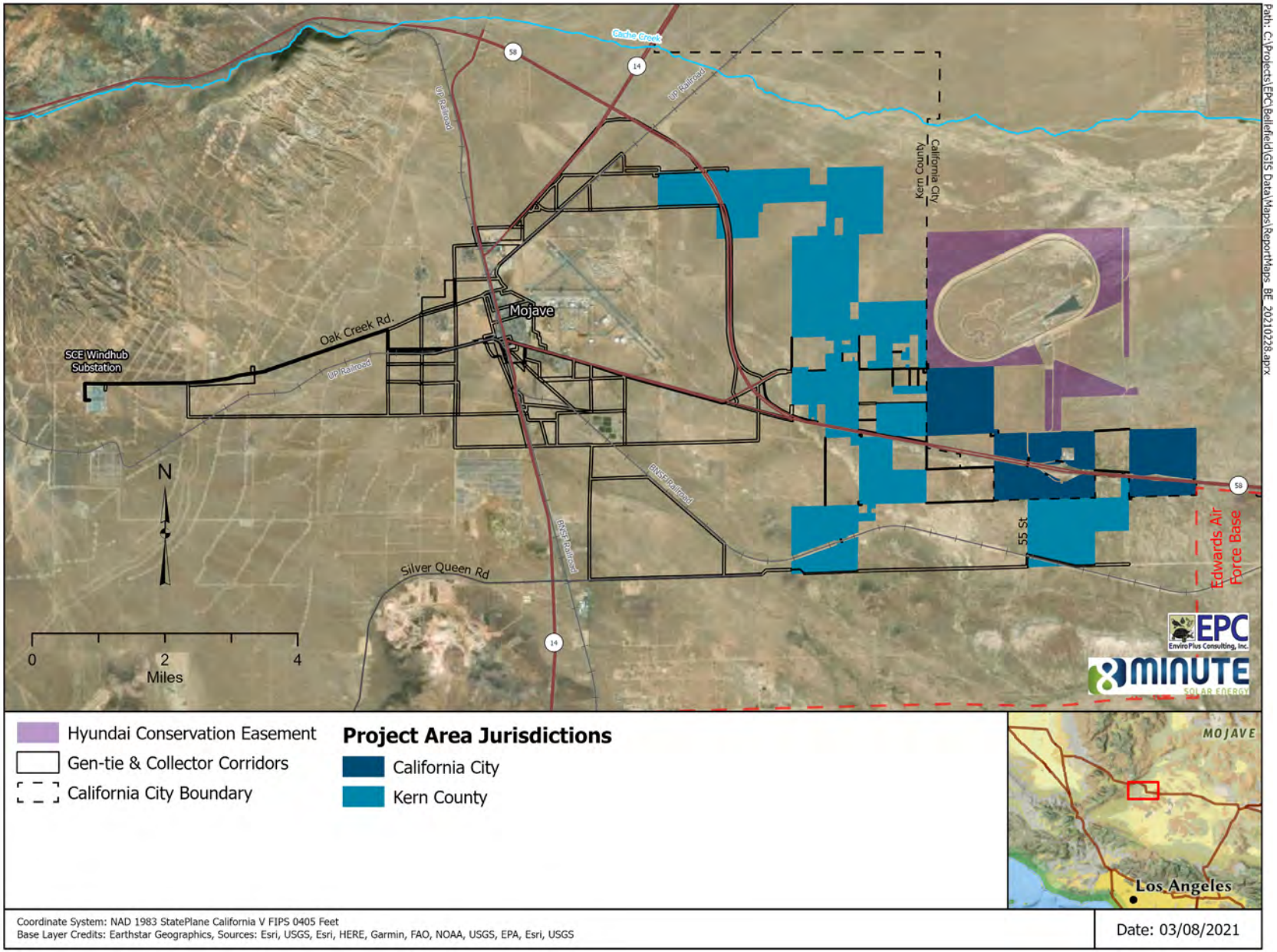


Figure 2. Bellefield Solar Farm Project Area, California City and Kern County, California

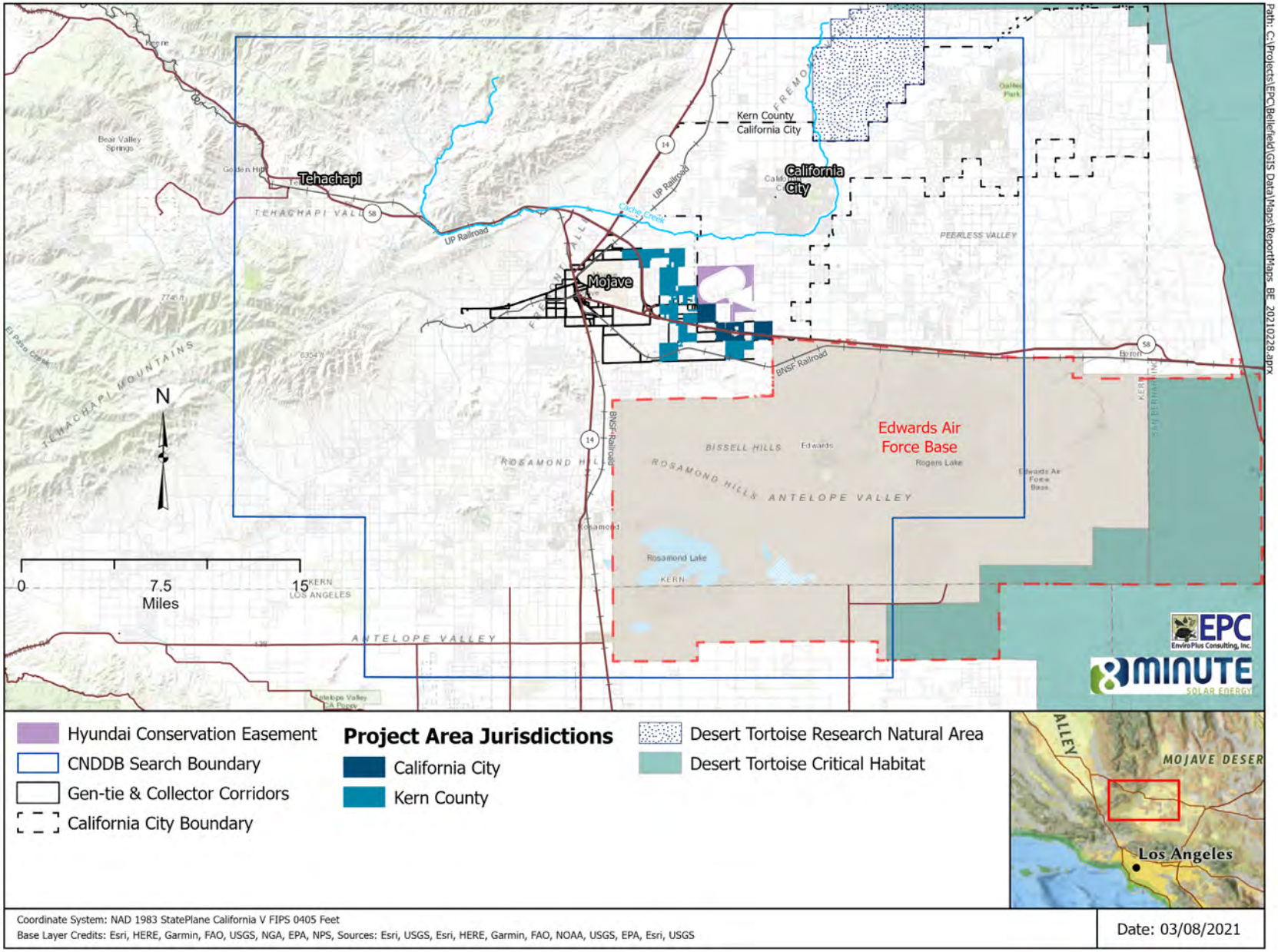


Figure 3. Bellefield Solar Farm Project Area Regional and CNDDB Search Map for Special-Status Wildlife Species

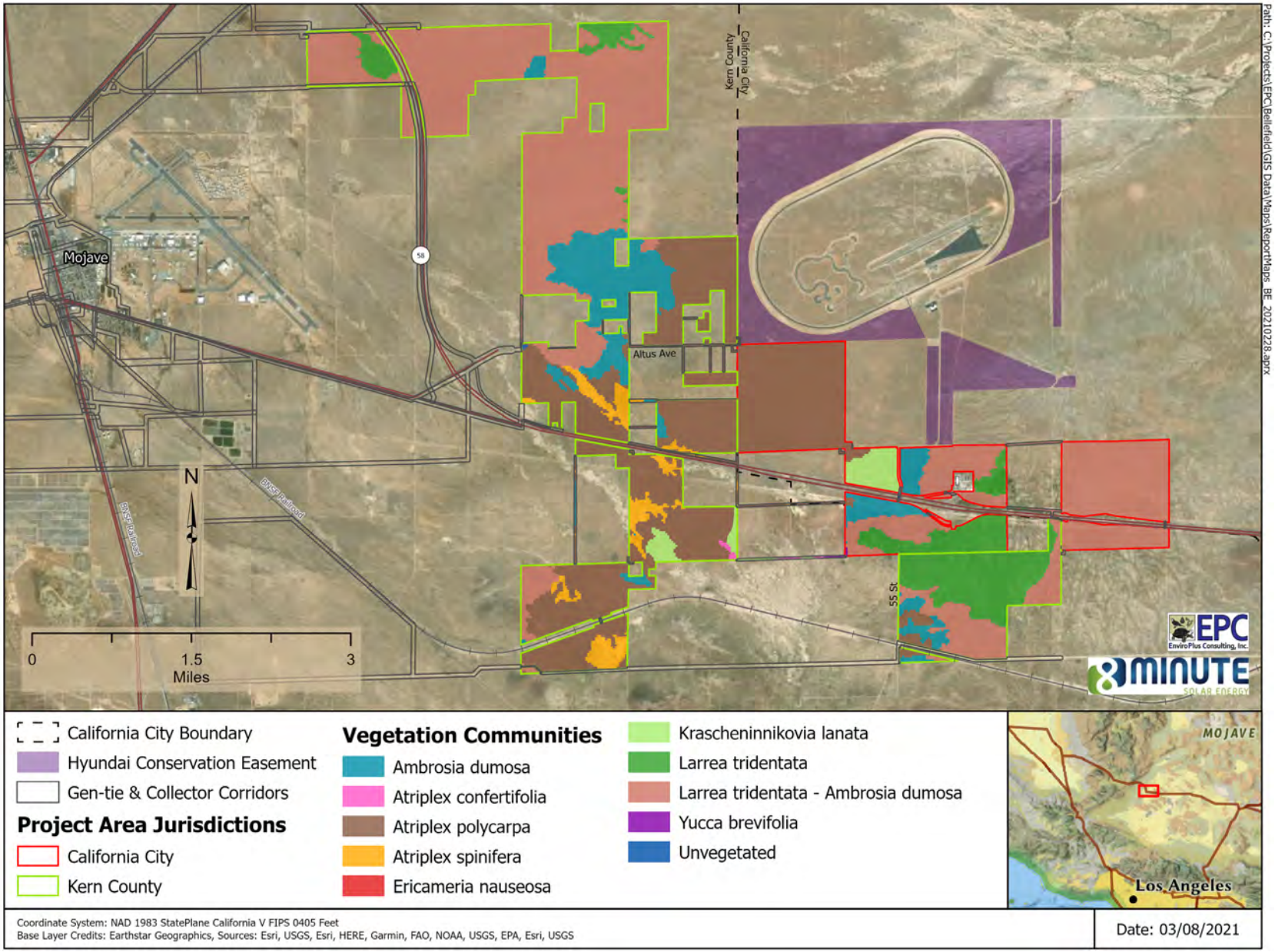


Figure 4a. Bellefield Solar Farm Project Area Vegetation Communities

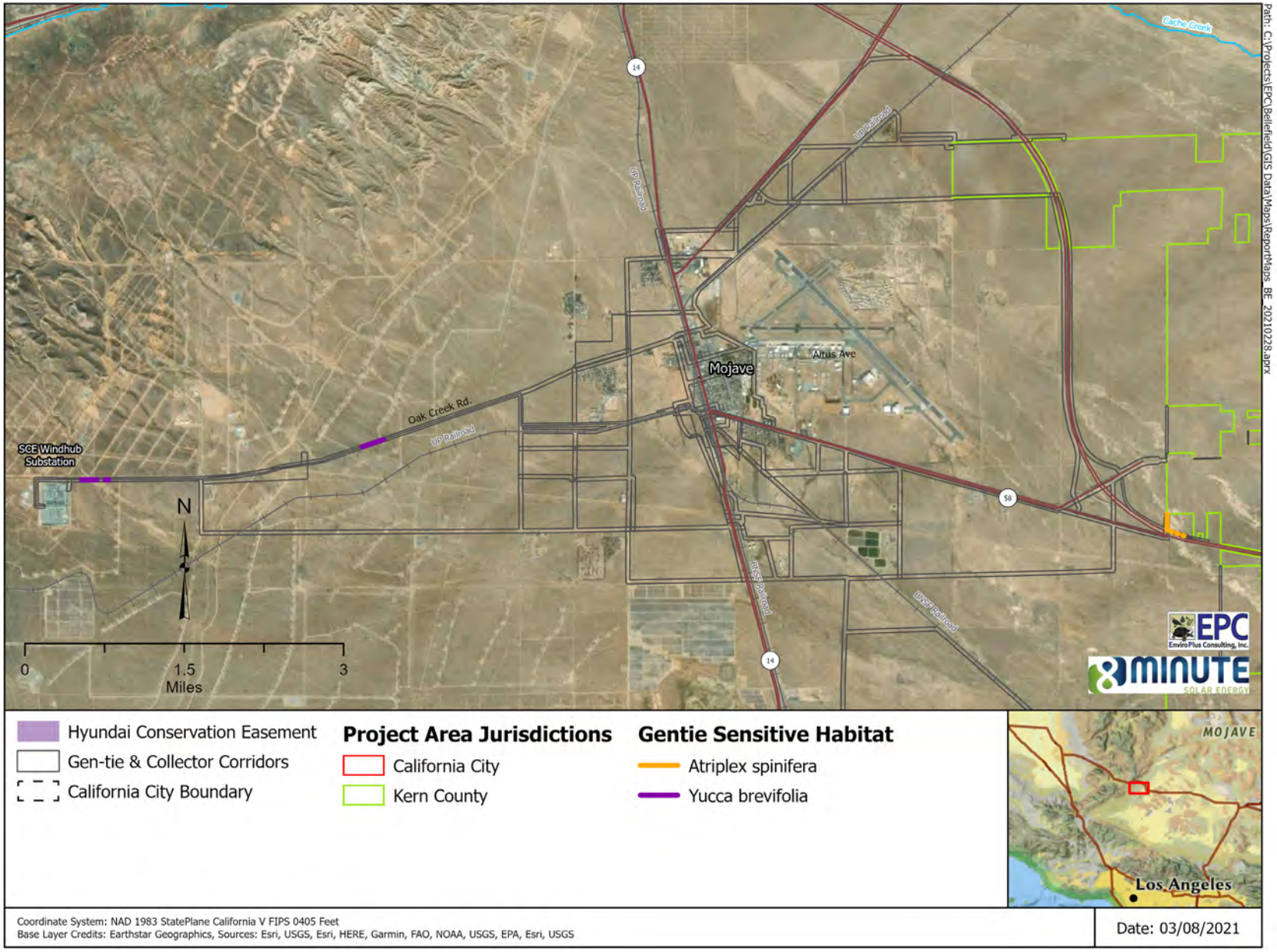


Figure 4b. Bellefield Solar Farm Project Area Vegetation Communities

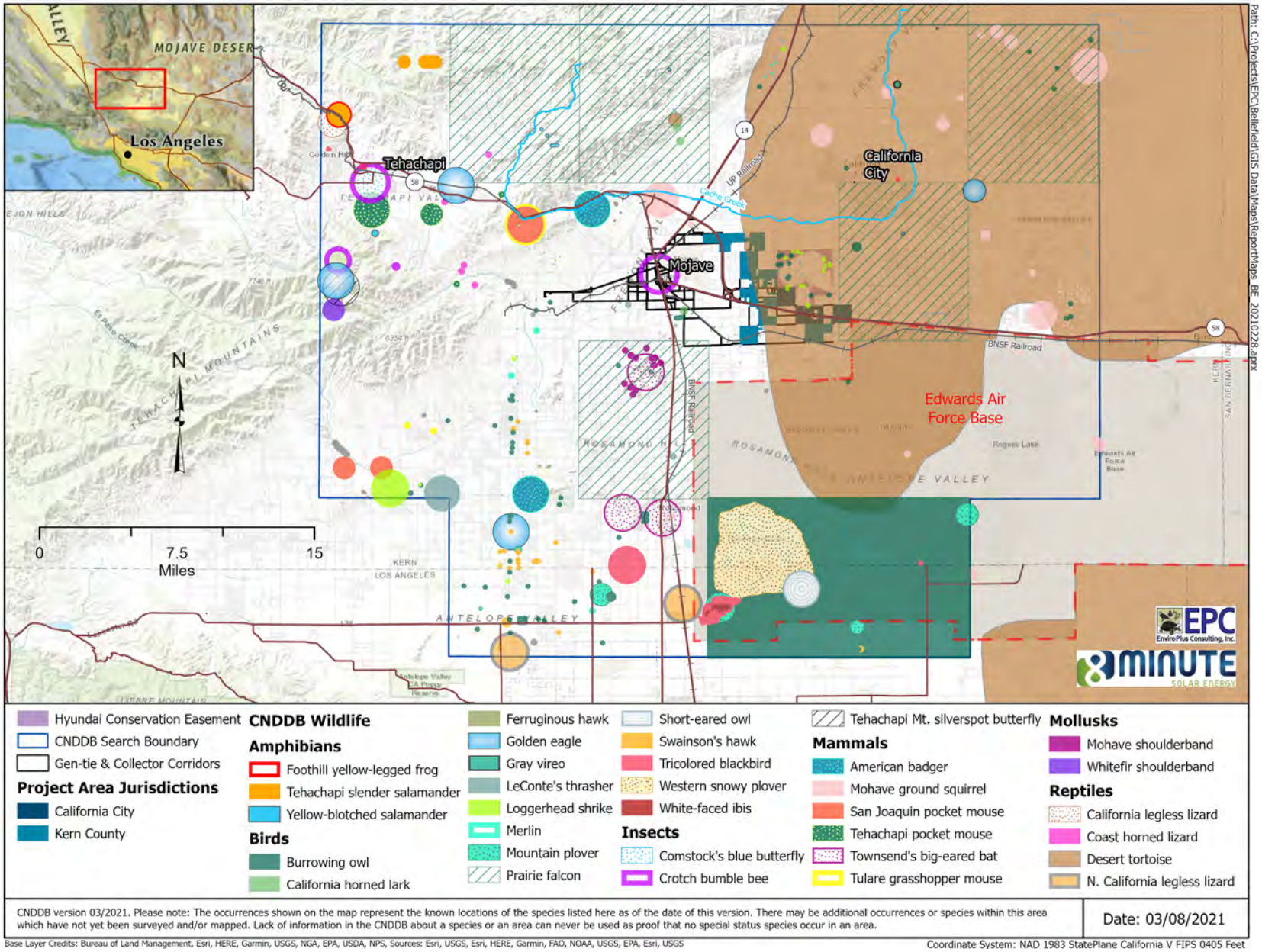


Figure 5. Bellefield Solar Farm Project Area Listed and Special-Status Wildlife CNDDB Search Results Wildlife Species

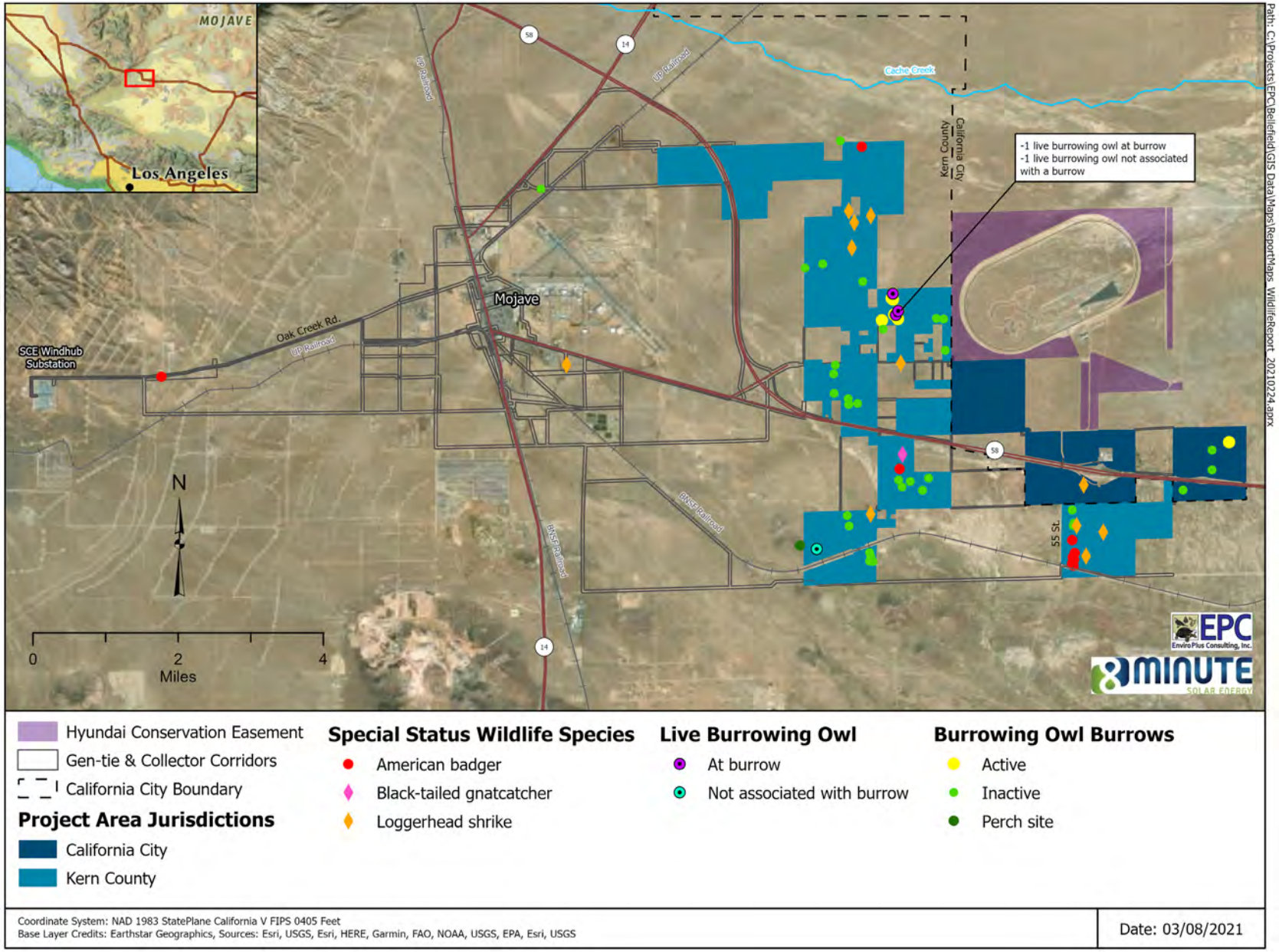


Figure 6. Bellefield Solar Farm Project Area Special-Status Wildlife Species and/or Sign Observed, 2019 and 2020 Survey Seasons

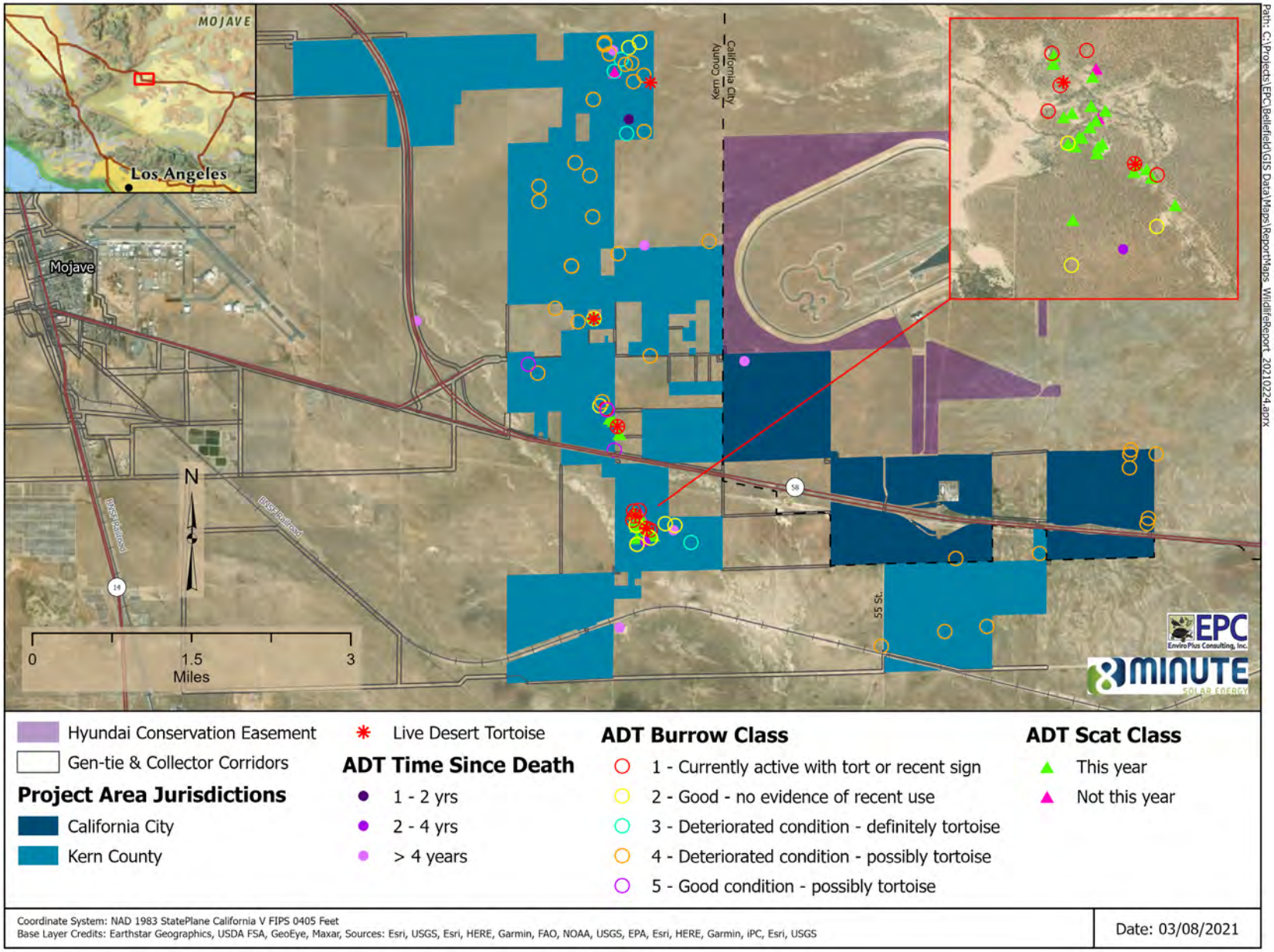


Figure 7. Bellefield Solar Farm Project Area Agassiz Desert Tortoise and Sign Observed, 2019 and 2020 Survey Seasons

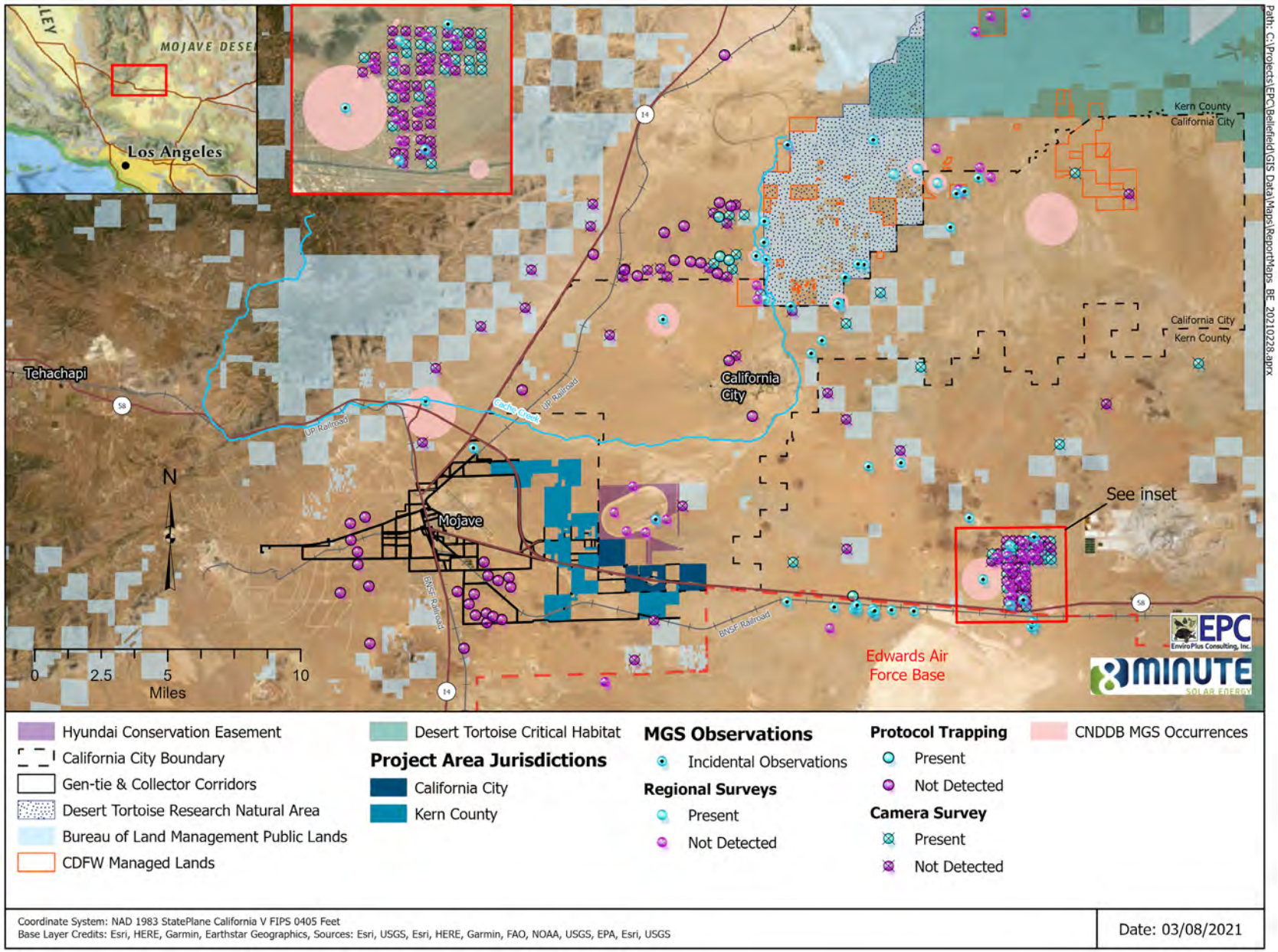


Figure 8. Bellefield Solar Farm Project Area – Regional Mohave Ground Squirrel Survey Record Locations

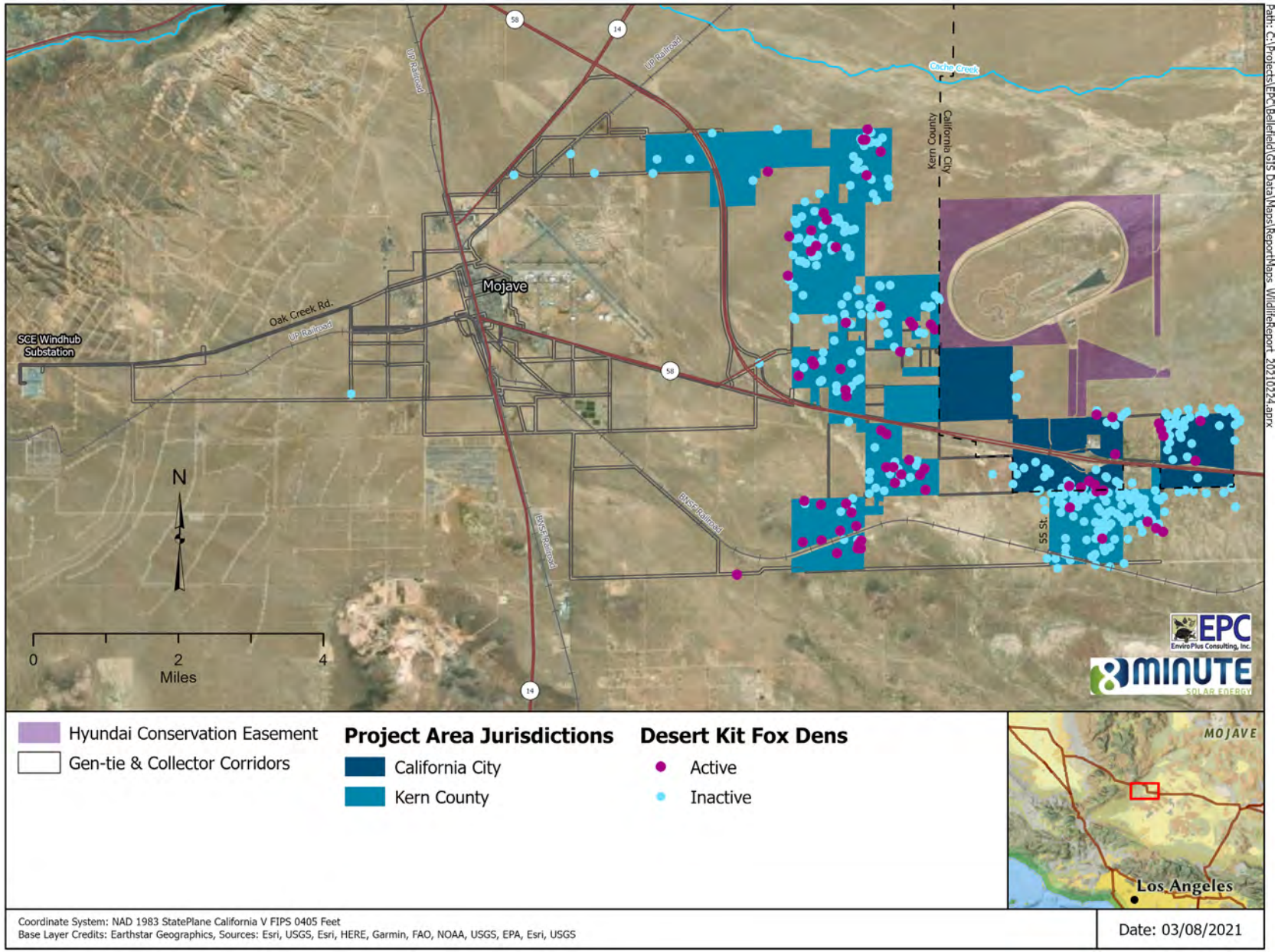
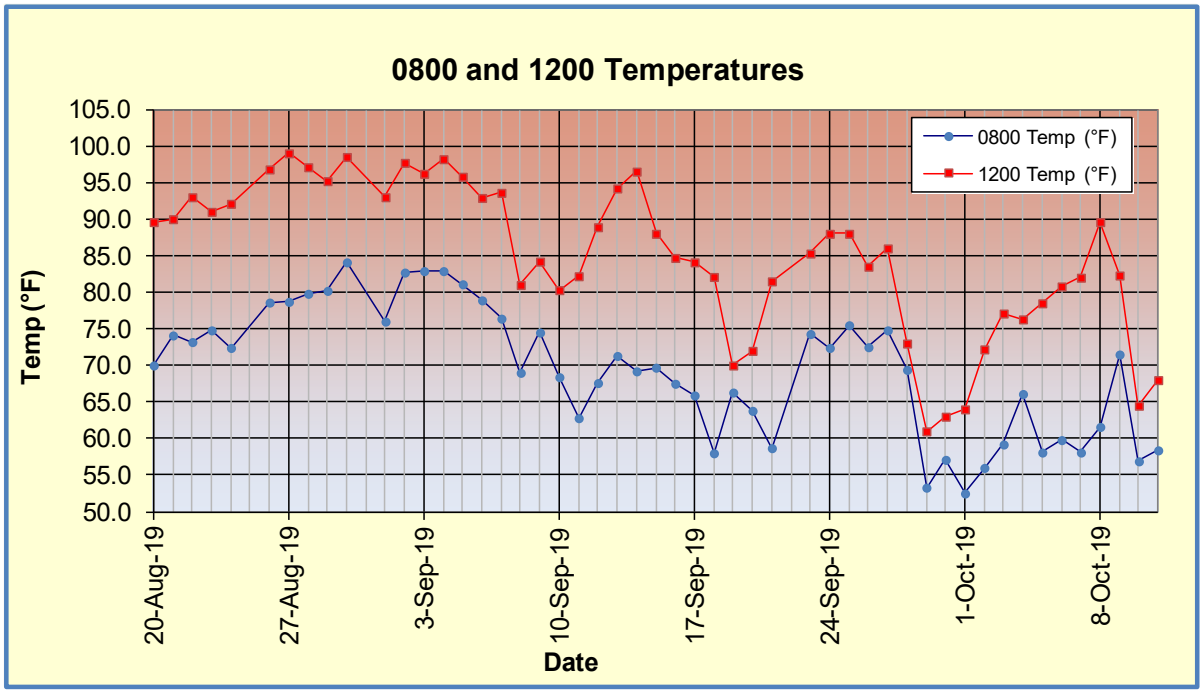


Figure 9. Bellefield Solar Farm Project Area Desert Kit Fox Sign Observed, 2019 and 2020 Survey Seasons



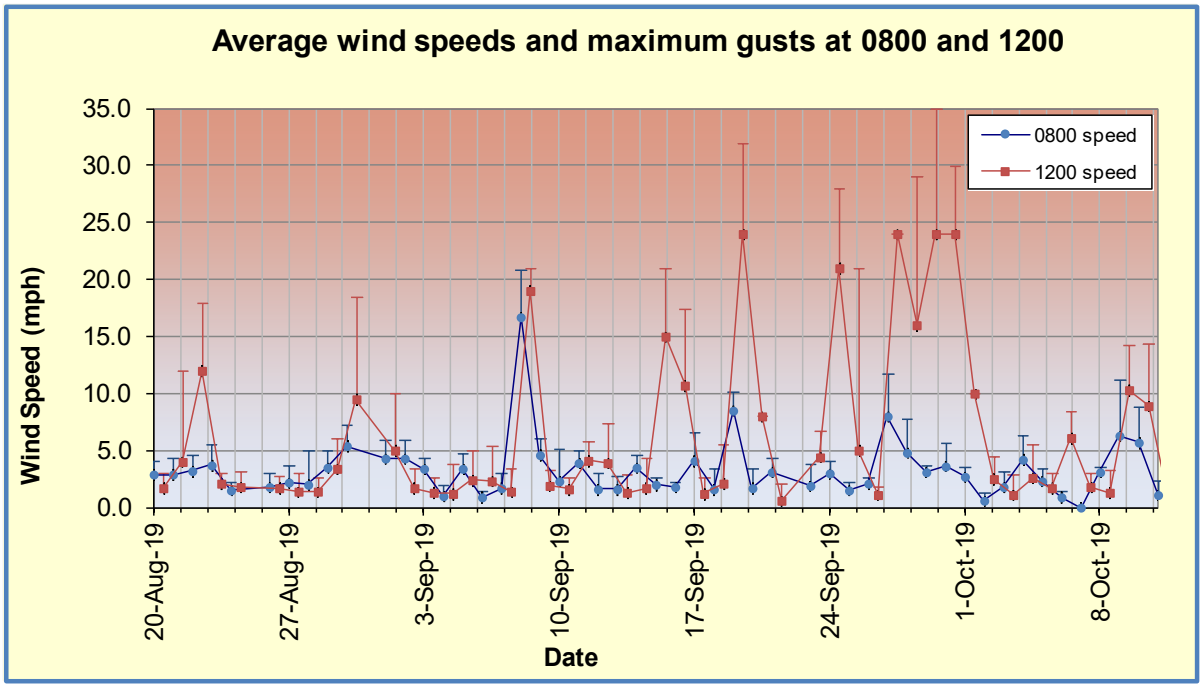
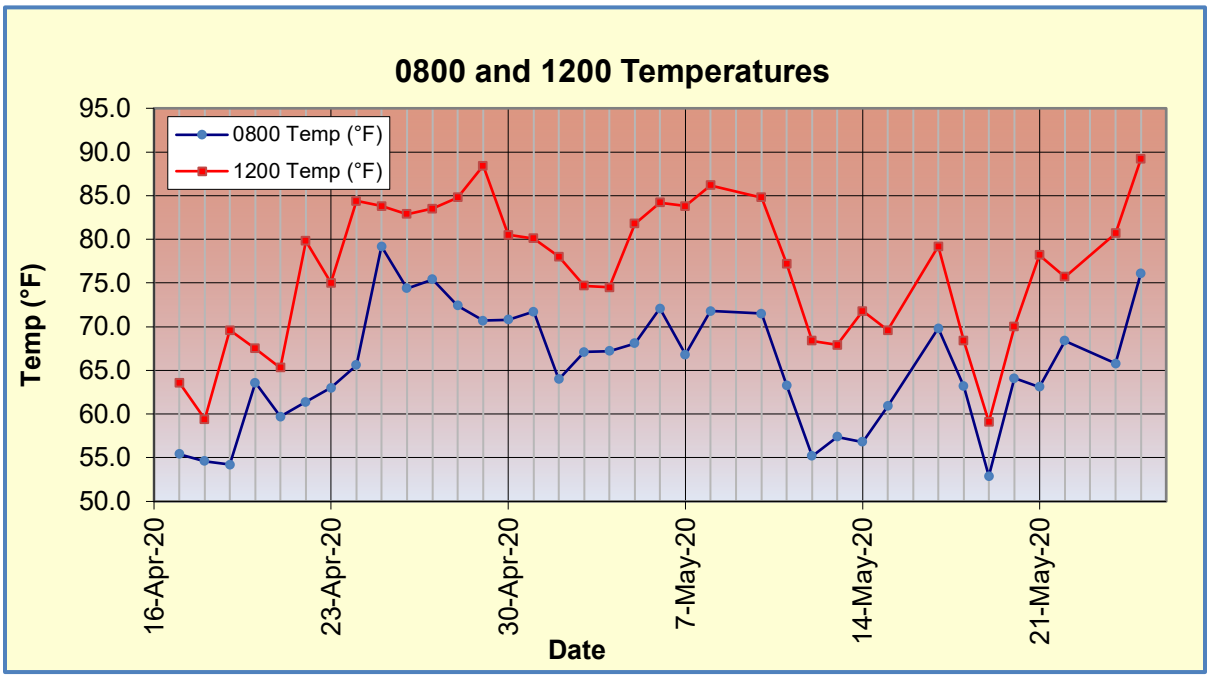


Figure 10. Bellefield Solar Farm Project Area - Shaded Air Temperatures and Wind At 0800 And 1200 During the 2019 Biological Survey



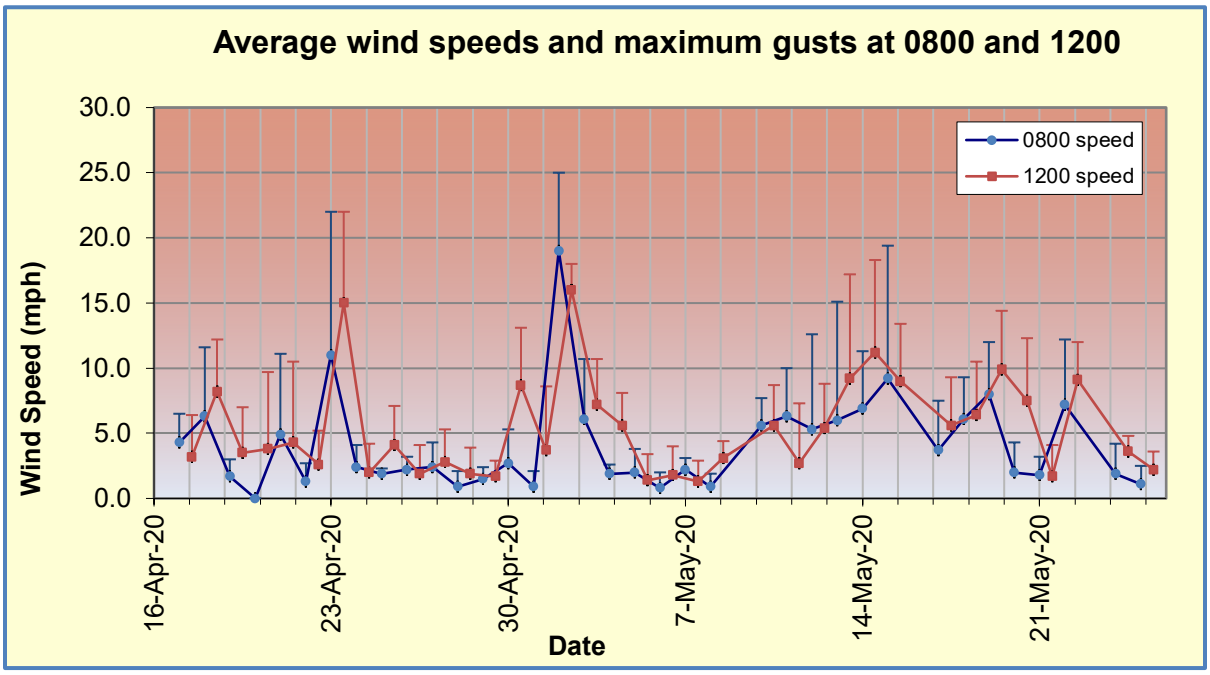
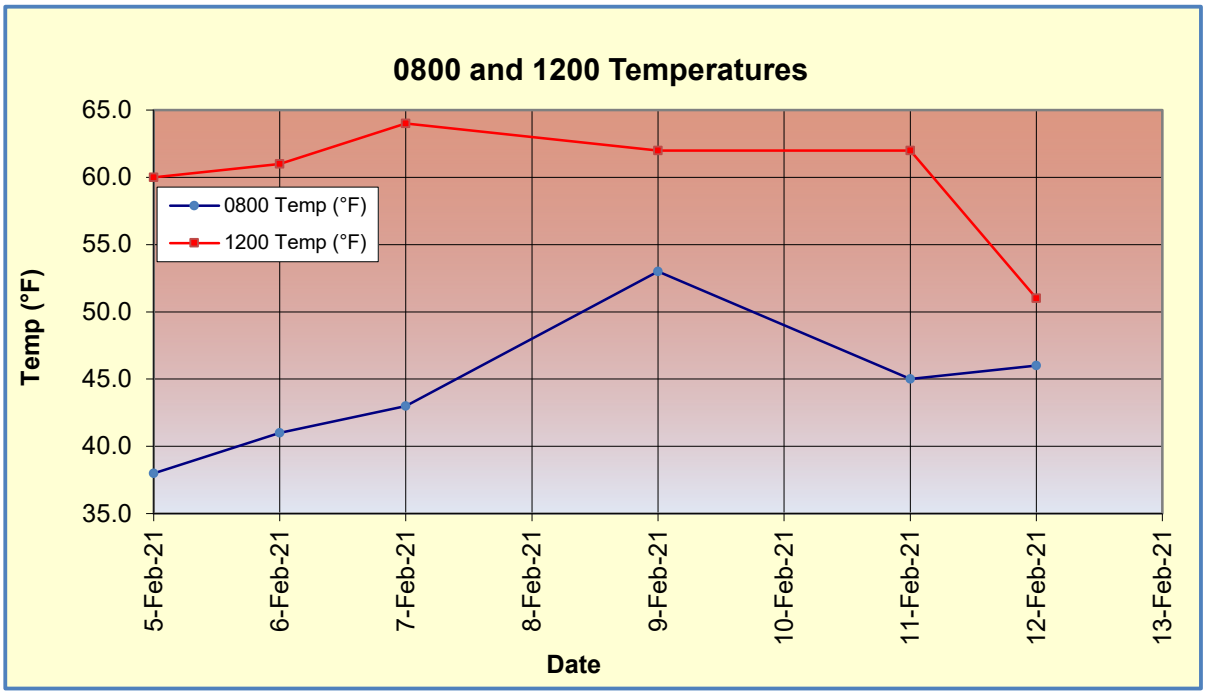


Figure 11. Bellefield Solar Farm Project Area - Shaded Air Temperatures and Wind At 0800 And 1200 During the 2020 Biological Survey



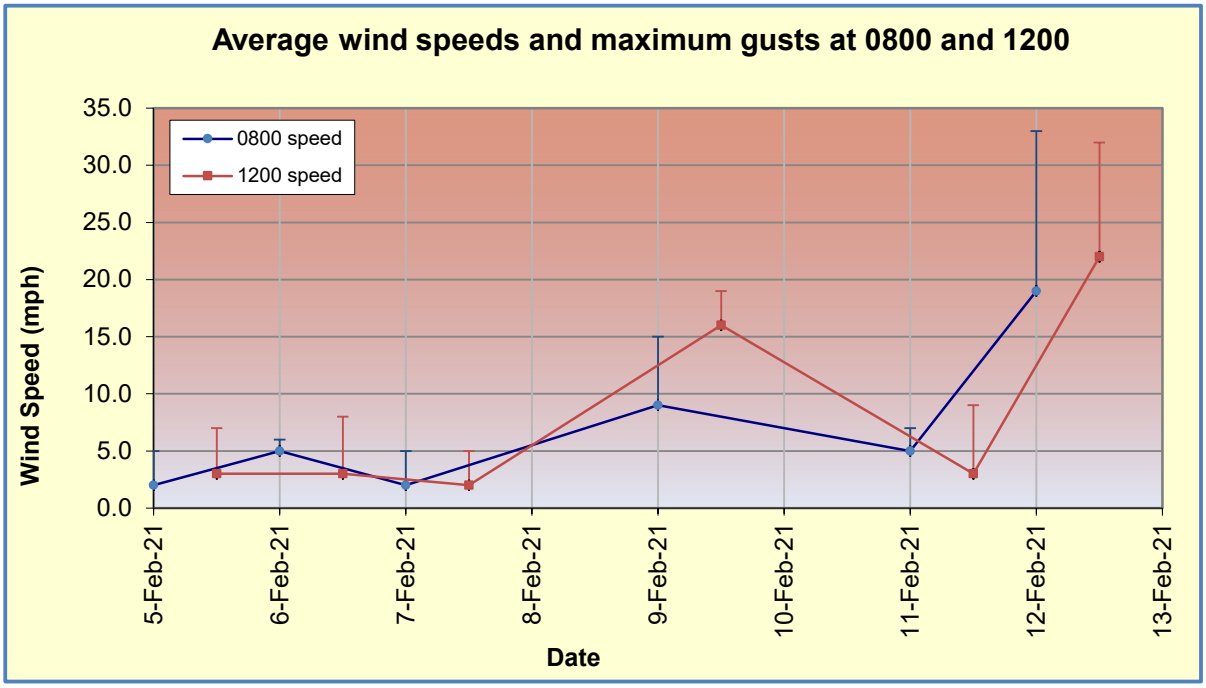


Figure 12. Bellefield Solar Farm Project Area - Shaded Air Temperatures and Wind At 0800 And 1200 During the 2021 Biological Survey

PHOTOGRAPHS

Photograph 1. *Larrea tridentata – Ambrosia dumosa* Shrubland Alliance on Hill

Photograph 2. *Larrea tridentata – Ambrosia dumosa* Shrubland Alliance in Silty Sand

Photograph 3. *Larrea tridentata* – *Ambrosia dumosa* Shrubland Alliance in Wash

Photograph 4. *Atriplex polycarpa* Shrubland Alliance

Photograph 5. *Atriplex polycarpa* Shrubland Alliance

Photograph 6. *Larrea tridentata* Shrubland Alliance

Photograph 7. *Ambrosia dumosa* Shrubland Alliance

Photograph 8. *Ambrosia salsola* Shrubland Alliance

Photograph 9. *Ericameria cooperi* Shrubland Alliance

Photograph 10. *Atriplex confertifolia* Shrubland Alliance

Photograph 11. *Krascheninnikovia lanata* Shrubland Alliance

Photograph 12. *Yucca brevifolia* Woodland Alliance

Photograph 13. Example of a Class 2 Agassiz's Desert Tortoise Burrow

Photograph 14. Example of a Class 3 Agassiz's Desert Tortoise Burrow

Photograph 15. Example of Class 4 Agassiz's Desert Tortoise Burrow

Photograph 16. Class 1 Agassiz's Desert Tortoise Burrow with a Female Desert Tortoise Inside – Kern County

Photograph 17. Agassiz's Desert Tortoise at Previously Designated Class 2 Burrow - Kern County

Photograph 18. Agassiz's Desert Tortoise Under a Shrub, Not Associated with a Burrow - Kern County

Photograph 19. Agassiz's Desert Tortoise Carcass with Estimated Death More than 4 Years from Date of Observation

Photograph 20. Example of an Active Burrowing Owl Burrow Exhibiting Whitewash (guano) and Pellets

Photograph 21. Example of Burrowing Owl Sign – Pellets Showing Small Mammal Remains and Whitewash Nearby

Photograph 22. Example of an Active Kit Fox Den with 5 Entrances

Photograph 23. Example of an Active Kit Fox Den with 1 Entrance

Photograph 24. Example of an Inactive Kit Fox Den with Multiple Entrances

Photograph 25. Example of an Inactive Kit Fox Den with 2 Entrances

Photograph 26. Example of an Active American Badger Excavation

Photograph 27. Example of an Active American Badger Excavation

Photograph 28. Recent American Badger Scat

Photograph 29. Loggerhead Shrike Perched in a Western Joshua Tree

Appendices

Appendix 1. List of Federal, State, and IUCN Ranking Codes for the Bellefield Solar Farm Project, California City and Kern County, California

USFWS / ESA Listing Codes:
FE Federally listed as Endangered
FT Federally listed as Threatened
FPE Federally proposed for listing as Endangered
FPT Federally proposed for listing as Threatened
FPD Federally proposed for delisting
FC Federal candidate species (former Category 1)
BCC Birds of Conservation Concern
BGEPA Bald and Golden Eagle Protection Act

CDFW / CESA Listing Codes:
SE State listed as Endangered
ST State listed as Threatened
SCE State candidate for listing as Endangered
SCT State candidate for listing as Threatened
SCD State candidate for delisting
R Rare
FP Fully Protected
SGCN Species of Greatest Conservation Need
SSC Species of Special Concern
WL Watch List

Birds of Conservation Concern are species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act of 1973 (ESA, USFWS 2008).

California Fully Protected Species are identified as those animals that are rare or face extinction and require additional protection. Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of bird species for the protection of livestock (CDFW 2021a).

Watch List of Species of Special Concern include species that are not on the current special concern list that 1) formerly were on the 1978 (Remsen 1978) or 1992 (CDFG 1992) special concern lists and are not currently listed as state threatened and endangered; 2) have been removed (delisted) from either the state or federal threatened and endangered lists (and remain on neither); or 3) are currently designated as Fully Protected in California (Shuford and Gardali 2008; CDFW 2021a).

CALFIRE Sensitive Species are those species that warrant special protection during timber operations (CDFW 2021a).

Global Rank (G-Rank):
GX = Presumed Extinct – Not located despite intensive searches and virtually no likelihood of rediscovery.
GH =Possibly Extinct – Known from only historical occurrences but still some hope of rediscovery. Examples of evidence include (1) that a species has not been documented in approximately 20-40 years despite some searching and/or some evidence of significant habitat loss or degradation; (2) that a species has been searched for unsuccessfully, but not thoroughly enough to presume that it is extinct throughout its range.
G1 = **Critically Imperiled**—At very high risk of extinction due to very restricted range, very few populations or occurrences, very steep declines, very severe threats, or other factors.
G2 = **Imperiled**—At high risk of extinction due to very restricted range, very few populations or occurrences, steep declines, severe threats, or other factors.
G3 = **Vulnerable**—At moderate risk of extinction due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.
G4 = **Apparently Secure**—At fairly low risk of extinction due to an extensive range and/or many population occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.
G5 = **Secure**—At very low risk of extinction due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats.
GNR = Unranked – Global rank not yet assessed.

Taxon Rank - Subspecies level:
Subspecies/varieties receive a **T-rank** attached to the G-rank. With the subspecies/varieties, the G-rank reflects the condition of the entire species, whereas the T-rank reflects the global status of just the subspecies.

State Rank (S-Rank):
SX = Presumed Extirpated – Species is believed to be extirpated from the state. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.
SH = Possibly Extirpated – Known from only historical records but still some hope of rediscovery. There is evidence that the species may no longer be present in the state, but not enough to state this with certainty. Examples of such evidence include (1) that a species has not been documented in approximately 20-40 years despite some searching and/or some evidence of significant habitat loss or degradation; (2) that a species has been searched for unsuccessfully, but not thoroughly enough to presume that it is no longer present in the jurisdiction.
S1 = **Critically Imperiled**—At very high risk of extirpation in the state due to very restricted range, very few populations or occurrences, very steep declines, severe threats, or other factors.
S2 = **Imperiled**—At a high risk of extirpation in the state due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
S3 = **Vulnerable**—At moderate risk of extirpation in the state due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.
S4 = **Apparently Secure**—At a fairly low risk of extirpation in the state due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.
S5 = **Secure**—At very low or no risk of extirpation in the state due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats.
SNR = Unranked – State rank not yet assessed.

Uncertainty about the rank of an element is expressed in two major ways: 1) by expressing the rank as a range of values: e.g., S2S3 means the rank is somewhere between S2 and S3; and 2) by adding a "?" to the rank: e.g., S2? This represents more certainty than S2S3, but less than S2

IUCN Red List Criteria (IUCN 2020)**:**
EX – Extinct: A taxon is Extinct when there is no reasonable doubt that the last individual has died. A taxon is presumed Extinct when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.
EW – Extinct In The Wild: A taxon is Extinct In The Wild when it is known only to survive in cultivation, in captivity or as a naturalized population (or populations) well outside the past range. A taxon is presumed Extinct In The Wild when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.
CR – Critically Endangered: A taxon is Critically Endangered when the best available evidence indicates that it meets any of the criteria A to E for Critically Endangered, and it is therefore considered to be facing an extremely high risk of extinction in the wild.
EN – Endangered: A taxon is Endangered when the best available evidence indicates that it meets any of the criteria A to E for Endangered, and it is therefore considered to be facing a very high risk of extinction in the wild.
VU — Vulnerable: At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.
NT – Near Threatened: A taxon is Near Threatened when it has been evaluated against the criteria but does not qualify for Critically Endangered, Endangered or Vulnerable now, but is close to qualifying for or is likely to qualify for a threatened category in the near future.
LC – Least Concern: A taxon is Least Concern when it has been evaluated against the Red List criteria and does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened.
DD — Data Deficient: A taxon is Data Deficient when there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status. A taxon in this category may be well studied, and its biology well known, but appropriate data on abundance and/or distribution are lacking.

Appendix 2

Mohave Ground Squirrel Habitat Suitability Assessment Reports for the Bellefield Solar Farm Project Area, California City and Kern County, CA

BELLEFIELD SOLAR FARM
50LW 8ME LLC
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Bellefield Solar Farm Mohave Ground Squirrel Habitat Assessment

Prepared by:

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October 14, 2019

Project Description [*Editor's note: the Project Description below includes only a portion of the final project design. Refer to "Project Description and Land Ownership" section and Figure 2 for the current project description of the entire project*]

50LW 8ME LLC (the Applicant) proposes to develop a utility-scale solar photovoltaic project in Kern County. The Bellefield Solar Farm comprises 42 assessor's parcels (Project Area) totaling approximately 6,448 gross acres, located in unincorporated Kern County and in California City. Power generated at the solar arrays will be transmitted to one or more on-site substations via electrical collector lines, and power will be delivered to the SCE Windhub Substation via an up to 230 kilovolt overhead and/or underground transmission line (gen-tie) route. As a result of this proposed development, there is need to conduct an assessment of habitat suitability within the project area for the state-listed Mohave ground squirrel (*Xerospermophilus mohavensis*).

Regional Mohave Ground Squirrel Distribution

The proposed Bellefield Solar Farm project is at the western edge of the geographic range of the Mohave ground squirrel. According to the California Natural Diversity Data Base (CNDDB), there have been 2 reports of visual observations of this species several miles north of the town of Mojave, one in 1987 (CNDDB Occ. #284) and one in 1998 (CNDDB Occ. #300). The only other evidence of Mohave ground squirrel presence in this area was a single individual observed and trapped in 2002 at the site of the Hyundai-Kia Proving Grounds east of Mojave (Leitner 2008; Leitner 2015). Live-trapping surveys have been conducted at 6 grids on the Proving Grounds property a number of times since then, but no Mohave ground squirrels have been detected (Sundance Biology, Inc. 2012). Protocol trapping surveys have been carried out in recent years at more than 50 sites to the west and south of Mojave, but no Mohave ground squirrels have been captured. In addition, camera trapping was conducted in 2011 and 2014 at 11 sites on Bureau of Land Management properties in the vicinity of the Bellefield project and failed to detect the species. The only recent Mohave ground squirrel records in this region are at 2 sites

approximately 6 miles to the east. Figure 1 shows the locations of all known Mohave ground squirrel records and survey efforts.

Assessment Methodology

This habitat assessment is based on reconnaissance surveys of the Bellefield project area, on my personal knowledge of Mohave ground squirrel distribution and ecological requirements, and on existing data regarding the status of the species in this region. The reconnaissance surveys were carried out during a site visit on September 6-13, 2019.

General Habitat Assessment

During my reconnaissance surveys, I paid particular attention to current habitat conditions on the properties proposed for installation of solar facilities. Mohave ground squirrel habitat requirements include soils suitable for burrow construction and native desert vegetation that provides adequate food resources and cover. The soils in the entire project area seem to meet the requirements for burrow construction. However, human land uses in the project area have resulted in significant degradation of native vegetation in some areas. Several hundred acres appear to have been in agricultural production in the past, with regrowth of very low diversity native vegetation. In addition, unregulated sheep grazing has been carried out over this entire region for over 100 years, resulting in severe impacts to both herbaceous and shrub community structure.

Habitat Suitability of Proposed Development Units

The Bellefield Solar Farm is planned to include a number of development units, many of them non-contiguous. Figure 2 shows the geographic distribution of these units.

Parcel B-01

This large parcel supports several vegetation communities. The western and northern areas are dominated by low diversity Creosote Bush-White Bursage Scrub and appear to have low suitability for Mohave ground squirrels. However, there are a number of small washes along the eastern side of the parcel that contain shrubs important to Mohave ground squirrels as cover and food sources: Cooper's boxthorn (*Lycium cooperi*), desert tomato (*Lycium andersonii*), winter fat (*Krascheninnikovia lanata*), and spiny hopsage (*Grayia spinosa*). This area has moderate suitability for Mohave ground squirrels. The southern portion of this parcel is lacking creosote bush (*Larrea tridentata*) and appears to have been farmed in the past. It supports White Bursage Scrub with Cooper's boxthorn, desert tomato, winter fat, and spiny hopsage as subdominants. This area has moderate suitability for Mohave ground squirrels. Finally, the eastern area of Parcel B-01 stretching toward the Hyundai-Kia Proving Grounds is strongly dominated by Allscale Scrub and is generally of low suitability.

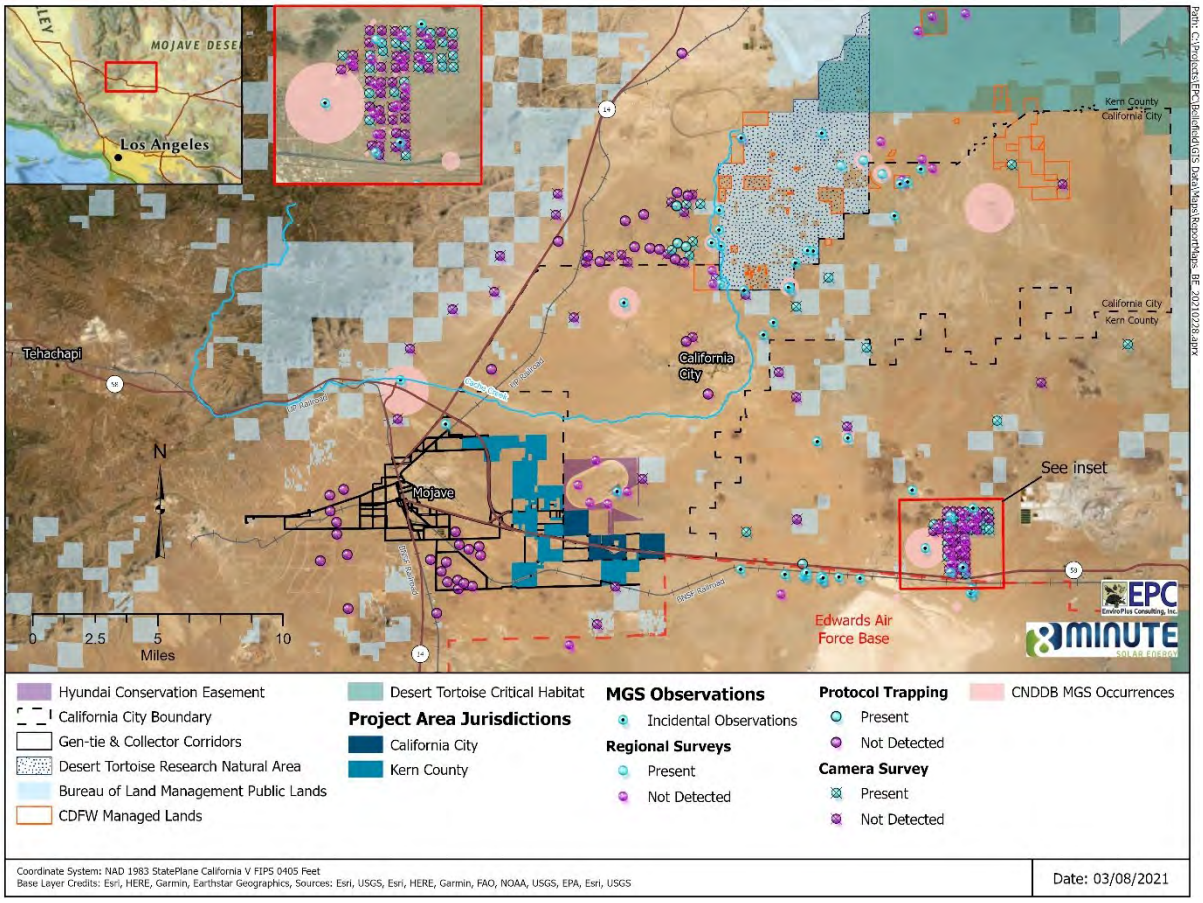

Figure 1. Mohave ground squirrel records in the vicinity of the proposed Bellefield Solar Farm Project Area

Parcel B-02

The vegetation community on this parcel is Creosote Bush-White Bursage Scrub. Other shrubs present include Cooper's boxthorn, winterfat, and spiny hopsage. This area has moderate suitability for MGS.

Parcel B-03

Several desert plant communities are found on this parcel. They include Creosote Bush-White Bursage Scrub to the north, with both Allscale Scrub and Spinescale Scrub in the south. Subdominants such as Cooper's boxthorn and winter fat are found in some areas. This area has low suitability for MGS.

Parcel B-04

This parcel is located just south of State Route 58 and supports a low diversity shrub community dominated by Allscale Scrub. This area has low suitability for MGS.

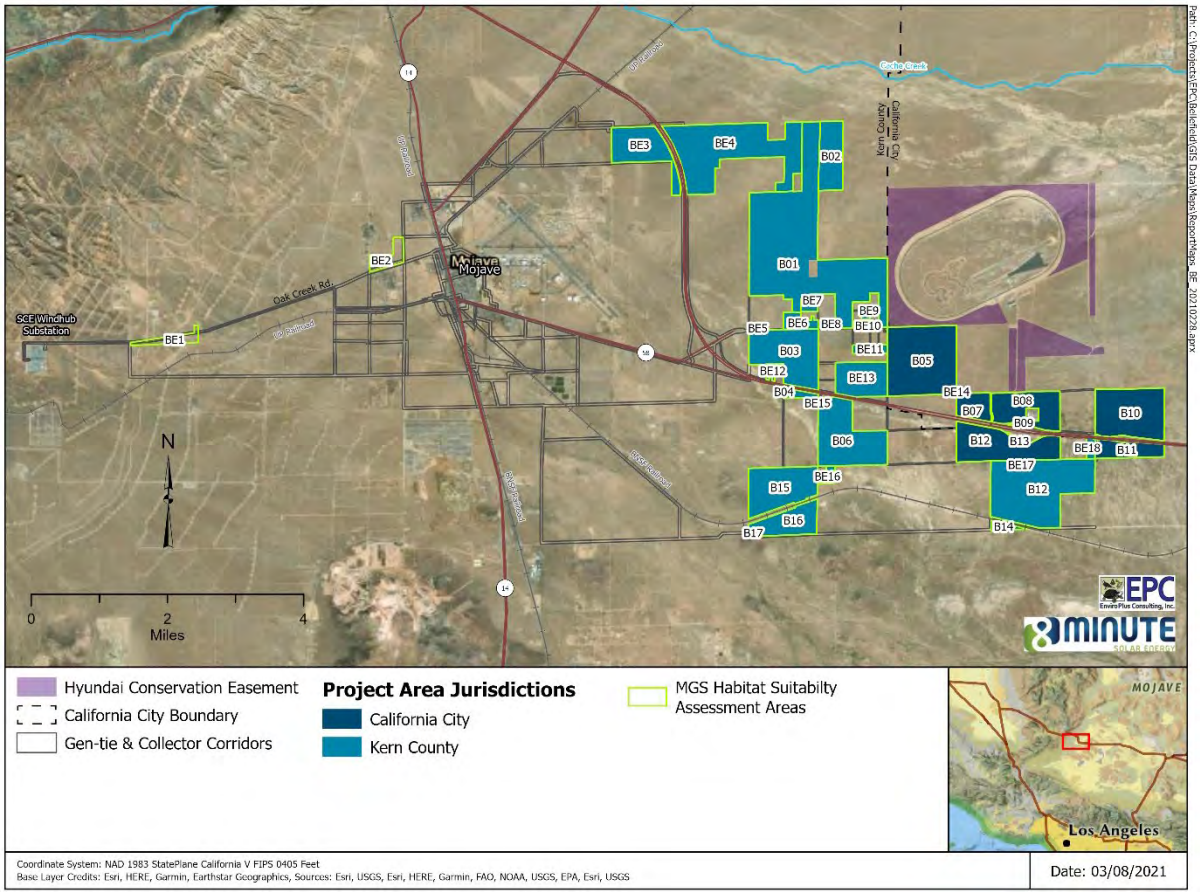

Figure 2. Map of the Belleview Solar Farm Project Area showing development units

Parcel B-05

The dominant vegetation community on this parcel is Allscale Scrub. There is a good variety of subdominant shrubs, including Cooper's boxthorn, winter fat, spiny hopsage, and shadscale (*Atriplex confertifolia*). This area has moderate suitability for MGS.

Parcel B-06

This parcel is strongly dominated by Allscale Scrub (Figure 3). Subdominant shrubs include shadscale, white bursage, winter fat, Cooper's boxthorn, and spiny hopsage. Small Joshua trees (*Yucca brevifolia*) are scattered through the parcel. This area has moderate suitability for MGS.

Parcel B-07

The vegetation community on this parcel is Winter Fat Scrubland, with a good diversity of other shrub species including white bursage, Cooper's boxthorn, and spiny hopsage (Figure 4). There are scattered Joshua trees. This area has moderate suitability for Mohave ground squirrels.

Figure 3. View to the south across Parcel B-06, showing dominant allscale shrubs and scattered Joshua trees.

Figure 4. View to the south across Parcel B-07, showing variety of shrubs including winter fat, white bursage, and Cooper's boxthorn. Joshua trees are visible in the distance.

Parcel B-08

This parcel is just to the north of State Route 58 and surrounds an Air Force facility. The higher elevation portions of the parcel are dominated by Creosote Bush-White Bursage Scrub. The lower elevation areas to the west support White Bursage Scrub, with scattered creosote bush, Cooper's boxthorn, winter fat, and Joshua trees. This area has moderate suitability for Mohave ground squirrels.

Parcel B-09

This small parcel is immediately adjacent to State Route 58. This area has low suitability for MGS.

Parcel B-10

This large parcel is located north of State Route 58 and supports Creosote Bush-White Bursage Scrub. Although dominated by creosote bush and white bursage, there are a series of small washes that support Cooper's boxthorn, desert tomato, and winter fat. The herbaceous layer in this area was heavily impacted by sheep this year. The area has moderate suitability for MGS.

Parcel B-11

This parcel is south of State Route 58 on a hillside sloping to the south. Most of the area is strongly dominated by Creosote Bush Scrub, although a small wash on the east side supports both Cooper's boxthorn and winter fat. This area has moderate suitability for MGS.

Parcel B-12

This large parcel is located south of State Route 58. The dominant vegetation is Creosote Bush Scrub, with occasional Cooper's boxthorn and winter fat as subdominants. The northwestern and southwestern portions of the parcel support Allscale Scrub. This area has moderate suitability for MGS.

Parcel B-13

This small parcel is immediately adjacent to State Route 58. This area has low suitability for MGS.

Parcel B-14

This small parcel is located on the south side of the railroad ROW. The western side of this parcel supports Allscale Scrub with scattered Joshua trees, transitioning to White Bursage Scrub to the east. Subdominant shrubs include creosote bush, winter fat, spiny hopsage, and Cooper's boxthorn. This area has moderate suitability for Mohave ground squirrels.

Parcel B-15

The more level eastern and central portions of this parcel are strongly dominated by Allscale Scrub, with scattered Cooper's boxthorn, winter fat, and spiny hopsage. Occasional single-stem Joshua trees are present throughout. On the slopes in the western portion of the parcel, Creosote Bush-White Bursage Scrub is dominant. This area has moderate suitability for Mohave ground squirrels.

Parcel B-16

The majority of this parcel is a low-lying area with some barren pans that is dominated by Spinescale Scrub. It slopes upward to the west and supports a few scattered creosote bushes. This area has low suitability for Mohave ground squirrels.

Parcel B-17

This small parcel is located on a slope rising up toward a rocky hillside. The shrub vegetation here consists of low density Creosote Bush-White Bursage Scrub. This area has low suitability for Mohave ground squirrels.

Alternative Gen-Tie Routes

The project proposes to evaluate several gen-tie routes that would lead westward from the development parcels to conduct produced electricity to the SCE Windhub substation. These alternatives would generally parallel roads and in some cases pass through urban areas. The routes appear to have very low suitability for the Mohave ground squirrel. In addition, in recent years there has been extensive protocol trapping in the vicinity of these alternate routes and there have been no Mohave ground squirrel detections.

Summary of Habitat Assessment

Habitat conditions on the proposed development units and collector lines appear to be of low to moderate suitability for Mohave ground squirrels. Although the native vegetation has been seriously impacted by heavy sheep grazing for many decades, some of the existing plant communities still include a number of shrub species that are known to be utilized by Mohave ground squirrels for cover and forage (Leitner and Leitner, 2017). However, the alternative gen-tie routes traverse areas that do not appear to provide suitable habitat for the species. These routes pass through developed urban and areas along roadways with severely degraded habitat.

There is little evidence that the project area currently supports a resident Mohave ground squirrel population. There have been no records of the species in the project area or the surrounding region for 17 years, in spite of extensive live-trapping and camera trapping surveys. The nearest recent documented occurrences are about 6 miles to the east. However, juvenile Mohave ground squirrels have been documented to disperse up to 4 miles from their natal sites, so there is some potential for the species to occur in the project area (Harris and Leitner, 2005).

Regulatory Issues

The Mohave ground squirrel is listed as Threatened under the California Endangered Species Act (CESA). Because of its Threatened status, CDFW is responsible for evaluating project impacts to the species and ensuring that such impacts are fully mitigated.

The CDFW requires that a survey be undertaken if a development site supports potential habitat for the Mohave ground squirrel and the status of the species on the site is unknown. Potential habitat is land within or adjacent to the geographic range of the Mohave ground squirrel that supports desert shrub vegetation, such as Creosote Bush Scrub. Most of the Bellefield project area supports vegetation that has some degree of potential suitability for Mohave ground squirrel.

In the case of projects that would affect ≤180 acres, protocol surveys require a qualified biologist to set up a live trapping grid on every 80 acres of potential habitat and to conduct 5 days of trapping on 3 occasions during the spring and early summer. However, for larger projects the survey guidelines require that a special survey protocol be developed through consultation between CDFW and the Applicant. This requirement should apply to the Bellefield Solar Farm project. In either case, if the surveys for a particular project area do not result in the capture of any Mohave ground squirrels over the entire season, CDFW will stipulate that the project area does not harbor the species. However, this stipulation may expire 1 year from the last date of trapping. If project construction has not begun by the expiration date, additional protocol surveys may be warranted. It is often difficult for large, complex projects to meet the 1 year schedule for initiation of construction. Therefore, it is recommended that the Applicant work with CDFW to determine what actions CDFW recommends in the event that construction does not commence within one year of finishing the surveys.

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BELLEFIELD SOLAR FARM
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Bellefield Solar Farm Mohave Ground Squirrel Habitat Assessment
Supplementary Assessment

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July 30, 2020

Project Description [*Editor's note: the Project Description below includes only a portion of the final project design. Refer to "Project Description and Land Ownership" section and Figure 2 for the current project description of the entire project*]

50LW 8ME LLC (the Applicant) proposes to develop a utility-scale solar photovoltaic project in Kern County. The Bellefield Solar Farm comprises 92 assessor's parcels (Project Area) totaling approximately 7,757 gross acres, located in unincorporated Kern County and in California City. Power generated at the solar arrays will be transmitted to one or more on-site substations via electrical collector lines, and power will be delivered to the SCE Windhub Substation via an up to 230 kilovolt overhead and/or underground transmission line (gen-tie) route. As a result of this proposed development, there is need to conduct an assessment of habitat suitability within the project area for the state-listed Mohave ground squirrel (*Xerospermophilus mohavensis*).

Assessment Methodology

This habitat assessment is based on reconnaissance surveys of the Bellefield project area, on my personal knowledge of Mohave ground squirrel distribution and ecological requirements, and on existing data regarding the status of the species in this region. These supplementary reconnaissance surveys were carried out during a site visit on March 25-29, 2020.

General Habitat Assessment

During my reconnaissance surveys, I paid particular attention to current habitat conditions on the properties proposed for installation of solar facilities. Mohave ground squirrel habitat requirements include soils suitable for burrow construction and native desert vegetation that provides adequate food resources and cover. The soils in the entire project area seem to meet the requirements for burrow construction. However, human land uses in the project area have resulted in significant degradation of native vegetation in some areas. Several hundred acres appear to have been in agricultural production in the past, with regrowth of very low

diversity native vegetation. In addition, unregulated sheep grazing has been carried out over this entire region for over 100 years, resulting in severe impacts to both herbaceous and shrub community structure.

Habitat Suitability of Proposed Development Units

The Bellefield Solar Farm is planned to include a number of development units located to the east of the unincorporated community of Mojave, Kern County. A total of 18 development units and several additional gen-tie routes leading to the SCE Windhub Substation have been added to the project design since my original habitat assessment dated October 14, 2019. My assessment of MGS habitat suitability for each of these project units is presented below.

Parcel BE1 (65.91 acres)

This parcel is located along the south side of Oak Creek Road about 3.5 mi west of Mojave. The vegetation community here is dominated by rubber rabbitbrush (*Ericameria nauseosa*) with scattered creosote bush (*Larrea tridentata*) and Joshua trees (*Yucca brevifolia*). This area has very low suitability for MGS.

Parcel BE2 (81.52 acres)

This parcel extends along the north side of Oak Creek Road in the western outskirts of Mojave. It is strongly dominated by Creosote Bush-White Bursage Scrub. This area has low suitability for MGS.

Parcel BE3 (294.90 acres)

This parcel is just to the west of the SR58 freeway and supports low diversity Creosote Bush-White Bursage Scrub. The habitat here has low suitability for MGS.

Parcel BE4 (816.32 acres)

This parcel includes a large area just to the east of the SR58 freeway. The plant community in the western portion of this parcel is low diversity Creosote Bush-White Bursage Scrub and is considered to be of low suitability for MGS. The eastern part of this parcel is also dominated by
Creosote Bush-White Bursage Scrub. However it supports significant shrub diversity, including spiny hopsage (*Grayia spinosa*), winter fat (*Krascheninnikovia lanata*), and Cooper's boxthorn (*Lycium cooperi*). This portion of Parcel BE4 is considered to have moderate suitability for MGS.

Parcel BE5 (10.31 acres)

This small strip of habitat supports low diversity Creosote Bush-White Bursage Scrub and is considered to be of low suitability for MGS.
Parcel BE6 (62.76 acres) and Parcel BE7 (30.65 acres)

These 2 adjoining parcels are located on land previously farmed. The vegetation is predominantly Creosote Bush-White Bursage Scrub, although there are large patches with no

shrub cover. A number of large Cooper's boxthorn shrubs are scattered throughout and there are areas with abundant spiny hopsage and winter fat. These parcels have moderate suitability for MGS.

Parcel BE8 (10.30 acres)

This parcel was formerly in agricultural production, but now supports re-established Allscale Scrub with scattered winter fat. It is of low suitability for MGS.

Parcel BE9 (12.97 acres) and Parcel BE10 (2.59 acres)

These 2 closely adjoining parcels are dominated by low diversity Allscale Scrub. There do not appear to be other subdominant shrubs present. These parcels are unsuitable as MGS habitat.

Parcel BE11 (41.39 acres)

The shrub community on this parcel is strongly dominated by Allscale Scrub. However, other shrub components include low numbers of spiny hopsage, winter fat, and Cooper's boxthorn. This parcel has moderate suitability for MGS.

Parcel BE12 (17.98 acres)

This small parcel is just north of the SR58 freeway is strongly dominated by Allscale Scrub. The shrub community here is characterized as low density and low diversity. This habitat has low suitability for MGS.

Parcel BE13 (243.48 acres)

The shrub community on this parcel is strongly dominated by Allscale Scrub. However, other shrub components include low numbers of spiny hopsage, winter fat, and Cooper's boxthorn. This parcel has moderate suitability for MGS.

Parcel BE14 (2.55 acres)

This small connector unit is characterized by Allscale Scrub. It has low suitability for MGS.

Parcel BE15 (10.33 acres)

This small parcel just south of the SR58 freeway is dominated by Allscale Scrub. Other shrub species present include shadscale (*Atriplex confertifolia*), spiny hopsage, winter fat, and Anderson's boxthorn (*Lycium andersonii*). The habitat here is moderately suitable for MGS.

Parcel BE16 (28.28 acres)

The vegetation here is dominated by Allscale Scrub, but the shrub community is diverse. Other shrub species are quite abundant, including spiny hopsage, winter fat, and Cooper's boxthorn. There are scattered Joshua trees present as well. This parcel has moderate suitability for MGS.

Parcel BE17 (11.58 acres)

This small parcel supports Creosote Bush-White Bursage Scrub and has low suitability for MGS.

Parcel BE18 (23.56 acres)

This parcel extends south from SR58 and is dominated by Creosote Bush-White Bursage Scrub. There is a small wash that flows southward through the length of the parcel. The shrub community is diverse, including spiny hopsage, winter fat, Anderson's boxthorn, and Cooper's boxthorn. The habitat is moderately suitable for MGS.

Habitat Suitability of Proposed New Gen-tie Corridors

A number of new gen-tie corridors have been proposed. There are several alternatives proposed to the west of the town of Mojave. These routes would affect low diversity Creosote Bush-White Bursage Scrub that has low suitability for MGS.

Other alternative gen-tie corridors are proposed to pass through built-up areas in the town of Mojave. These routes would have no suitability for MGS.

There are several alternatives proposed that would mainly parallel highway and railroad routes north of Mojave. These routes would pass through habitat with low suitability for MGS.

Finally, there are several short alternative gen-tie corridors around the highway interchange where the SR58 freeway and Alternative SR58 meet east of Mojave. These routes would pass through habitat with low suitability for MGS.

Photograph 1. View to the South from Survey Unit B-06 of Dominant Allscale Shrubs (*Atriplex polycarpa)* and Scattered Joshua Trees (*Yucca brevifolia*)

Photograph 2. View to the South from Survey Unit B-07 of a Diverse Shrub Community with Winter Fat (*Krascheninnikovia lanata*), white bursage (*Ambrosia dumosa*), and Cooper's boxthorn (*Lycium cooperi*) and Scattered Joshua Trees (*Yucca brevifolia*)

Appendix 3a. Bellefield Solar Farm Survey Weather Data, 20 August – 10 October 2019

Date	Biologist	0800 Temp. (°F)	0800 Cloud Cover (%)	0800 Average Wind Speed (mph)	0800 Maximum Wind Speed (mph)	0800 Wind Direction	1200 Temp. (°F)	1200 Cloud Cover (%)	1200 Average Wind Speed (mph)	1200 Maximum Wind Speed (mph)	1200 Wind Direction
8/20/2019	Youssef Atallah	84.2	0%	2.4	3.7	SE	90.5	0%	3.1	4.8	NE
8/21/2019	Youssef Atallah	69.0	0%	1.0	1.0	SE	92.0	0%	2.1	3.2	S
8/22/2019	Youssef Atallah	70.1	0%	2.5	4.5	NNW	91.7	2%	9.1	15.7	W
8/23/2019	Youssef Atallah	72.4	0%	2.5	4.1	SW	90.0	0%	1.9	3.9	SSW
8/24/2019	Youssef Atallah	73.0	0%	2.0	2.8	SW	91.3	0%	2.6	7.3	SSW
8/26/2019	Youssef Atallah	80.7	25%	1.4	1.9	W	97.3	5%	2.5	4.5	S
8/27/2019	Youssef Atallah	77.3	0%	2.3	3.4	SW	98.4	0%	3.5	5.6	SE
8/28/2019	Youssef Atallah	79.0	0%	0.0	0.0	W	93.0	0%	7.3	14.8	SSW
8/29/2019	Erin Whitfield	75.0	0%	6.0	9.0	SW	92.0	0%	12.0	17.0	SW
8/31/2019	Erin Whitfield	71.0	0%	2.0	2.0	SW	92.0	0%	6.0	10.0	SW
9/1/2019	Ellen Schafhauser	83.8	2%	1.1	2.0	SE	102.2	5%	0.7	1.6	E
9/2/2019	Ellen Schafhauser	81.4	40%	1.5	4.7	E	97.2	60%	2.6	6.8	SW
9/3/2019	Youssef Atallah	71.0	5%	1.3	2.4	S	96.7	1%	2.7	7.0	SW
9/4/2019	Youssef Atallah	77.0	3%	0.9	1.4	SW	98.0	1%	3.7	6.1	SW
9/5/2019	Youssef Atallah	77.6	75%	1.4	2.3	SE	95.0	30%	3.4	5.0	S
9/6/2019	Youssef Atallah	75.0	0%	1.7	3.4	SW	94.0	0%	4.2	6.0	WSW
9/7/2019	Youssef Atallah	74.2	0%	4.8	7.8	SW	93.0	0%	5.2	11.4	W
9/9/2019	Youssef Atallah	69.8	0%	1.5	1.9	SW	84.0	0%	8.0	17.0	W
9/10/2019	Youssef Atallah	61.0	0%	7.0	11.7	SW	83.0	0%	8.3	15.3	W
9/11/2019	Youssef Atallah	59.0	0%	1.5	2.2	N	83.0	0%	3.2	5.4	NE
9/12/2019	Youssef Atallah	64.0	0%	2.1	3.2	NE	89.0	0%	4.5	7.2	ENE
9/13/2019	Youssef Atallah	65.0	0%	1.0	1.7	N	90.0	0%	0.8	2.6	NE
9/14/2019	Youssef Atallah	69.0	20%	0	0.0	SE	89.0	30%	1.8	4.0	SE
9/15/2019	Lindsay Spenceley	72.6	60%	1.8	3.5	NW	95.2	70%	8.5	13.6	SW
9/16/2019	Youssef Atallah	68.0	50%	3.7	6.9	WSW	86.0	80%	8.7	20.0	SW
9/17/2019	Youssef Atallah	57.0	0%	4.5	6.1	W	76.0	0%	2.2	4.0	NW
9/18/2019	Youssef Atallah	58.0	0%	3.7	7.2	SW	82.0	0%	4.6	8.6	WSW
9/19/2019	Gilbert Goodlett	64.2	5%	8.8	16.9	W	69.2	5%	10.4	15.9	W
9/20/2019	Gilbert Goodlett	64.5	0%	1.9	2.9	W	72.0	0%	3.9	7.0	E
9/21/2019	Youssef Atallah	56.0	0%	0.5	0.9	NE	81.0	0%	2.6	6.0	ENE
9/22/2019	Youssef Atallah	61.0	85%	1.5	1.9	NE	86.0	75%	1.3	2.4	NE
9/23/2019	Youssef Atallah	68.0	0%	4.4	6.4	W	83.0	0%	6.1	8.8	W
9/24/2019	Gilbert Goodlett	73.2	5%	1.7	3.7	SE	84.8	5%	4.0	6.6	NE
9/25/2019	Gilbert Goodlett	71.2	5%	2.1	3.5	W	89.8	10%	2.8	6.0	E
9/26/2019	Youssef Atallah	65.0	30%	0.0	0.0	SSW	84.0	90%	4.7	7.2	SSW
9/27/2019	Gilbert Goodlett	69.8	0%	4.8	8.1	SW	82.1	0%	2.2	4.5	SW
9/28/2019	Gilbert Goodlett	60.8	5%	6.8	12.0	SW	72.3	10%	10.8	16.4	SW
9/29/2019	Lindsay Spenceley	50.6	0%	2.8	3.5	W	62.4	0%	11.8	18.9	W
9/30/2019	Youssef Atallah	48.0	0%	4.8	7.2	WSW	66.0	0%	8.8	11.4	W
10/1/2019	Gilbert Goodlett	55.6	0%	1.0	2.0	E	69.0	0%	2.6	4.4	N
10/1/2019	Rod Haller	50.0	0%	10.0	18.0	NW	63.5	0%	10.0	18.0	NW
10/2/2019	Youssef Atallah	44.0	0%	1.1	1.6	N	71.0	0%	2.8	4.9	ENE
10/3/2019	Youssef Atallah	57.0	0%	0.0	0.0	WNW	74.0	0%	1.8	3.1	SSW
10/4/2019	Youssef Atallah	57.0	0%	5.5	12.3	W	73.0	0%	9.5	15.2	NW
10/5/2019	Youssef Atallah	58.0	0%	0.0	0.0	N	75.0	0%	3.4	4.8	NE
10/6/2019	Rod Haller	59.5	0%	5.0	6.0	N	80.7	0%	5.0	6.0	E
10/7/2019	Youssef Atallah	63.0	0%	0.6	0.9	NW	80.0	5%	1.4	1.9	SE
10/8/2019	Youssef Atallah	66.0	0%	1.0	1.4	S	85.0	2%	3.8	5.8	ESE
10/9/2019	Youssef Atallah	68.0	0%	3.9	6.6	S	80.0	0%	9.1	13.4	W
10/10/2019	Rod Haller	54.7	0%	10.0	18	NE	69.6	2%	8.9	14.9	NE

Appendix 3b. Bellefield Solar Farm Survey Weather Data, 17 April – 25 May 2020

Date	Biologist	0800 Temp. (°F)	0800 Cloud Cover (%)	0800 Average Wind Speed (mph)	0800 Maximum Wind Speed (mph)	0800 Wind Direction	1200 Temp. (°F)	1200 Cloud Cover (%)	1200 Average Wind Speed (mph)	1200 Maximum Wind Speed (mph)	1200 Wind Direction
4/17/2020	Gilbert Goodlett	55.4	100%	4.3	6.5	SW	63.6	100%	3.2	6.4	SW
4/18/2020	Gilbert Goodlett	54.6	80%	6.3	11.6	SW	59.4	50%	8.2	12.2	SW
4/19/2020	Gilbert Goodlett	54.2	20%	1.7	3.0	E	69.6	40%	3.5	7.0	W
4/20/2020	Gilbert Goodlett	63.6	20%	0.0	0.0		67.5	80%	3.8	9.7	W
4/21/2020	Gilbert Goodlett	59.7	2%	4.9	11.1	W	65.3	5%	4.3	10.5	W
4/22/2020	Gilbert Goodlett	61.4	0%	1.3	2.7	SE	79.8	10%	2.6	5.2	W
4/23/2020	Erin Whitfield	63.0	0%	11.0	22.0	W	75.0	0%	15.0	22.0	NW
4/24/2020	Gilbert Goodlett	65.6	0%	2.4	4.1	SE	84.4	0%	2.0	4.2	N
4/25/2020	Gilbert Goodlett	79.2	10%	1.9	2.3	W	83.8	10%	4.1	7.1	E
4/26/2020	Gilbert Goodlett	74.4	70%	2.2	3.2	W	82.9	60%	1.9	4.1	W
4/27/2020	Gilbert Goodlett	75.4	0%	2.4	4.3	NE	83.5	5%	2.8	5.3	W
4/28/2020	Gilbert Goodlett	72.4	0%	0.9	2.1	E	84.8	0%	1.9	3.9	W
4/29/2020	Gilbert Goodlett	70.7	30%	1.5	2.4	SE	88.4	50%	1.7	2.9	W
4/30/2020	Gilbert Goodlett	70.8	40%	2.7	5.3	W	80.5	5%	8.7	13.1	W
5/1/2020	Gilbert Goodlett	71.7	10%	0.9	2.1	E	80.1	10%	3.7	8.6	W
5/2/2020	Erin Whitfield	64.0	0%	19.0	25.0	NW	78.0	0%	16.0	18.0	NW
5/3/2020	Gilbert Goodlett	67.1	40%	6.1	10.7	W	74.7	20%	7.2	10.7	W
5/4/2020	Gilbert Goodlett	67.2	0%	1.9	2.6	E	74.5	0%	5.6	8.1	E
5/5/2020	Gilbert Goodlett	68.1	0%	2.0	3.8	E	81.8	0%	1.4	3.4	W
5/6/2020	Gilbert Goodlett	72.1	30%	0.8	2.0	W	84.2	60%	1.8	4.0	W
5/7/2020	Gilbert Goodlett	66.8	30%	2.2	3.1	E	83.8	40%	1.3	2.9	E
5/8/2020	Gilbert Goodlett	71.8	10%	0.9	1.9	S	86.2	5%	3.1	4.4	E
5/10/2020	Gilbert Goodlett	71.5	10%	5.6	7.7	S	84.8	20%	5.6	8.7	S
5/11/2020	Gilbert Goodlett	63.3	60%	6.3	10.0	W	77.2	10%	2.7	7.3	W
5/12/2020	Gilbert Goodlett	55.2	20%	5.3	12.6	W	68.4	30%	5.4	8.8	W
5/13/2020	Gilbert Goodlett	57.4	10%	6.0	15.1	W	67.9	5%	9.2	17.2	W
5/14/2020	Gilbert Goodlett	56.8	30%	6.9	11.3	SW	71.8	10%	11.2	18.3	SW
5/15/2020	Gilbert Goodlett	60.9	5%	9.2	19.4	NW	69.6	2%	9.0	13.4	NW
5/17/2020	Gilbert Goodlett	69.8	70%	3.7	7.5	SW	79.2	60%	5.6	9.3	SW
5/18/2020	Gilbert Goodlett	63.2	70%	6.1	9.3	S	68.4	80%	6.4	10.5	S
5/19/2020	Gilbert Goodlett	52.9	50%	8.0	12.0	W	59.1	70%	9.9	14.4	W
5/20/2020	Gilbert Goodlett	64.1	0%	2.0	4.3	W	70.0	0%	7.5	12.3	W
5/21/2020	Gilbert Goodlett	63.1	0%	1.8	3.2	E	78.2	0%	1.7	4.1	E
5/22/2020	Gilbert Goodlett	68.4	5%	7.2	12.2	W	75.7	5%	9.1	12.0	W
5/24/2020	Gilbert Goodlett	65.8	5%	1.9	4.2	E	80.7	5%	3.6	4.8	E
5/25/2020	Gilbert Goodlett	76.1	2%	1.1	2.5	W	89.2	2%	2.2	3.6	W

Appendix 3c. Bellefield Solar Farm Survey Weather Data, February 2021

Date	Biologist	0800 Temp. (°F)	0800 Cloud Cover (%)	0800 Average Wind Speed (mph)	0800 Maximum Wind Speed (mph)	0800 Wind Direction	1200 Temp. (°F)	1200 Cloud Cover (%)	1200 Average Wind Speed (mph)	1200 Maximum Wind Speed (mph)	1200 Wind Direction
2/5/2021	Erin Whitfield	38.0	0%	2.0	5.0	w	60.0	0%	3.0	7.0	s
2/6/2021	Erin Whitfield	41.0	0%	5.0	6.0	nw	61.0	0%	3.0	8.0	e
2/7/2021	Erin Whitfield	43.0	0%	2.0	5.0	w	64.0	0%	2.0	5.0	e
2/9/2021	Erin Whitfield	53.0	50%	9.0	15.0	w	62.0	80%	16.0	19.0	w
2/11/2021	Erin Whitfield	45.0	0%	5.0	7.0	nw	62.0	30%	3.0	9.0	sw
2/12/2021	Erin Whitfield	46.0	75%	19.0	33.0	sw	51.0	25%	22.0	32.0	nw

Appendix 4. List of Special-Status and General Wildlife Species Detected During the Bellefield Solar Farm Surveys, 20 August – 10 October 2019, 14 April – 25 May 2020, and February 2021

Scientific Name	Common Name
BIRDS	
ORDER: ODONTOPHORIDAE	**QUAIL**
Odontophoridae	**Quail**
Callipepla californica	California Quail
ORDER: ACCIPITRIFORMES	**HAWKS, KITES, EAGLES**
Cathartidae	**American Vultures**
Cathartes aura	Turkey Vulture
Accipitiridae	**Hawks, Kites, Eagles**
Accipiter cooperii	Cooper's Hawk
Accipiter striatus	Sharp-shinned Hawk
Buteo jamaicensis	Red-tailed Hawk
Circus cyaneus	Northern Harrier*
ORDER: CHARADRIIFORMES	**GULLS AND SHOREBIRDS**
Charadriidae	**Plovers**
Charadrius vociferus	Killdeer
ORDER: COLUMBIFORMES	**DOVES AND PIGEONS**
Columbidae	**Pigeons and Doves**
Zenaida macroura	Mourning Dove
ORDER: CUCULIFORMES	**CUCKOOS, ROADRUNNERS, ANIS**
Cuculidae	**Cuckoos, Roadrunners, Anis**
Geococcyx californianus	Greater Roadrunner
ORDER: STRIGIFORMES	**OWLS**
Strigidae	**Typical Owls**
Athene cunicularia ssp. *hypugaea*	Western Burrowing Owl*
ORDER: CAPRIMULGIFORMES	**NIGHTJARS**
Caprimulgidae	**Goatsuckers**
Chordeiles acutipennis	Lesser Nighthawk
ORDER: APODIFORMES	**HUMMINGBIRDS AND SWIFTS**
Apodidae	**Swifts**
Chaetura vauxi	Vaux's Swift
Trochidae	**Hummingbirds**
Calypte anna	Anna's Hummingbird
ORDER: FALCONIFORMES	**FALCONS**
Falconidae	**Falcons**
Falco mexicanus	Prairie Falcon*
Falco sparverius	American Kestrel
ORDER: PASSERIIFORMES	**PASSERINES AND PERCHING BIRDS**
Tyrannidae	**Flycatchers**
Myiarchus cinerascens	Ash Throated Flycatcher
Sayornis saya	Say's Phoebe
Tyrannus verticalis	Western Kingbird
Laniidae	**Shrikes**
Lanius ludovicianus	Loggerhead Shrike*
Corvidae	**Jays, Magpies, and Crows**
Corvus corax	Common Raven
Alaudidae	**Larks**
Eremophila alpestris	Horned Lark
Hirundinidae	**Swallows**
Hirundo rustica	Barn Swallow

Scientific Name	Common Name
Remizidae	**Verdins**
Auriparus flaviceps	Verdin
Troglotytidae	**Wrens**
Campylorhynchus brunneicapillus	Cactus Wren
Salpinctes obsoletus	Rock Wren
Polioptilidae	**Gnatcatchers**
Polioptila caerulea	Blue-gray Gnatcatcher
Polioptila melanura	Black-tailed Gnatcatcher*
Mimidae	**Mimic Thrashers**
Toxostoma crissale	Crissal Thrasher
Toxostoma lecontei	LeConte's Thrasher
Sturnidae	**Starlings**
Sturnus vulgaris	European Starling
Ptiliogonatidae	**Silky-flycatchers**
Phainopepla nitens	Phainopepla
Parulidae	**Warblers**
Cardellina pusilla	Wilson's Warbler
Setophaga coronata	Yellow-rumped Warbler
Emberizidae	**Emberizids**
Amphispiza bilineata	Black-throated Sparrow
Artemisiospiza belli	Bell's Sparrow
Artemisiospiza nevadensis	Sagebrush Sparrow
Melospiza melodia	Song Sparrow
Spizella breweri	Brewer's Sparrow
Zonotrichia leucophrys	White-crowned Sparrow
Fringillidae	**Finches**
Haemorhous mexicanus	House Finch
Passeridae	**Weaver Finches**
Passer domesticus	House Sparrow
Cardinalidae	**Cardinals**
Piranga ludoviciana	Western Tanager
Icteridae	**Blackbirds**
Euphagus cyanocephalus	Brewer's Blackbird
Sturnella neglecta	Western Meadowlark
MAMMALS	
ORDER: CARNIVORA	**FLESH-EATERS**
Mustelidae	**Weasels, Skunks, etc.**
Taxidea taxus	American Badger*
Canidae	**Dogs, wolves, and foxes**
Canis familiaris	Domestic Dog
Canis latrans	Coyote
Vulpes macrotis arsipus	Desert Kit Fox*
Felidae	**Cats**
Lynx rufus	Bobcat
ORDER: RODENTIA	**GNAWING MAMMALS**
Sciuridae	**Squirrels**
Ammosphermophilus leucurus	Whitetail Antelope Squirrel
Spermophilus beecheyi	California Ground Squirrel
Geomyidae	**Pocket Gophers**
Thomomys bottae	Botta's Pocket Gopher
Cricetidae	**Mice Rats, Lemmings, and Voles**
Neotoma lepida	Desert Woodrat
Heteromyidae	**Kangaroo Rats**
Dipodomys deserti	Desert Kangaroo Rat
Dipodomys merriami	Merriam's Kangaroo Rat

Scientific Name	Common Name
ORDER: LAGOMORPHA	**PIKAS, HARES, AND RABBITS**
Leporidae	**Hares and Rabbits**
Lepus californicus	Black-tailed Jackrabbit
Sylvilagus auduboni	Audubon's Cottontail
ORDER: ARTIODACTYLA	**EVEN-TOED HOOFED MAMMALS**
Bovidae	**Bison, goats, muskox, and sheep**
Ovis sp.	Domestic Sheep
REPTILES	
ORDER: TESTUDINES	**TURTLES**
Testudinidae	**Land Tortoises**
Gopherus agassizii	Desert Tortoise*
ORDER:SQUAMATA	**LIZARDS AND SNAKES**
Iguanidae	**Iguanids**
Dipsosaurus dorsalis	Desert Iguana
Phrynosomitidae	**Phrynomsomitids**
Callissaurus draconoides	Zebra-tailed Lizard
Phrynosoma platyrhinos	Desert Horned Lizard
Sceloporus magister	Desert Spiny Lizard
Sceloporus occidentalis	Western Fence Lizard
Uta stansburiana	Side-blotched Lizard
Crotaphytidae	**Collared and Leopard Lizards**
Gambelia wislizenii	Long-nosed leopard lizard
Teiidae	**Whiptails**
Aspidoscelis tigris	Western Whiptail
Colubridae	**Colubrids**
Masticophis flagellum	Coachwhip
Pituophis melanoleucus	Gopher Snake
Salvadora hexalepis	Western Patch-nosed Snake
Arizona elegans eburnata (Californiaherps.com 2020)	Desert Glossy Snake
Viperidae	**Pit Vipers**
Crotalus cerastes	Sidewinder
Crotalus scutulatus	Mojave rattlesnake

***Listed and Special Status Species**

Appendix 5. Desert Kit Fox Dens Recorded During the Bellefield Solar Farm Wildlife Survey, California City and Kern County, California, 20 August – 10 October 2019 and 14 April – 25 May 2020

California City

Coordinates: Universal Transverse Mercator (UTM), Zone 11S, Datum WGS-84 meters

Date	Easting	Northing	Location	Observation
8/20/2019	406758.2	3876704	California City	**Active Den** with 7 entrances.
8/20/2019	406762.7	3876791	California City	**Inactive Den** with 2 entrances.
8/20/2019	406766.7	3876723	California City	**Inactive Den** with 5 entrances.
8/20/2019	407379.7	3876721	California City	**Inactive Den** with 6 entrances.
8/20/2019	407429.6	3876758	California City	**Inactive Den** with 1 entrance.
8/21/2019	404938.5	3877545	California City	**Inactive Den** with 2 entrances.
8/21/2019	404983.9	3877102	California City	**Inactive Den** with 1 entrance.
8/21/2019	405058.6	3877617	California City	**Inactive Den** with 1 entrance.
8/22/2019	408145.2	3876491	California City	**Active Den** with 1 entrance; fresh tracks present; excavated soil is recent and smells humid.
8/22/2019	408292.5	3876724	California City	**Inactive Den** with 2 entrances.
8/22/2019	408555.4	3876736	California City	**Inactive Den** with 1 entrance.
8/22/2019	408796.9	3876798	California City	**Inactive Den** with 2 entrances.
8/23/2019	409112.5	3876824	California City	**Inactive Den** with 1 entrance.
8/23/2019	409165.4	3876720	California City	**Inactive Den** with 1 entrance.
8/23/2019	409467.8	3876810	California City	**Inactive Den** with 2 entrances.
8/23/2019	409603.5	3876744	California City	**Inactive Den** with 1 entrance.
8/23/2019	409741.4	3876809	California City	**Inactive Den** with 1 entrance.
8/23/2019	409820.5	3876101	California City	**Inactive Den** with 2 entrances.
8/23/2019	409829.4	3876452	California City	**Inactive Den** with 1 entrance.
8/23/2019	409833.4	3876689	California City	**Inactive Den** with 1 entrance.
8/23/2019	409836.1	3876713	California City	**Inactive Den** with 1 entrance.
8/23/2019	409938.7	3876559	California City	**Inactive Den** with 1 entrance.
8/23/2019	409939.5	3876518	California City	**Inactive Den** with 2 entrances.
9/7/2019	407252.3	3875165	California City	**Inactive Den** with 2 entrances.
9/10/2019	407182.5	3875216	California City	**Inactive Den** with 1 entrance.
9/13/2019	406973.8	3875302	California City	**Inactive Den** with 1 entrance.
9/14/2019	406948.9	3875324	California City	**Inactive Den** with 1 entrance.
9/18/2019	406704.2	3875148	California City	**Active Den** with 6 entrances.
9/18/2019	406710.4	3875081	California City	**Inactive Den** with 1 entrance.
9/18/2019	406731.8	3875479	California City	**Inactive Den** with 5 entrances.
9/20/2019	406577.5	3875234	California City	**Active Den** with 23 entrances.
9/21/2019	406464.6	3875090	California City	**Inactive Den** with 7 entrances.
9/22/2019	406395.1	3875094	California City	**Active Den** with 5 entrances.
9/24/2019	408190.5	3876353	California City	**Active Den** with 4 entrances.
9/24/2019	408236.8	3876215	California City	**Active Den** with 4 entrances.
9/24/2019	408288.8	3876338	California City	**Inactive Den** with 4 entrances.
9/25/2019	408323.3	3875906	California City	**Inactive Den** with 6 entrances.
9/25/2019	408331.4	3876667	California City	**Inactive Den** with 2 entrances.
9/25/2019	408345.2	3876400	California City	**Inactive Den** with 5 entrances.
9/25/2019	408351.5	3876462	California City	**Inactive Den** with 1 entrance.
9/25/2019	408375.9	3876068	California City	**Inactive Den** with 3 entrances.
9/25/2019	408380.3	3876229	California City	**Inactive Den** with 3 entrances.
9/25/2019	406164.1	3875172	California City	**Inactive Den** with 1 entrance.

Date	Easting	Northing	Location	Observation
9/25/2019	406199.7	3875040	California City	**Inactive Den** with 9 entrances.
9/25/2019	407305	3876650	California City	**Inactive Den** with 1 entrance.
9/26/2019	407107.6	3876641	California City	**Active Den** with 3 entrances; older scat present.
9/26/2019	406138.7	3875127	California City	**Active Den** with 1 entrance.
9/26/2019	408443.6	3875689	California City	**Inactive Den** with 1 entrance.
9/26/2019	408449.9	3876479	California City	**Inactive Den** with 4 entrances.
9/26/2019	408506.2	3876633	California City	**Inactive Den** with 4 entrances.
9/26/2019	406091.4	3875121	California City	**Inactive Den** with 4 entrances.
9/26/2019	406096.2	3875238	California City	**Inactive Den** with 2 entrances.
9/26/2019	406992.1	3876530	California City	**Inactive Den** with 5 entrances.
9/26/2019	407102.9	3876576	California City	**Inactive Den** with 3 entrances.
9/27/2019	407163.9	3875821	California City	**Active Den** with 5 entrances; older scat and prey remains present.
9/27/2019	408570.8	3876461	California City	**Inactive Den** with 3 entrances.
9/27/2019	408592.7	3876263	California City	**Inactive Den** with 1 entrance.
9/27/2019	408629.7	3876177	California City	**Inactive Den** with 2 entrances.
9/27/2019	407171.1	3876468	California City	**Inactive Den** with 5 entrances.
9/28/2019	408697.3	3876403	California City	**Inactive Den** with 2 entrances.
9/28/2019	408713	3876550	California City	**Inactive Den** with 1 entrance.
9/28/2019	408766	3875747	California City	**Inactive Den** with 3 entrances.
10/1/2019	408832	3876624	California City	**Inactive Den** with 4 entrances.
10/1/2019	408861.2	3876036	California City	**Inactive Den** with 3 entrances.
10/1/2019	405979.8	3875086	California City	**Inactive Den** with 2 entrances.
10/1/2019	405624	3875511	California City	**Inactive Den** with 1 entrance.
10/1/2019	405707.4	3875424	California City	**Inactive Den** with 1 entrance.
10/2/2019	408986.7	3875280	California City	**Inactive Den** with 5 entrances.
10/2/2019	405478	3875038	California City	**Inactive Den** with 10 entrances.
10/2/2019	405586.2	3875339	California City	**Inactive Den** with 11 entrances.
10/3/2019	409481.7	3876431	California City	**Inactive Den** with 1 entrance.
10/3/2019	405394.6	3875664	California City	**Inactive Den** with 1 entrance.
10/3/2019	405433.4	3875014	California City	**Inactive Den** with 6 entrances.
10/4/2019	405135.5	3875533	California City	**Inactive Den** with 4 entrances.
10/5/2019	404975.6	3875401	California City	**Inactive Den** with 5 entrances.
10/6/2019	409063	3876540	California City	**Active Den** with 3 entrances.
10/6/2019	409037	3876657	California City	**Inactive Den** with 1 entrance.
10/7/2019	408941	3875656	California City	**Active Den** with 3 entrances; tracks and fresh dirt present.
10/7/2019	404889.1	3875182	California City	**Inactive Den** with 1 entrance.
10/7/2019	404899.3	3875570	California City	**Inactive Den** with 1 entrance.
				TOTAL ACTIVE DENS = 12 **TOTAL INACTIVE DENS = 69**

Kern County

Coordinates: Universal Transverse Mercator (UTM), Zone 11S, Datum WGS-84 meters

Date	Easting	Northing	Location	Observation
8/20/2019	400334	3881487	Kern County	**Inactive Den** with 2 entrances; poor condition; old scat.
8/20/2019	408708.6	3875006	Kern County	**Inactive Den** with 15 entrances.
8/21/2019	399940	3879849	Kern County	**Active Den** with 10 entrances; up to 200 x 200 mm; long mounds with kit fox tracks; several old scat; small mammal bones on mounds.
8/21/2019	399961	3879765	Kern County	**Inactive Den** with 3 entrances.
8/21/2019	399979.1	3880721	Kern County	**Active Den** with 4 entrances; up to 150 x 200 mm; 2 long mounds with kit fox tracks; several old, bleached scat around the den and on mounds.
8/22/2019	401565	3878980	Kern County	**Inactive Den** with 3 entrances.
8/22/2019	400060	3878935	Kern County	**Inactive Den** with 3 entrances.
8/22/2019	401984	3878992	Kern County	**Inactive Den** with 7 entrances.
8/22/2019	400939	3878880	Kern County	**Inactive Den** with 7 entrances.
8/22/2019	400789	3878863	Kern County	**Inactive Den** with 1 entrance.
8/23/2019	401776	3878937	Kern County	**Inactive Den** with 12 entrances.
8/23/2019	400090	3878878	Kern County	**Inactive Den** with 2 entrances.
8/23/2019	401334	3878764	Kern County	**Inactive Den** with 2 entrances.
8/23/2019	407538.4	3875179	Kern County	**Inactive Den** with 11 entrances.
8/24/2019	402612	3878136	Kern County	**Inactive Den** with 6 entrances.
8/24/2019	402707.8	3878722	Kern County	**Active Den** with 5 entrances; 2 recent excavations with recent tracks; lots of scat that are recent and older all around the den site.
8/24/2019	402416.5	3878141	Kern County	**Active Den** with 6 entrances; 3 recently excavated with tracks present; lots of older and more recent scat on the excavation mounds, scattered, and in burrow entrances around the den.
8/24/2019	402645.6	3878804	Kern County	**Active Den** with 8 entrances; 2 recently excavated with fresh tracks; lots of old and recent scat on the excavation mounds, scattered, and in burrows.
8/24/2019	408210.8	3874089	Kern County	**Active Den** with 2 entrances; fresh tracks present and excavated soil smells humid.
8/24/2019	408227.7	3874864	Kern County	**Inactive Den** with 6 entrances.
8/24/2019	408248.4	3874527	Kern County	**Inactive Den** with 3 entrances.
8/24/2019	408565.8	3874965	Kern County	**Inactive Den** with 2 entrances.
8/24/2019	408894.8	3874986	Kern County	**Inactive Den** with 8 entrances.
8/24/2019	409175.4	3874934	Kern County	**Inactive Den** with 1 entrance.
8/24/2019	409568	3874946	Kern County	**Inactive Den** with 3 entrances.
8/24/2019	409734.1	3875046	Kern County	**Inactive Den** with 1 entrance.
8/26/2019	402947	3878544	Kern County	**Inactive Den** with 4 entrances.
8/26/2019	408057.3	3874166	Kern County	**Active Den** with 4 entrances.
8/26/2019	404433.6	3875405	Kern County	**Inactive Den** with 1 entrance.
8/26/2019	407023.7	3873324	Kern County	**Inactive Den** with 1 entrance.
8/26/2019	407333.6	3873393	Kern County	**Inactive Den** with 1 entrance.
8/26/2019	407427.7	3873936	Kern County	**Inactive Den** with 1 entrance.
8/26/2019	407749.8	3874089	Kern County	**Inactive Den** with 1 entrance.
8/26/2019	408109.8	3874102	Kern County	**Inactive Den** with 1 entrance.
8/26/2019	408120.2	3874168	Kern County	**Inactive Den** with 4 entrances.
8/27/2019	405626.4	3873522	Kern County	**Inactive Den** with 1 entrance.

Date	Easting	Northing	Location	Observation
8/27/2019	405860	3873302	Kern County	**Inactive Den** with 1 entrance.
8/27/2019	406708.9	3873365	Kern County	**Inactive Den** with 1 entrance.
8/28/2019	405565.6	3874799	Kern County	**Inactive Den** with 1 entrance.
8/28/2019	405591.6	3874596	Kern County	**Inactive Den** with 1 entrance.
9/1/2019	401347	3881838	Kern County	**Inactive Den** with 3 entrances.
9/2/2019	401422	3882483	Kern County	**Inactive Den** with 1 entrance.
9/2/2019	401442	3882229	Kern County	**Inactive Den** with 1 entrance.
9/2/2019	408043.1	3875004	Kern County	**Inactive Den** with 1 entrance.
9/2/2019	408091.9	3874818	Kern County	**Inactive Den** with 2 entrances.
9/2/2019	408116.2	3874267	Kern County	**Inactive Den** with 1 entrance.
9/2/2019	408152.3	3874790	Kern County	**Inactive Den** with 2 entrances.
9/3/2019	400064.3	3879604	Kern County	**Inactive Den** with 2 entrances.
9/3/2019	400100	3881089	Kern County	**Inactive Den** with 2 entrances.
9/3/2019	400056.3	3880310	Kern County	**Inactive Den** with 3 entrances.
9/3/2019	400625.4	3874764	Kern County	**Active Den** with 6 entrances; tracks at entrances and fresh scat present.
9/3/2019	407867	3874320	Kern County	**Active Den** with 9 entrances.
9/3/2019	401498.5	3882196	Kern County	**Inactive Den** with 3 entrances.
9/3/2019	401529	3882361	Kern County	**Inactive Den** with 1 entrance.
9/3/2019	407880.6	3874488	Kern County	**Inactive Den** with 4 entrances.
9/3/2019	407960.2	3874370	Kern County	**Inactive Den** with 1 entrance.
9/3/2019	409819.4	3874628	Kern County	**Inactive Den** with 1 entrance.
9/4/2019	400140	3881005	Kern County	**Inactive Den** with 2 entrances.
9/4/2019	400110.4	3880669	Kern County	**Inactive Den** with 3 entrances.
9/4/2019	400629.3	3873968	Kern County	**Active Den** with 1 entrance.
9/4/2019	401586.1	3882876	Kern County	**Inactive Den** with 2 entrances.
9/4/2019	401602	3882832	Kern County	**Inactive Den** with 1 entrance.
9/4/2019	407656.6	3874509	Kern County	**Inactive Den** with 2 entrances.
9/4/2019	407672.9	3874706	Kern County	**Inactive Den** with 1 entrance.
9/4/2019	407685.2	3874854	Kern County	**Inactive Den** with 1 entrance.
9/4/2019	407697.8	3874258	Kern County	**Inactive Den** with 1 entrance.
9/4/2019	407723.5	3874751	Kern County	**Inactive Den** with 5 entrances.
9/4/2019	407783.1	3874582	Kern County	**Inactive Den** with 1 entrance.
9/4/2019	407803.5	3874671	Kern County	**Inactive Den** with 3 entrances.
9/4/2019	407807.1	3874815	Kern County	**Inactive Den** with 5 entrances.
9/5/2019	400194.8	3880180	Kern County	**Inactive Den** with 4 entrances.
9/5/2019	400197.8	3880689	Kern County	**Inactive Den** with 5 entrances.
9/5/2019	401662.5	3882715	Kern County	**Inactive Den** with 2 entrances.
9/5/2019	401042	3874181	Kern County	**Active Den** with 1 entrance; tracks and fresh scat present.
9/5/2019	401060	3874607	Kern County	**Inactive Den** with 1 entrance.
9/5/2019	401631	3882848	Kern County	**Active Den** with 3 entrances; tracks and fresh digging present.
9/5/2019	401692.6	3882854	Kern County	**Active Den** with 2 entrances; tracks and fresh digging present.
9/5/2019	401655	3882184	Kern County	**Inactive Den** with 3 entrances.
9/5/2019	401702	3882852	Kern County	**Inactive Den** with 1 entrance.
9/5/2019	407551.4	3874839	Kern County	**Inactive Den** with 1 entrance.
9/5/2019	407589.3	3874964	Kern County	**Inactive Den** with 3 entrances.
9/5/2019	407635.5	3874857	Kern County	**Inactive Den** with 6 entrances.
9/6/2019	400258.5	3880172	Kern County	**Inactive Den** with 2 entrances.

Date	Easting	Northing	Location	Observation
9/6/2019	400259.5	3881161	Kern County	**Inactive Den** with 3 entrances.
9/6/2019	401724	3882953	Kern County	**Inactive Den** with 5 entrances.
9/6/2019	401712	3882063	Kern County	**Active Den** with 1 entrance; old tracks, spider web at entrance.
9/6/2019	401790	3882790	Kern County	**Inactive Den** with 1 entrance.
9/6/2019	401179.8	3874779	Kern County	**Active Den** with 1 entrance; tracks present.
9/6/2019	401744	3883079	Kern County	**Active Den** with 5 entrances; tracks present along with fresh digging.
9/6/2019	407356.4	3874305	Kern County	**Inactive Den** with 2 entrances.
9/6/2019	407363.8	3874967	Kern County	**Inactive Den** with 6 entrances.
9/6/2019	407394.1	3874913	Kern County	**Inactive Den** with 11 entrances.
9/6/2019	407413.6	3874936	Kern County	**Inactive Den** with 2 entrances.
9/6/2019	407456.2	3874416	Kern County	**Inactive Den** with 8 entrances.
9/6/2019	407480	3874805	Kern County	**Inactive Den** with 1 entrance.
9/7/2019	400276	3879412	Kern County	**Inactive Den** with 1 entrance.
9/7/2019	401817.8	3883007	Kern County	**Inactive Den** with 1 entrance.
9/7/2019	401817	3881969	Kern County	**Inactive Den** with 1 entrance.
9/7/2019	401296.3	3874583	Kern County	**Active Den** with 1 entrance.
9/7/2019	401399.7	3874282	Kern County	**Active Den** with 1 entrance.
9/7/2019	401830	3882790	Kern County	**Inactive Den** with 1 entrance.
9/7/2019	401856	3881650	Kern County	**Inactive Den** with 3 entrances.
9/7/2019	401303.4	3874678	Kern County	**Inactive Den** with 1 entrance.
9/7/2019	401328.9	3874902	Kern County	**Inactive Den** with 1 entrance.
9/7/2019	407257.3	3875008	Kern County	**Inactive Den** with 9 entrances.
9/7/2019	407260.3	3874858	Kern County	**Inactive Den** with 1 entrance.
9/7/2019	407280.2	3874418	Kern County	**Inactive Den** with 12 entrances.
9/7/2019	407300.9	3874681	Kern County	**Inactive Den** with 1 entrance.
9/8/2019	401929	3881498	Kern County	**Inactive Den** with 4 entrances.
9/9/2019	400341	3880118	Kern County	**Inactive Den** with 5 entrances.
9/10/2019	400383	3880591	Kern County	**Inactive Den** with 1 entrance.
9/10/2019	401965	3882782	Kern County	**Inactive Den** with 3 entrances.
9/10/2019	407194.9	3874501	Kern County	**Inactive Den** with 2 entrances.
9/11/2019	402031	3882584	Kern County	**Active Den** with 1 entrance; freshly excavated soil; no other sign.
9/11/2019	402070	3882889	Kern County	**Inactive Den** with 1 entrance.
9/11/2019	400209.5	3873942	Kern County	**Active Den** with 1 entrance.
9/11/2019	400252.5	3874854	Kern County	**Active Den** with 3 entrances.
9/11/2019	400453.8	3880392	Kern County	**Active Den** with 8 entrances.
9/11/2019	400471.6	3880848	Kern County	**Active Den** with 5 entrances.
9/11/2019	400268.5	3874795	Kern County	**Inactive Den** with 1 entrance.
9/11/2019	400276.5	3874866	Kern County	**Inactive Den** with 5 entrances.
9/11/2019	400439	3880680	Kern County	**Inactive Den** with 3 entrances.
9/11/2019	400463	3880612	Kern County	**Inactive Den** with 5 entrances.
9/11/2019	400492	3880272	Kern County	**Inactive Den** with 4 entrances.
9/11/2019	407132.4	3873935	Kern County	**Inactive Den** with 1 entrance.
9/12/2019	400515.5	3880553	Kern County	**Inactive Den** with 1 entrance; Class 4 desert tortoise burrow.
9/12/2019	401697.6	3875318	Kern County	**Inactive Den** with 1 entrance.
9/12/2019	401697.6	3875002	Kern County	**Inactive Den** with 1 entrance.
9/12/2019	400534.6	3880576	Kern County	**Inactive Den** with 3 entrances.
9/12/2019	400549.3	3881274	Kern County	**Inactive Den** with 6 entrances.

Date	Easting	Northing	Location	Observation
9/12/2019	407033.1	3873758	Kern County	**Inactive Den** with 4 entrances.
9/12/2019	407060.2	3874284	Kern County	**Inactive Den** with 1 entrance.
9/12/2019	407068.3	3874567	Kern County	**Inactive Den** with 1 entrance.
9/13/2019	400575	3880508	Kern County	**Active Den** with 8 entrances; fresh excavations and tracks present.
9/13/2019	402208	3881815	Kern County	**Inactive Den** with 3 entrances.
9/13/2019	402187	3881976	Kern County	**Inactive Den** with 2 entrances.
9/13/2019	401718.6	3875476	Kern County	**Inactive Den** with 1 entrance.
9/13/2019	400576	3880077	Kern County	**Inactive Den** with 6 entrances.
9/13/2019	400589.2	3880281	Kern County	**Inactive Den** with 2 entrances.
9/13/2019	400603.8	3880302	Kern County	**Inactive Den** with 1 entrance.
9/13/2019	406954.7	3873735	Kern County	**Inactive Den** with 2 entrances.
9/13/2019	406992.7	3874210	Kern County	**Inactive Den** with 2 entrances.
9/13/2019	407001.7	3874968	Kern County	**Inactive Den** with 5 entrances.
9/13/2019	407003.5	3874534	Kern County	**Inactive Den** with 6 entrances.
9/14/2019	400160.1	3877627	Kern County	**Active Den** with 1 entrance; tracks present.
9/14/2019	400081	3877912	Kern County	**Inactive Den** with 1 entrance.
9/14/2019	401833.3	3876023	Kern County	**Inactive Den** with 1 entrance.
9/14/2019	401846.1	3875126	Kern County	**Inactive Den** with 1 entrance.
9/14/2019	406915.6	3873668	Kern County	**Inactive Den** with 1 entrance.
9/14/2019	406947.8	3874462	Kern County	**Inactive Den** with 8 entrances.
9/14/2019	406954.2	3874772	Kern County	**Inactive Den** with 1 entrance.
9/15/2019	401977.4	3876405	Kern County	**Active Den** with 1 entrance.
9/15/2019	400270	3877808	Kern County	**Inactive Den** with 4 entrances.
9/16/2019	400743.7	3881238	Kern County	**Active Den** with 3 entrances; fresh scat present.
9/16/2019	402080.4	3875582	Kern County	**Active Den** with 1 entrance.
9/16/2019	400463	3877954	Kern County	**Active Den** with 4 entrances; tracks, recent excavations, cobwebs broken, and older scat present.
9/16/2019	402092	3876320	Kern County	**Active Den** with 1 entrance.
9/16/2019	406862	3873950	Kern County	**Active Den** with 9 entrances.
9/16/2019	406890.2	3875019	Kern County	**Active Den** with 7 entrances.
9/16/2019	402030.2	3875059	Kern County	**Inactive Den** with 1 entrance.
9/16/2019	400717.9	3880964	Kern County	**Inactive Den** with 2 entrances.
9/16/2019	400725.5	3880646	Kern County	**Inactive Den** with 6 entrances.
9/16/2019	400738.1	3880695	Kern County	**Inactive Den** with 8 entrances.
9/16/2019	406852.3	3874279	Kern County	**Inactive Den** with 5 entrances.
9/16/2019	406886.1	3874112	Kern County	**Inactive Den** with 2 entrances.
9/16/2019	406887.4	3873764	Kern County	**Inactive Den** with 3 entrances.
9/16/2019	406887.6	3874303	Kern County	**Inactive Den** with 1 entrance.
9/16/2019	406896.7	3874885	Kern County	**Inactive Den** with 2 entrances.
9/17/2019	400812.3	3881086	Kern County	**Active Den** with 3 entrances.
9/17/2019	402158.6	3875436	Kern County	**Inactive Den** with 1 entrance.
9/17/2019	401254.3	3876601	Kern County	**Inactive Den** with 1 entrance.
9/17/2019	406761.8	3874128	Kern County	**Inactive Den** with 8 entrances.
9/17/2019	406771.8	3874642	Kern County	**Inactive Den** with 5 entrances.
9/17/2019	406824.4	3874286	Kern County	**Inactive Den** with 1 entrance.
9/17/2019	406826.9	3874560	Kern County	**Inactive Den** with 4 entrances.
9/18/2019	406745.3	3874997	Kern County	**Active Den** with 9 entrances; fresh tracks and recently excavated soil with humid smell.
9/18/2019	400628.7	3877491	Kern County	**Inactive Den** with 3 entrances.
9/18/2019	400503.8	3877873	Kern County	**Active Den** with 1 entrance; tracks present.

Date	Easting	Northing	Location	Observation
9/18/2019	400674	3877522	Kern County	**Inactive Den** with 4 entrances.
9/18/2019	400674	3877955	Kern County	**Inactive Den** with 7 entrances.
9/18/2019	400705	3878146	Kern County	**Inactive Den** with 4 entrances.
9/18/2019	406692.7	3873610	Kern County	**Inactive Den** with 1 entrance.
9/18/2019	406706.4	3874316	Kern County	**Inactive Den** with 2 entrances.
9/18/2019	406715.1	3873955	Kern County	**Inactive Den** with 3 entrances.
9/18/2019	406732	3874980	Kern County	**Inactive Den** with 1 entrance.
9/19/2019	403279	3879322	Kern County	**Inactive Den** with 1 entrance.
9/19/2019	403182.2	3878633	Kern County	**Active Den** with 5 entrances.
9/19/2019	400920.5	3880405	Kern County	**Inactive Den** with 1 entrance.
9/19/2019	400921.1	3880512	Kern County	**Inactive Den** with 2 entrances.
9/19/2019	403206.5	3879381	Kern County	**Inactive Den** with 1 entrance.
9/19/2019	403291.9	3879270	Kern County	**Inactive Den** with 1 entrance.
9/19/2019	406616.5	3873554	Kern County	**Inactive Den** with 1 entrance.
9/19/2019	406645.3	3873541	Kern County	**Inactive Den** with 1 entrance.
9/19/2019	406651.1	3874926	Kern County	**Inactive Den** with 5 entrances.
9/20/2019	402268.7	3875230	Kern County	**Active Den** with 9 entrances; 2 entrances recently used.
9/20/2019	402239.3	3875584	Kern County	**Active Den** with 5 entrances.
9/20/2019	402276.7	3875697	Kern County	**Inactive Den** with 2 entrances.
9/20/2019	400967.4	3881087	Kern County	**Inactive Den** with 2 entrances.
9/21/2019	401011.9	3880473	Kern County	**Active Den** with 1 entrance.
9/21/2019	402340.4	3875550	Kern County	**Inactive Den** with 2 entrances.
9/21/2019	402385.5	3875368	Kern County	**Inactive Den** with 1 entrance.
9/21/2019	406488.5	3874824	Kern County	**Inactive Den** with 10 entrances.
9/21/2019	406513.1	3873924	Kern County	**Inactive Den** with 1 entrance.
9/22/2019	406457.3	3874329	Kern County	**Inactive Den** with 2 entrances.
9/23/2019	400997	3877276	Kern County	**Inactive Den** with 7 entrances.
9/23/2019	400990	3877402	Kern County	**Inactive Den** with 7 entrances.
9/23/2019	401069.2	3881127	Kern County	**Inactive Den** with 2 entrances.
9/23/2019	401093.1	3881031	Kern County	**Inactive Den** with 4 entrances.
9/23/2019	406324.2	3874666	Kern County	**Inactive Den** with 8 entrances.
9/23/2019	406368.5	3874815	Kern County	**Inactive Den** with 3 entrances.
9/24/2019	403119.4	3879144	Kern County	**Inactive Den** with 1 entrance; burrowing owl pellets and whitewash present.
9/24/2019	403099	3878737	Kern County	**Active Den** with 2 entrances; tracks present at both entrances.
9/24/2019	401087	3877769	Kern County	**Active Den** with 1 entrance; tracks present.
9/24/2019	401128.5	3879204	Kern County	**Inactive Den** with 4 entrances.
9/24/2019	401187.2	3878986	Kern County	**Inactive Den** with 1 entrance.
9/24/2019	402970.6	3879145	Kern County	**Inactive Den** with 5 entrances.
9/24/2019	403062.6	3879113	Kern County	**Inactive Den** with 2 entrances.
9/24/2019	406225.5	3874453	Kern County	**Inactive Den** with 1 entrance.
9/24/2019	406232.4	3874789	Kern County	**Inactive Den** with 2 entrances.
9/24/2019	406282.5	3874826	Kern County	**Inactive Den** with 3 entrances.
9/25/2019	401194	3877301	Kern County	**Active Den** with 3 entrances; fresh tracks present; burrowing owl whitewash present.
9/25/2019	401216	3877165	Kern County	**Active Den** with 1 entrance; fresh tracks and old scat present.
9/25/2019	406144.6	3874650	Kern County	**Active Den** with 4 entrances.
9/25/2019	401203.9	3880810	Kern County	**Inactive Den** with 6 entrances.

Date	Easting	Northing	Location	Observation
9/25/2019	401216.1	3880939	Kern County	**Inactive Den** with 3 entrances.
9/25/2019	406218.7	3874956	Kern County	**Inactive Den** with 3 entrances.
9/26/2019	401218.9	3878863	Kern County	**Inactive Den** with 6 entrances.
9/26/2019	401247	3877261	Kern County	**Inactive Den** with 3 entrances.
9/26/2019	402413.3	3875417	Kern County	**Active Den** with 2 entrances.
9/26/2019	402589.5	3875741	Kern County	**Active Den** with 9 entrances.
9/26/2019	401216.7	3878795	Kern County	**Active Den** with 6 entrances.
9/26/2019	400971.9	3873687	Kern County	**Active Den** with 3 entrances.
9/26/2019	402414.1	3875233	Kern County	**Inactive Den** with 1 entrance.
9/26/2019	401244.2	3880455	Kern County	**Inactive Den** with 4 entrances.
9/26/2019	401124.1	3873985	Kern County	**Inactive Den** with 4 entrances.
9/27/2019	401342	3877896	Kern County	**Inactive Den** with 3 entrances.
9/27/2019	401326	3877385	Kern County	**Inactive Den** with 1 entrance.
9/27/2019	401256.9	3879386	Kern County	**Inactive Den** with 1 entrance.
9/27/2019	405883.2	3874781	Kern County	**Inactive Den** with 3 entrances.
9/28/2019	401444.5	3877508	Kern County	**Inactive Den** with 6 entrances.
9/28/2019	401501	3873785	Kern County	**Active Den** with 5 entrances.
9/28/2019	401456.1	3873889	Kern County	**Active Den** with 6 entrances.
9/28/2019	401507.6	3873959	Kern County	**Active Den** with 2 entrances.
9/28/2019	401429	3873977	Kern County	**Inactive Den** with 9 entrances.
9/28/2019	401324.2	3880256	Kern County	**Inactive Den** with 1 entrance.
9/28/2019	401328	3880305	Kern County	**Inactive Den** with 2 entrances.
9/28/2019	401340.9	3880846	Kern County	**Inactive Den** with 2 entrances.
9/29/2019	401534	3878163	Kern County	**Inactive Den** with 2 entrances.
9/29/2019	401517.4	3877551	Kern County	**Inactive Den** with 8 entrances.
9/29/2019	401426.1	3873791	Kern County	**Active Den** with 6 entrances.
9/30/2019	406020.8	3874935	Kern County	**Inactive Den** with 8 entrances.
9/30/2019	405999.9	3874718	Kern County	**Inactive Den** with 10 entrances.
9/30/2019	401435.6	3880869	Kern County	**Inactive Den** with 3 entrances.
9/30/2019	406022.9	3873614	Kern County	**Inactive Den** with 1 entrance.
9/30/2019	406043.7	3873966	Kern County	**Inactive Den** with 2 entrances.
9/30/2019	406047.9	3873754	Kern County	**Inactive Den** with 1 entrance.
9/30/2019	405740.7	3874967	Kern County	**Inactive Den** with 5 entrances.
10/1/2019	405925.3	3874884	Kern County	**Inactive Den** with 5 entrances; burrowing owl whitewash and pellets present.
10/1/2019	405919	3874907	Kern County	**Inactive Den** with 1 entrance.
10/1/2019	405947	3874537	Kern County	**Inactive Den** with 6 entrances.
10/2/2019	402747.6	3875619	Kern County	**Inactive Den** with 6 entrances.
10/2/2019	402612.5	3875354	Kern County	**Inactive Den** with 3 entrances.
10/2/2019	402764.2	3875724	Kern County	**Inactive Den** with 4 entrances.
10/2/2019	401480.5	3879528	Kern County	**Inactive Den** with 3 entrances.
10/2/2019	401518.5	3879195	Kern County	**Inactive Den** with 7 entrances.
10/3/2019	402829.6	3875400	Kern County	**Active Den** with 6 entrances.
10/3/2019	402926.8	3875542	Kern County	**Active Den** with 2 entrances.
10/3/2019	402943.2	3875074	Kern County	**Active Den** with 2 entrances.
10/4/2019	401748.5	3879126	Kern County	**Inactive Den** with 4 entrances.
10/4/2019	401777.8	3879323	Kern County	**Inactive Den** with 5 entrances.
10/5/2019	401990.1	3879150	Kern County	**Active Den** with 8 entrances; recent excavation, scat, and tracks present.
10/5/2019	393879	3882147	Kern County	**Inactive Den** with 2 entrances.
10/5/2019	395667.1	3882168	Kern County	**Inactive Den** with 1 entrance.

Date	Easting	Northing	Location	Observation
10/5/2019	396969.2	3882151	Kern County	**Inactive Den** with 2 entrances.
10/5/2019	401913.2	3879206	Kern County	**Inactive Den** with 3 entrances.
10/5/2019	401972.1	3879618	Kern County	**Inactive Den** with 5 entrances.
10/5/2019	401994.3	3879594	Kern County	**Inactive Den** with 4 entrances.
10/6/2019	402062.9	3878768	Kern County	**Inactive Den** with 2 entrances.
10/7/2019	402148.6	3878551	Kern County	**Inactive Den** with 2 entrances.
10/7/2019	402212.1	3879618	Kern County	**Inactive Den** with 1 entrance.
10/7/2019	405825	3873522	Kern County	**Inactive Den** with 1 entrance.
10/7/2019	406144.9	3873483	Kern County	**Inactive Den** with 1 entrance.
10/7/2019	402147.6	3878974	Kern County	**Inactive Den** with 4 entrances.
10/8/2019	398746	3873236	Kern County	**Active Den** with 4 entrances; fresh tracks; one entrance at the top of a road embankment below overhead telephone line.
10/8/2019	402286.2	3878250	Kern County	**Inactive Den** with 5 entrances.
10/8/2019	399289.2	3877914	Kern County	**Inactive Den** with 3 entrances.
10/9/2019	390222.2	3877330	Kern County	**Inactive Den** with 1 entrance.
4/17/2020	406368	3874811	Kern County	**Inactive Den** with 3 entrances.
4/17/2020	406459	3874911	Kern County	**Inactive Den** with entrances.
4/18/2020	397059	3882463	Kern County	**Inactive Den** with 2 entrances.
4/20/2020	400957	3878404	Kern County	**Inactive Den** with 2 entrances.
4/24/2020	397787	3882454	Kern County	**Inactive Den** with2 entrances.
4/24/2020	402839	3878563	Kern County	**Inactive Den** with 2 entrances.
5/3/2020	398293	3883030	Kern County	**Inactive Den** with 1 entrance.
5/8/2020	399188	3881968	Kern County	**Inactive Den** with 3 entrances.
5/17/2020	395144	3882603	Kern County	**Inactive Den** with 5 entrances.
5/19/2020	399746	3883097	Kern County	**Inactive Den** with 4 entrances.
5/24/2020	399518	3882168	Kern County	**Active Den** with 5 entrances; tracks, scat, and prey remains present.
5/25/2020	400655	3881670	Kern County	**Inactive Den** with 6 entrances.
				TOTAL ACTIVE DENS = 58 **TOTAL INACTIVE DENS = 241**

D.3 Aquatic Resources Assessment

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Bellefield Solar Farm Project

Aquatic Resources Assessment

prepared for

50LW 8ME LLC
5455 Wilshire Boulevard, Suite 2010
Los Angeles, California 90036
Contact: Mr. Alexander Sundquist

prepared by

Rincon Consultants, Inc.
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October 2019 (Revised July 2020)

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
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Appendices

Executive Summary

On behalf of 50LW 8ME LLC (the Applicant), Rincon Consultants, Inc. (Rincon) conducted an aquatic resources assessment for the proposed Bellefield Solar Farm (Bellefield, or Project) located in California City and unincorporated Kern County, California.

The assessment was conducted to determine the location and extent of waters and streambeds potentially subject to the jurisdiction of the California Department of Fish and Wildlife (CDFW) and the Lahontan Regional Water Quality Control Board (RWQCB). Proposed impacts to potential jurisdictional features may be subject to CDFW notification and permit requirements, pursuant to Sections 1600 *et seq*. of the California Fish and Game Code (CFGC) and RWQCB Section 13263 of the Porter-Cologne Water Quality Act (Porter-Cologne Act). As part of Project scoping, planning, and design, this report was prepared to support project review under the California Environmental Quality Act (CEQA).

Note that potentially jurisdictional features identified during this assessment are not likely subject to the regulation by the U.S. Army Corps of Engineers (USACE) under the Clean Water Act (CWA) because the site's hydrologic isolation from navigable waters means that, from a general basin-wide perspective, the watershed drains solely to inland areas of California. The USACE prepared Approved Jurisdictional Determinations (AJDs) for the Cache Creek Crossing at Mendiburu Road in California City and the Sydney Peak Stone Mine Expansion Project that confirm these features would not be jurisdictional under Section 404 of the CWA.

Twenty-nine ephemeral drainages were identified, delineated, and mapped within the Project Area, and 12 ephemeral drainages were identified along two potential generator intertie lines (gen-ties). Potential RWQCB jurisdictional areas comprise 4.11 acres and potential CDFW jurisdictional areas total 8.87 acres within the Project Area. The total horizontal distance of the drainages was 91,367 linear feet. No riparian habitat or wetlands in association with the drainages were present.

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1 Introduction

Rincon Consultants, Inc. (Rincon) conducted an aquatic resources assessment for the Project. The assessment was conducted to determine the location and extent of waters or streambeds in the Project Area and gen-ties that may potentially be subject to the jurisdiction of the California Department of Fish and Game (CDFW) and Regional Water Quality Control Board (RWQCB).

Any proposed development in areas identified as jurisdictional waters and/or streambeds may be subject to the permit requirements of the CDFW and RWQCB. Actual jurisdictional limits are determined by the state agencies at the time that permits are requested.

1.1 Project Location

The approximately 8,371-acre Project is comprised of 90 assessor's parcels (Project Area), including 82 parcels totaling 6,269 gross acres within unincorporated Kern County and 8 assessor's parcels totaling approximately 2,102 gross acres within California City, California (Figure 1 through Figure 3). The Project Area is centered at approximately latitude 35.030457°N, longitude 118.068420°W (WGS84).

The permanent disturbance acreage associated with development of the solar facility and associated infrastructure (Project Site) within the Project Area would be less than the gross acreage of the Project Area. However, this assessment included the entire Project Area and two gen-ties in order to assist the Applicant in siting facilities to minimize impacts to jurisdictional features and other sensitive biological resources.

The Project is located in portions of unincorporated Kern County and California City. The Project straddles State Route 58, east of Mojave and just west and south of the Hyundai-Kia Proving Ground.

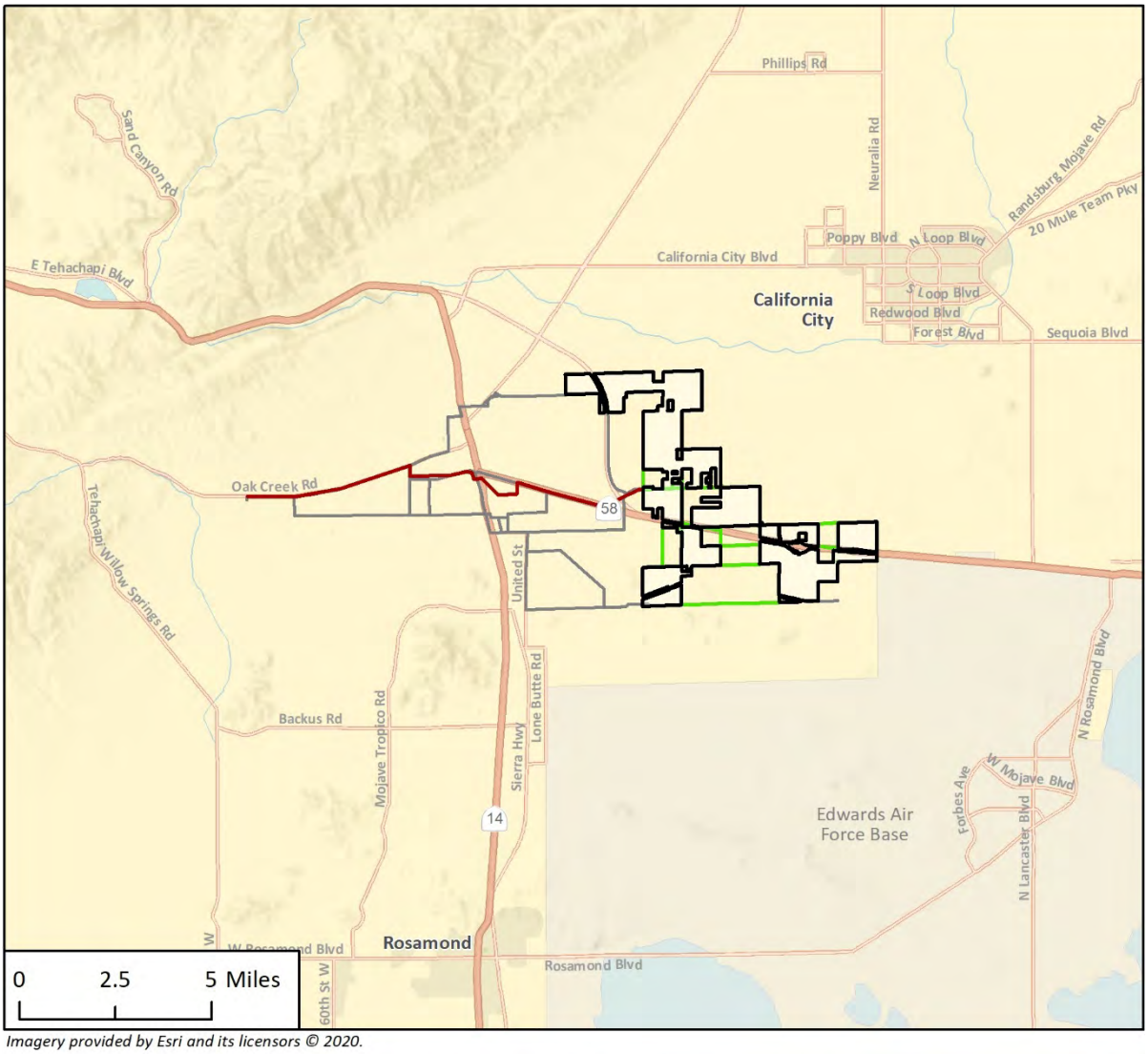
1.2 Project Description

This project description is abbreviated, focusing on elements of the proposed solar facility that are most relevant to this aquatic resources assessment. The Applicant is seeking approval of a Conditional Use Permit (CUP) for the construction of an up to 1,500 megawatt (MW) alternating current (AC) utility-scale solar farm with an up to 1,500 MW-hour (MWh) Energy Storage System (ESS). The Applicant proposes to construct, own, and operate the Project, and will secure CUPs from both Kern County and California City, along with permits from other relevant agencies as required by law.

The proposed Project includes the development of a photovoltaic (PV) energy facility and ESS within the Project Area. Power generated by the Project will be delivered from the Project Site via up to 230 kV overhead and/or underground electrical transmission line(s) originating from one or more on-site substation(s)/switchyard(s) and terminating at the Southern California Edison (SCE) Windhub Substation.

The Project may include operations and maintenance (O&M) buildings, substations, ESSs, and transmission facilities, as necessary, or it may share such facilities with other nearby projects or with

Figure 1 Regional Location

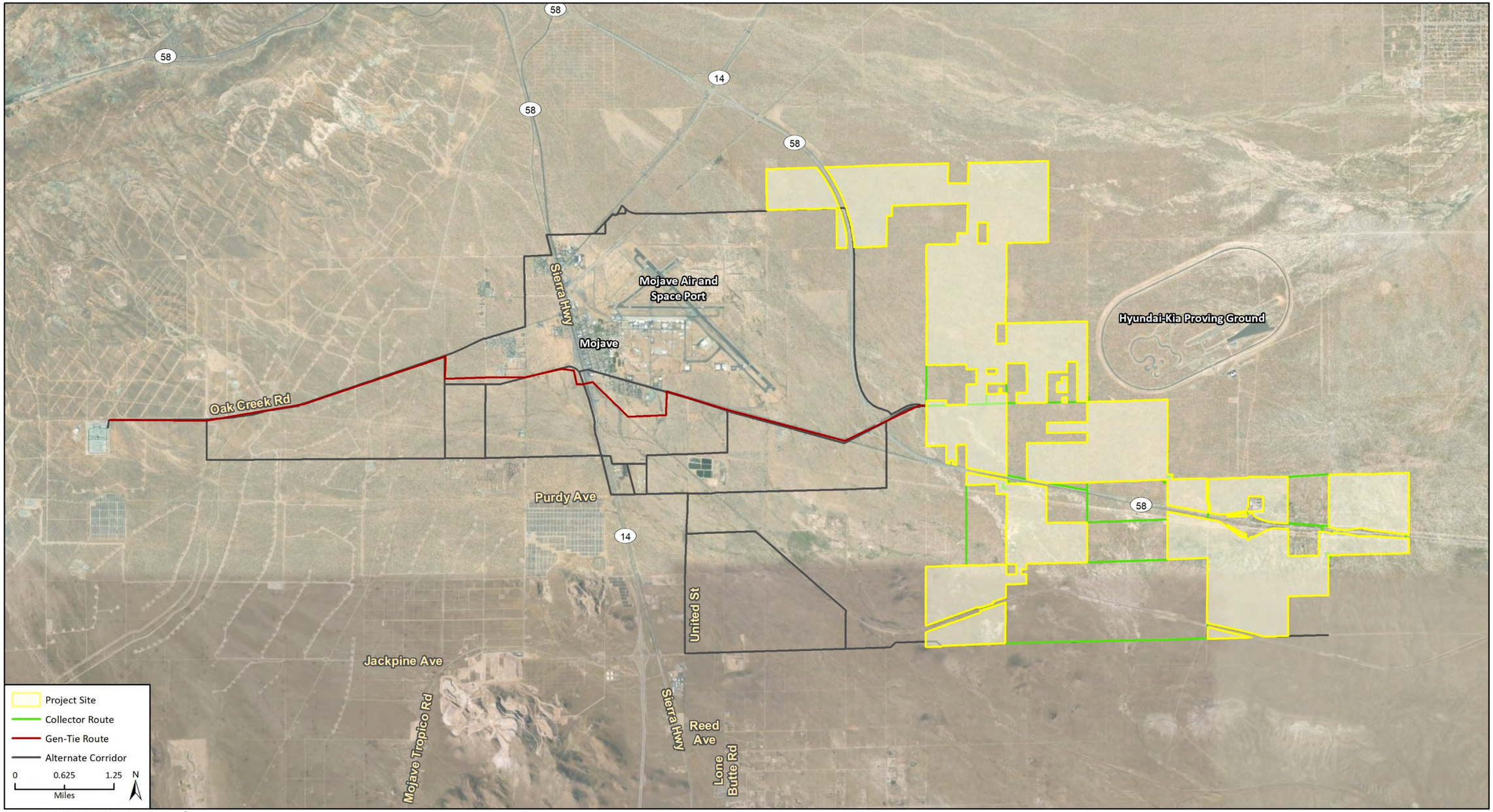


Imagery provided by Esri and its licensors © 2020.

Project Location
Collector Route
Gen-Tie Route
Alternate Corridor

N

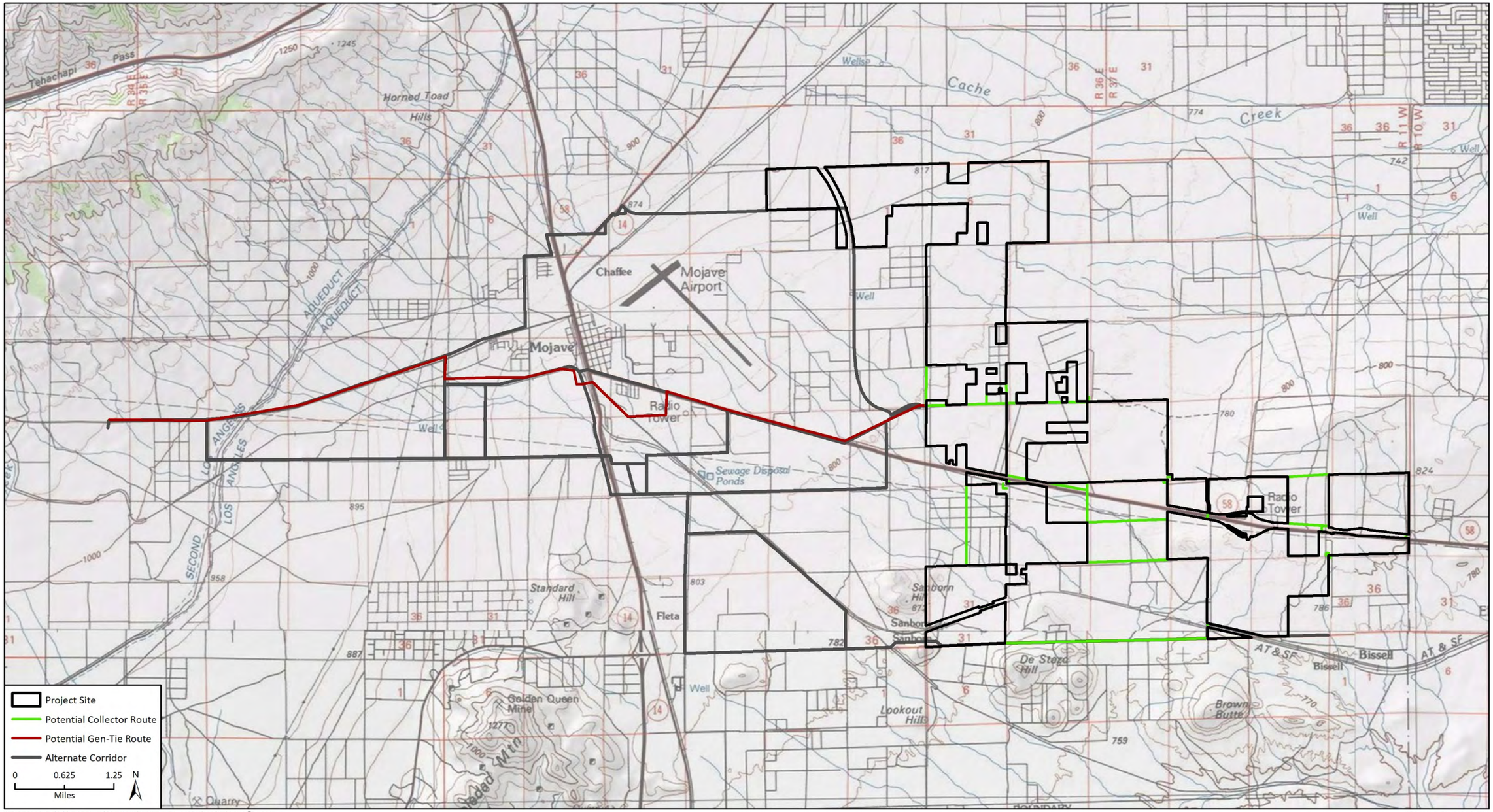
Figure 2 Project Location



Imagery provided by Microsoft Bing and its licensors © 2020.

JDFig 2 Project Location

Figure 3 Project Location on USGS Topographic Map



Imagery provided by National Geographic Society, ESRI and its licensors © 2020.

JDFig 3 Project Location TOPO

any future energy projects in the area, and/or it may be remotely operated. Alternatively, if shared facilities are used, those areas designated in the application materials for O&M building, substation, and/or transmission facility may be occupied solar panels.

Up to 20 full-time employees would operate the Project. Typically, the majority of staff would work during the day shift (sunrise to sunset) and the remainder during the night shifts and weekend. As noted earlier, it is possible that the Project would share O&M, substation, and/or transmission facilities with one or more nearby solar projects, and/or may be remotely operated. In such scenarios, the Project's on-site staff could be reduced.

After the useful life of the Project, the panels would be disassembled from the mounting frames and the Project Site would be restored to its pre-development function.

1.3 Construction Activities

Construction of all Project components would occur over approximately 18 to 24 months beginning as early as the fourth quarter of 2021 (October 1, 2021). Construction of the Project would include the following types of activities:

- Site preparation
- Grading and earthwork
- Concrete foundations
- Structural steel work
- Electrical/instrumentation work
- Collector line installation
- Architecture and landscaping

No roadways would be affected, except during the Project's construction period. Construction traffic would access the Project Site from Highway 58, Altus Ave, Silver Queen Road, and 50th Street. It is estimated that up to 1,000 workers per day during peak construction periods. Earthmoving activities are expected to be limited to the construction of the access roads, O&M building, substation, ESS(s), and any storm water protection or storage (detention) facilities. Final grading may include revegetation with low lying grass or applying earth-binding materials to disturbed areas.

1.4 Operational Activities

Once completed, the Project would generally be limited to the following maintenance activities:

- Cleaning PV panels
- Monitoring electricity generation
- Providing site security
- Maintaining the facility: replacing or repairing inverters, wiring, and PV modules

The Project would operate continuously, seven days a week, until the anticipated repowering or decommissioning of the project in 30 to 40 years. Each CUP could require an operational staff of up to twenty full-time employees. The Project may share an O&M area, substation, and/or

transmission facilities with one or more nearby solar projects, which could reduce the proposed Project's on-site operational staff. Maintenance activities may occur as-needed seven days a week, 24 hours a day to ensure PV panel output when solar energy is available.

1.5 Federal Clean Water Act Jurisdiction

Surface water flows from the Project Area and gen-ties drain to Rogers Dry Lake via numerous unnamed drainages and to Koehn Dry Lake via Cache Creek. Section 404 of the CWA establishes a program to regulate the discharge of dredged or fill material into waters of the United States (WOUS), including wetlands. Section 404 requires a permit before dredged or fill material may be discharged into WOUS, unless the activity is exempt from Section 404 regulation. The USACE has jurisdiction over WOUS, under provisions of Section 404 of the CWA and USACE implementing regulations.

USACE previously evaluated numerous waters within a 40-mile radius of the Project Area to determine if drainages in the Mojave Desert Basin constitute WOUS that would be regulated under Section 404 of the CWA. The closest waters previously evaluated were dryland drainages in western Mojave Desert Basin. The USACE considered Cache Creek in an approved jurisdictional determination (AJD) dated July 28, 2017, for the Cache Creek Crossing at Mendiburu Road in California City (USACE File No. SPL-2017-00303-JMV). In this determination the USACE found that surface flows towards Koehn Dry Lake via Cache Creek either infiltrate into the groundwater table or evaporate. The determination concluded that Koehn Dry Lake and Cache Creek are not navigable waters, and that the hydrologic basin draining to these features is hydrologically isolated from navigable or interstate waters. Accordingly, waters in this basin are not WOUS subject to CWA jurisdiction.

Similarly, the USACE considered two drainages in an AJD dated June 4, 2013, for the Sydney Peak Stone Mine Expansion Project (USACE File No. SPL-2011-01040-SLP). In this determination the USACE found that surface flows into Rogers Dry Lake percolate into the groundwater table or evaporate. The USACE also evaluated whether the lake played a role in interstate or foreign commerce, and found none. The determination concluded that Rogers Dry Lake is not a navigable water, and that waters in its watershed are not subject to CWA jurisdiction.

Based on these determinations, the USACE is not expected to assert jurisdiction over tributaries that flow towards Cache Creek or Rogers Dry Lake, because the USACE has previously declined to assert jurisdiction over those features and has formally documented this position in AJDs. The watersheds are hydrologically isolated from navigable waters or interstate waters, and do not have the potential to directly or indirectly affect interstate or foreign commerce. Therefore, federal CWA jurisdiction is not considered further in this report.

2 Methodology

This aquatic resources assessment was conducted in accordance with the most currently accepted regulatory guidelines for jurisdictional delineations. The analysis began with a literature review of existing studies, aerial imagery, maps, and other publications. After completion of the literature review, a field delineation was completed to identify, describe, and map potential jurisdictional features within the Project Area. Delineated features are depicted in Figure 5a through Figure 5z in Section 4 of this report. Rincon surveyors led by Senior Biologist Jonathan True conducted fieldwork for this assessment on September 9, 10, 11, and 18, 2019 and May 19 and 20, 2020.

2.1 Literature Review and Photo Interpretation

Prior to the field survey, Rincon reviewed aerial photographs of the site, regional and site specific 7.5-minute USGS topographic quads including *Monolith, Mojave, Sanborn, California City South, Bissell, and Soledad Mountain, California* quads; the *Soil Survey of Kern County, Southeastern Part, California* (U.S. Department of Agriculture Natural Resources Conservation System [USDA NRCS] 1981); the Desert Renewable Energy Conservation Plan; and other available background information to better characterize the nature and extent of potentially jurisdictional waters and wetlands.

The *National Wetlands Inventory* (NWI) (United States Fish and Wildlife Service [USFWS] 2019) and the *National Hydrography Dataset* (USGS 2019) were reviewed to determine if any wetlands or other waters had been mapped in or near the Project Area and gen-ties. The *National Hydric Soils List by State: California* (USDA NRCS 2019b) was also reviewed to determine if any soil map units mapped in the Project Area or gen-ties were classified as hydric.

Historic and recent high-resolution aerial photographs were examined prior to conducting field surveys to detect signatures that may indicate fluvial activity. Using GIS, areas were selected where watercourses and related geomorphic forms or units (e.g., floodplain, terrace, interfluves, islands) appeared to be present. Based on aerial signatures, such as changes in landscape color, vegetation density, and drainage patterns, various areas across the Project Area and gen-ties were identified where field investigations would be focused. Rincon imported the locations of potential jurisdictional features into an Android tablet equipped with ESRI ArcCollector®. The tablet was paired with a handheld Trimble® R1 Global Positioning System (GPS) with sub-meter accuracy for use in the field. The data was overlaid on high recent resolution aerial imagery for navigation and data collection.

2.2 Field Surveys

After the completion of the literature review, field surveys were conducted in the Project Area, gen-ties, and collector routes in September 2019 and additional field surveys were conducted in new parcels within the Project Area in May 2020. The surveys were conducted by driving to selected areas where representative samples of potential jurisdictional features were identified during the literature review, including the areas identified via aerial photo interpretation and those mapped in the NWI and National Hydrography Dataset (NHD). These areas were surveyed to verify the presence or absence of jurisdictional features. The surveyors also drove the perimeter of the Project Area to observe any potential waters crossing into or out of the area. Potential jurisdictional areas including episodic streams that exhibit an ordinary high water mark (OHWM) and that might

constitute waters of the state were identified. The Project Area and gen-ties were examined for the presence of defined channels with characteristic bed and bank features and indicators of water flow. The landforms, vegetation, hydrology, and soil conditions were noted where these characteristics were relevant to identification of the feature.

Current federal and state methods and guidelines were used to identify and delineate potential jurisdictional areas, including waters of the state, as follows.

Waters of the State

As noted above, no potentially jurisdictional features identified during this assessment are subject to USACE and RWQCB jurisdiction pursuant to the CWA. The term “isolated waters” is applied generally to waters/wetlands that are not connected by surface or shallow subsurface water to a river, lake, ocean, or other navigable or interstate water. In the case of isolated wetland features or those displaying an OHWM, RWQCB still considers such wetlands and drainages to be jurisdictional waters of the state pursuant to the Porter-Cologne Act. While there are no agency-adopted methods for delineating waters of the state, in practice USACE guidelines for delineating federal jurisdictional limits are often used to determine the limits of waters subject to RWQCB jurisdiction. Therefore, these features were mapped using the OHWM methodology utilized by the USACE. OHWM datasheets completed for a representative sample of drainage features that exhibited an OHWM and are included in Appendix B.

Waters potentially subject to RWQCB jurisdiction were evaluated in accordance with the following:

- USACE Guidelines for Jurisdictional Determinations for Waters of the United States in the Arid Southwest (2001)
- USACE Jurisdictional Determination Form Instructional Guidebook (2007)
- USACE A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (2008)
- State Water Resources Control Board (SWRCB) State Wetland Definition and Procedures for Discharges of Dredge and Fill Material to Waters of the State (2019)
- Porter-Cologne Water Quality Control Act statutory language

CDFW Streambed Jurisdiction

Streambeds subject to CDFW jurisdiction were mapped, using two methods. First, drainages were mapped to the top of the outermost active banks or extent of riparian vegetation. This evaluation involved a combination of aerial imagery analysis and field inspection. Mapping to the top of the bank is consistent with long-standing agency practice, but does not incorporate more recent approaches favored by CDFW for desert delineations.

In addition to delineating features using standard CDFW top of bank methodologies, larger systems would be evaluated using the guidance provided in the *Mesa Field Guide, Mapping Episodic Stream Activity* (MESA) (Brady and Vyverberg 2013) and the *A Review of stream Processes and Forms in Dryland Watersheds* (CDFW 2010). However, no larger episodic stream systems or riparian vegetation were observed within the Project Area; therefore, Episodic Stream Indicator Datasheets were not completed and CDFW jurisdiction was delineated to the top of drainage banks.

2.3 Data Collection and Processing

The extents of potential jurisdictional features in the Project Area and photo locations were mapped using the GPS and field tablet. Locations of potential jurisdictional features along the gen-ties were identified but drainage widths were not recorded. The data were subsequently transferred to Rincon's Geographic Information System (GIS) to produce Delineation Figures 6a through 6y, presented in Section 4. Representative photographs of potential jurisdictional waters and site conditions are presented in Appendix A.

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3 Delineation Results

3.1 Environmental Setting

The Project Area and gen-ties are located in the western portion of the Mojave Desert basin within the southern portion of Fremont Valley, with the eastern slopes of the Sierra Nevada and Tehachapi Mountains to the west. Antelope Valley, located to the south of the Project, generally lies between the Tehachapi and San Gabriel Mountains. Elevations within the Project range from 2,728 feet above mean sea level (AMSL) in the eastern portion to 2,532 feet AMSL in the southern portion. The Project is relatively flat with increases in elevation to the west and east. Elevation ranges from 2,541 feet AMSL near the southeastern portion of the Project to 3,468 feet AMSL at the northwestern corner of the SCE Windhub Substation (EnviroPlus 2019).

The high desert ecological sub-region is characterized by arid scrub, creosote bush scrub, playas, and desert washes. The Project Area and gen-ties are surrounded by Rogers Dry Lake to the southeast, Sanborn, De Stezo, and Sandard Hills to the south, the Los Angeles Aqueduct to the west and Cache Creek to the north. Across the Project Area and gen-ties, the topography is relatively level with extremely low slope gradients. Low hills with low to moderate gradients are present in the eastern part of the Project Area.

Desert climates are characterized by an arid environment (low humidity/rainfall) with strong fluctuations in daily temperatures, hot summers and cold winters, and generally clear skies. Evaporation exceeds the mean annual precipitation. Wind is also a strong feature of this climatic regime, with dry winds in excess of 25 miles per hour in the late winter and early spring. According to the Western Regional Climate Center data records between 1904 and 2016, average annual temperatures in Mojave Station (045756) ranged between 49.9 and 75.8 degrees Fahrenheit, with the warmest temperatures occurring between July and August at a high of 97 degrees Fahrenheit and the coldest temperatures occurring between December and January at a low of 32.9 degrees Fahrenheit. The Mojave Desert receives an average rainfall of approximately 5.93 inches, with the most rain occurring between January and March (Western Regional Climate Center 2016). Rainfall in the Mojave Desert is characterized by a high degree of spatiotemporal variability, with isolated precipitation events, high inter-annual variability and decadal oscillations in rainfall rates, and rainfall gradients from south to north and west to east. Rainfall was above average in the year preceding this assessment.

The Project Area and gen-ties are subject to various ongoing disturbances related to road maintenance, utility activities (wind farms, electrical transmission lines, underground gas pipeline), dumping, and OHV travel.

3.2 Vegetation

The Project is located in the Mojave Desert Region of the Desert Floristic Province. Vegetation types in the Mojave Desert are influenced strongly by arid climatic conditions and desert soils. Vegetation in the region includes a predominance of plant morphological adaptations to extreme aridity and saline alkali soils. Vegetation structure is generally characterized by short-statured and widely spaced shrubs, and arborescent shrubs resulting from a competition for soil water resources

(Baldwin, et al. 2012). Landforms in the region include granite-derived basin floors, flood plains, alluvial fans, small clay pans, and rock pediments.

As described in the Draft Biological Evaluation for the Project (EnviroPlus 2019), twelve vegetation communities were identified on site and these include:

- *Larrea tridentata-Ambrosia dumosa* Shrubland Alliance (Creosote Bush-White Bursage Scrub)
- *Atriplex polycarpa* Shrubland Alliance (Allscale Scrub)
- *Larrea tridentata* Shrubland Alliance (Creosote Bush Scrub)
- *Ambrosia salsola* Shrubland Alliance (Cheesebush Scrub)
- *Ericameria cooperi* Provisional Shrubland Alliance (Cooper goldenbush scrub)
- *Atriplex confertifolia* Shrubland Alliance (Shadscale Scrub)
- *Ericameria nauseosa* Shrubland Alliance (Rubber Rabbitbrush Scrub)
- *Ambrosia dumosa* Shrubland Alliance (White Bursage Scrub)
- *Atriplex spinifera* Shrubland Alliance (Spinescale Scrub)
- *Krascheninnikovia lanata* Shrubland Alliance (Winter Fat Scrubland)
- *Yucca brevifolia* Woodland Alliance (Joshua Tree Woodland)
- *Ericameria linearifolia* Provisional Shrubland Alliance (Narrowleaf Goldenbush Scrub)

No riparian or hydrophytic vegetation was observed on the project site. In addition to the above vegetation communities, unvegetated urban, developed, disturbed, and dirt areas are present in the Project Area and gen-ties including paved and dirt roadways, structures, and other features. Summaries of the vegetation communities are presented below.

Larrea tridentata-Ambrosia dumosa Shrubland Alliance (Creosote Bush-White Bursage Scrub)

This habitat type commonly occurs on well-drained alluvial or colluvial soils, with or without a desert pavement surface, in minor washes and rills and on alluvial fans, bajadas, and upland slopes throughout the Mojave Desert, from -75 m to 1,200 meters in elevation. Shrubs are typically less than 3 m in height, and the shrub canopy is open to intermittent and may be two-tiered (Sawyer et al. 2009). Other shrubs that were identified in this habitat include goldenhead (*Acamptopappus sphaerocephalus* var. *hirtellus*), cheesebush, Cooper's goldenbush (*Ericameria cooperi* var. *cooperi*), horsebrush (*Tetradymia stenolepis*), spiny hop-sage (*Grayia spinosa*), winter fat, desert tomato (*Lycium andersonii*), and box-thorn (*Lycium cooperi*). Scattered Joshua trees were also present. Mojave Desert California buckwheat (*Eriogonum fasciculatum* var. *polifolium*) was another common shrub in this vegetation community in the gen-tie routes west of State Route 14.

Atriplex polycarpa Shrubland Alliance (Allscale Scrub)

Allscale scrub is typically found in washes and on playa lake beds and shores, dissected alluvial fans, rolling hills, terraces, and edges of large, low gradient washes at elevation of -75 m to 1,500 meters. Soils may be carbonate-rich, alkaline, sandy, or sandy loam. Shrub height is usually less than 3 m and the canopy is open to continuous (Sawyer et al. 2009). It occurred primarily in the central portion of the Project Area. Occurrence of allscale scrub was in monotypic stands as well as in more diverse associations. Several allscale plants were dead in the monotypic stands. In the more diverse areas, other shrubs included goldenhead, white bursage, cheesebush, shadscale (*Atriplex confertifolia*),

winter fat, box-thorn, and creosote bush. Joshua trees were scattered throughout this vegetation community at low cover.

Ambrosia salsola Shrubland Alliance (Cheesebush Scrub)

Cheesebush scrub was recorded along the northern gen-tie. Cheesebrush is dominant or co-dominant in the shrub canopy. This community typically occurs on valley floors, flats, and rarely flooded, low gradient deposits and in arroyos, intermittent channels, and washes. Soils are alluvial, sandy and gravelly, and disturbed desert pavement. Cheesebush readily colonizes disturbed areas and is frequently associated with burned and heavily grazed areas, military camps, OHV areas, abandoned towns and old farming sites, and roadsides (Sawyer et al. 2009). This alliance occurred along the disturbed edges of Oak Creek Road and major dirt roads in the wind farm area. Other shrubs included brittle bush (*Encelia farinosa*), rubber rabbitbrush, and jimson weed (*Datura wrightii*).

Ericameria cooperi Provisional Shrubland Alliance (Cooper Goldenbush Scrub)

This provisional alliance was mapped along the northern gen-tie. It typically occurs in recently disturbed areas, typically from fire, and is usually adjacent to stands of larger and longer-lived shrubs. In these areas, Cooper goldenbush is evenly disturbed and has a greater than 40% relative cover (Klein and Keeler-Wolf 2014). Other shrubs in this habitat included cheesebush and narrowleaf goldenbush.

Atriplex confertifolia Shrubland Alliance (Shadscale scrub)

Shadscale scrub typically occurs at elevations of 450 to 2,500 meters on bajadas, flats, lower slopes, rocky hills, valleys, minor rills, washes, and edges of playas. Soils are variable and may be carbonate rich, clay rich, or have a high sand content and may be covered with desert pavement (Sawyer et al. 2009). In the Project Area it was confined to carbonate rich areas (up to 40% calcium carbonate) with clayey sand, in patches along the southern gen-tie route and along a collector line and adjacent solar panel installation area south of SR58. Other shrubs in these areas included goldenhead, cheesebush, budsage (*Artemisia spinescens*), desert horsebrush (*Tetradymia glabrata*), bush peppergrass (*Lepidium fremontii*), winter fat, and Mojave stillingia (*Stillingia paucidentata*). Scattered Joshua trees were also present.

Ericameria nauseosa Shrubland Alliance (Rubber Rabbitbrush Scrub)

Rubber rabbitbrush is a fast-growing, early seral shrub that establishes after disturbance. Stands can occur in any topographic setting, typically colonizing areas after disturbance such as washes, areas disturbed by overgrazing, road cuts, and clearings. Stands often occur on mine tailings and fallow agricultural fields. Soils are primarily well-drained sands and gravel (Sawyer et al. 2009). Rabbitbrush scrub was a minor alliance in the Project Area, limited to a small area along the natural gas line utility corridor. Common shrubs occurring with rubber rabbitbrush included goldenhead, white bursage, and cheesebush.

Ambrosia dumosa Shrubland Alliance (White Bursage Scrub)

White bursage scrub commonly occurs on alluvial fans, bajadas, rocky hills, partially-stabilized and stabilized sand fields, and upland slopes, between sea level and 1,700 meters in elevation. Soils are

typically sandy, clay-rich, or calcareous and may have pavement surfaces (Sawyer et al. 2009). This alliance was scattered throughout the Project Area. The shrub diversity was high, with several other species present including goldenhead, cheesebush, Cooper's goldenbush, allscale, spiny hop-sage, winter fat, desert tomato, and box-thorn. A few Joshua trees and creosote bushes were also present.

Atriplex spinifera Shrubland Alliance (Spinescale Scrub)

This scrub habitat is found between 50 and 800 meters in elevation on alluvial fans and on old lake beds perched above current drainages. Soils are moderately sandy clay loams to fine, silty clays that may be carbonate rich (Sawyer et al. 2009). This alliance occurs primarily in the southwestern part of the Project Area. Allscale was an occasional associate shrub.

Krascheninnikovia lanata Shrubland Alliance (Winter Fat Scrubland)

Winter fat scrubland typically occurs between 100 to 2,700 meters elevation on alkaline flats around playas and along drainages, plains, and old lakebeds above current drainages. Soils are thin to moderately deep rocky to silty clay loams that are calcareous, moderately alkaline, and sometimes saline. Shrubs are less than 1.5 m, and the canopy is open to continuous (Sawyer et al. 2009). In the Project Area, this habitat occurs in two areas. One occurrence was in clayey sand within the gen ties south of State Route 58. The second occurrence was in sandy loam, north of State Route 58 and immediately west of Hyundai-Kia Boulevard. Other shrubs in this habitat included goldenhead, white bursage, cheesebush, desert tomato, and box-thorn. Joshua trees occurred in low densities.

Yucca brevifolia Woodland Alliance (Joshua Tree Woodland)

Joshua trees were noted throughout most of the Project Area. This alliance is recognized when Joshua trees are evenly distributed at greater than or equal to one percent cover over the landscape. It generally occurs at elevations of 750 to 1,800 meters on alluvial fans, ridges, and gentle to moderate slopes with soils that are comprised of coarse sands, very fine silts, gravel, or sandy loams. The Joshua tree canopy and the shrub layer are open to intermittent (Sawyer et al. 2009). In the gen tie areas, understory shrubs varied by location and included either: (1) white bursage, cheesebush, sticky snakeweed (*Gutierrezia microcephala*), shadscale, allscale, winter fat, and box-thorn; (2) cheesebush, brittle bush, narrowleaf goldenbush, spiny hop-sage, and Mojave Desert California buckwheat; or (3) creosote bush, Cooper goldenbush, winter fat, desert tomato, and box thorn. In other habitats in the Project Area, Joshua trees were only scattered.

Ericameria linearifolia Provisional Shrubland Alliance (Narrowleaf Goldenbush Scrub)

This provisional alliance was present along the northern gen-tie, occurring in shallow soils on dry slopes and ridges at elevations of 1,000 to 3,000 meters. It is common in the upper Mojave Desert and may become abundant following disturbances, including fire and grazing (Sawyer et al. 2009). Narrowleaf goldenbush is dominant in the shrub canopy. Other shrubs noted in this habitat included cheesebush and box-thorn.

3.3 Hydrology

The Project Area and gen-ties are located in the Fremont Valley Groundwater Basin in the Bissell Hills and Lower Cache Creek watersheds, Hydrologic Unit Code (HUC-10 1809020620 and

1809020604). The majority of the site is mostly level and slope gradients across the site are extremely low. Topography in the majority of the western Project Area is rounded and not sharp or angular. Drainage in the northern area of the Project Area is very gradual to the southeast. A few miles to the east of the Project Site, this drainage pattern turns to the northeast where it intercepts Cache Creek, a large wash that emanates from Tehachapi Canyon. This eventually drains into Koehn Lake 18 miles to the northeast of the site. The terrain in the southeastern portion of the Project Area is dominated by a large, gradual hill with undulating relief. The southeastern two-thirds of this area drain to the southwest into Rogers Lake, located 12 miles to the southeast of the site. The northwestern one-third of this area drains to the northwest along a few drainages.

Flowing water on site occurs only during and immediately after high precipitation events. Hydromodification has fragmented drainage flow, primarily by construction of numerous dirt roads and larger roadways such as SR 58. Road maintenance activities on access roads through the Project Area and gen-ties include clearing and blading, which create large soil berms on each side of the roads and often block the flow of drainages at the road edges. Additionally, numerous OHV tracks and illegal dump sites interrupt the flow of small shallow channels.

3.4 Soils

Based on the USDA Soil Conservation Service Soil Survey of Kern County, Southeastern Part (1981), the Project Area and gen-ties contain 15 mapped soil units including:

- Cajon sand, 5 to 15 percent slopes
- Cajon loamy sand, 0 to 5 percent slopes
- Cajon gravelly loam sand, 0 to 9 percent slopes
- Cajon-Garlock sands, 2 to 9 percent slopes
- Hi Vista-Machone-Randsburg complex, 2 to 15 percent slopes
- DeStazo sandy loam, 0 to 2 percent slopes
- Garlock loamy sand, 2 to 9 percent slopes
- Hi Vista sandy loam, 2 to 9 percent slopes
- Muroc-Randsburg sandy loams, 5 to 9 percent slopes
- Neuralia sandy loam, 2 to 5 percent slopes
- Pits
- Randsburg sandy loam, 2 to 5 percent slopes
- Rosamond clay loam
- Torrifluvents-Cajon Complex, nearly level
- Torriorthents-Rock outcrop complex, very steep.

Figure 4 depicts the mapped soil units in the Project Area and gen-ties. None of these soils are listed on the NRCS Hydric Soils List (USDA NRCS 2019b). The majority of the Project Area and gen-ties are underlain by sands, loamy sand, and sandy loam. Some areas of clay soils are mapped in the southwestern part of the Project Area. Soil series summaries are provided below.

Cajon Series

The Cajon Series of soils consist of very deep, somewhat excessively drained soils that formed in sandy alluvium from dominantly granitic rocks. The textures can be coarse sand, loamy coarse sand, sand, loamy sand, fine sand, or loamy fine sand or their gravelly or cobbly equivalents.

Cajon soils are found on alluvial fans, fan aprons, fan skirts, inset fans and river terraces at elevations of 200 to 4,300 feet AMSL. Slopes are 0 to 15 percent. Average annual precipitation is 2 to 9 inches, mostly in the form of winter rain. The profile is slightly alkaline or strongly alkaline and mildly saline-alkali to strongly saline-alkali. Cajon soils are somewhat excessively drained; negligible to low runoff; with rapid permeability. Cajon soils with sandy loam surface textures have moderately rapid over rapid permeability. Flooding is none to rare.

DeStazo Series

The DeStazo Series of soils consist of very deep, well drained soils that formed in material from mixed alluvium. The textures include fine sandy loam, loam, or light sandy clay loam. DeStazo soils are found on fan piedmonts, stream flood plains and in basins that have slopes of 0 to 10 percent, between 1,500 and 3,800 feet AMSL. These soils are well drained with negligible to medium runoff and moderately slow permeability. Flooding is rare. Wind erosion is moderate in some areas.

Garlock Series

The Garlock Series of soils consist of very deep, well drained soils that formed from mixed alluvium. The textures include sand, coarse sand, loamy sand, coarse sandy loam, and sandy loam. Garlock soils are found on old stream terraces and alluvial fans in the Mojave Desert that have slopes of 2 to 9 percent, between 2,100 and 3,500 feet AMSL. Garlock soils are well drained with low to medium runoff, and drainage that is moderately slow over very rapid permeability.

Hi Vista Series

The Hi Vista Series of soils consist of moderately deep soils to rock in well drained soils that formed in residuum from granitic rock. The textures include loamy fine sand, sandy loam, coarse sandy loam, and extremely gravelly sandy loam. Hi Vista soils are found on hills and rock pediments that have slopes of 2 to 50 percent, between 2,300 and 3,300 feet AMSL. Hi Vista soils are well drained with medium to high or very high runoff, and drainage that has moderately slow permeability.

Muroc Series

The Muroc Series of soils consist of shallow to indurated duripan directly over rock in well drained soils that formed in material weathered from granitic rock. The textures include sandy loam and coarse sandy loam. Muroc soils are found on hills and granitic rock pediments that have slopes of 2 to 15 percent, between 2,400 and 3,500 feet AMSL. Muroc soils are well drained with low to medium runoff, and permeability that is moderately rapid in the soil until it reaches the duripan that caps the weathered granite.

Neuralia Series

The Neuralia Series consists of very deep, well drained soils formed in alluvium from mixed sources. The textures include sandy loam, loamy sand, sand or gravelly sand. Neuralia soils are found on alluvial fans, fan terraces, and plains with slopes of 0 to 15 percent, between 2,300 and 4,200 feet AMSL. Reaction is neutral to moderately alkaline to a depth of 10 inches and slightly alkaline or

moderately alkaline below. Neuralia soils are well drained with slow and medium runoff and moderately slow permeability.

Pit Series

The Pit Series consists of very deep, poorly drained soils formed in fine-textured alluvium weathered from extrusive and basic igneous rocks. The textures include silty clay loam, silty clay, or clay. Pit soils are found on flood plains and in basins and have slopes of 0 to 5 percent, between 2,500 and 5,300 feet AMSL. Pit soils are poorly drained with ponded to slow runoff, and slow permeability. Vegetation in the desert regions includes silver sagebrush (*Artemisia cana*) as well as rushes (*Juncus* spp.) and sedges (*Carex* spp.) in soils that remain wet for long durations. This soil is mapped in only one small location on the south side of Altus Road and west of the onramp to Highway 58. The area consists of a manmade detention basin designed to collect roadway runoff.

Randsburg Series

The Randsburg Series of soils consist of shallow to soft rock in well drained soils that formed in residuum from granitic rock. The textures include sandy loam to silty clay loam. Randsburg soils are found in the lower margins of fans, between the sloping fans and the basins and playas that have slopes of 0 to 2 percent, between 2,200 and 2,900 feet AMSL. Randsburg soils are well drained with medium runoff, and moderate to moderately slow permeability.

Rosamond Series

The Rosamond Series of soils consist of deep well drained soils that formed in material weathered mainly from granitic alluvium. The textures include sandy loam, coarse sandy loam, and fine gravel. Rosamond soils are found on hills and granitic rock pediments that have slopes of 2 to 50 percent, between 2,375 and 3,500 feet AMSL. Rosamond soils are well drained with low to high runoff, and drainage with moderately rapid permeability.

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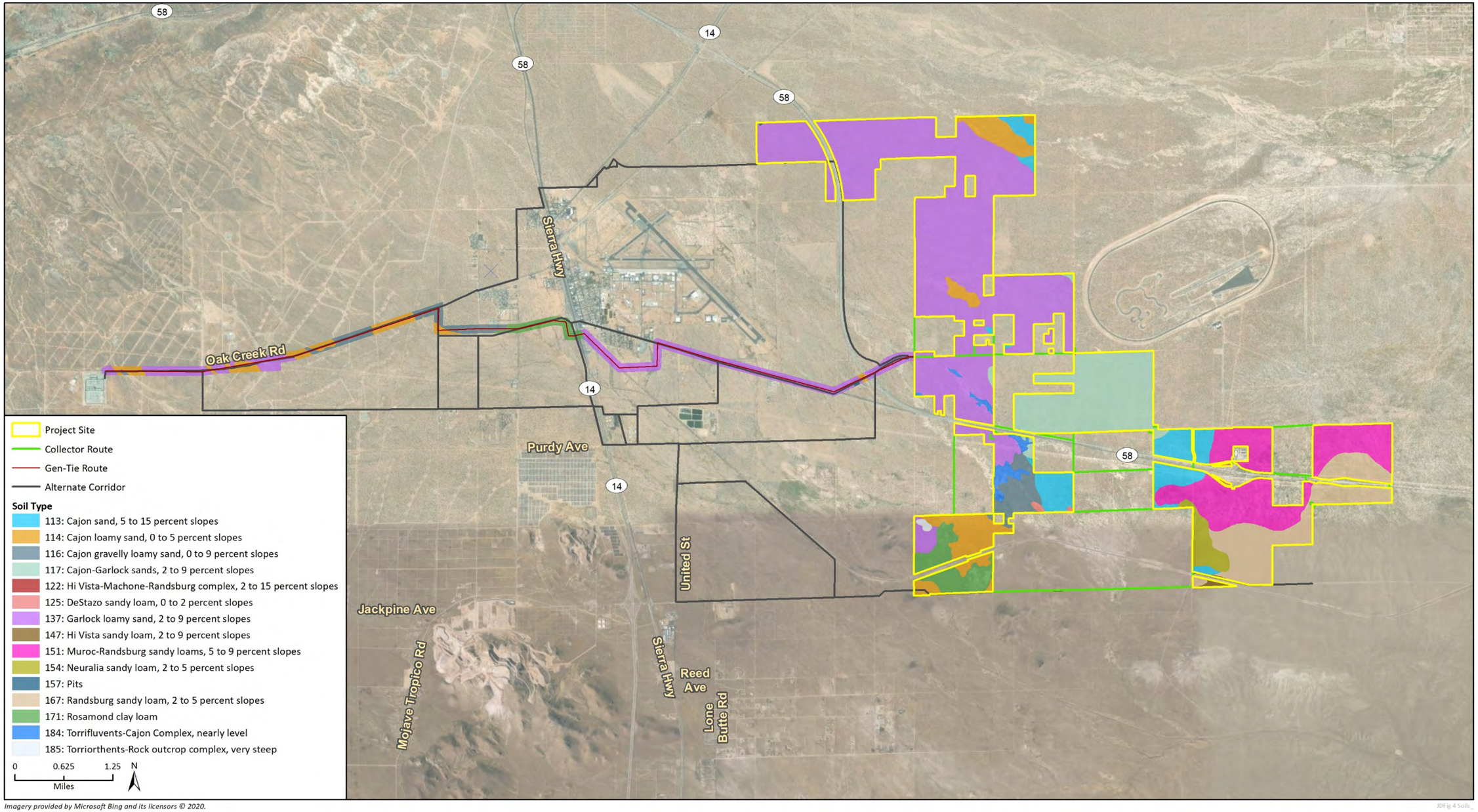
Figure 4 Soils



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Additional data provided by SSURGO, 2019.

JDFig 4 Soils_

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4 Assessment of Potential Jurisdictional Waters

4.1 Ephemeral Drainages

This section presents the results of the assessment of features potentially under the jurisdiction of the CDFW and RWQCB in the Project Area and gen-ties. A large number of ephemeral streams are mapped in the NWI within the Project Area and gen-ties. They are classified as riverine, 'intermittently flooded' streambeds (Cowardin code R4SBJ). The NHD mapping data is similar to the NWI. Ephemeral stream features are depicted in approximately the same locations as in the NWI, but fewer features are depicted in the NHD. For this assessment, 29 ephemeral drainages were identified, delineated, and mapped in the Project Area based on the literature review, aerial photo interpretation, and field surveys. An additional 12 potentially jurisdictional drainages were identified along the gen-ties. Table 1 provides a summary of the delineated drainages. Note that average RWQCB and CDFW widths were not recorded for potential jurisdictional features along the gen-ties.

Table 1 Summary of Delineated Features in the Project Area and Gen-Ties

Drainage ID	Feature Type	Location	Average RWQCB OHWM Width (feet)	Average CDFW Top of Bank Width (feet)	Delineation Map Figures
ED-1	Ephemeral drainage	Project Area	2	5	6b, 6l
ED-2	Ephemeral drainage	Project Area	4	6	6b, 6l
ED-3	Ephemeral drainage	Project Area	1.5	3.5	6b, 6l
ED-4	Ephemeral drainage	Project Area	2.5	6.5	6d, 6n
ED-5	Ephemeral drainage	Project Area	1.5	3.5	6e, 6g, 6o, 6q
ED-6	Ephemeral drainage	Project Area	3.5	6.0	6f, 6p
ED-7	Ephemeral drainage	Project Area	1	3	6g, 6q
ED-8	Ephemeral drainage	Project Area	1	3	6g, 6j, 6q, 6t
ED-9	Ephemeral drainage	Project Area	1	3	6g, 6j, 6q, 6t
ED-10	Ephemeral drainage	Project Area	1	3	6g, 6j, 6q, 6t
ED-11	Ephemeral drainage	Project Area	2	4	6g, 6j, 6q, 6t
ED-12	Ephemeral drainage	Project Area	1	3	6g, 6j, 6q, 6t
ED-13	Ephemeral drainage	Project Area	1.5	3.5	6g, 6j, 6q, 6t
ED-14	Ephemeral drainage	Project Area	1	3	6g, 6h, 6j, 6q, 6r, 6t
ED-15	Ephemeral drainage	Project Area	1	2	6h, 6r
ED-16	Ephemeral drainage	Project Area	1	3	6h, 6r
ED-17	Ephemeral drainage	Project Area	1	2	6h, 6r
ED-18	Ephemeral drainage	Project Area	3	6	6h, 6r
ED-19	Ephemeral drainage	Project Area	2	4	6h, 6r
ED-20	Ephemeral drainage	Project Area	2	4	6h, 6r
ED-21	Ephemeral drainage	Project Area	2	4	6h, 6r

Drainage ID	Feature Type	Location	Average RWQCB OHWM Width (feet)	Average CDFW Top of Bank Width (feet)	Delineation Map Figures
ED-22	Ephemeral drainage	Project Area	1	3	6h, 6r
ED-23	Ephemeral drainage	Project Area	2	5.5	6h, 6r
ED-24	Ephemeral drainage	Project Area	1	3	6h, 6r
ED-25	Ephemeral drainage	Project Area	3	5	6h, 6r
ED-26	Ephemeral drainage	Project Area	1	3	6j, 6t
ED-27	Ephemeral drainage	Project Area	1	3	6h, 6j, 6r, 6t
ED-28	Ephemeral drainage	Project Area	3.5	8	6h, 6j, 6r, 6t
ED-29	Ephemeral drainage	Project Area	1	3	6i, 6s
GT-ED-1	Ephemeral drainage	Oak Creek Rd Segment	–	–	6u
GT-ED-2	Ephemeral drainage	Oak Creek Rd Segment	–	–	6u
GT-ED-3	Ephemeral drainage	Oak Creek Rd Segment	–	–	6v
GT-ED-4	Ephemeral drainage	Oak Creek Rd Segment	–	–	6v
GT-ED-5	Ephemeral drainage	Oak Creek Rd Segment	–	–	6v
GT-ED-6	Ephemeral drainage	Oak Creek Rd Segment	–	–	6v
GT-ED-7	Ephemeral drainage	South Gen-Tie	–	–	6v
GT-ED-8	Ephemeral drainage	South Gen-Tie	–	–	6w
GT-ED-9	Ephemeral drainage	South Gen-Tie	–	–	6w
GT-ED-10	Ephemeral drainage	South Gen-Tie	–	–	6w, 6x, 6y
GT-ED-11	Ephemeral drainage	South Gen-Tie	–	–	6x
GT-ED-12	Ephemeral drainage	South Gen-Tie	–	–	6y

A series of seven OHWM datasheets were completed at various ephemeral drainages to document a representative sample of drainage characteristics across the Project Area. OHWM Datasheets are included in Appendix B. Overall the drainages are similar in physical characteristics and vegetation, although some have more clearly defined indicators of water flow than others. Many of the drainages are very small, narrow, and shallow and the bed and banks are only marginally discernible from the surrounding upland areas where the adjacent topography is mostly level. Some of the drainages enter the Project Area near the end of their course, where OHWM and bed/bank indicators are weakly defined and very low volume flows appear to dissipate onto level terrain. Numerous mammal burrows were located in drainages, indicating that flows are infrequent.

The beds of the drainages are generally unvegetated or sparsely vegetated. The banks generally support scattered creosote (*Larrea tridentata*), cattle spinach (*Atriplex polycarpa*) and other *Artiplex* species, with cheatgrass (*Bromus tectorum*), and red brome (*Bromus madritensis* subsp*. rubens*), downy chess (*Bromus tectorum*) and other annual grasses and herbs in the understory. Plant species composition and density in and immediately adjacent to the drainages is generally similar to the surrounding upland areas, although *Atriplex* species density is slightly higher nearer to drainages. No riparian species are present, and species typical of wetlands or other moist habitats (spring, pond, playa, sink, etc.) were generally absent.

Most of the drainages consist of relatively narrow single-thread channels. No drainages observed contained multiple channels or bifurcated flow. Average OHWM widths across the lengths of

drainages range from approximately 1 to 4 feet. Across the majority of drainages the OHWM widths averaged between 1 and 3 feet, and widths between banks averaged 3 to 6 feet. CDFW widths between tops of banks averaged between 2 and 8 feet.

No wider, compound braided stream channels were observed. The drainages generally exhibit indicators of an OWHM with a break in bank slope and lower vegetation density, and some features have sediment deposits and drift deposits. As noted in the environmental setting section, evapotranspiration exceeds the mean annual precipitation, which can obscure surface indicators; therefore, features with weak or marginal indicators of OHWM were delineated conservatively as ephemeral drainages, though some of these features may convey only extremely minimal flow under ordinary conditions.

Based on field evaluations of the drainage features mapped in the NWI and NHD, many appear to be relict channels with no indicators of recent fluvial erosion and deposition. A review of historic aerial photography indicates that numerous land use changes have occurred at and in the vicinity of the Project Area and gen-ties, including development of residential, commercial, and industrial projects and construction and maintenance of numerous major and minor roads. The Project Area and vicinity are subject to various ongoing disturbances related to maintenance of roads, railways, and utilities, as well as recreation, OHV use, and illegal dumping. As a result, water flows across the area have been reduced or in some cases diverted or fully obstructed, especially in the more level terrain in the western part of the Project Area. Based on the field surveys, a number of areas in the Project Area or gen-ties that were mapped as stream features in the NWI and NHD did not in fact contain any evidence of flow or indicators of an OHWM, and thus were not delineated as potential jurisdictional drainages.

4.2 Other Observations

During the field surveys Rincon investigated features in the western part of the Project Area mapped in the NWI as ponds or lakes with associated connecting drainages. A series of wetland sampling points were evaluated in the Project Area to confirm the presence of absence of State wetlands. Three points were evaluated at locations where the NWI had mapped ‘intermittently flooded’ freshwater ponds (Cowardin code PUSJ) and one point was evaluated at an NWI-mapped ‘intermittently flooded’ lacustrine lake (Cowardin code L2US). The sampling points were selected in areas most likely to contain wetland characteristics, occurring at low elevations in relation to adjacent areas and which in aerial photography appear to contain limited vegetation cover. The points were selected to obtain a representative sample of these potential wetland areas that appear similar on aerial imagery. Wetland Determination Data Forms are included in Appendix B.

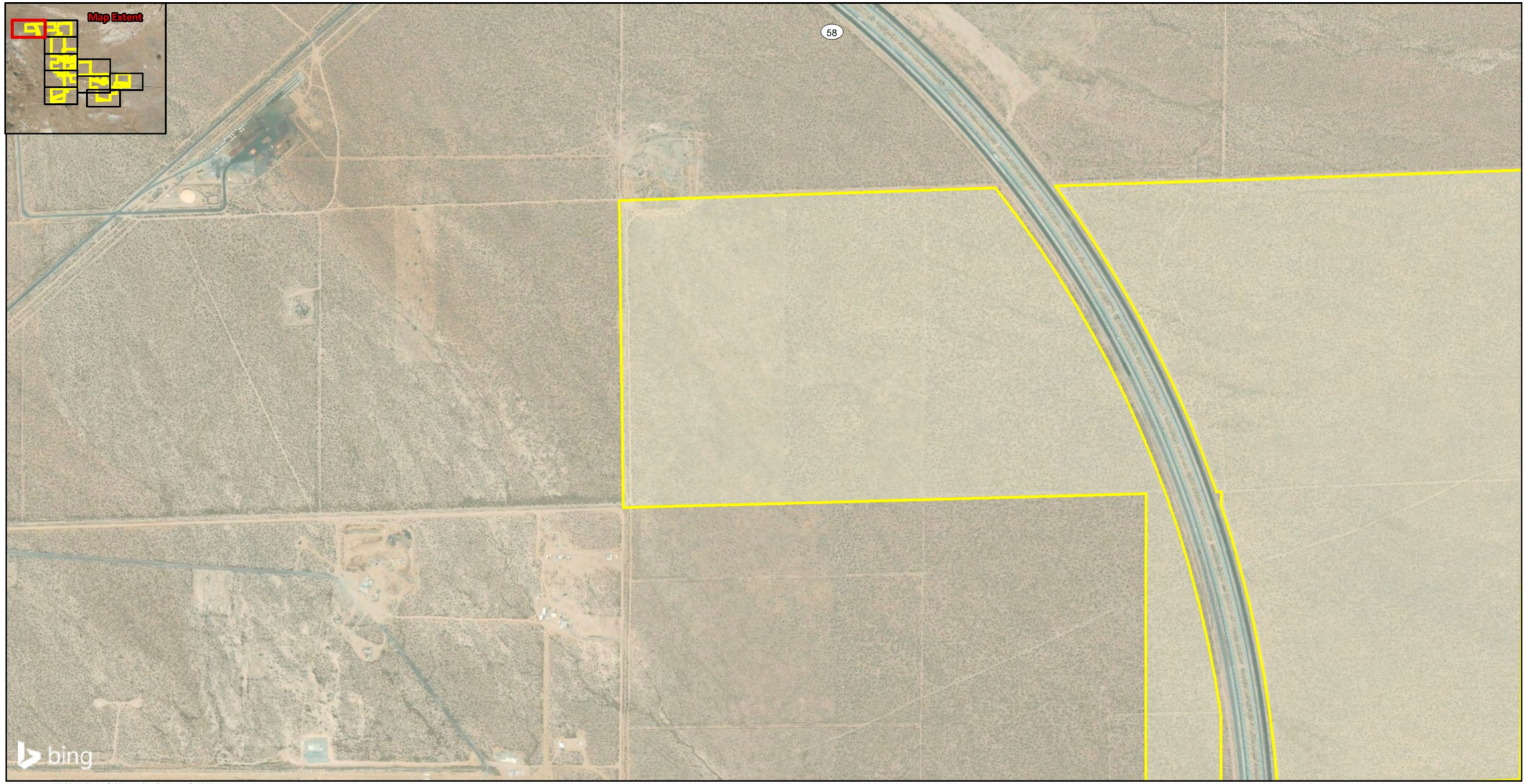
Although each point contained one indicator of wetland hydrology - minor soil cracking - each point lacked a predominance of hydrophytic vegetation and indicators of hydric soils; therefore, these features were determined to be non-wetlands based on the absence of two of the three USACE wetland indicator parameters. Since wetlands were not present, no corresponding upland sampling points were sampled since the entire area was considered upland.

Aside from minor surface soil cracks, no other indicators of wetland hydrology were observed such as surface water, saturation, evidence of recent inundation, aquatic invertebrates, water marks, drift deposits, hydrogen sulfide odor, oxidized rhizospheres along living roots, indicators of reduced iron/redoximorphic features, substrate staining, or salt/soda, algal, or biotic crusts. Inundation or saturation was not observed in recent or historic aerial imagery. OHWMs were not evident at the edges of these areas and no drift lines were observed that would represent the heights of

inundation events. Likewise, sediment sheets or beach ridges were not present at edges. Flow lineation, including those with scour or sinuous or oscillated ripple marks, were not observed and mud curls or drapes were not evident. Organic drift was present only in some of the delineated ephemeral drainages.

It appears that these features likely detain water only during and shortly after heavy rain events at infrequent intervals. Concluding that these NWI-mapped features did not meet the definition of USACE wetland, the NWI-mapped pond and lake features were not delineated and mapped as jurisdictional features. As discussed above, land use changes, infrastructure maintenance, and ongoing human use and disturbances have likely impeded flows and resulted in a reduction of flow volume and duration or full obstruction of flow from many upslope areas within and adjacent to the Project Area.

Figure 5a Potential RWQCB Jurisdiction – Sheet 1



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Project Area

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0 450 900 Feet

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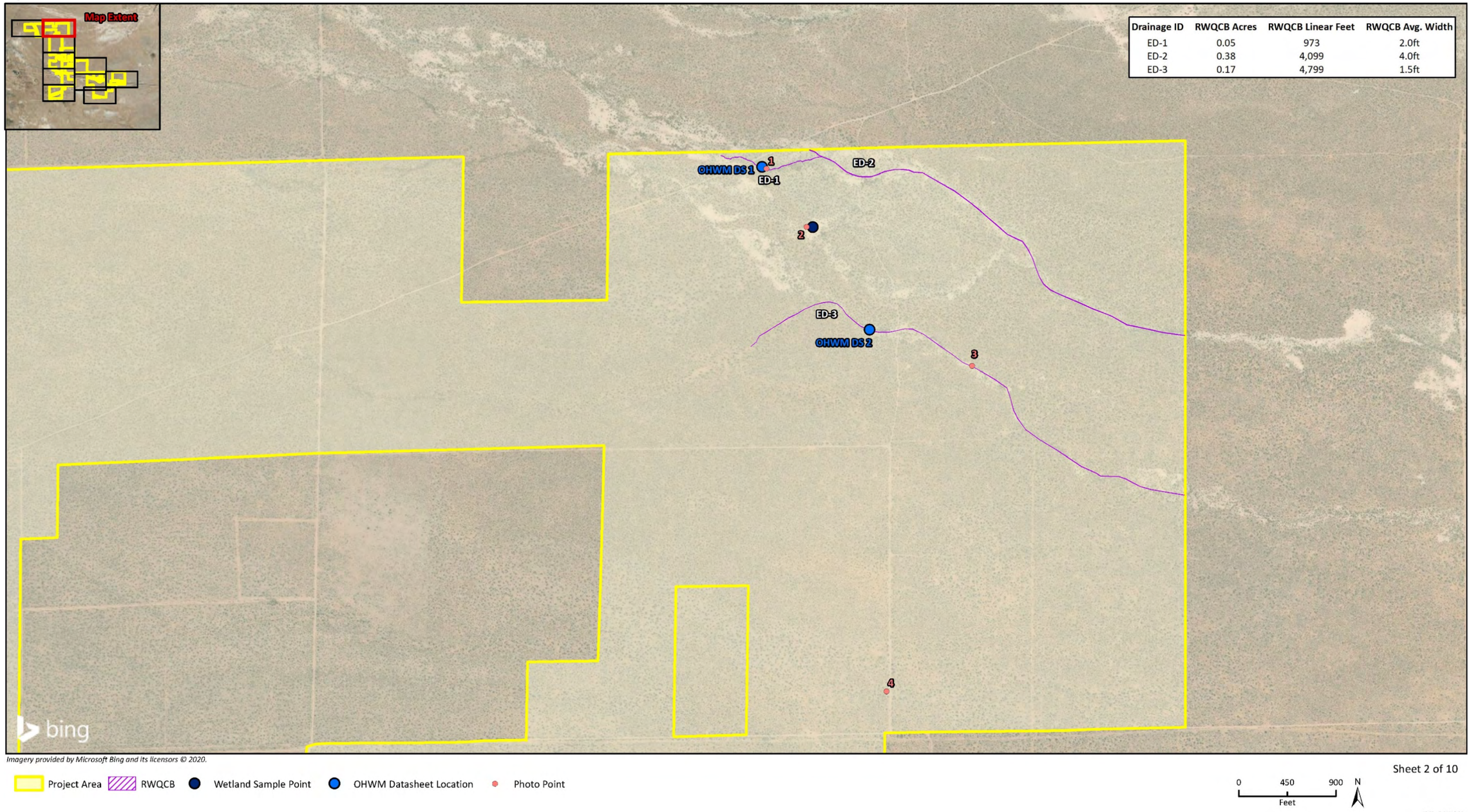
JDFig 5 RWQCB

Figure 5b Potential RWQCB Jurisdiction – Sheet 2



Drainage ID	RWQCB Acres	RWQCB Linear Feet	RWQCB Avg. Width
ED-1	0.05	973	2.0ft
ED-2	0.38	4,099	4.0ft
ED-3	0.17	4,799	1.5ft

Figure 5c Potential RWQCB Jurisdiction – Sheet 3

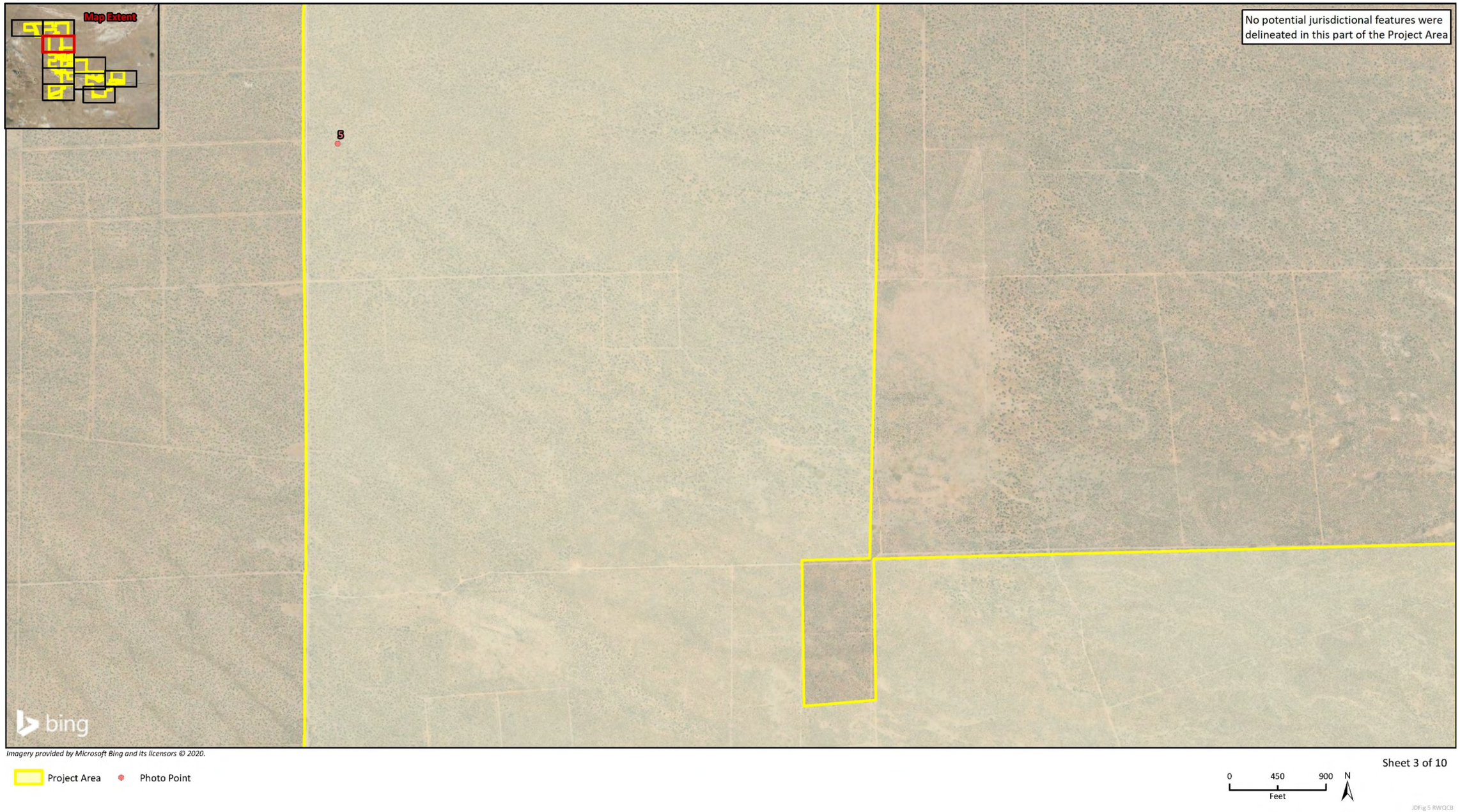
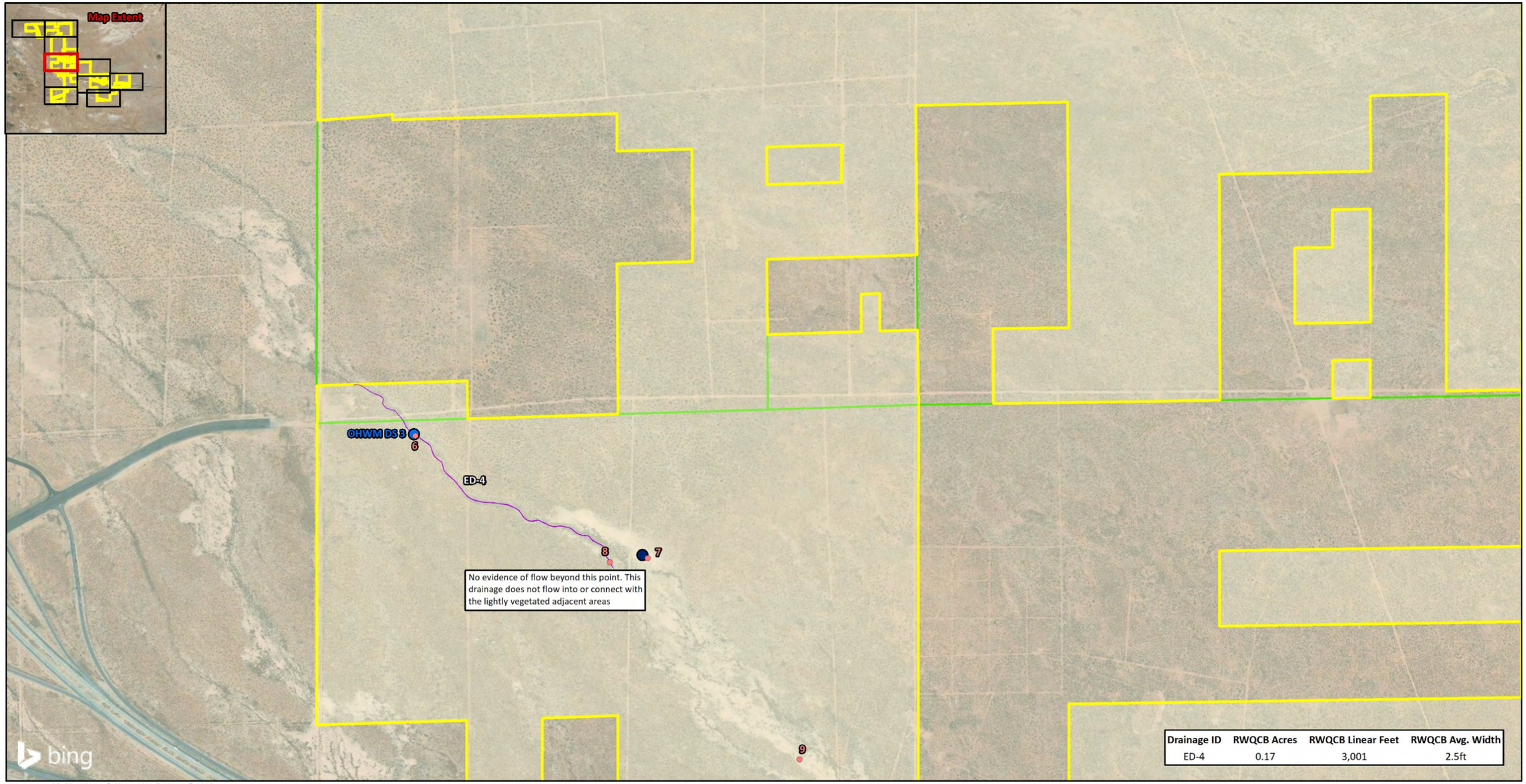


Figure 5d Potential RWQCB Jurisdiction – Sheet 4



Drainage ID	RWQCB Acres	RWQCB Linear Feet	RWQCB Avg. Width
ED-4	0.17	3,001	2.5ft

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Project Area — Potential Collector Route — RWQCB — Wetland Sample Point — OHWM Datasheet Location — Photo Point

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JDFig 5 RWQCB

Figure 5e Potential RWQCB Jurisdiction – Sheet 5

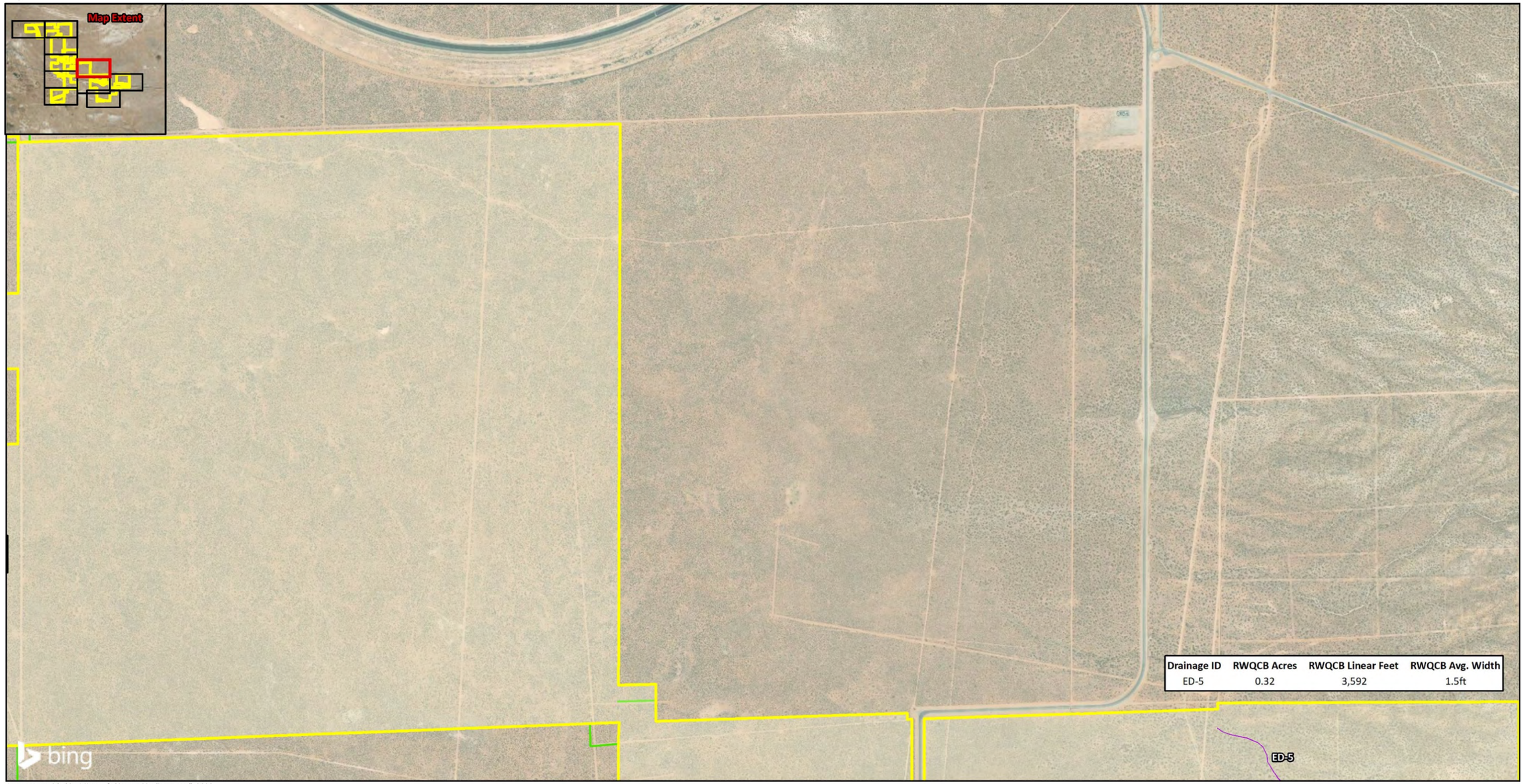


Figure 5f Potential RWQCB Jurisdiction – Sheet 6

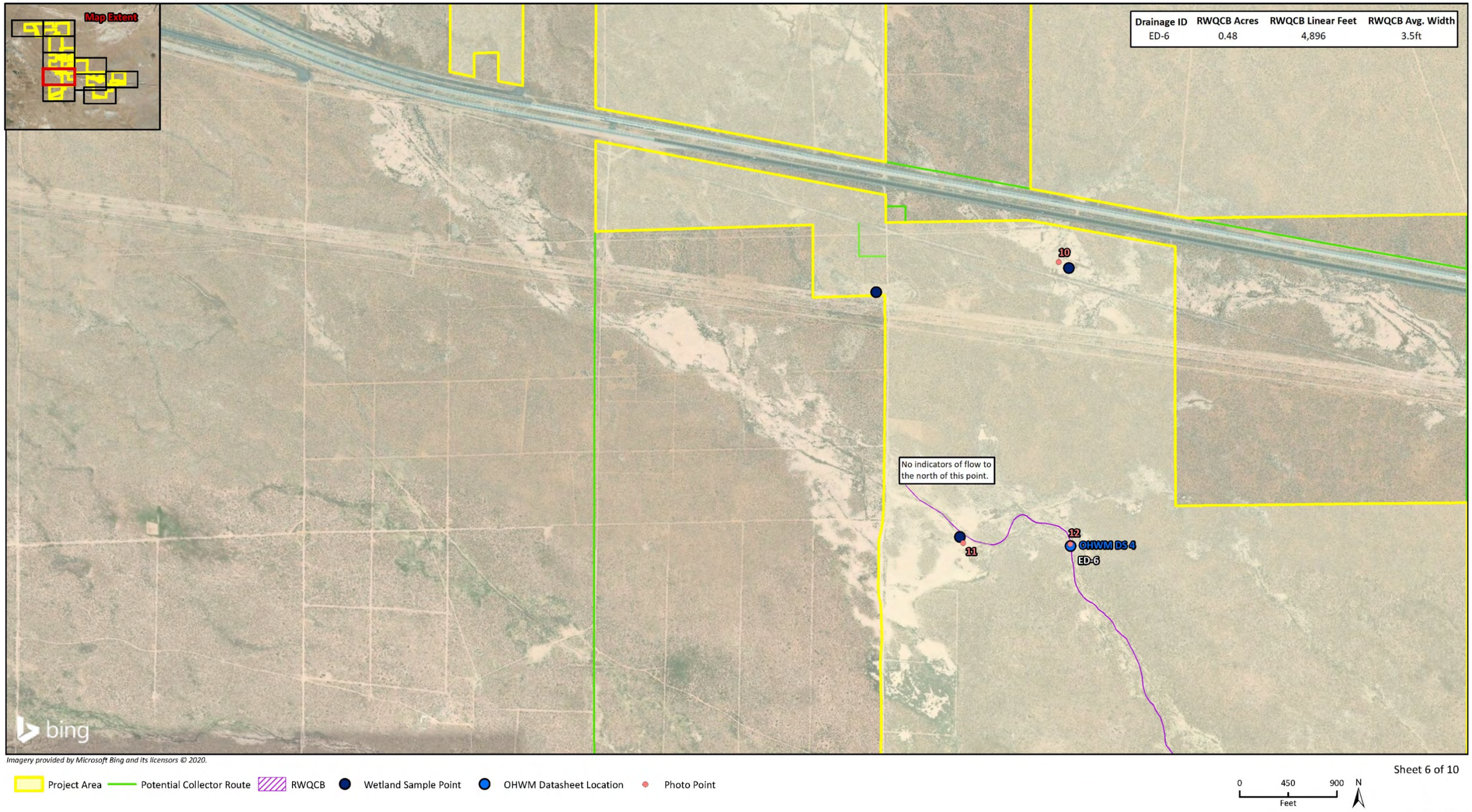
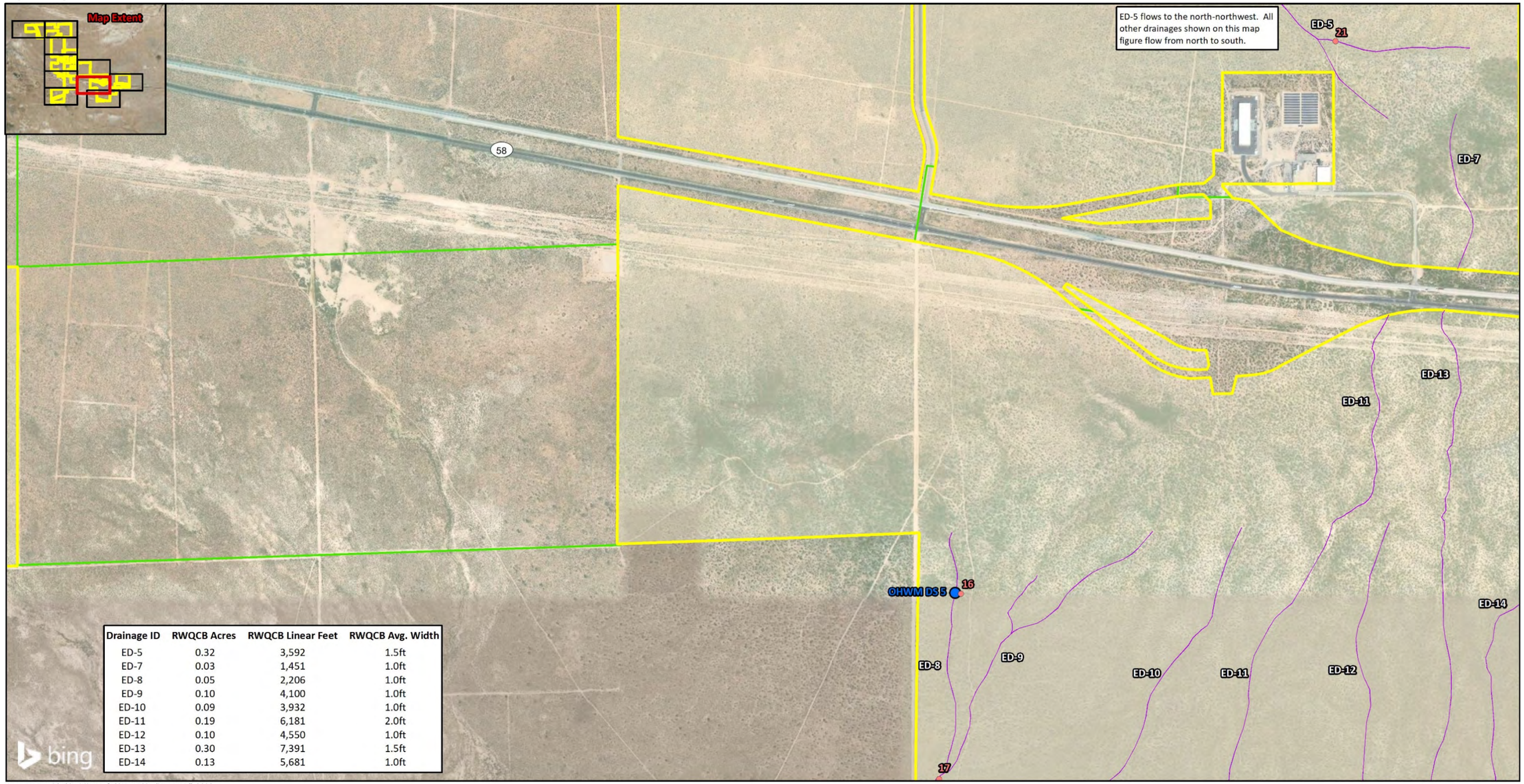
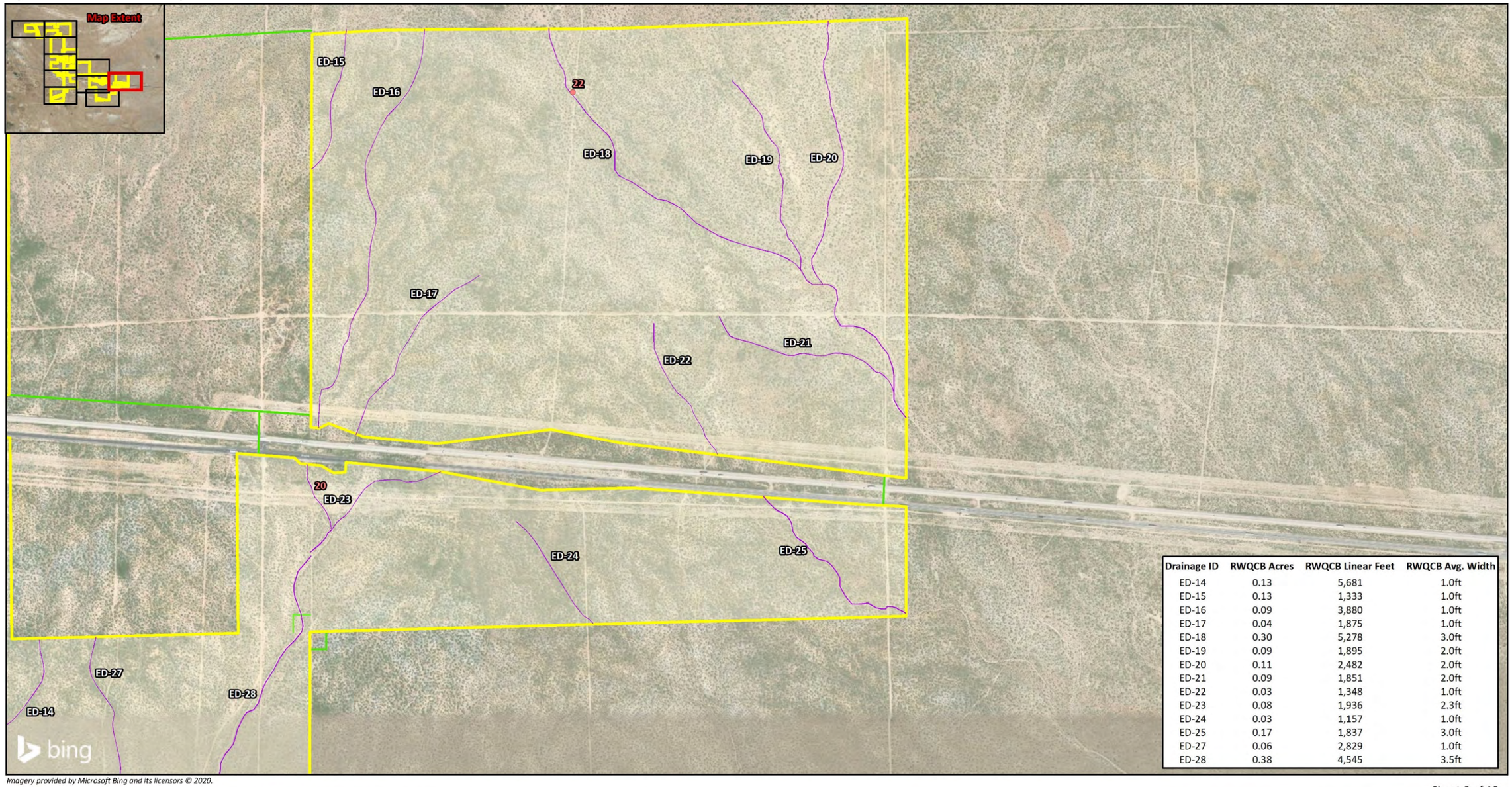


Figure 5g Potential RWQCB Jurisdiction – Sheet 7



Drainage ID	RWQCB Acres	RWQCB Linear Feet	RWQCB Avg. Width
ED-5	0.32	3,592	1.5ft
ED-7	0.03	1,451	1.0ft
ED-8	0.05	2,206	1.0ft
ED-9	0.10	4,100	1.0ft
ED-10	0.09	3,932	1.0ft
ED-11	0.19	6,181	2.0ft
ED-12	0.10	4,550	1.0ft
ED-13	0.30	7,391	1.5ft
ED-14	0.13	5,681	1.0ft

Figure 5h Potential RWQCB Jurisdiction – Sheet 8



Drainage ID	RWQCB Acres	RWQCB Linear Feet	RWQCB Avg. Width
ED-14	0.13	5,681	1.0ft
ED-15	0.13	1,333	1.0ft
ED-16	0.09	3,880	1.0ft
ED-17	0.04	1,875	1.0ft
ED-18	0.30	5,278	3.0ft
ED-19	0.09	1,895	2.0ft
ED-20	0.11	2,482	2.0ft
ED-21	0.09	1,851	2.0ft
ED-22	0.03	1,348	1.0ft
ED-23	0.08	1,936	2.3ft
ED-24	0.03	1,157	1.0ft
ED-25	0.17	1,837	3.0ft
ED-27	0.06	2,829	1.0ft
ED-28	0.38	4,545	3.5ft

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Project Area — Potential Collector Route — RWQCB — Photo Point

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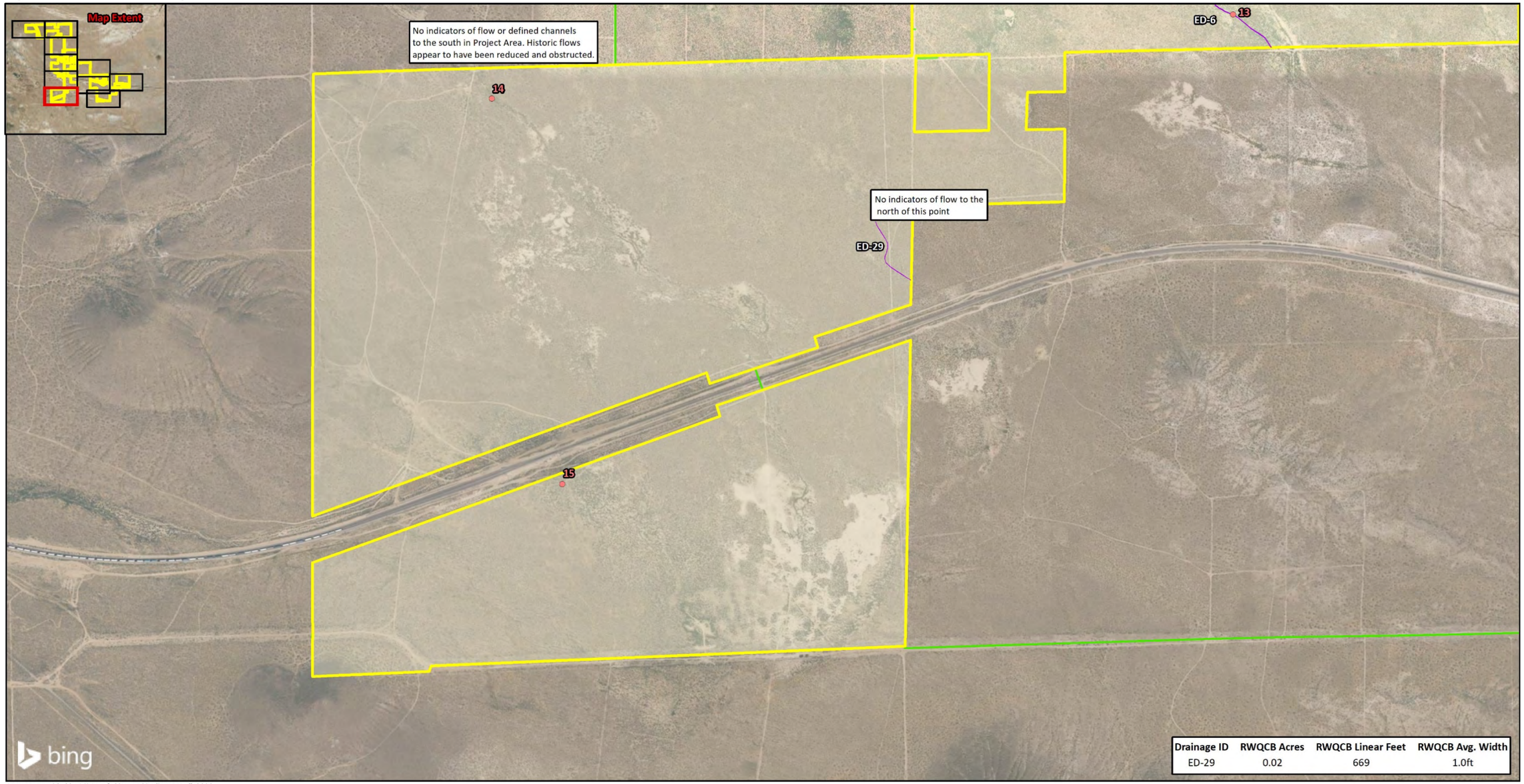
0 450 900 Feet N

JDFig 5 RWQCB

Figure 5i Potential RWQCB Jurisdiction – Sheet 9



Drainage ID	RWQCB Acres	RWQCB Linear Feet	RWQCB Avg. Width
ED-29	0.02	669	1.0ft

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Project Area — Potential Collector Route — RWQCB — Photo Point

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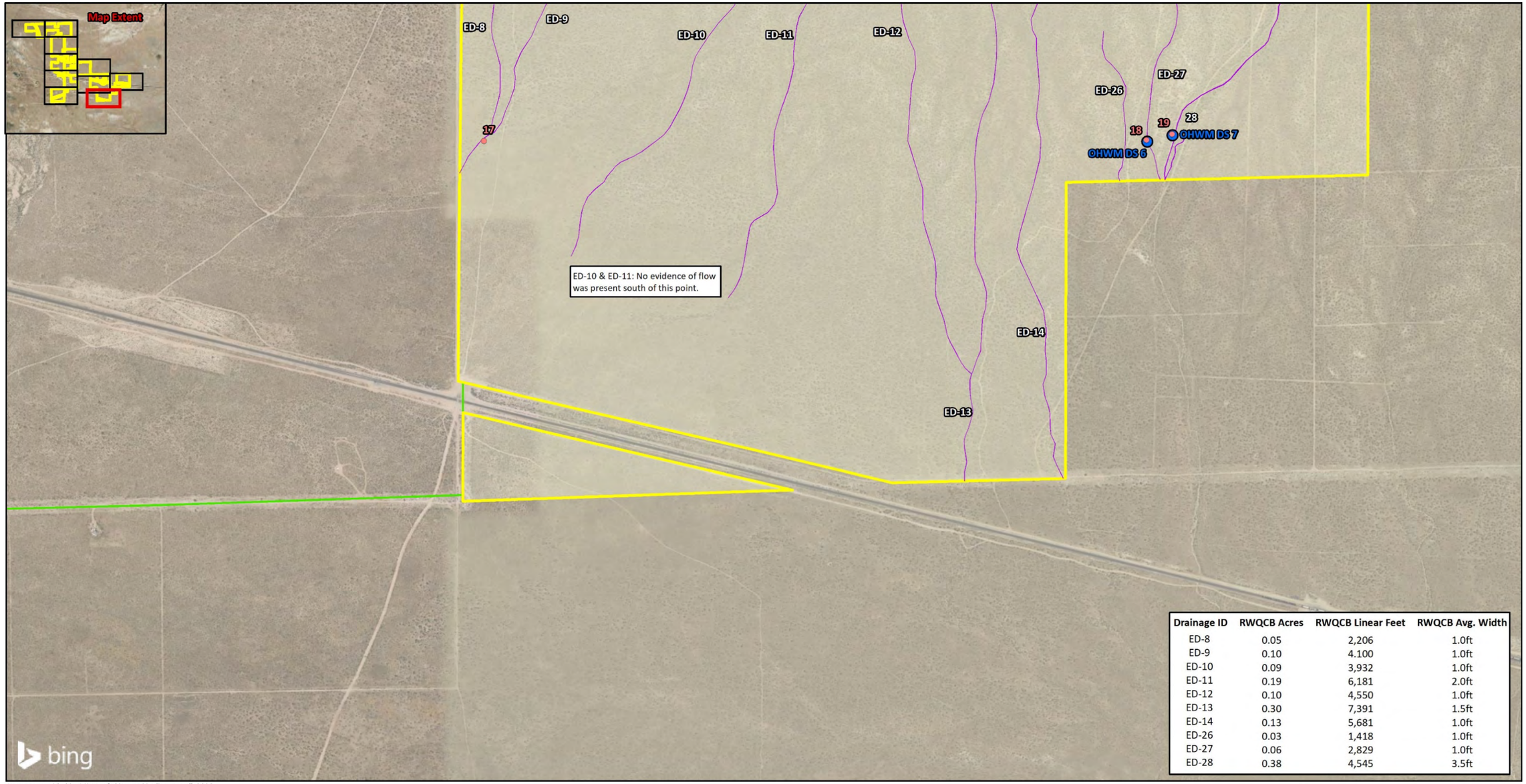
0 450 900 Feet N

JDFig 5 RWQCB

Figure 5j Potential RWQCB Jurisdiction – Sheet 10



Drainage ID	RWQCB Acres	RWQCB Linear Feet	RWQCB Avg. Width
ED-8	0.05	2,206	1.0ft
ED-9	0.10	4.100	1.0ft
ED-10	0.09	3,932	1.0ft
ED-11	0.19	6,181	2.0ft
ED-12	0.10	4,550	1.0ft
ED-13	0.30	7,391	1.5ft
ED-14	0.13	5,681	1.0ft
ED-26	0.03	1,418	1.0ft
ED-27	0.06	2,829	1.0ft
ED-28	0.38	4,545	3.5ft

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Project Area — Potential Collector Route — RWQCB — OHWM Datasheet Location — Photo Point

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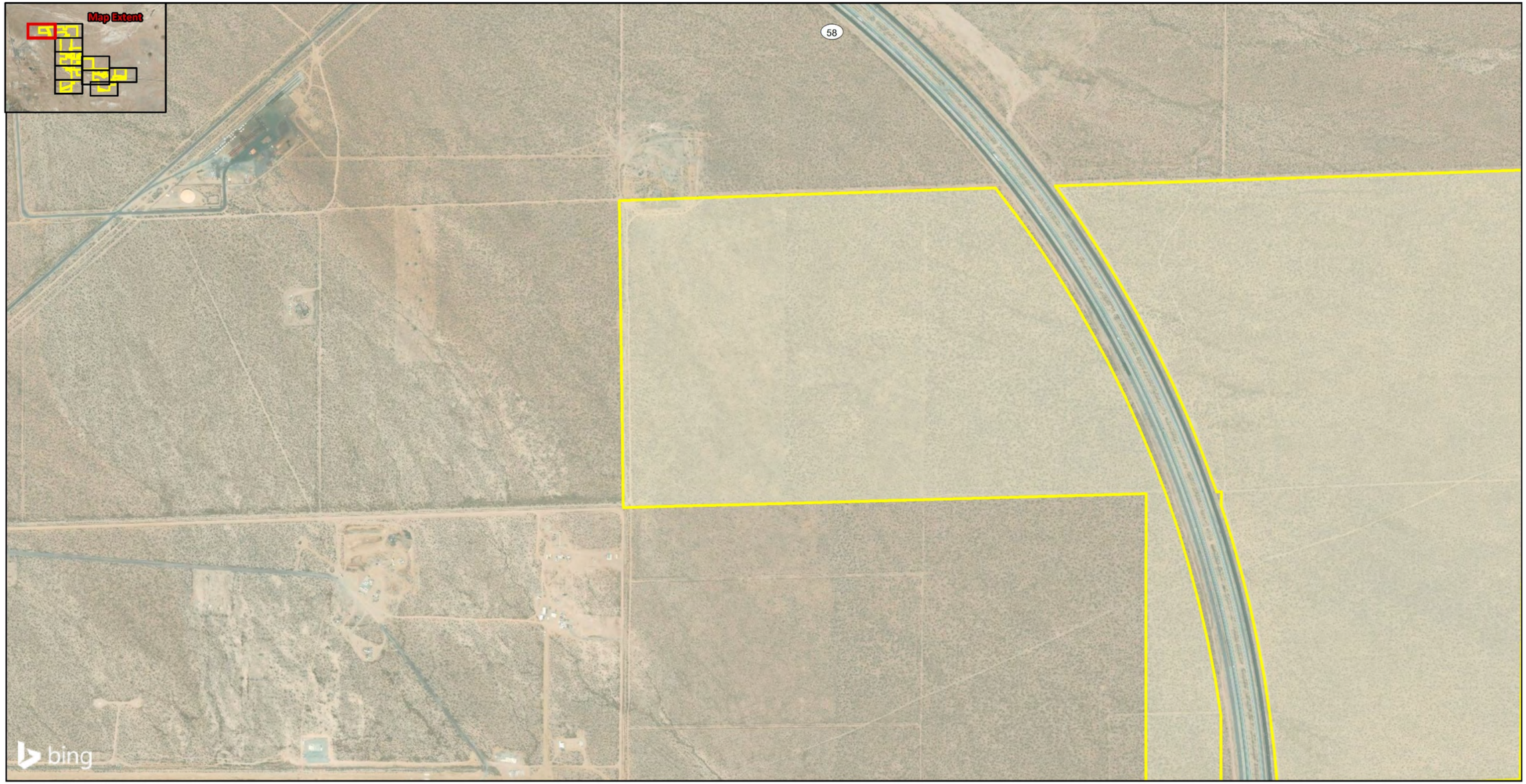
0 450 900 Feet N

JDFig 5 RWQCB

Figure 5k Potential CDFW Jurisdiction – Sheet 1



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Project Area

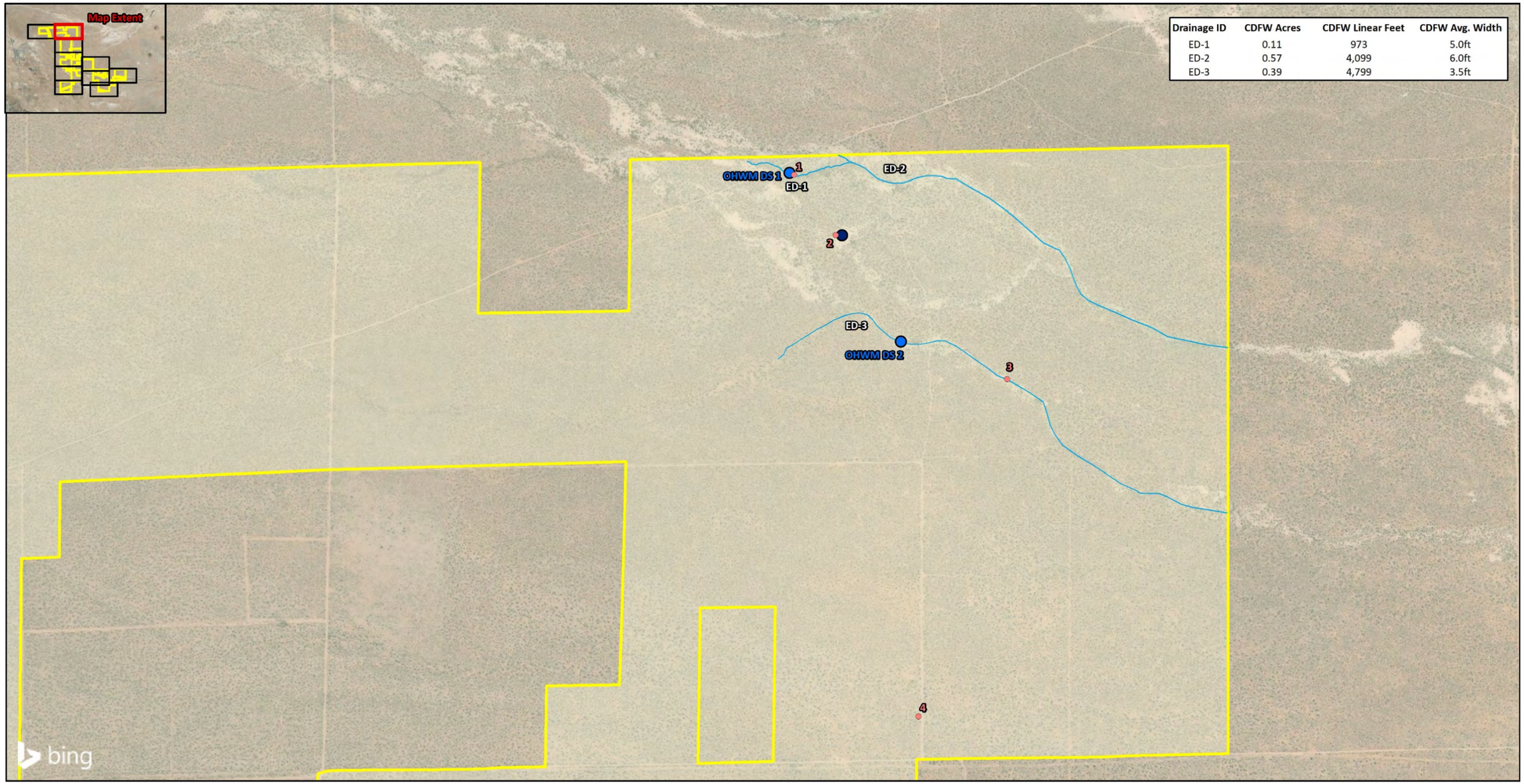
Sheet 1 of 10

0 450 900 Feet

N

JDFig 6 CDFW

Figure 5l Potential CDFW Jurisdiction – Sheet 2



Drainage ID	CDFW Acres	CDFW Linear Feet	CDFW Avg. Width
ED-1	0.11	973	5.0ft
ED-2	0.57	4,099	6.0ft
ED-3	0.39	4,799	3.5ft

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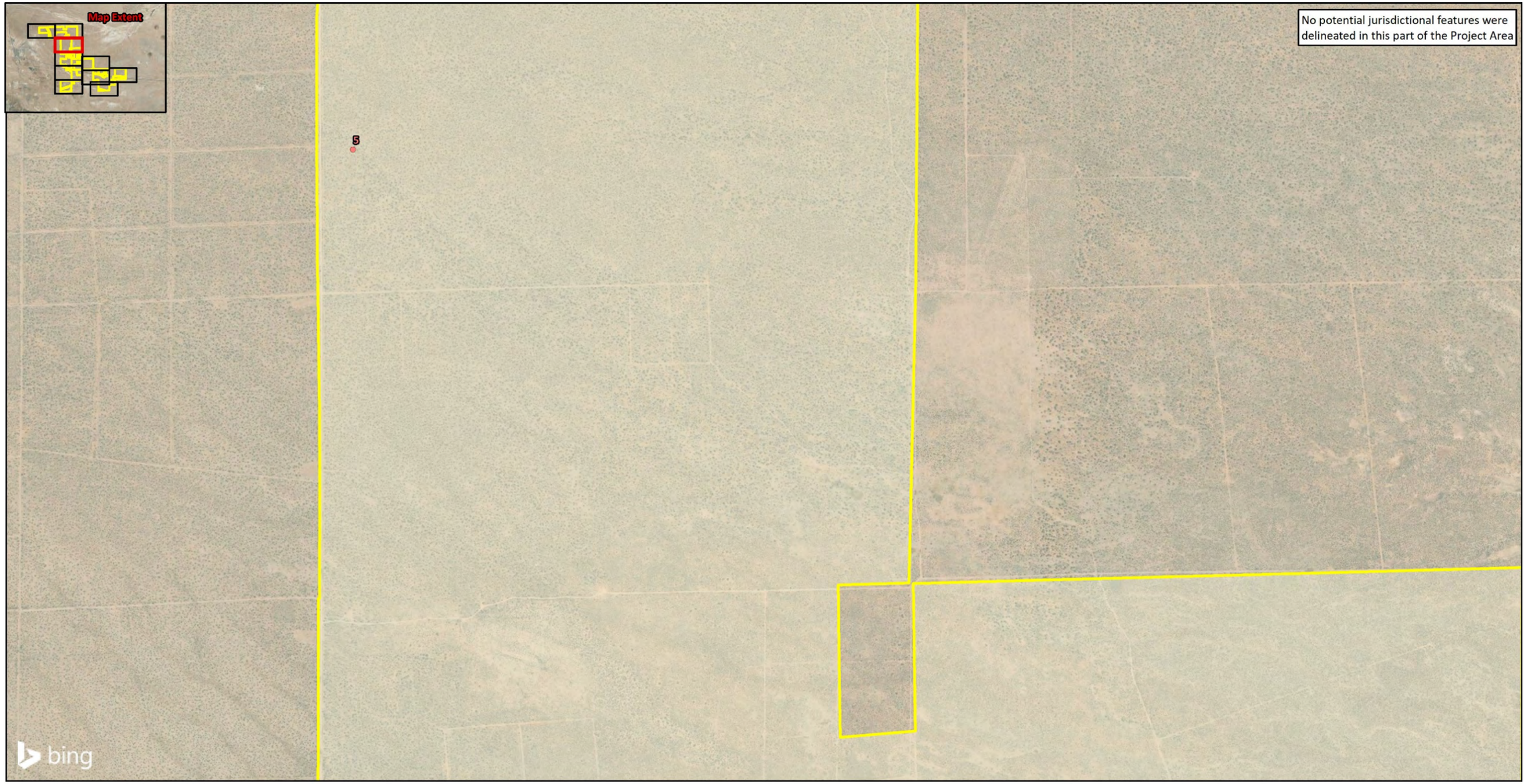
Project Area | CDFW TOB | Wetland Sample Point | OHWM Datasheet Location | Photo Point

Sheet 2 of 10

0 450 900 Feet N

JDFig 6 CDFW

Figure 5m Potential CDFW Jurisdiction – Sheet 3



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Project Area Photo Point

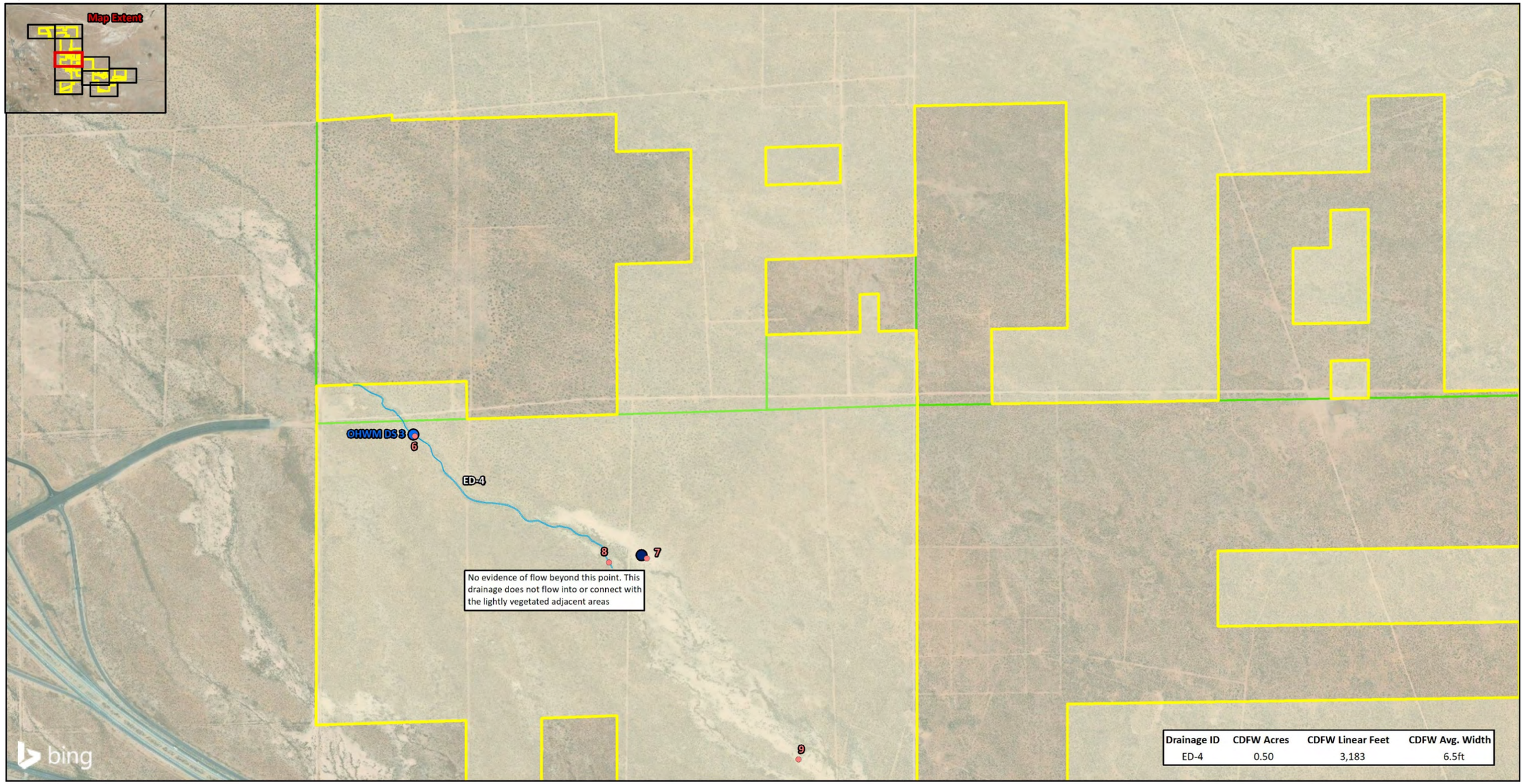
Sheet 3 of 10

0 450 900 Feet

N

JDFig 6 CDFW

Figure 5n Potential CDFW Jurisdiction – Sheet 4



Drainage ID	CDFW Acres	CDFW Linear Feet	CDFW Avg. Width
ED-4	0.50	3,183	6.5ft

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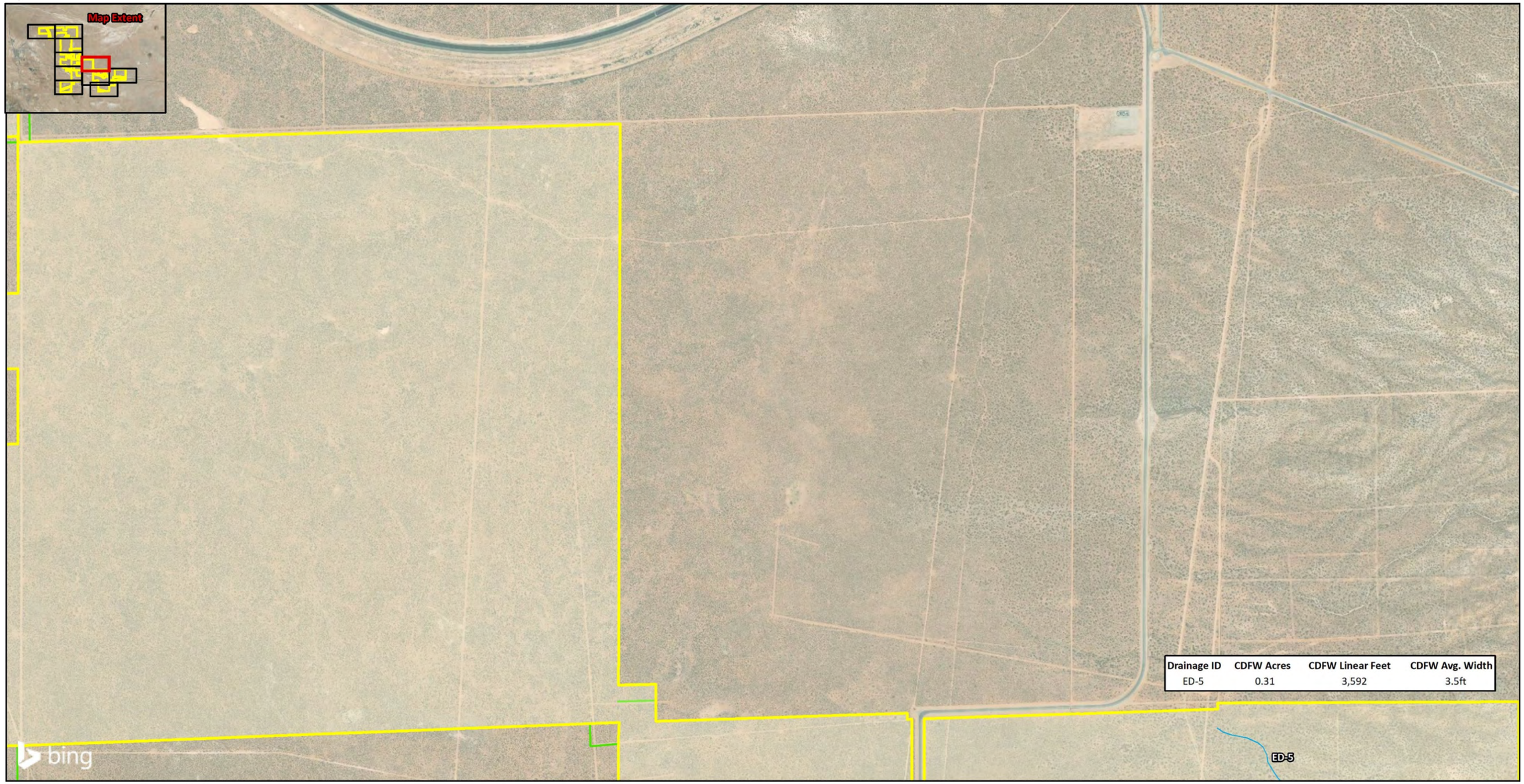
Project Area | Potential Collector Route | CDFW TOB | Wetland Sample Point | OHWM Datasheet Location | Photo Point

Sheet 4 of 10

0 450 900 Feet N

JDFig 6 CDFW

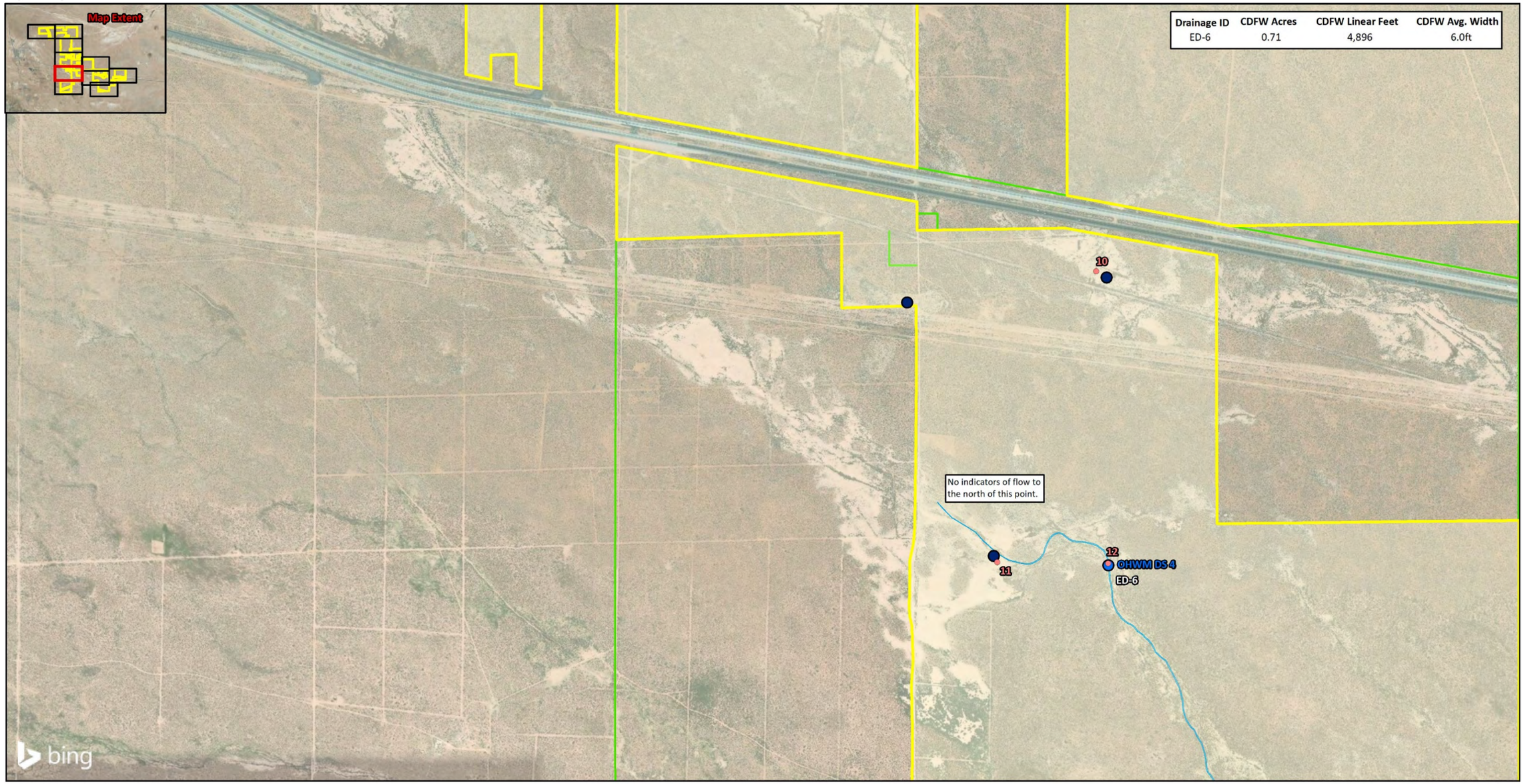
Figure 5o Potential CDFW Jurisdiction – Sheet 5



Sheet 5 of 10

JDFig 6 CDFW

Figure 5p Potential CDFW Jurisdiction – Sheet 6



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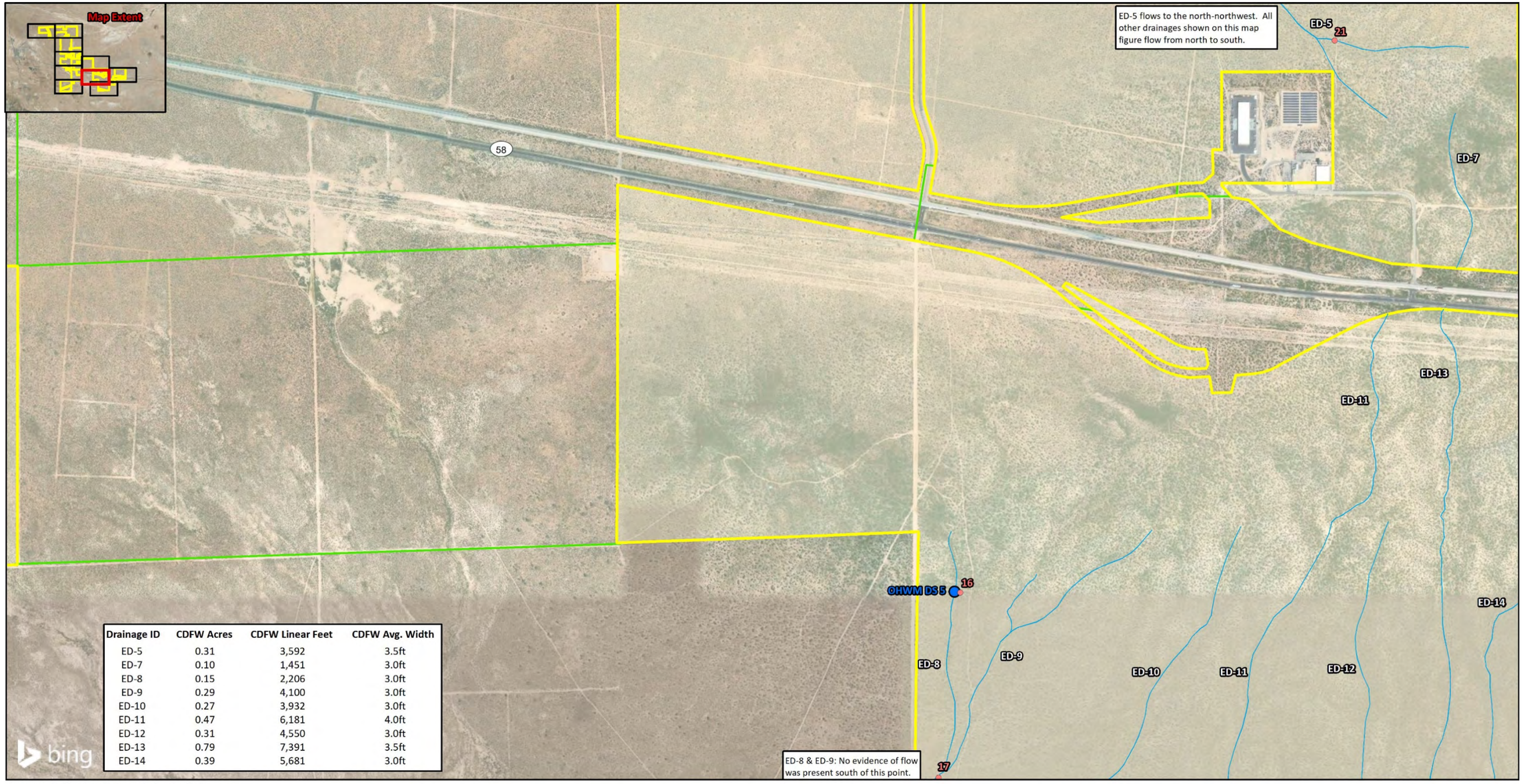
Project Area | Potential Collector Route | CDFW TOB | Wetland Sample Point | OHWM Datasheet Location | Photo Point

Sheet 6 of 10

0 450 900 Feet N

JDFig 6 CDFW

Figure 5q Potential CDFW Jurisdiction – Sheet 7



Drainage ID	CDFW Acres	CDFW Linear Feet	CDFW Avg. Width
ED-5	0.31	3,592	3.5ft
ED-7	0.10	1,451	3.0ft
ED-8	0.15	2,206	3.0ft
ED-9	0.29	4,100	3.0ft
ED-10	0.27	3,932	3.0ft
ED-11	0.47	6,181	4.0ft
ED-12	0.31	4,550	3.0ft
ED-13	0.79	7,391	3.5ft
ED-14	0.39	5,681	3.0ft

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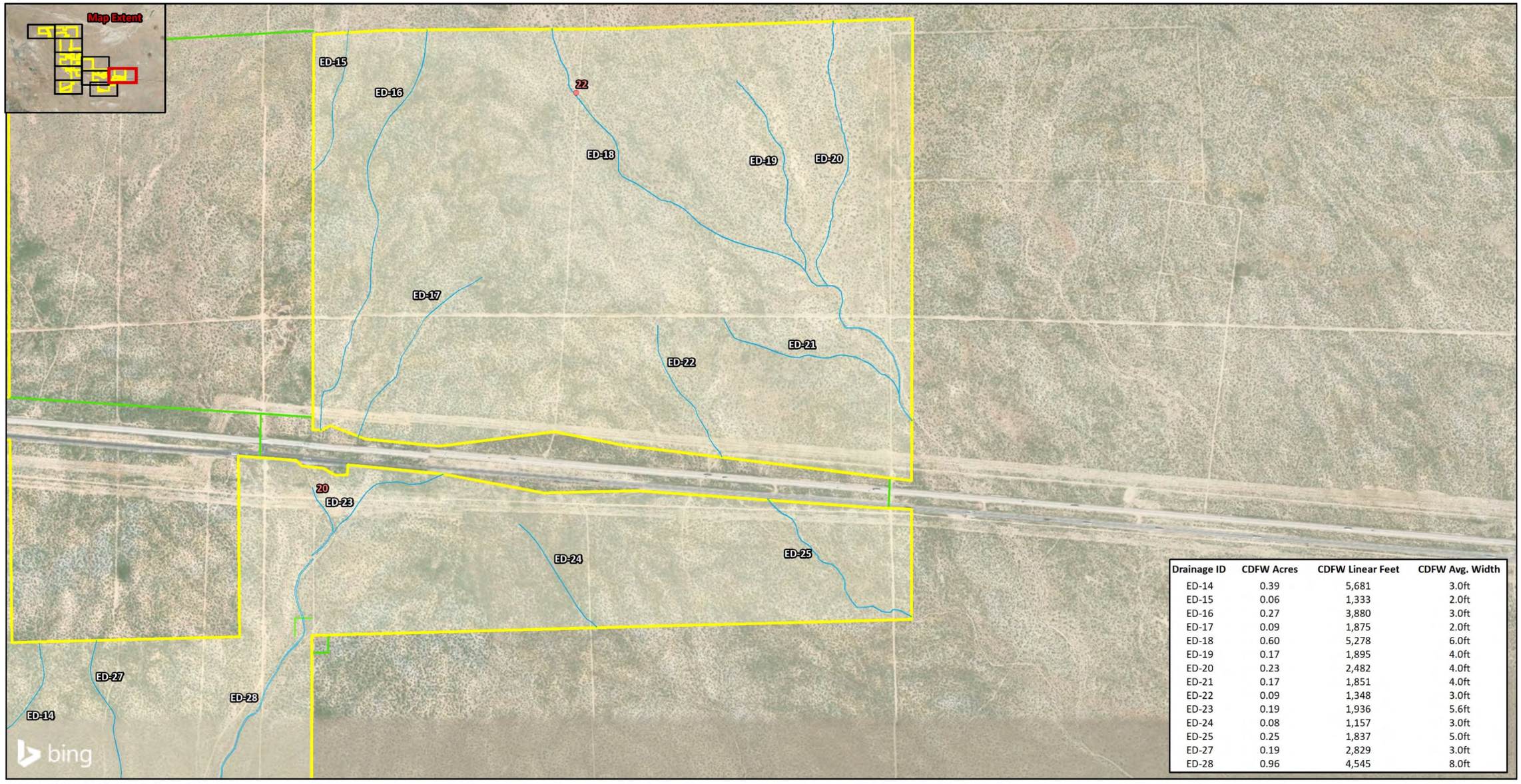
Project Area — Potential Collector Route — CDFW TOB — OHWM Datasheet Location — Photo Point

Sheet 7 of 10

0 450 900 Feet N

JDFig 6 CDFW

Figure 5r Potential CDFW Jurisdiction – Sheet 8



Drainage ID	CDFW Acres	CDFW Linear Feet	CDFW Avg. Width
ED-14	0.39	5,681	3.0ft
ED-15	0.06	1,333	2.0ft
ED-16	0.27	3,880	3.0ft
ED-17	0.09	1,875	2.0ft
ED-18	0.60	5,278	6.0ft
ED-19	0.17	1,895	4.0ft
ED-20	0.23	2,482	4.0ft
ED-21	0.17	1,851	4.0ft
ED-22	0.09	1,348	3.0ft
ED-23	0.19	1,936	5.6ft
ED-24	0.08	1,157	3.0ft
ED-25	0.25	1,837	5.0ft
ED-27	0.19	2,829	3.0ft
ED-28	0.96	4,545	8.0ft

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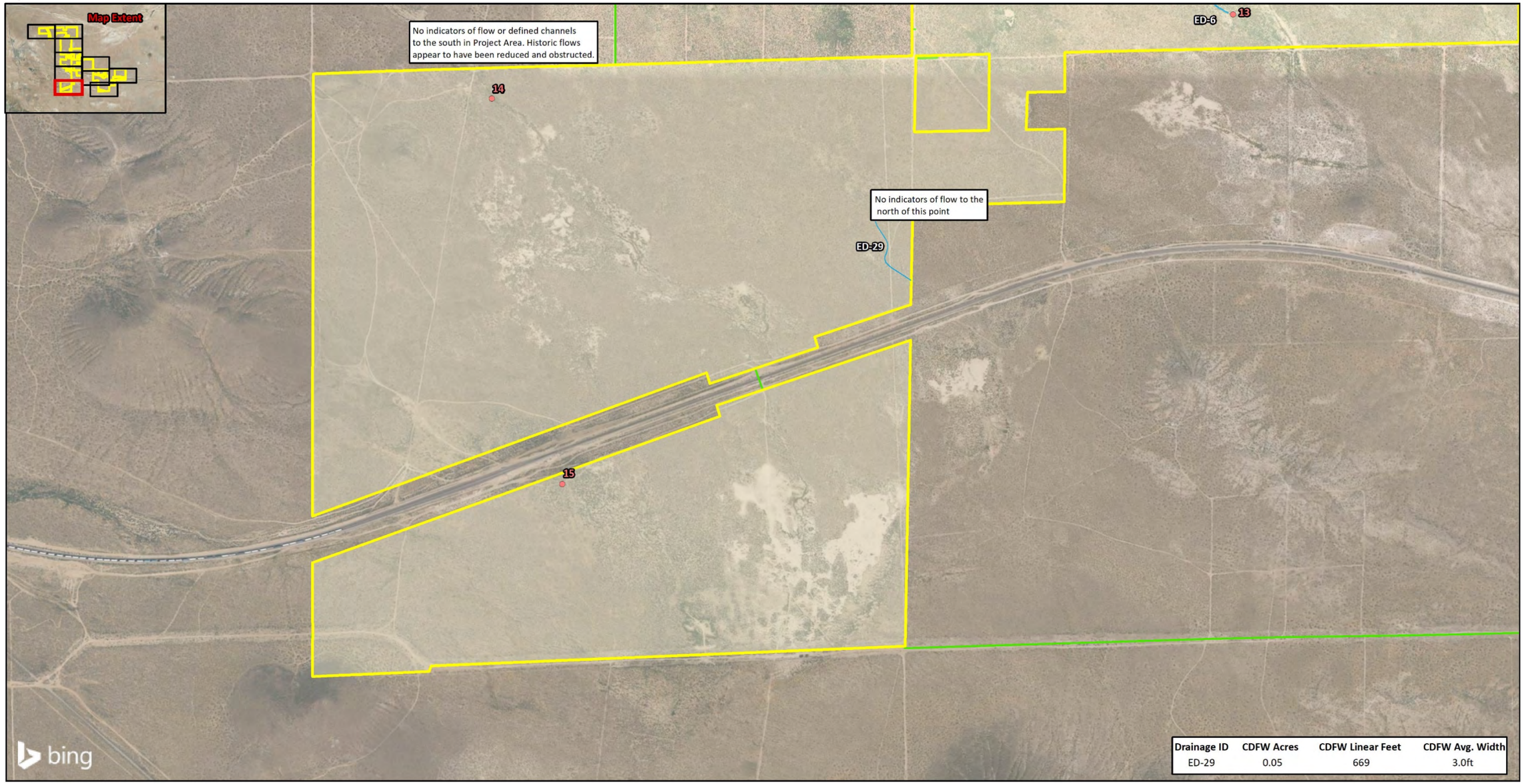
Project Area — Potential Collector Route — CDFW TOB — Photo Point

Sheet 8 of 10

0 450 900 Feet N

JDFig 6 CDFW

Figure 5s Potential CDFW Jurisdiction – Sheet 9



Drainage ID	CDFW Acres	CDFW Linear Feet	CDFW Avg. Width
ED-29	0.05	669	3.0ft

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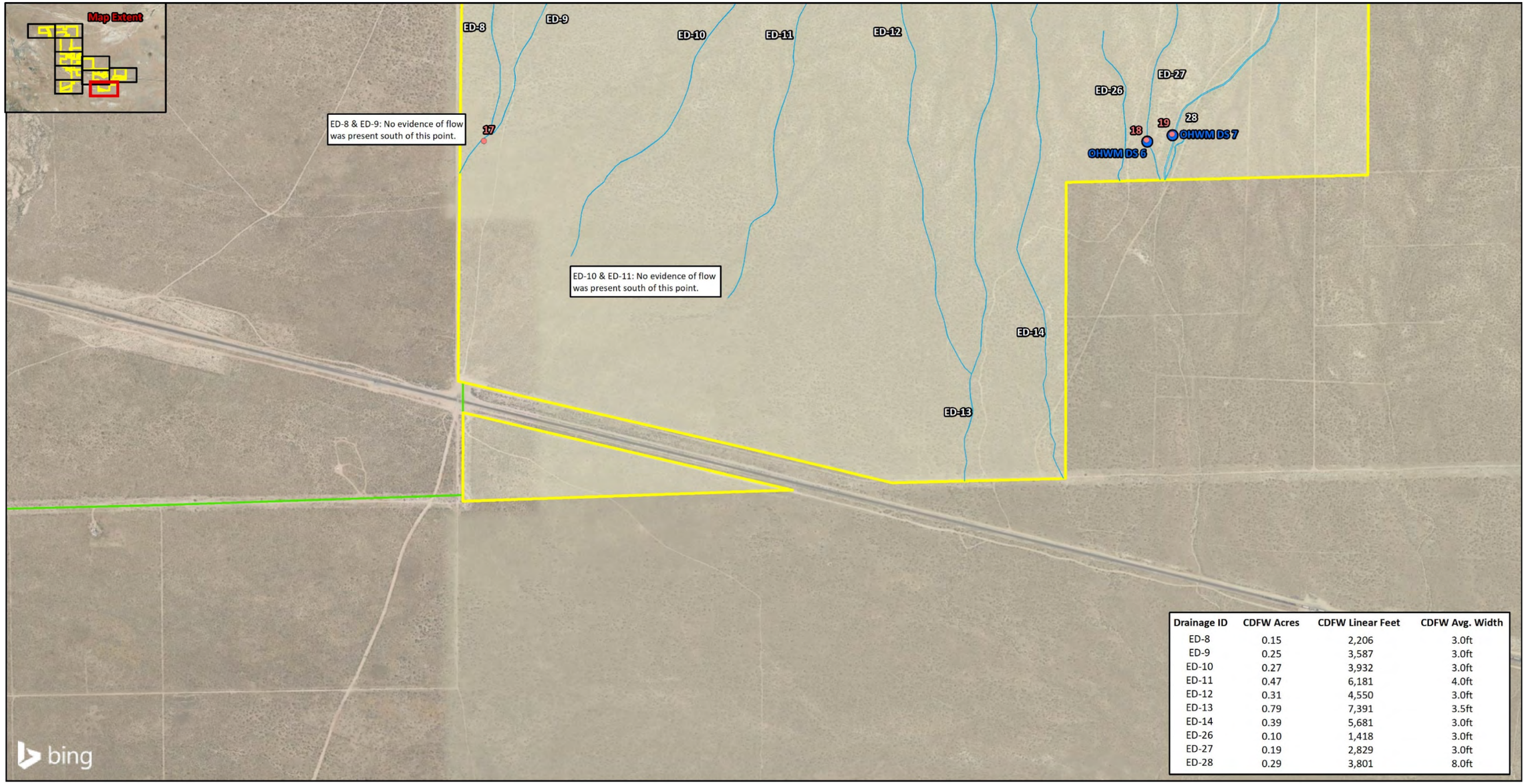
Project Area — Potential Collector Route — CDFW TOB — Photo Point

0 450 900 Feet N

Sheet 9 of 10

JDFig 6 CDFW

Figure 5t Potential CDFW Jurisdiction – Sheet 10



Drainage ID	CDFW Acres	CDFW Linear Feet	CDFW Avg. Width
ED-8	0.15	2,206	3.0ft
ED-9	0.25	3,587	3.0ft
ED-10	0.27	3,932	3.0ft
ED-11	0.47	6,181	4.0ft
ED-12	0.31	4,550	3.0ft
ED-13	0.79	7,391	3.5ft
ED-14	0.39	5,681	3.0ft
ED-26	0.10	1,418	3.0ft
ED-27	0.19	2,829	3.0ft
ED-28	0.29	3,801	8.0ft

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Sheet 10 of 10

Project Area — Potential Collector Route — CDFW TOB — OHWM Datasheet Location — Photo Point

0 450 900 Feet N

JDFig 6 CDFW

Figure 5u Potential CDFW/RWQCB Jurisdiction – Gen-Ties – Sheet 1

Figure 5v Potential CDFW/RWQCB Jurisdiction – Gen-Ties – Sheet 2

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Gen-Tie Route — Alternate Corridor — Potential CDFW Jurisdiction/ Potential RWQCB Jurisidiction

Sheet 2 of 6

0 450 900 Feet N

JDFig X CDFW RWQCB Gen Ties

Figure 5w Potential CDFW/RWQCB Jurisdiction – Gen-Ties – Sheet 3

Figure 5x Potential CDFW/RWQCB Jurisdiction – Gen-Ties – Sheet 4

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Gen-Tie Route
Alternate Corridor
Potential CDFW Jurisdiction/
Potential RWQCB Jurisidiction

Sheet 4 of 6

0 450 900
Feet
N

JDFig X CDFW RWQCB Gen Ties

Figure 5y Potential CDFW/RWQCB Jurisdiction – Gen-Ties – Sheet 5

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Gen-Tie Route — Alternate Corridor — Potential CDFW Jurisdiction/ Potential RWQCB Jurisidiction

Sheet 5 of 6

0 450 900 Feet N

JDFig X CDFW RWQCB Gen Ties

Figure 5z Potential CDFW/RWQCB Jurisdiction – Gen-Ties – Sheet 6

Imagery provided by Microsoft Bing and its licensors © 2020.

Gen-Tie Route — Alternate Corridor — Potential CDFW Jurisdiction/ Potential RWQCB Jurisidiction

Sheet 6 of 6

0 450 900 Feet N

JDFig X CDFW RWQCB Gen Ties

5 Summary of Jurisdictional Waters

5.1 Potential USACE Jurisdiction

All drainages in the Project Area and gen-ties are ephemeral, non-navigable features that convey hydrologic flows only during, and for short durations, after high precipitation events. The drainages do not support interstate or foreign commerce or cross state lines. Based on the USACE jurisdictional determinations that Koehn Dry Lake and Rogers Dry Lake are intrastate, isolated waters, the drainages delineated in the Project Area and gen-ties that may reach these dry lakes are not jurisdictional WOUS. The USACE is not expected to assert jurisdiction over the delineated ephemeral drainages.

5.2 Potential RWQCB Jurisdiction

Based on the results of the assessment, the Project Area or gen-ties do not contain wetland or non-wetland waters of the State subject to the jurisdiction of the RWQCB pursuant to the Porter-Cologne Act. However, drainage features observed displaying an OHWM are expected to be considered jurisdictional waters of the State, pursuant to Porter-Cologne. As shown in Table 2 below, a total of approximately 4.11 acres (91,367 linear feet) of potential RWQCB jurisdiction are located across the Project Area.

5.3 Potential CDFW Jurisdiction

Delineated drainages that contain evidence of a channel bed and bank or other OHWM indicators are likely subject to CDFW jurisdiction. Approximately 8.87 acres (91,367 linear feet) of potential CDFW jurisdictional areas were delineated in the Project Area using standard CDFW delineation practices. No riparian habitat was present. No larger episodic stream systems were present within the Project Area or gen-ties and therefore the MESA delineation methodology was not applicable. Table 2 summarizes the acreage and linear feet of potential CDFW jurisdiction delineated.

Table 2 Potential RWQCB and CDFW Jurisdiction in the Project Area

Drainage ID	Potential RWQCB Jurisdiction (acres)	Potential RWQCB Jurisdiction (linear feet)	Potential CDFW Jurisdiction (acres)	Potential CDFW Jurisdiction (linear feet)
ED-1	0.05	973	0.11	973
ED-2	0.38	4,099	0.57	4,099
ED-3	0.17	4,799	0.39	4,799
ED-4	0.17	3,183	0.50	3,183
ED-5	0.32	3,592	0.32	3,592
ED-6	0.48	4,896	0.71	4,896
ED-7	0.03	1,451	0.10	1,451
ED-8	0.05	2,206	0.15	2,206
ED-9	0.10	4,100	0.29	4,100
ED-10	0.09	3,932	0.27	3,932
ED-11	0.19	6,181	0.47	6,181
ED-12	0.10	4,550	0.31	4,550
ED-13	0.30	7,391	0.79	7,391
ED-14	0.13	5,681	0.39	5,681
ED-15	0.03	1,333	0.06	1,333
ED-16	0.09	3,880	0.27	3,880
ED-17	0.04	1,875	0.09	1,875
ED-18	0.30	5,278	0.60	5,278
ED-19	0.09	1,895	0.17	1,895
ED-20	0.11	2,482	0.23	2,482
ED-21	0.09	1,851	0.17	1,851
ED-22	0.03	1,348	0.09	1,348
ED-23	0.08	1,936	0.19	1,936
ED-24	0.03	1,157	0.08	1,157
ED-25	0.17	1,837	0.25	1,837
ED-26	0.03	1,418	0.10	1,418
ED-27	0.06	2,829	0.19	2,829
ED-28	0.38	4,545	0.96	4,545
ED-29	0.02	669	0.05	669
Totals across Project Area	**4.11**	**91,367**	**8.87**	**91,367**

6 Conclusions and Recommendations

The Project Area contains 29 isolated ephemeral drainages that may be regulated by the CDFW and RWQCB. An additional 12 potentially jurisdictional drainages were identified along the gen-ties. Where feasible, jurisdictional waters should be considered and avoided during project design. Based on the current project design, the discharge of dredge or fill material into waters of the U.S. is not proposed, and thus authorizations from the USACE or RWQCB under the CWA are not anticipated.

Should the project design change and impacts to ephemeral drainages are required, impacts would likely be regulated by the Lahontan RWQCB pursuant to the Porter-Cologne Act. Although the field work of this report was conducted prior to the implementation of the SWRCB Wetland Definition and Procedures for Discharges of Dredge and Fill Material to Waters of the State, the delineated boundaries of potential RWQCB jurisdiction did not change.

Additionally, a CDFW Notification of Lake or Streambed Alteration, and subsequent execution of a Lake or Streambed Alteration Agreement pursuant to Sections 1600 *et seq*. of the CFGC, will likely be required.

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7 References

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Appendix A

Site Photographs

Photograph 1. View of ED-1, facing west (upstream). Single-thread channel with defined break in slope, organic debris, scour and some sediment sorting. OHWM Data Form 1 was completed in this location.

Photograph 2. View of Wetland Sampling Point 1, facing east, in a feature mapped as freshwater pond in NWI. Using USACE wetland delineation methods, the location was determined to not be a wetland and it was not connected to any ephemeral drainages.

Photograph 3. ED-3, facing northwest (upstream). Example of small, narrow, shallow single-thread channel with slight bed and banks and minimal indicators of flow.

Photograph 4. View facing west in a location where a riverine feature was mapped in NWI. No channel bed or banks present and no evidence of flow to the west or east.

Photograph 5. View facing southeast in a location where a riverine feature was mapped in both the NWI and NHD, No channel bed or banks present and no evidence of OHWM.

Photograph 6. View facing southeast (downstream) of the northern portion of ED-4. Defined bed and bank and scour observed. Example of a medium-sized drainage delineated in the Project Area. OHWM Datasheet 3 was completed in this location.

Photograph 7. View of Wetland Sampling Point 2, facing northwest. This area is mapped in NWI as riverine. Point determined to not meet the criteria for a wetland. Only minor soil cracking was observed. ED-4 is located to the south and does not flow in or out of this area.

Photograph 8. View facing northwest from a point approx. 50 feet south of the terminus of ED-4. No evidence of channel bed or bank or OHWM indicators were present from this point and further southeast. The 2 visible scars are OHV tracks.

Photograph 9. View of an area mapped in the NWI as riverine, facing northwest. No evidence of channels, OHWM, or lateral water flow. Circular OHV tracks are visible.

Photograph 10. View facing southeast of Wetland Sampling Point 3. The area was determined to not be a wetland.

Photograph 11. View facing northwest of Wetland Sampling Point 4. This area did not meet the criteria for delineation as a wetland.

Photograph 12. View of ED-6 facing south (downstream). This channel originates in an area east of Wetland Sampling Point 4. It dissipates further to the south prior to reaching the southern parcel boundary.

Photograph 13. Terminus of ED-6, facing southeast. No further evidence of bed or bank or OHWM indicators were present from this point toward the south.

Photograph 14. View facing southeast of an area mapped in NWI and NHD as riverine, but no indicators of fluvial activity were present.

Photograph 15. View facing southeast of an area mapped in NWI as riverine, but no channels or indicators of flow were present.

Photograph 16. View of ED-8 facing south (downstream). This is typical of the smaller drainages in Project Area, although some contained more weakly defined channels and marginal indicators of flow. OHWM Datasheet 5 was completed in this location.

Photograph 17. View facing northeast from a point south of the confluence of ED-8 and ED-9. The drainages dissipated on to mostly level terrain and no indicators of flow were present from this point to the south.

Photograph 18. View facing south-southeast (downstream) of the southern portion of ED-25. OHWM Datasheet 6 was completed in this location.

Photograph 19. View facing south-southeast (downstream) of the southern portion of ED-26. OHWM Datasheet 7 was completed in this location. Example of one the larger drainages in the Project Area.

Photograph 20. View of the upper part of ED-21 facing south-southeast (downstream).

Photograph 21. View of ED-5 facing east (upstream).

Photograph 22. View of the northern part of ED-18 facing southeast (downstream).

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Appendix B

Ordinary High Water Mark Data Forms and Wetland Determination Data Forms

OHWM #1

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Bellfield Solar Farm
Project Number: 19-08159
Stream: ED-1
Investigator(s): Carolynn Damon & Jon True - Rincon

Date: 9/8/19 **Time:** 1353
Town: Kern Co. **State:** CA
Photo begin file#: 17 **Photo end file#:** 18

Y ☒ / N ☐ Do normal circumstances exist on the site?

Y ☐ / N ☒ Is the site significantly disturbed?

Location Details: 0.75 mile east of Rosewood Blvd. and 0.75 mile west of 20th St.
Projection: Lambert CC **Datum:** NAD 83 SPCV
Coordinates: 35.085407/-118.082163

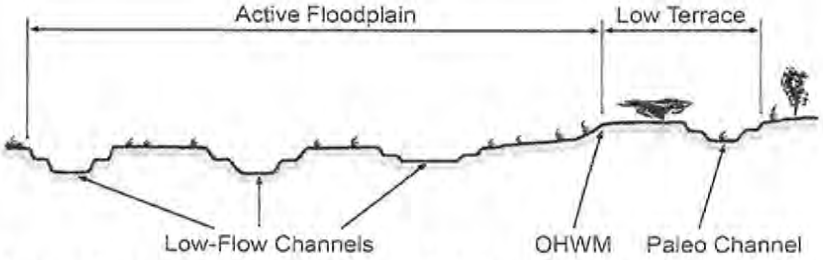
Potential anthropogenic influences on the channel system:
The channel passes across a unpaved access roadway that runs North to South. Maintenance of major and minor roads up + downstream.

Brief site description: A unnamed ephemeral drainage that begins to the west and meanders to the east. Bed & banks observed with shrubs @ top of bank or along banks. Defined bed lacks vegetation.

Checklist of resources (if available):

- ☐ Aerial photography
  Dates:
- ☒ Topographic maps
- ☐ Geologic maps
- ☐ Vegetation maps
- ☒ Soils maps
- ☐ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☒ Global positioning system (GPS)
- ☐ Other studies
- ☐ Stream gage data
  Gage number:
  Period of record:
  - ☐ History of recent effective discharges
  - ☐ Results of flood frequency analysis
  - ☐ Most recent shift-adjusted rating
  - ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units



Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☐ Mapping on aerial photograph
   - ☐ Digitized on computer
   - ☒ GPS
   - ☐ Other:

OHWM #1

Project ID: Bellefield **Cross section ID:** ED-1 **Date:** 9/8/19 **Time:** 1353

Cross section drawing:

OHWM

GPS point: 35.085404 / -118.082169

Indicators:

- ☐ Change in average sediment texture
- ☐ Change in vegetation species
- ☒ Change in vegetation cover
- ☒ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:

OHWM lacks shrub vegetation and herb strata. Break in slope approximately 2ft. in height with gentle slope.

Floodplain unit: ☒ Low-Flow Channel ☒ Active Floodplain ☐ Low Terrace

GPS point: 35.085404 / -118.082169

Characteristics of the floodplain unit:

Average sediment texture: sand

Total veg cover: 5 % Tree: Ø % Shrub: Ø % Herb: 5 %

Community successional stage:

- ☐ NA
- ☒ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☒ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Drift debris observed @ base of shrubs adjacent to the OHWM. and along the base of break in slope.

OHWM #2

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Bellfield Solar Farm
Project Number: 19-08159
Stream: ED-3
Investigator(s): Carolyn Donovan & Jon True - RinCon

Date: 9/8/19 **Town:** Kern Co. **Photo begin file#:** 15
Time: 1427 **State:** CA **Photo end file#:** –

Y ☒ / N ☐ Do normal circumstances exist on the site?

Y ☐ / N ☒ Is the site significantly disturbed?

Location Details: 0.95 mi. E of 20th St / 0.7 mi. N of Arroyo Ave.
Projection: Lambert CC **Datum:** NAD 83 SPC V
Coordinates: 35.081326 / -118.078829

Potential anthropogenic influences on the channel system:

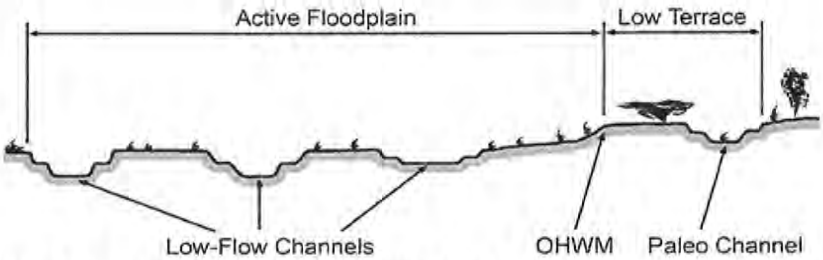
Maintenance of Major + minor roads upstream and downstream.

Brief site description: Unnamed ephemeral drainage downstream in AWNT. Shallow bed & bank with vegetated banks and TOB w/ grasses + shrubs. Feature mapped in NWI.

Checklist of resources (if available):

- ☐ Aerial photography
  Dates:
- ☒ Topographic maps
- ☐ Geologic maps
- ☐ Vegetation maps
- ☒ Soils maps
- ☐ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☒ Global positioning system (GPS)
- ☐ Other studies
- ☐ Stream gage data
  Gage number:
  Period of record:
  - ☐ History of recent effective discharges
  - ☐ Results of flood frequency analysis
  - ☐ Most recent shift-adjusted rating
  - ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units



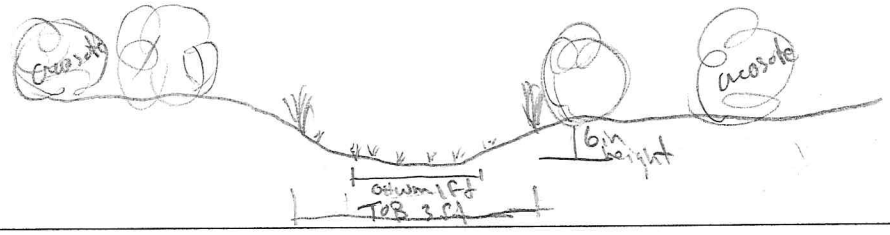
Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☐ Mapping on aerial photograph
   - ☐ Digitized on computer
   - ☒ GPS
   - ☐ Other:

OHWM #2

Project ID: Bellfield **Cross section ID:** ED-3 **Date:** 9/8/19 **Time:** 1427

Cross section drawing:



OHWM

GPS point: 35.081304/-118.078825

Indicators:

- ☐ Change in average sediment texture
- ☐ Change in vegetation species
- ☒ Change in vegetation cover
- ☒ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:

OHWM 1ft. wide with banks vegetated and shrubs @ the top of bank.

Floodplain unit: ☒ Low-Flow Channel ☒ Active Floodplain ☐ Low Terrace

GPS point: 35.081304/-118.078825

Characteristics of the floodplain unit:

Average sediment texture: loamy sand

Total veg cover: 20 % Tree: Ø % Shrub: Ø % Herb: 20 %

Community successional stage:

- ☐ NA
- ☒ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Low-flow identified by break in slope with inchoate vegetation. Vegetation strata changes to shrubs outside of low-flow channel.

OHWM #3

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Bellefield Solar Farm
Project Number: 19-08159
Stream: ED-4
Investigator(s): Carolynn Daman & Jon True - Rincon

Date: 9/16/19 **Time:** 07/13/19
Town: Kern Co. **State:** CA
Photo begin file#: 35 **Photo end file#:** –

Y [X] / N [ ] Do normal circumstances exist on the site?

Y [X] / N [ ] Is the site significantly disturbed?

Location Details: 155 ft. S. of Altus Ave. 0.15 mile E. of 20th St.

Projection: Lambert CC **Datum:** NAD 83 SPC V
Coordinates: 35.041060 / -118.093473

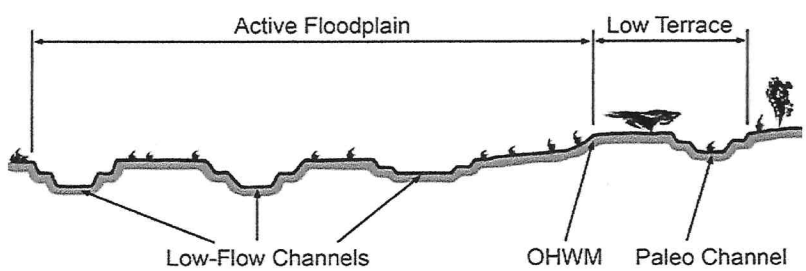
Potential anthropogenic influences on the channel system:
An access roadway crosses the unnamed ephemeral drainage. Maintenance of major and minor roads upstream.

Brief site description:
Unnamed ephemeral drainage flows S. Bed + bank present w/ veg'd banks and TOB, grasses and shrubs. Feature mapped in NWI and NHD.

Checklist of resources (if available):

- [ ] Aerial photography
  Dates:
- [X] Topographic maps
- [ ] Geologic maps
- [ ] Vegetation maps
- [X] Soils maps
- [ ] Rainfall/precipitation maps
- [ ] Existing delineation(s) for site
- [X] Global positioning system (GPS)
- [ ] Other studies
- [ ] Stream gage data
  Gage number:
  Period of record:
  - [ ] History of recent effective discharges
  - [ ] Results of flood frequency analysis
  - [ ] Most recent shift-adjusted rating
  - [ ] Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units



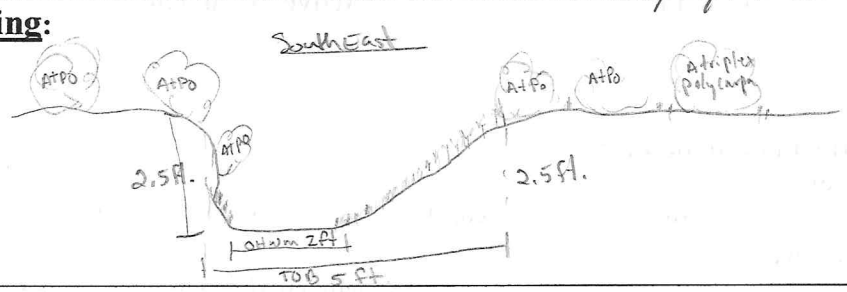
Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - [ ] Mapping on aerial photograph
   - [ ] Digitized on computer
   - [X] GPS
   - [ ] Other:

OHWM # 3

Project ID: Bellefield **Cross section ID:** ED-4 **Date:** 9/10/19 **Time:** 0715

Cross section drawing:



OHWM

GPS point: 35.041067 / -118.093453

Indicators:

- ☐ Change in average sediment texture
- ☒ Change in vegetation species
- ☒ Change in vegetation cover
- ☒ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:

Steep break in slope on east bank and more gradual slope on west bank that is completely vegetated w/ bromus mad., bromus tectorum, amsinkia, and transitions to shrubs on top of bank.

Floodplain unit:

☒ Low-Flow Channel ☒ Active Floodplain ☐ Low Terrace

GPS point: 35.041067 / -118.093453

Characteristics of the floodplain unit:

Average sediment texture: loamy sand

Total veg cover: 5 % Tree: Ø % Shrub: Ø % Herb: 5 %

Community successional stage:

- ☐ NA
- ☒ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Low-flow predominately lacks vegetation, commonly utilized as mammal highway. Euphorbia present w/in low-flow occasionally in areas that appear most disturbed.

CDFW TOB #3

Project ID: Belle Field **Cross section ID:** ~~ED~~ 4 **Date:** 9/10/19 **Time:** 0715

Floodplain unit: ☐ Low-Flow Channel ☒ Active Floodplain / Top of Bank ☐ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: gravelly sand

Total veg cover: 40 % Tree: 0 % Shrub: 10 % Herb: 30 %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☒ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☒ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Banks of channel are predominately vegetated by herbs (bromus sp) on western bank and around shrubs on eastern bank. Atriplex @ top of bank or along upper bank slope. Drift & debris observed on shrubs on bank.

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: ____ % Tree: ____ % Shrub: ____ % Herb: ____ %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

OHWM #4

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Bellefield Solar Farm
Project Number: 19-08159
Stream: ED-6
Investigator(s): Cardynn Dawson & Son True - Rincon

Date: 9/10/19 **Time:** 1430
Town: Kern Co. **State:** CA
Photo begin file#: 64 **Photo end file#:** 67

Y [X] / N [ ] Do normal circumstances exist on the site?

Y [ ] / N [X] Is the site significantly disturbed?

Location Details: 0.33 mi. E. of intersection of Decatur Ave. and 30th St.

Projection: Lambert CC **Datum:** NAD 83 SPCV
Coordinates: 35.018778/-118.072634

Potential anthropogenic influences on the channel system:

Development and maintenance of major + minor roads upstream.

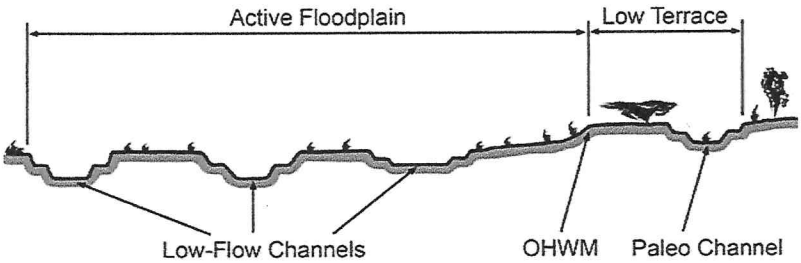
Brief site description:

Unnamed ephemeral drainage, flow S, shallow, low banks surrounded by shrubs + veg, in channel. Feature mapped in NWI and NHD.

Checklist of resources (if available):

- [ ] Aerial photography
  Dates:
- [X] Topographic maps
- [ ] Geologic maps
- [ ] Vegetation maps
- [X] Soils maps
- [ ] Rainfall/precipitation maps
- [ ] Existing delineation(s) for site
- [X] Global positioning system (GPS)
- [ ] Other studies
- [ ] Stream gage data
  Gage number:
  Period of record:
  - [ ] History of recent effective discharges
  - [ ] Results of flood frequency analysis
  - [ ] Most recent shift-adjusted rating
  - [ ] Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units



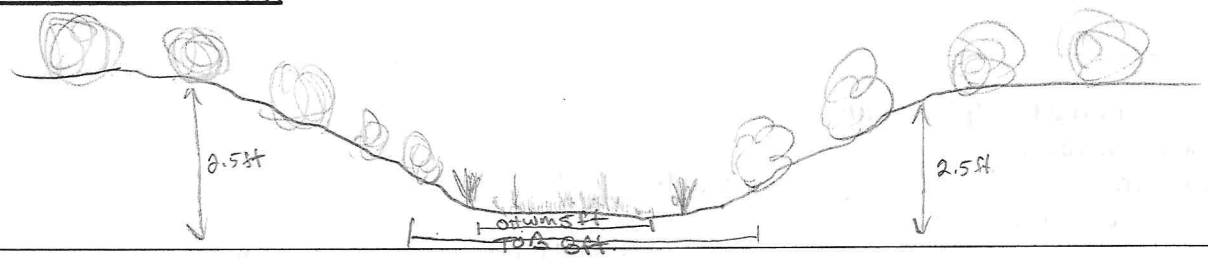
Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - [ ] Mapping on aerial photograph
   - [ ] Digitized on computer
   - [X] GPS
   - [ ] Other:

OHWM #4

Project ID: Bellefield **Cross section ID:** ED-6 **Date:** 9/10/19 **Time:** 1430

Cross section drawing:



OHWM

GPS point: 35.018756/-118.072653

Indicators:

- ☐ Change in average sediment texture
- ☒ Change in vegetation species
- ☐ Change in vegetation cover
- ☒ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:

Defined break in slope. Vegetation transitions from inchannel grasses/forbes to shrubs along the banks and larger shrubs @ the top of bank.

Floodplain unit: ☒ Low-Flow Channel ☒ Active Floodplain ☐ Low Terrace

GPS point: 35.018756/-118.072653

Characteristics of the floodplain unit:

Average sediment texture: Loamy sand

Total veg cover: 40 % Tree: Ø % Shrub: Ø % Herb: 40 %

Community successional stage:

- ☐ NA
- ☒ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☒ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Presence of bed & banks as well as drift debris @ the base of shrubs near OHWM limits. Soil cracking observed w/in low-flow in some areas.

OHWM #5

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Bellefield Solar Farm
Project Number: 8minutenergy 19-08159
Stream: ED-8
Investigator(s): Carolyn Doman & Jon True - Rincon

Date: 9/11/19 **Time:** 0740
Town: Kern Co. **State:** CA
Photo begin file#: 68 **Photo end file#:** –

Y ☒ / N ☐ Do normal circumstances exist on the site?

Y ☐ / N ☒ Is the site significantly disturbed?

Location Details: 350 ft. E. of 55th St. and 0.65 mi. S. of Hwy 58

Projection: Lambert CC **Datum:** NAD 83 SPCV
Coordinates: 35.011926 / -118.032472

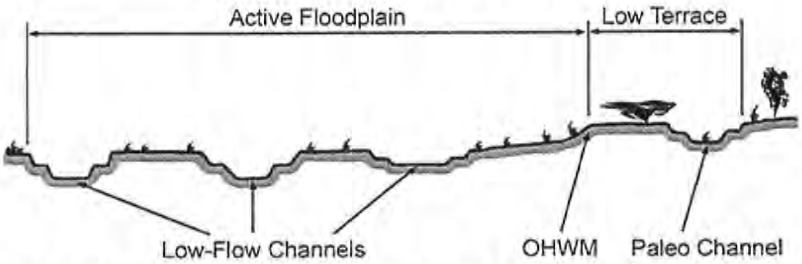
Potential anthropogenic influences on the channel system:
Main dirt road 55th St. downstream

Brief site description:
Ephemeral drainage approx. 50ft west of access roadway and mapped on NWI & NHD
Very shallow channel w/shrubs at TOB + veg'd banks, bed.

Checklist of resources (if available):

- ☐ Aerial photography
  Dates:
- ☒ Topographic maps
- ☐ Geologic maps
- ☐ Vegetation maps
- ☒ Soils maps
- ☐ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☒ Global positioning system (GPS)
- ☐ Other studies
- ☐ Stream gage data
  Gage number:
  Period of record:
  - ☐ History of recent effective discharges
  - ☐ Results of flood frequency analysis
  - ☐ Most recent shift-adjusted rating
  - ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units



Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☐ Mapping on aerial photograph
   - ☐ Digitized on computer
   - ☒ GPS
   - ☐ Other:

OHWM #5

Project ID: Bellefield **Cross section ID:** ED-B **Date:** 9/11/18 **Time:** 0740

Cross section drawing:

OHWM

GPS point: 35.011911/-118.032310

Indicators:

- ☐ Change in average sediment texture
- ☐ Change in vegetation species
- ☐ Change in vegetation cover
- ☒ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:
Defined break in slope with some erosion. Mammal burrows observed @ break in slope.

Floodplain unit: ☒ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: 35.011911/-118.032310

Characteristics of the floodplain unit:
Average sediment texture: gravelly sand
Total veg cover: 15 % Tree: Ø % Shrub: Ø % Herb: 15 %
Community successional stage:

- ☐ NA
- ☒ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:
Erodium, dove weed, Bromus mad. observed in channel with bare ground. Shallow depression with no sediment transitioning from adjacent areas.

CDFW TOB

#5

Project ID: **Cross section ID:** PP-68 **Date:** 9/11/19 **Time:** 0740

Floodplain unit: ☐ Low-Flow Channel ☒ Active Floodplain/ TOB ☐ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: gravelly sand

Total veg cover: 30 % Tree: Ø % Shrub: 10 % Herb: 20 %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☒ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☒ Other: small mammal presence
- ☐ Other: _____
- ☐ Other: _____

Comments:

Vegetation dominated by evodium sp. along banks above top of bank along with cocoiole & winter fat bushes. TOP of bank approx. 3 ft. wide

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____ % Shrub: _____ % Herb: _____ %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

OHWM #6

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Bellefield Solar Farm
Project Number: 19-08159
Stream: ED-25
Investigator(s): Cardyn Damon & Jon True - Rincon

Date: 9/11/19 **Time:** 0915
Town: Kern Co. **State:** CA
Photo begin file#: 77 **Photo end file#:** —

Y ☒ / N ☐ Do normal circumstances exist on the site?

Y ☐ / N ☒ Is the site significantly disturbed?

Location Details: 0.35 mi W. of 70th St. and 200 ft. N. of Europe Ave.

Projection: Lambert CC **Datum:** NAD 83 SPCV
Coordinates: 35.007310/-118.013189

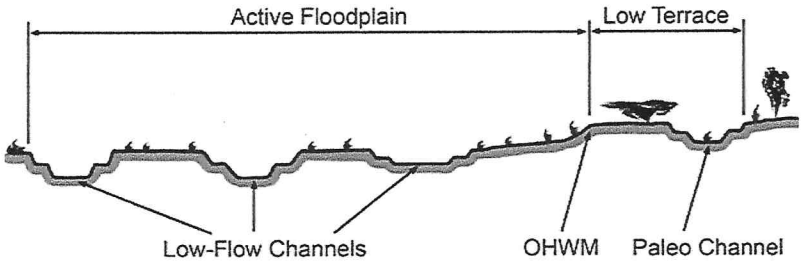
Potential anthropogenic influences on the channel system:
An access roadway crosses drainage.

Brief site description: Documented in NHD and shows signs of a low-flow channel. Very shallow banks veg'd w/ grass and shrubs at TOB. No veg w/in low-flow.

Checklist of resources (if available):

- ☐ Aerial photography
  Dates:
- ☒ Topographic maps
- ☐ Geologic maps
- ☐ Vegetation maps
- ☒ Soils maps
- ☐ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☒ Global positioning system (GPS)
- ☐ Other studies
- ☐ Stream gage data
  Gage number:
  Period of record:
  - ☐ History of recent effective discharges
  - ☐ Results of flood frequency analysis
  - ☐ Most recent shift-adjusted rating
  - ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units



Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☐ Mapping on aerial photograph
   - ☐ Digitized on computer
   - ☒ GPS
   - ☐ Other:

OHWM #6

Project ID: Bellefield **Cross section ID:** ED-25 **Date:** 9/11/19 **Time:** 0915

Cross section drawing: Southeast

OHWM

GPS point: 35.007310/-118.013189

Indicators:

- ☐ Change in average sediment texture
- ☐ Change in vegetation species
- ☒ Change in vegetation cover
- ☒ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:

No vegetation observed w/in channel and transitions to predominately creosote with occasional desert [illegible] very slight (6in) bank.

Floodplain unit: ☒ Low-Flow Channel ☒ Active Floodplain ☐ Low Terrace

GPS point: 35.007310/-118.013189

Characteristics of the floodplain unit:

Average sediment texture: gravelly sand

Total veg cover: 5 % Tree: Ø % Shrub: Ø % Herb: 5 %

Community successional stage:

- ☐ NA
- ☒ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Very sparse vegetation with channel, transition to dense herb banks. Slight break in slope with defined bed & bank.

CDFW TOB

#6

Project ID: **Cross section ID:** PP-76 **Date:** 9/11/19 **Time:** 0915

Floodplain unit: ☐ Low-Flow Channel ☒ Active Floodplain ☐ Low Terrace

HOB

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: 40 % Tree: ø % Shrub: 10 % Herb: 30 %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☒ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☒ Other: vegetation species
- ☐ Other: _____
- ☐ Other: _____

Comments:

the banks of the channel contain herbs including Erodium and Ambrosia. Creosote shrubs observed @ top of bank and beyond.

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____ % Shrub: _____ % Herb: _____ %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

OHWM #7

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Bellefield Solar Farm
Project Number: 19-08159
Stream: ED-26
Investigator(s): Carolyn Duncan & Jon True - Rincon

Date: 9/11/19 **Time:** 0950
Town: Kern Co. **State:** CA
Photo begin file#: 78 **Photo end file#:** 79

Y [X] / N [ ] Do normal circumstances exist on the site?

Y [ ] / N [X] Is the site significantly disturbed?

Location Details: 0.3 mi. W. of 70th st and 360' N. of intersection w/ Europe Ave.
Projection: Lambert CC **Datum:** NAD 83 SPC V
Coordinates: 35.007544 / -118.012470

Potential anthropogenic influences on the channel system:

Access Roadway approximately 70ft. To East & west of drainage. Numerous dirt roads in the vicinity.

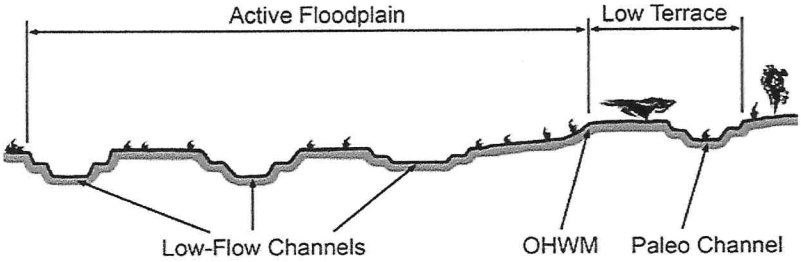
Brief site description: mapped on NHD. Unvegetated channel w/ defined banks. Larger unveg'd channel w/ veg'd banks.

Checklist of resources (if available):

- [ ] Aerial photography
  Dates:
- [X] Topographic maps
- [ ] Geologic maps
- [ ] Vegetation maps
- [X] Soils maps
- [ ] Rainfall/precipitation maps
- [ ] Existing delineation(s) for site
- [X] Global positioning system (GPS)
- [ ] Other studies

- [ ] Stream gage data
  Gage number:
  Period of record:
  - [ ] History of recent effective discharges
  - [ ] Results of flood frequency analysis
  - [ ] Most recent shift-adjusted rating
  - [ ] Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units



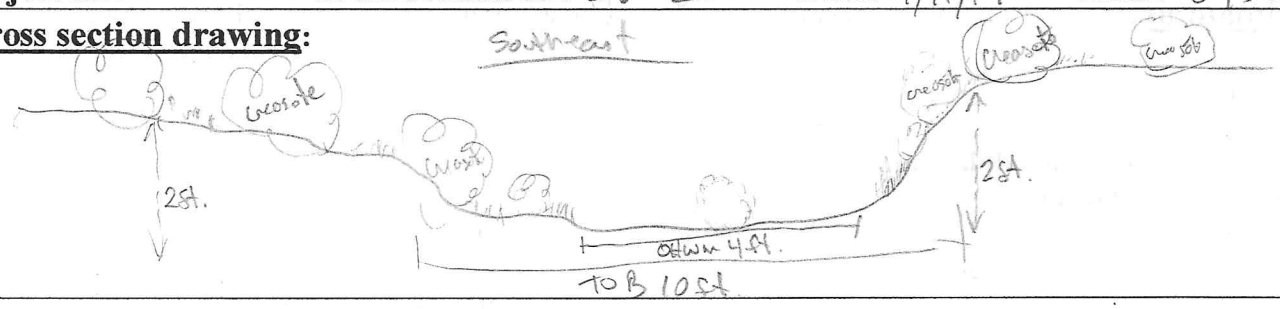
Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - [ ] Mapping on aerial photograph
   - [ ] Digitized on computer
   - [X] GPS
   - [ ] Other:

OHWM #7

Project ID: Bellefield **Cross section ID:** ED-26 **Date:** 9/11/19 **Time:** 0950

Cross section drawing:



OHWM

GPS point: 35.007544 / -118.012470

Indicators:

- ☐ Change in average sediment texture
- ☐ Change in vegetation species
- ☒ Change in vegetation cover
- ☒ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:

Predominately lacks vegetation. occasional shrubs and herbs. Vegetation density increases along banks and top of bank

Floodplain unit:

☒ Low-Flow Channel ☒ Active Floodplain ☐ Low Terrace

GPS point: 35.007544 / -118.012470

Characteristics of the floodplain unit:

Average sediment texture: gravelly sand

Total veg cover: 6 % Tree: Ø % Shrub: 1 % Herb: 5 %

Community successional stage:

- ☐ NA
- ☒ Early (herbaceous & seedlings)
- ☒ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Predominately unvegetated low-flow channel with slight banks where it transitions to more vegetation and shrubs.

CDFW TOB #7

Project ID: **Cross section ID:** PP-78 **Date:** 9/11/19 **Time:**

Floodplain unit: ☐ Low-Flow Channel ☒ Active Floodplain (TOB) ☐ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: gravelly sand

Total veg cover: 35 % Tree: Ø % Shrub: 10 % Herb: 25 %

Community successional stage:

- ☐ NA
- ☒ Early (herbaceous & seedlings)
- ☒ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Top of bank approx 10ft wide with change in vegetation shrub dominance. Height of slope ~ 2ft. and banks vegetated w/ Erodium & Amsinkia.

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____ % Shrub: _____ % Herb: _____ %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bellfield Solar Farm City/County: Kern County Sampling Date: 9/8/19

Applicant/Owner: 8 minute energy State: CA Sampling Point: Wetland-1

Investigator(s): Rincon - Carolynn Daman and Jon True Section, Township, Range: _____

Landform (hillslope, terrace, etc.): shallow low elevation Local relief (concave, convex, none): slight concave Slope (%): ~0

Subregion (LRR): C Lat: 35.079563 Long: -118.074817 Datum: WGS84

Soil Map Unit Name: Cajon loamy sand, 0 to 5 percent slopes NWI classification: PUSJ

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Point taken at area designated as a freshwater pond in NWI. Point determined to not meet criteria for wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 10ft radius)			
1. Larrea tridentata	2	Y	UPL
2.			
3.			
4.			
5.			
	2 = Total Cover		
Herb Stratum (Plot size: 5ft radius)			
1. Amsinckia sp.	2	Y	UPL
2. Erodium sp.	8	Y	UPL
3. Bromus madritensis ssp. rubens	5	Y	UPL
4. Brassica tournefortii	2	Y	UPL
5.			
6.			
7.			
8.			
	17 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 81 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0/5 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	0	x 2 = 0
FAC species	0	x 3 =
FACU species	0	x 4 = 0
UPL species	19	x 5 = 95
Column Totals:	19 (A)	95 (B)

Prevalence Index = B/A = 5.0

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** ✓

Remarks:

Vegetation density is lower than surrounding areas. Evidence of sheep grazing observed. Sparse Erodium throughout area and denser vegetation concentrated around creosote shrubs. Point does not pass the dominance test or prevalence index, hydrophytic vegetation is not dominant.

SOIL

Sampling Point: Wetland-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	7.5 4/6	100	N/A	N/A	N/A	N/A		Loamy sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

Soil is extremely dry. No redox or other hydric soil indicators observed. Uniform soil within 12 inches. Small pebbles observed within soil, predominately fine sand.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ✓ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No inundation or saturation observed on recent or historic aerial photos. Numerous OHV tracks visible in aerial photos.

Remarks:

Minor soil cracking observed in areas between creosote shrubs. Area appears to puddle low volumes of water for short durations.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bellfield Solar Farm City/County: Kern County Sampling Date: 9/10/19

Applicant/Owner: 8 minute energy State: CA Sampling Point: Wetland-2

Investigator(s): Rincon - Carolynn Daman and Jon True Section, Township, Range: _____

Landform (hillslope, terrace, etc.): very shallow low elevation Local relief (concave, convex, none): very slight concave Slope (%): ~0

Subregion (LRR): C Lat: 35.038006 Long: -118.086364 Datum: WGS84

Soil Map Unit Name: Garlock loamy sand, 2 to 9 percent slopes NWI classification: R4SBJ

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Area mapped as riverine in NWI but determined to not meet the criteria for delineation as a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 10ft radius)			
1. Atriplex polycarpa	2	Y	UPL
2.			
3.			
4.			
5.			
	2 = Total Cover		
Herb Stratum (Plot size: 5ft radius)			
1. Erodium sp.	10	Y	UPL
2. Amsinckia sp.	3	Y	UPL
3. Brassica tournefortii	2	Y	UPL
4.			
5.			
6.			
7.			
8.			
	15 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 83 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0/4 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	17	x 5 =	85
Column Totals:	17 (A)		85 (B)

Prevalence Index = B/A = 5.0

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** ✓

Remarks:

Vegetation density lower than in surrounding areas. Evidence of sheep grazing observed. Sparse Erodium throughout area and higher vegetation density concentrated around creosote shrubs. Sparse shrub cover at slightly higher elevations but mostly unvegetated. Point does not pass the dominance test or prevalence index, hydrophytic vegetation is not dominant.

SOIL

Sampling Point: Wetland-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-8	10 YR 4/4	100	N/A	N/A	N/A	N/A		Sandy loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5) (**LRR C**)
___ 1 cm Muck (A9) (**LRR D**)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) (**LRR C**)
___ 2 cm Muck (A10) (**LRR B**)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: unknown

Depth (inches): 8

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

Very hard and dry soil, could not penetrate below depth of 8 in. Needed to add water to soil for analysis. No redox or other hydric soil indicators observed. Organic material (remnants of vegetation/roots) observed within soil and pockets of loam/fine sediment deposits. Hydric soil indicators not present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1) (**Nonriverine**)
___ Sediment Deposits (B2) (**Nonriverine**)
___ Drift Deposits (B3) (**Nonriverine**)
✓ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Water-Stained Leaves (B9)
___ Salt Crust (B11)
___ Biotic Crust (B12)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Thin Muck Surface (C7)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water Marks (B1) (**Riverine**)
___ Sediment Deposits (B2) (**Riverine**)
___ Drift Deposits (B3) (**Riverine**)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No inundation or saturation observed on recent or historic aerial photos. Numerous OHV tracks visible in aerial photos.

Remarks:

Shallow soil cracking. No other indicators observed. Area appears to puddle low volumes of water for short durations.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bellfield Solar Farm City/County: Kern County Sampling Date: 9/10/19

Applicant/Owner: 8 minute energy State: CA Sampling Point: Wetland-3

Investigator(s): Rincon - Carolynn Daman and Jon True Section, Township, Range: _____

Landform (hillslope, terrace, etc.): shallow low elevation Local relief (concave, convex, none): slight concave Slope (%): ~0

Subregion (LRR): C Lat: 35.027793 Long: -118.070518 Datum: WGS84

Soil Map Unit Name: Torrifluvents-Cajon Complex, nearly level NWI classification: PUSJ

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Area mapped as freshwater pond in NWI but determined to not meet the criteria for delineation as a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 10ft radius)			
1. Atriplex polycarpa	1	Y	UPL
2.			
3.			
4.			
5.			
	1 = Total Cover		
Herb Stratum (Plot size: 10ft radius)			
1. Amsinckia sp.	5	Y	UPL
2. Erodium sp.	5	Y	UPL
3. Brassica tournefortii	2	Y	UPL
4.			
5.			
6.			
7.			
8.			
	12 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 87 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0/4 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	13	x 5 =	65
Column Totals:	13 (A)		65 (B)

Prevalence Index = B/A = 5.0

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** ✓

Remarks:

Point does not pass the dominance test or prevalence index, hydrophytic vegetation is not dominant.

SOIL

Sampling Point: Wetland-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 5/4	90	N/A	N/A	N/A	N/A	silty loam	
layered	2.5 Y 4/2	10	N/A	N/A	N/A	N/A	silty loam	alternating layers

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

Soil extremely hard and dry. Had to add water to sample for analysis. Darker 2.5 Y layers within overall 10 YR sample to 12 inches. No redox or other hydric soil indicators observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ✓ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No inundation or saturation observed on recent or historic aerial photos. Numerous OHV tracks visible in aerial photos.

Remarks:

Shallow soil cracking. No other indicators observed. Area appears to puddle low volumes of water for short durations.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bellfield Solar Farm City/County: Kern County Sampling Date: 9/10/19

Applicant/Owner: 8 minute energy State: CA Sampling Point: Wetland-4

Investigator(s): Carolynn Daman and Jon True Section, Township, Range: _____

Landform (hillslope, terrace, etc.): low elevation location Local relief (concave, convex, none): level Slope (%): ~0

Subregion (LRR): C Lat: 35.019069 Long: -118.071951 Datum: WGS84

Soil Map Unit Name: Torrifluvents-Cajon Complex, nearly level NWI classification: L2USJ

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Area documented as a lake in NWI but point determined to not meet criteria for wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 10ft radius)			
1. Atriplex polycarpa	2	Y	UPL
2.			
3.			
4.			
5.			
	2 = Total Cover		
Herb Stratum (Plot size: 10ft radius)			
1. Erodium sp	7	Y	UPL
2. Amsinckia tessellata	4	Y	UPL
3. Bromus madritensis subsp. rubens	3	Y	UPL
4. Brassica tournefortii	2	Y	UPL
5.			
6.			
7.			
8.			
	16 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 18 % Cover of Biotic Crust 82

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0/5 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	_____	x 1 = _____
FACW species	_____	x 2 = _____
FAC species	_____	x 3 = _____
FACU species	_____	x 4 = _____
UPL species	18	x 5 = 90
Column Totals:	18 (A)	90 (B)

Prevalence Index = B/A = 5.0

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** ✓

Remarks:

Point does not pass the dominance test or prevalence index, hydrophytic vegetation is not dominant.

SOIL

Sampling Point: Wetland-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 5/4	100	N/A	N/A	N/A	N/A	silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

Very dry soil. Some organic matter (vegetation stems) found within soil. No indicators of hydric soils observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ✓ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No inundation or saturation observed on recent or historic aerial photos. Numerous OHV tracks visible in aerial photos.

Remarks:

Shallow soil cracking. No other indicators observed. Area appears to puddle low volumes of water for short durations.

Appendix C

Regulatory Overview and Definitions

CDFW Jurisdiction

Section 1602 of CFGC requires an entity to notify the CDFW before conducting any activity that would divert obstruct, or substantially alter a streambed. Once notified, the CDFW may require that a Streambed Alteration Agreement be executed before the activity may proceed. The CDFW has not defined the term "stream" for the purposes of implementing its regulatory program under Section 1602, and the agency has not promulgated regulations directing how jurisdictional streambeds may be identified, or how their limits should be delineated. Considering this, four sources of information were reviewed and considered in determining the appropriate limits of CDFW jurisdiction within the site, as discussed below. The principles presented in these materials were used to guide the delineation of on-site streams, with consideration given to the relevance (i.e., jurisdiction, applicability) of each source to the project and resources at hand.

- **The plain language of Section 1602 of CFGC** establishes the following general concepts:
  - References "river," "stream," and "lake"
  - References "natural flow"
  - References "bed," "bank," and "channel"
- **Applicable court decisions**, in particular *Rutherford v. State of California* (188 Cal App. 3d 1276 (1987), which interpreted Section 1602's use of "stream" to be as defined in common law. The Court indicated that a "stream" is commonly understood to:
  - Have a source and a terminus
  - Have banks and a channel
  - Convey flow at least periodically, but need not flow continuously and may at times appear outwardly dry
  - Represent the depression between the banks worn by the regular and usual flow of the water
  - Include the area between the opposing banks measured from the foot of the banks from the top of the water at its ordinary stage, including intervening sand bars
  - Include the land that is covered by the water in its ordinary low stage
  - Include lands below the OHWM
- **CDFW regulations** defining "stream" for other purposes, including sport fishing (14 CCR 1.72) and streambed alterations associated with cannabis production (14 CCR 722(c)(21)), which indicate that a stream:
  - Flows at least periodically or intermittently
  - Flows through a bed or channel having banks
  - Supports fish or aquatic life
  - Can be dry for a period of time
  - Includes watercourses where surface or subsurface flow supports or has supported riparian vegetation

- **Guidance documents**, including *A Field Guide to Lake and Streambed Alteration Agreements* (CDFG 1994) and *Methods to Describe and Delineate Episodic Stream Processes on Arid Landscapes for Permitting Utility-Scale Solar Power Plants* (Brady and Vyverberg 2013), which suggest the following:
  - A stream may flow perennially or episodically
  - A stream is defined by the course in which water currently flows, or has flowed during the historic hydrologic course regime (approximately the last 200 years)
  - Width of a stream course can reasonably be identified by physical or biological indicators
  - A stream may have one or more channels (single-thread vs. compound form)
  - Features such as braided channels, low-flow channels, active channels, banks associated with secondary channels, floodplains, islands, and stream-associated vegetation, are interconnected parts of the watercourse
  - Canals, aqueducts, irrigation ditches, and other means of water conveyance can be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife
  - Biologic components of a stream may include aquatic and riparian vegetation, all aquatic animals including fish, amphibians, reptiles, invertebrates, and terrestrial species which derive benefits from the stream system
  - The lateral extent of a stream can be measured in different ways depending on the particular situation and the type of fish or wildlife resource at risk

The tenets listed above, among others, were applied within the project site in an attempt to determine the limits of on-site streams. The project site is in a desert, and the on-site resources are episodic streams on arid landscapes.

RWQCB Jurisdiction

The State Water Resources Control Board (SWRCB) and local RWQCBs have jurisdiction over "waters of the State," which are defined as any surface water or groundwater, including saline waters, within the boundaries of the state. The SWRCB has issued general Waste Discharge Requirements (WDRs) regarding discharges to "isolated" waters of the State (Water Quality Order No. 2004-0004-DWQ, Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the USACE to be Outside of Federal Jurisdiction). The local RWQCB enforces actions under this general order, and is also responsible for Clean Water Act Section 401 certification determinations over USACE defined jurisdictional waters.

It should be noted that the RWQCB shares USACE jurisdiction unless isolated conditions are present. If isolated waters conditions are present, the RWQCB takes jurisdiction using the SWRCB adopted *Wetland Definition and Procedures for Discharges of Dredge and Fill Material to Waters of the State*. The SWRCB defines an area as a wetland if, under normal circumstances:

(i) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both;

(ii) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and

(iii) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

The SWRCB wetland delineation method differs than the federal definition in that a lack of vegetation does not preclude the determination of an area that meets the definition of a wetland and the upper substrate instead of soils that can cause hydric conditions.

D.4 Western Joshua Tree Census Report

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Bellefield Solar Farm

Western Joshua Tree Census Report

Prepared For:

50LW 8me LLC
5455 Wilshire Boulevard, Suite 2010
Los Angeles, CA 90036
323-525-0900

Prepared By:

EREMICO Biological Services, LLC
and
EnviroPlus Consulting, Inc.

March 18, 2021

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Tables

Figures

Appendices

1.0 Introduction

On October 15, 2019, the California Fish and Game Commission (CFGC) received a petition to list the western Joshua tree (WJT) (*Yucca brevifolia*) as threatened under the California Endangered Species Act (CESA) (CBD 2019). In February 2020, the California Department of Fish and Wildlife (CDFW) completed a review of the petition, as well as other scientific information available to CDFW. In its review, CDFW determined that "the petition provides sufficient scientific information to indicate that the petitioned action may be warranted" (CDFW 2020). On September 22, 2020, the California Fish and Game Commission (CFGC) accepted for consideration the petition to list the WJT as threatened or endangered under the CESA and made the WJT a candidate species (CFGC 2020a). Subsequently, CFGC adopted a regulation authorizing incidental take of WJT during the candidacy period pursuant to Section 2084 of the Fish and Game Code for certain energy projects in Kern and San Bernardino Counties listed in the regulation (the "2084 Rule"). Bellefield Solar Farm is one of the projects listed in the 2084 Rule. This conditional incidental take authorization is codified in Section 749.10 of Title 14, California Code of Regulations (CFGC 2020b).

This Report is submitted pursuant to and in fulfillment of the terms and conditions of the 2084 Rule for WJT incidental take authorization.

1.1 Project Description

50LW 8me LLC (Applicant) proposes to develop up to a 1,500 megawatt-alternating current (MW-ac) utility-scale solar farm with an up to 2,000 MW-hour (MWh) Energy Storage System (ESS) and associated electrical infrastructure) known as the Bellefield Solar Farm Project (Project) in unincorporated Kern County and California City, California (Appendix A, Figure 1). The Project Area includes the proposed Project's solar array, collector lines, ESS, substation, and ancillary facilities, and a generation tie-in (gen-tie) corridor. The proposed Project Area would encompass 7,944.10 acres comprised of 90 assessor's parcels, 82 of which are located within unincorporated Kern County accessor's parcels and 8 of which are located within California City; 126.57 acres of collector line corridors; and 506.25 acres of gen-tie corridor.

1.2 Project Location

The Project Area is situated partially within an unincorporated portion of southeastern Kern County and partially within the limits of California City, California (Appendix A, Figure 2). It is is generally located north and south of State Route 58, east of the community of Mojave and northwest, west, southwest, and south of the Hyundai-Kia Proving Grounds. The Project Area is located on privately owned lands, mostly within the lower ¾ portion of the Sanborn USGS 1:24,000 topographic map (7.5-minute quadrangle). It extends east into the southwest portion of the California City South quadrangle and into the upper northern portion of the Bissell quadrangle, and into the eastern portion of the Mojave quadrangle. The gen-tie corridor originates from on-site substation(s) and heads west around the developed portions of the community of Mojave before following Oak Creek Road to Southern California Edison's Windhub Substation (Figure 2). The cadastral description of the Project Area (excluding gen-tie corridor) is as follows:

- Township 11N, Range 11W – all of Section 21 and portions of Sections 5, 6, 7, 17, 18, 19, 20, 22, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, and 35; and
- Township 11N, Range 12W – portions of Sections 1 and 2.

The Project Area is generally bounded as follows:

- North – Cache Creek;
- West – State Route 14;
- South – Edwards Air Force Base (Edwards AFB), Soledad Mountain, and the Rosamond Hills; and
- East – similar vacant land in the north-south portion of California City Boulevard a few miles further to the east (EnviroPlus Consulting, Inc. [EPC] 2021).

This report documents the methods and results of a census of WJT on the Bellefield Solar Farm project site. The purpose of the census was to gather information on the occurrence of WJT on the project site, use that information to identify the impacts of the project on WJT, and calculate the amount of compensatory mitigation required for the project, as specified by the 2084 Rule.

2.0 Methods

The methods used for the census were designed to provide the information required by the terms and conditions of the 2084 Rule (CFGC 2020b). Two operative terms of the 2084 Rule regarding the scope of the census (and used in this report) are:

- The census area encompasses 8,576.92 acres and includes the entire project site (Figure 2).
- The Project Impact Area includes all areas in which there will be permanent or temporary impacts to an individual WJT and the area around each individual WJT, defined by a radius, as measured from a single point at its trunk, of:
    - 40 feet for WJT five meters or greater in height (encompassing approximately 0.115 acres)
    - 12 feet for WJT one meter or greater but less than five meters in height (encompassing approximately 0.010 acres)
    - 6 feet for WJT less than one meter in height (encompassing approximately 0.003 acres).

A census (complete count) of all WJT on the project site was conducted between November 12 and December 11, 2020, and between February 16 and March 11. The census was completed by the following qualified biologists, who were approved in advance in writing by CDFW:

Approved Qualified Biologists for the Bellefield Solar Farm Joshua Tree Census.

Biologist	Title	Affiliation
Gilbert Goodlett	Biologist	EnviroPlus Consulting, Inc.
Denise LaBerteaux	Biologist	EREMICO Biological Services, LLC

Biologist	Title	Affiliation
Bruce Garlinger	Biologist	EREMICO Biological Services, LLC
Cecile Shohet	Botanist	Calypso Botanical Consulting, LLC
Mark Bagley	Botanist	Mark Bagley Consulting Biologist
Youssef Atallah	Botanist	Redwood Biological Consulting, LLC
Michael Honer	Botanist	Michael Honer
Cathy Halley	Biologist	Roadrunner Biological Consulting, LLC

2.1 Field Investigations

The eight qualified biologists used Global Positioning System (GPS) units to navigate along pre-determined north-south or east-west transects across the entire census area at 15-meter intervals. The 15-meter distance between transects was sufficient to allow the experienced biologists to observe all individual WJT present, even small ones under shrubs, given the sparse nature of desert vegetation. The biologists deviated from the transects as needed to ensure 100 percent visual coverage of the census area.

Each tree encountered was positionally recorded using the data recording application "Avenza Maps" running on an Apple iPhone or Android Phone. A Bluetooth connected mapping grade GPS (Bad Elf GNSS) with 1-m horizontal accuracy provided the locational data to the smart phone.

The height of each tree was determined to the nearest 0.5 m. Trees less than approximately 2 m in height were measured directly. Taller trees were measured using the tree measuring application "Arboreal", which utilizes augmented reality capabilities as a measurement tool. Field tests of "Arboreal" demonstrated that it was an easy, efficient, accurate, and repeatable tool.

Tree heights were entered into the data recording schema using a drop-down menu for height categories. The height categories were at 0.5-m intervals from 0.5 m to 15 m. Categories included < 0.5 m, 0.5 to < 1.0 m, 1.0 m to < 1.5 m, etc. Characterization of tree heights at 0.5-m intervals provided much finer resolution than the three categories prescribed in the 2084 specifications. This allowed flexibility in data utilization. Field data was backed up daily. Spreadsheet format of the data downloaded from Avenza Maps is shown in Appendix B.

2.2 Data Analysis

To determine the Project Impact Area and acreage, the raw tree data from the field effort, including tree identifier, location (latitude/longitude), height, 2084 size class, and the corresponding 2084 impact radius, were first added to Esri's ArcMap and sorted by the 2084 size class, i.e., < 1 m, 1 to < 5 m, and ≥ 5 m. The buffer tool was then used to add the buffers around individual trees according to the 2084 impact radii, i.e., 1.83 m (6 feet) for trees < 1 m; 3.66 m (12 feet) for trees 1 to < 5 m; and 12.20 m (40 feet) for trees ≥ 5 m. Once the individual buffer layers were created, they were merged together to form one layer. The merged layer was then dissolved to remove any overlaps in the impact radii, so as to not count the overlap area twice. Finally, the dissolved polygon was used to calculate the overall Project Impact Area acreage.

2.3 Photographs

After determining the Project Impact Area, the Fishnet tool in ArcMap was used to overlay a grid, consisting of one-acre grid cells, over the entire Project Area. Photographs were taken in the grid cells containing the most Project Impact Area. The number of grid cells targeted for photographs equaled the Project Impact Area acreage. For example, if the Project Impact Area totaled 100 acres, then 100, one-acre grid cells were photographed. To identify these grid cells, the intersect tool in ArcMap was used to separate the Project Impact Area that intersected with the grid cells. The acreage of the Project Impact Area was then calculated within each one-acre cell. These data were then sorted by acreage from greatest to least. The grids cells with the greatest amount of Project Impact Area acreage were targeted during the photographic effort.

Two photographs were taken from locations that best represented western Joshua trees within the grid cell. Each photograph featured a standard height reference that was placed near a tree. The height reference was 2 m tall, made from PVC pipe, and alternately banded white and high visibility orange. Each band measured 0.5 m for a total of 4 bands. The bottom band was white while the top band was orange.

The aspect bearing of each photograph within a grid cell varied but was no less than 45° from one another. Photographs were taken using a 12 megapixel Apple iPhone using the application Theodolite at 1X zoom. Theodolite imprinted the following information on each photograph:

- date and time;
- position (UTM coordinates);
- altitude;
- datum (WGS-84);
- aspect expressed as azimuth/bearing;
- elevation angle;
- horizon angle;
- zoom (set to 1X); and
- notes - all photographs were labeled with the grid cell number ("Cell #") and "Bellefield Solar-Ht. Reference=2.0 m".

The file names for the digital photographs included the project (Bellefield) plus the grid cell identification number plus a "1" or a "2" to identify if it was the first or second photograph in that cell. A typical example was "Bellefield Cell 15-2".

The compensatory mitigation requirement (in acres) was calculated by multiplying the Project Impact Area (in acres) by the compensatory mitigation ratio of 1.5:1. The compensatory mitigation fee was calculated by multiplying the compensatory mitigation requirement (in acres) by the variable mitigation fee of $10,521.95 per acre, and then adding the per-project base mitigation fee of $10,000.00.

3.0 Results

The Bellefield Solar Farm project site is located in the Mojave Desert Region of the Desert Floristic Province. Landforms in the region include granite-derived basin floors, flood plains, alluvial fans, small clay pans, and rock pediments. Mountains and hills, residuum weathered from basalt, granite, and sandstone, are also present. Cache Creek, a major stream on the east slope of the Tehachapi Mountains, traverses the north of the Project and ultimately drains into Koehn Dry Lake to the northeast. The southern portion of the Project drains southeast towards Rogers Dry Lake. Soil textures throughout most of the project site are clay sands and sandy loams. Other soil textures include clay in the playas; sand on stabilized dunes in the northern portion of project site; gravel with some cobble on hills in the southern and eastern portions of project site; and coarse sand in washes. Ten natural vegetation communities occur and are listed below, listed from most to least prevalent:

- *Larrea tridentata – Ambrosia dumosa* Shrubland Alliance;
- *Atriplex polycarpa* Shrubland Alliance;
- *Ambrosia dumosa* Shrubland Alliance;
- *Larrea tridentata* Shrubland Alliance;
- *Atriplex spinifera* Shrubland Alliance;
- *Krascheninnikovia lanata* Shrubland Alliance;
- *Atriplex confertifolia* Shrubland Alliance;
- *Yucca brevifolia* Woodland Alliance;
- *Ericameria nauseosa* Shrubland Alliance; and
- *Ambrosia salsola* Shrubland Alliance.

A total of 6,547 WJT were recorded at Bellefield Solar Farm during the WJT census. Their locations are plotted in Appendix A, Figure 3. The distribution in each size class, as defined in Section 2084 of the Fish and Game Code, is shown in Table 1.

Table 1 Census Results

	WJT by Height Class (count)			Total (count)
	Less than 1 m	1 m to less than 5 m	5 m or greater	
Project Area	2,515	3,766	266	6,547

The Project Impact Area for western Joshua trees on the Bellefield Solar Farm project site is depicted in Appendix A, Figure 4. The total Project Impact Area was calculated to be 62.20 acres (Table 2).

Table 2 Project Impact Area

Area	Impact
Project Impact Area Total:	62.20 acres

Two photographs were taken at each of 63, 1-acre grid cells containing the densest WJT. Appendix C has example photographs. The 126 photographs can be found at the following link on Dropbox:

https://www.dropbox.com/sh/62kgcu6btdv7ub8/AADnwJl_F3yHNzNoGXtow6zma?dl=0

Upon request, photographs can be provided by alternative means.

Per the terms of the 2084 exemption for WJT, the compensatory mitigation ratio is 1.5:1 with a base mitigation fee of $10,000.00 per project and $10,521.95 for each acre yielding a total mitigation fee of $991,697.94 (Table 3).

Table 3 Compensatory Mitigation Calculations

Variable	Value
Project Impact Area Total:	62.20 acres
Compensatory Mitigation Ratio:	1.5:1
Compensatory Mitigation Requirement:	93.3 acres
Base Mitigation Fee:	$10,000.00 per project
Variable Mitigation Fee:	$10,521.95 per acre
Compensatory Mitigation Fee:	$991,697.94

4.0 References

California Department of Fish and Wildlife. 2020. Evaluation of a petition from the Center for Biological Diversity to list the western Joshua tree (*Yucca brevifolia*) as threatened under the California Endangered Species Act. Available online at: Evaluation of a Petition from the Center for Biological Diversity to List Western Joshua Tree (Yucca brevifolia) as Threatened Under the California Endangered Species Act. Accessed June 9, 2020.

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Appendix A Figures

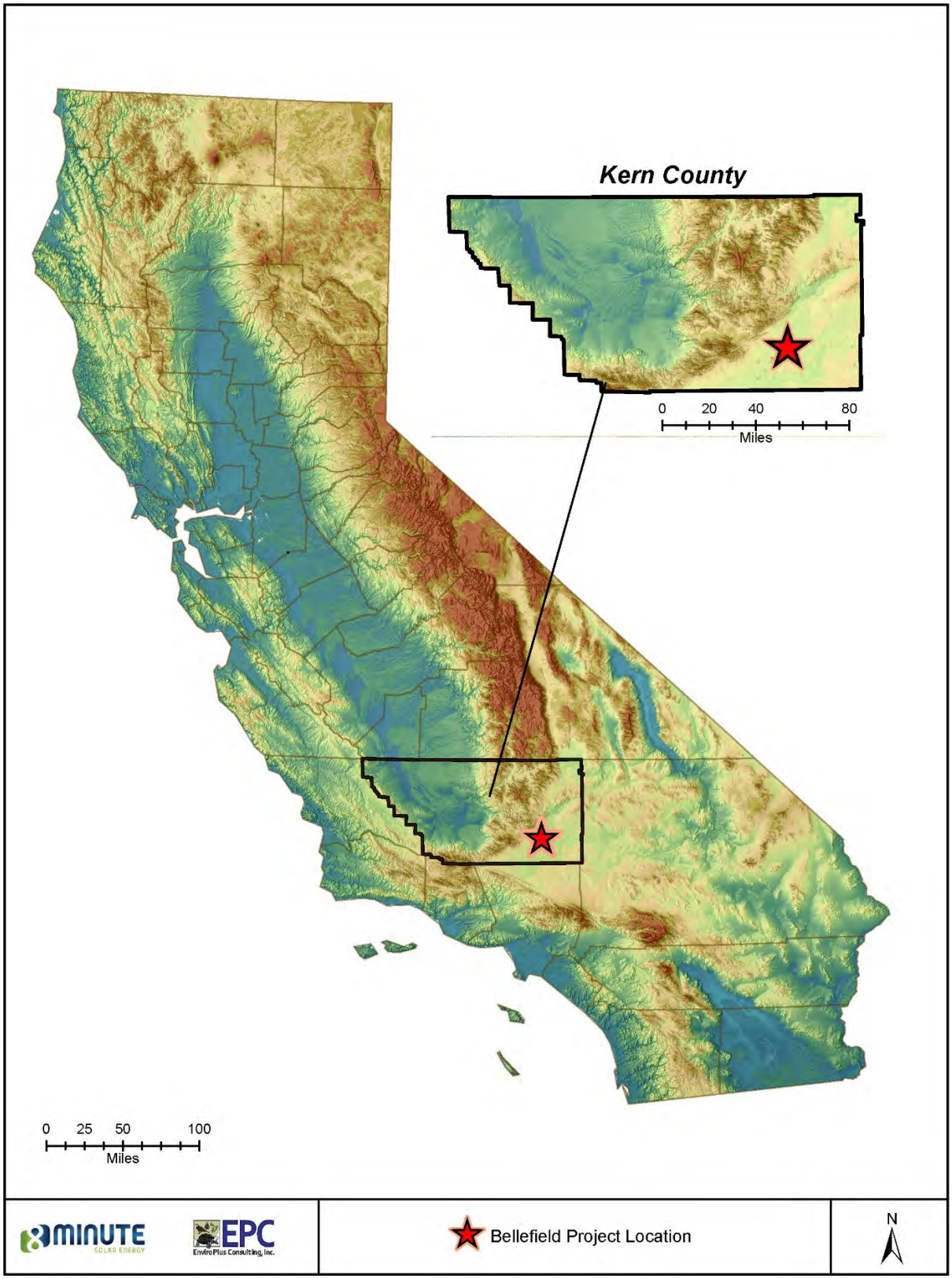

Figure 1 Proposed Bellefield Solar Farm Project Area Vicinity Map

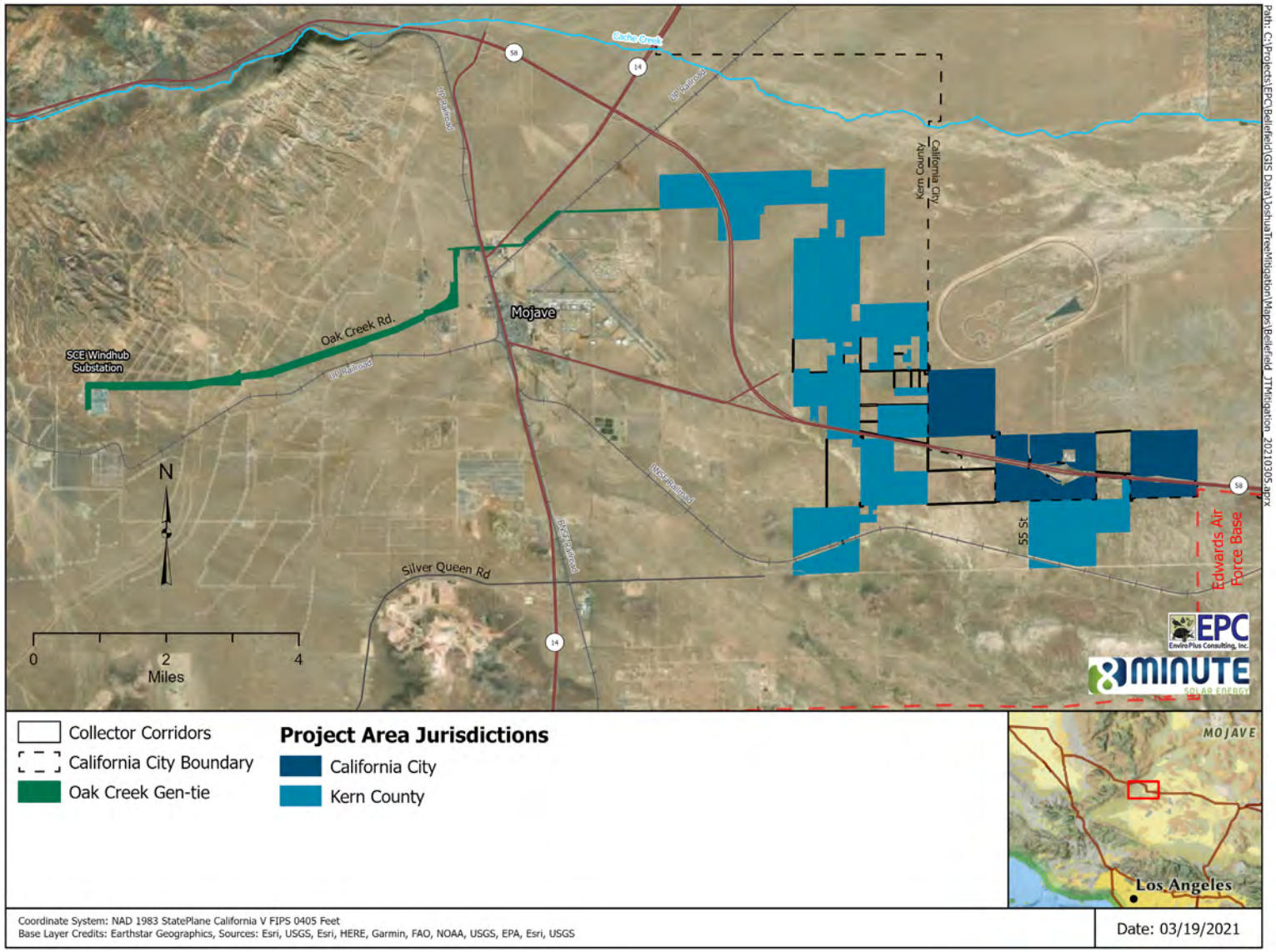

Figure 2 Bellefield Solar Farm Project Overview

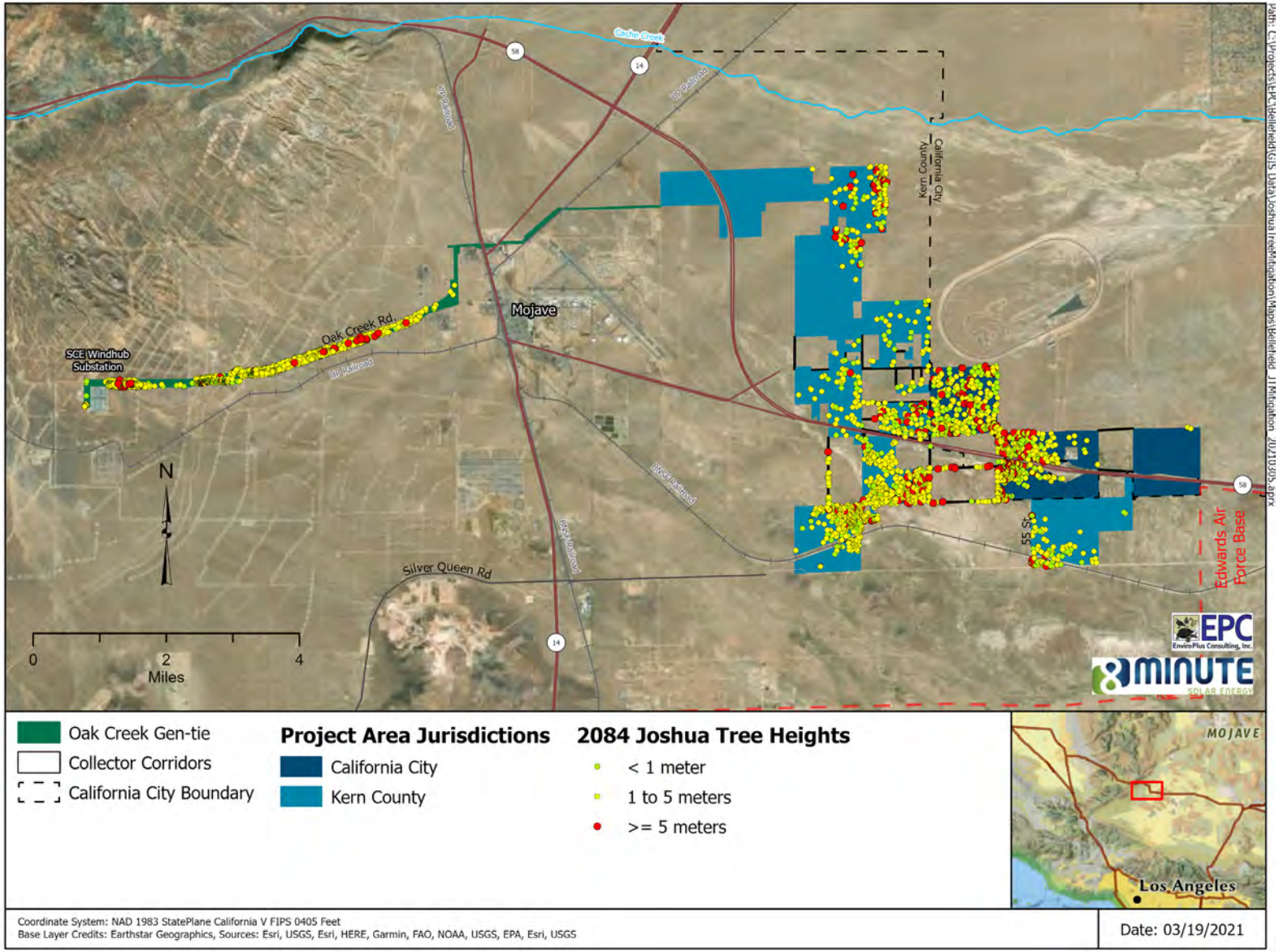

Figure 3 Western Joshua Trees on the Bellefield Solar Farm Project Area

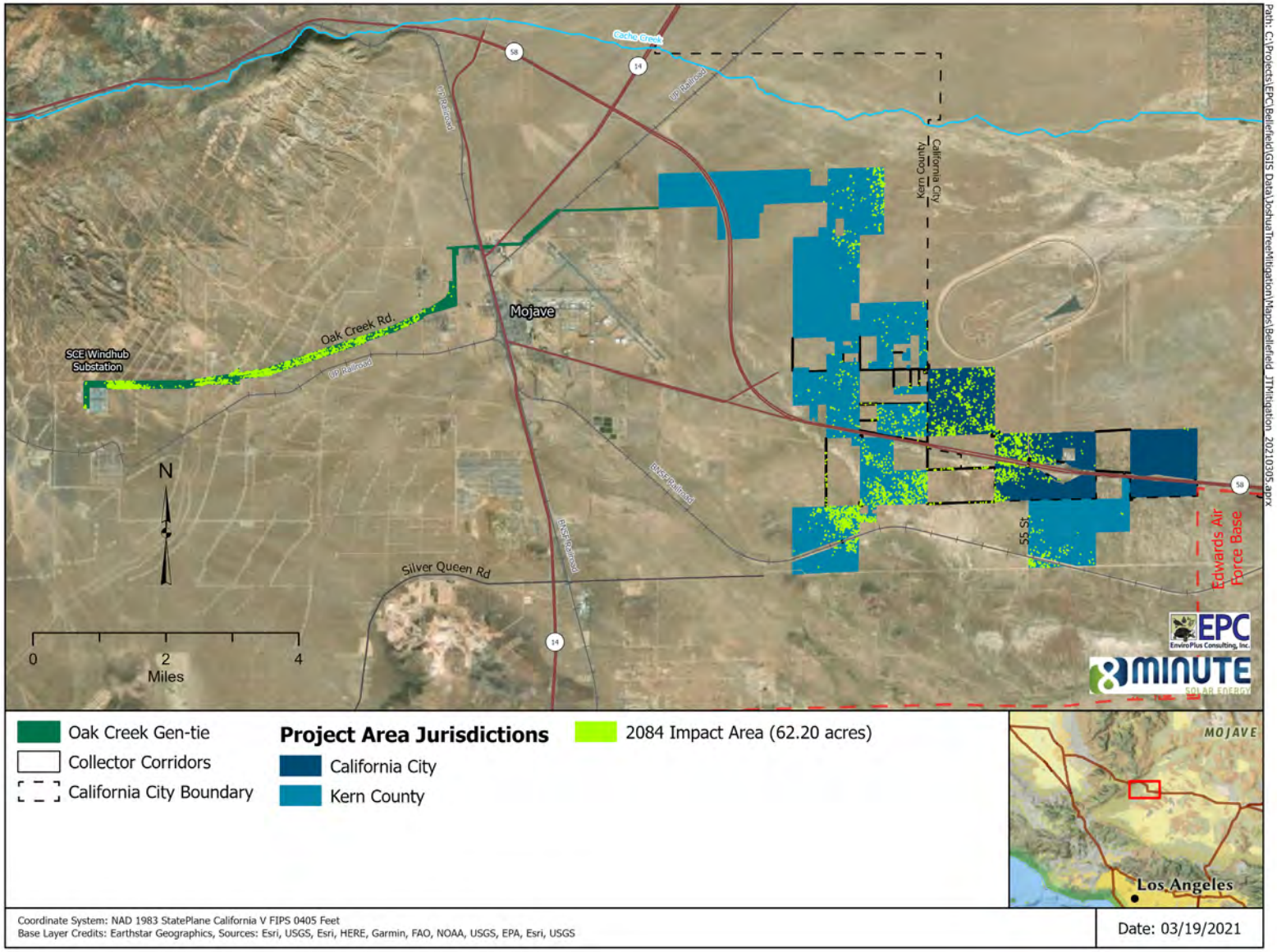

Figure 4 Project Impact Area for Western Joshua Trees on the Bellefield Solar Farm Project Area

Appendix B Sample Data Spreadsheet

Western Joshua Tree Census – Sample Data Spreadsheet

WJT ID[1]	Date/Time	Latitude	Longitude	Northing	Easting	Tree Height
DL1	2020-11-16 T06:50:20-08:00	35.0116548	-118.07855	3874866.99	401592.832	5.5 to <6.0 meters
DL2	2020-11-16 T06:53:50-08:00	35.0108627	-118.07869	3874779.28	401578.698	1.5 to <2.0 meters
DL3	2020-11-16 T06:54:59-08:00	35.010538	-118.07863	3874743.21	401583.814	1.5 to <2.0 meters
DL4	2020-11-16 T06:56:28-08:00	35.0101888	-118.07864	3874704.5	401582.179	3.0 to <3.5 meters
DL5	2020-11-16 T06:58:34-08:00	35.0100155	-118.07857	3874685.21	401588.268	6.5 to <7.0 meters
DL6	2020-11-16 T06:59:41-08:00	35.0096397	-118.07871	3874643.66	401575.895	0.5 to <1.0 meters

[1] Includes qualified biologist's initials and sequential WJT number

Appendix C Representative Photos

Photo 1 Typical Photograph at the Bellefield Solar Farm

Photo 2 Typical Photograph at the Bellefield Solar Farm

D.5 CDFW Correspondence

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Erec DeVost

From: Ferranti, Annee@Wildlife <Annee.Ferranti@wildlife.ca.gov>
Sent: Wednesday, April 21, 2021 10:23 AM
To: Erec DeVost
Subject: 8minute Solar Energy - Bellefield 2084 Western Joshua Tree Census

Good morning Erec:

The California Department of Fish and Wildlife (CDFW) is in receipt of the Bellefield Solar Project's Western Joshua Tree Census Report (Census Report) prepared in compliance with the recently adopted 2084 Emergency Regulations authorizing the take of western Joshua tree (*Yucca brevifolia*) (WJT) during its candidacy for listing under the California Endangered Species Act for fifteen (15) specific renewable energy projects. The Bellefield Project (Project) is one of the 15 projects identified for take authorization in the 2084 Regulation. The Project is located in southern Kern County. The Kern County Planning and Natural Resources Department has circulated Notices of Preparation for the Project and a Draft Environmental Impact Report (DEIR) will be prepared. However, to date, the DEIR for the Project has not been circulated for public review.

CDFW has completed its review and is approving the Census Reports for the Bellefield Project. Based on information provided in the report:

- Bellefield is impacting 62.20 acres of WJT occupied habitat and at a mitigation ratio of 1.5:1, the mitigation obligation for the Project is 93.3 acres. Based on a mitigation fee of $10,521.95 per acre of mitigation and a $10,000.00 base mitigation fee, the Project mitigation fee is **$991,697.94**

Prior to initiating ground- or -vegetation disturbing activities that will result in take of WJT on the Project, **$991,697.94** is to be deposited into the CDFW approved WJT mitigation fund held by the National Fish and Wildlife Foundation. Once the Project is are completed, as-built development plans must be submitted to CDFW within 90 days of completion of all construction and ground-disturbing activities.

If you have any questions, or need any further information, please don't hesitate to reach out. Annee

Annee Ferranti
Environmental Program Manager
Habitat Conservation Planning
California Department of Fish and Wildlife Central Region (R4)
1234 E. Shaw Ave
Fresno, CA 93710
(559) 243-4005 x 141

Appendix E
Cultural Resources Assessment Report

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Bellefield Solar Project

Cultural Resources Assessment Draft Report

prepared for
50LW 8ME LLC
5455 Wilshire Boulevard, Suite 2010,
Los Angeles, California 90036
Mr. Alexander Sundquist

prepared by
Rincon Consultants, Inc.
250 East 1st Street, Suite 1400
Los Angeles, California 90012

July 2020

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

Please cite this report as follows:

Haas, H., D. Merrick, M. Strother, T. Clark and C. Duran

2020 *Bellefield Solar Project Cultural Resources Assessment Report, Kern County, California*. Rincon Consultants Project No. 19-08159. Report on file at the Southern San Joaquin Information Center, Bakersfield State University, California

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Executive Summary

Rincon Consultants, Inc. (Rincon) was retained by 50LW 8ME LLC to conduct a Phase I cultural resources study for the Bellefield Solar Project in the Antelope Valley of Kern County, California. The project site encompasses approximately 8,371 acres in unincorporated Kern County and California City. This cultural resources study includes a cultural resources records search, a Sacred Lands File Search and Native American contacts program, a pedestrian survey, and the preparation of this technical report according to the Archaeological Resources Management Report (ARMR) guidelines set by the California Office of Historic Preservation and in compliance with the requirements of the California Environmental Quality Act (CEQA).

The records search conducted for this effort identified 362 previously recorded resources within a 0.25-mile radius of the project site. Of those, 88 resources (40 sites, 50 isolates) are recorded within or directly adjacent to the project site. As of the date of this report, Native American scoping has not resulted in the identification of any previously known resources.

The pedestrian survey field-verified the location of 13 of the 50 previously recorded isolates and identified 137 new isolates. Isolates are typically ineligible for listing in the California Register of Historic Resources (CRHR) as their data potential is exhausted during the initial recording. Therefore, Rincon recommends each of the identified isolates as ineligible for the CRHR; no further management is recommended for any isolate recorded within the project site.

The pedestrian survey identified and recorded or updated 40 previously recorded sites and 71 new sites. These sites are generally categorized as temporary camps, lithic scatters, historic refuse deposits, homesteads, railroads, roads, and utility lines. Features identified within these sites include hearths, prospecting and mining features, foundations, and wells.

Rincon evaluated each non-isolate resource against the four CRHR eligibility criteria by attempting to identify an association with significant persons or events through a review of BLM GLO records, through an analysis of artifact types and features present, and by reviewing the potential for the resource to extend to the subsurface. Resources were generally considered ineligible if no significant associations could be identified, the resource does not have the potential to yield important information, the data potential of the resource was exhausted during current or past recording efforts, and/or the resource does not retain integrity. Most sites identified consist of surface scatters of artifacts with no indication of a subsurface deposit that may provide additional data.

Of the resources identified, Rincon recommends five newly identified cultural resources and seven previously recorded cultural resources identified be avoided by the project (archaeological resources P-15-010500, P-15-010501, P-15-013568, P-15-013622, BEL-S-013, BEL-S-066, BEL-S-107, BEL-S-108, and BEL-S-113 and historic-period built-environment resources P-15-003449, P-15-003927, and P-15-017305). If these resources cannot be avoided, they may require additional work.

Given the number of resources identified within the project site and the presence of prehistoric archaeological sites and historic-period built-environment resources, the project site is considered

sensitive for historic and prehistoric archaeological resources. To avoid impacts to subsurface discoveries during construction, Rincon recommends archaeological sensitivity training prior to project ground disturbance and archaeological and Native American monitoring during project ground disturbance.

Avoidance

Preservation in place (avoidance) is the preferred manner of mitigating impacts to cultural resources. Preservation in place maintains the relationship between artifacts and context at archaeological sites and ensures built-environment resources are not altered. Preservation may also avoid conflict with religious or cultural values of groups associated with the resource (e.g., tribal organizations or historical societies). If feasible, prehistoric archaeological sites P-15-010500, P-15-010501, P-15-013622568, P-15-013622, BEL-S-013, BEL-S-066, BEL-S-107, BEL-S-108, and BEL-S-113 and historic-period built-environment resources P-15-003449, P-15-003927, and P-017305 should be avoided. The addition of a 100-foot buffer to the boundaries of the aforementioned resources may also further reduce the potential for inadvertent impacts during project construction.

Archaeological Testing

If avoidance becomes infeasible, Rincon recommends archaeological testing of P-15-010500, P-15-010501, P-15-013622568, P-15-013622, BEL-S-013, BEL-S-066, BEL-S-107, BEL-S-108, and BEL-S-113. All archaeological excavation should be conducted by a qualified archaeologist(s) under the direction of a principal investigator meeting the Secretary of the Interior's (SOI) Professional Qualification Standards for archaeology (NPS 1983). Rincon recommends that archaeological excavation be observed by a Native American monitor. Testing should begin with an Extended Phase I (XPI) study to determine the vertical and horizontal extent of the resource within the project site. XPI testing should comprise a series of shovel test pits and/or hand augured units and mechanical trenching intended to establish the subsurface boundaries of the archaeological sites.

Should an XPI reveal the presence of a subsurface deposit within the current project site, a Phase II investigation would be necessary to determine whether P-15-010500, P-15-010501, P-15-013622568, P-15-013622, BEL-S-013, BEL-S-066, BEL-S-107, BEL-S-108, and BEL-S-113 are eligible for listing on the CRHR. A Phase II evaluation should include the development of a research design based on pertinent local research themes, archival research to identify significant historical associations as well as mapping of surface artifacts, collection of functionally or temporally diagnostic tools and debris, excavation of a sample of the cultural deposit to characterize the nature of the resource, define the artifact and feature contents, and retrieve representative samples of artifacts and other remains for laboratory analysis (e.g., macro/microfloral, faunal, lithic, etc.).

Cultural materials collected from the resource should be processed and analyzed in the laboratory according to standard archaeological procedures. The age of the materials should be determined using radiocarbon dating and/or other appropriate procedures; lithic artifacts, faunal remains, and other cultural materials should be identified and analyzed according to current professional standards. The significance of the resource should be evaluated according to the criteria of the CRHR. The results of the investigations should be presented in a technical report following the Archaeological Resource Monitoring Report (ARMR) Guidelines as recommended by the California

Office of Historic Preservation. Upon completion of the work, all artifacts, other cultural remains, records, photographs, and other documentation should be curated at an appropriate curation facility.

Archaeological Sensitivity Training

Rincon recommends that the qualified archaeologist conduct a Worker's Environmental Awareness Program (WEAP) training for archaeological sensitivity for all construction personnel prior to the commencement of any ground disturbing activities. Archaeological sensitivity training should include a description of the types of cultural material that may be encountered, cultural sensitivity issues, regulatory issues, the proper protocol for treatment of the materials in the event of a find, and an outline of the penalties for the willful and intention damage of cultural resources.

Archaeological Monitoring

Rincon recommends archaeological monitoring of all project-related ground-disturbing activities. Archaeological monitoring should be performed under the direction of the qualified archaeologist. The qualified archaeologist, in consultation with the County of Kern and the local Tribes, may recommend the reduction or termination of monitoring depending upon observed conditions (e.g., no resources encountered within the first 50 percent of ground disturbance). If archaeological resources are encountered during ground-disturbing activities, work in the immediate area must halt and the find evaluated for CRHR eligibility. Should an unanticipated resource be found as CRHR eligible and avoidance is infeasible, additional analysis (e.g., testing) may be necessary to determine if project impacts would be significant. Pending Assembly Bill 52 of 2014 consultation, Native American monitoring may also be required.

Unanticipated Discovery of Cultural Resources

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983) should be contacted immediately to evaluate the find. If the discovery proves to be eligible for listing in the CRHR, additional work such as data recovery excavation and Native American consultation, if appropriate based on the nature of the resource, may be warranted to mitigate any significant impacts.

Unanticipated Discovery of Human Remains

The discovery of human remains is always a possibility during ground-disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be Native American, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD), who has 48 hours from being granted site access to make recommendations for the disposition of the remains. If the MLD does not make recommendations within 48 hours of being granted site access, the land owner shall reinter the remains in an area of the property secure from subsequent disturbance.

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1 Introduction

Rincon Consultants, Inc. (Rincon) was retained by 50LW 8ME LLC to conduct a Phase I cultural resources study for the Bellefield Solar Project (project) in the Antelope Valley of Kern County, California. The project site covers approximately 8,371 acres in unincorporated Kern County and California City (Figure 1). This cultural resources study includes a cultural resources records search, a Sacred Lands File search and Native American contacts program, a pedestrian survey, and the preparation of this technical report according to the Archaeological Resources Management Report (ARMR) guidelines set by the California Office of Historic Preservation and in compliance with the requirements of the California Environmental Quality Act (CEQA).

1.1 Project Location

The approximately 8,371-acre project site is comprised of 90 assessor's parcels (project area), including 82 parcels totaling 6,296 gross acres within unincorporated Kern County and 8 assessor's parcels totaling approximately 2,102 gross acres within California City, California. The project area is centered at approximately latitude 35.030457°N, longitude 118.068420°W (WGS84). The project area includes Township 11 North, Range 10 West, Section 30, Range 11 West Sections 5 through 8, 16 through 22, and 25 through 35, Range 12 West, Sections 1 through 5, 7, 8, 12, 13, 16 through 28, and 33 through 36, and Range 13 West, Sections 13 through 17 and 20 through 24.

The permanent disturbance acreage associated with development of the solar facility and associated infrastructure (project site) within the project area would be less than the gross acreage of the project area. At the time of this reporting, the final project footprint has yet to be determined. The expanded project area allows the Applicant flexibility in siting facilities to minimize impacts to jurisdictional features and resources.

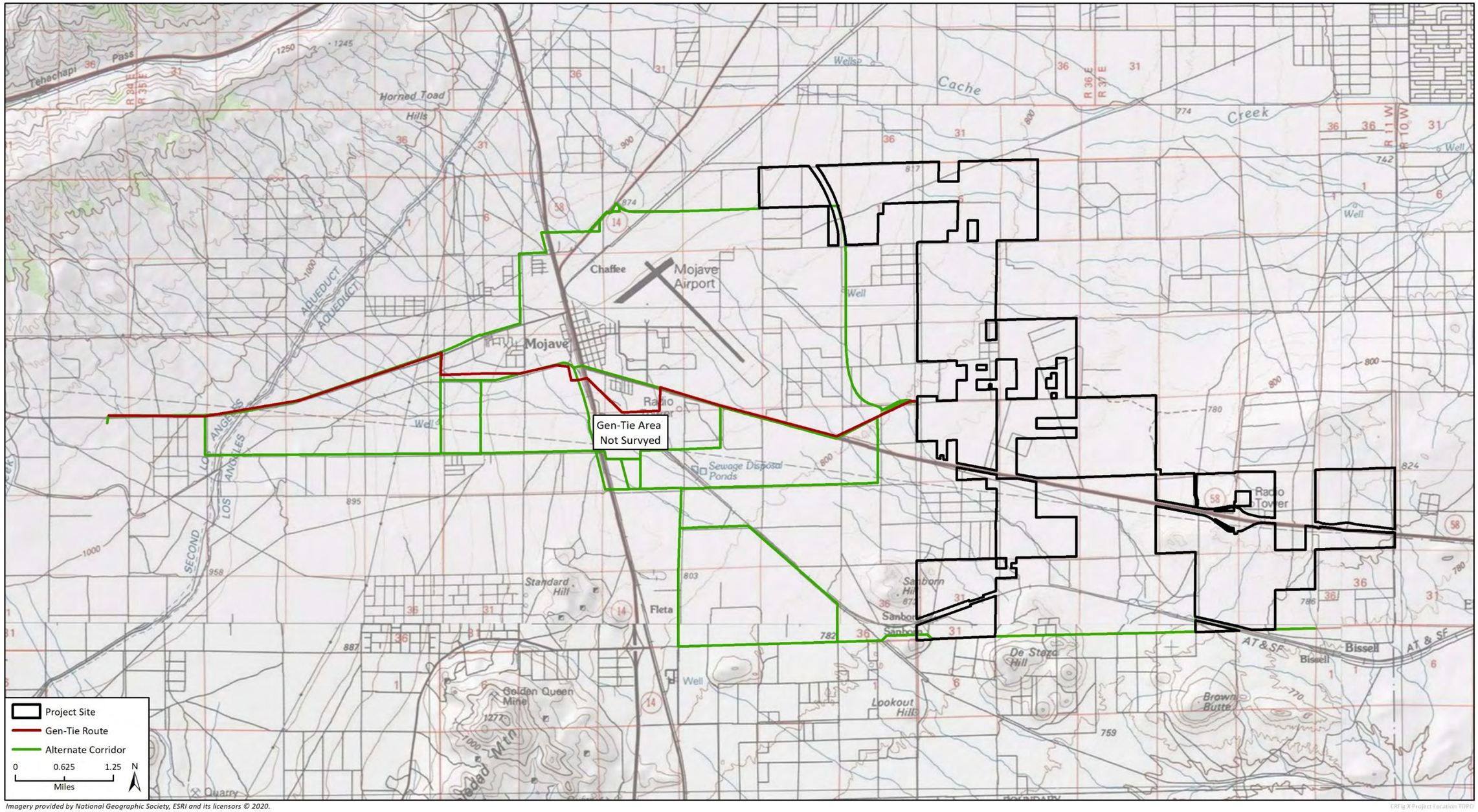
The project is located in portions of unincorporated Kern County and California City. The Project straddles State Route 58, east of Mojave and just west and south of the Hyundai-Kia Proving Ground.

1.2 Project Description

This project description is abbreviated, focusing on elements of the proposed solar facility that are most relevant to the cultural resources assessment. The Applicant is seeking approval of a Conditional Use Permit (CUP) for the construction of an up to 1,500 megawatt (MW) alternating current (AC) utility-scale solar farm with an up to 1,500 MW-AH Energy Storage System (ESS). The Applicant proposes to construct, own, and operate the Project, and will secure CUPs from both Kern County and California City, along with permits from other relevant agencies as required by law.

On the parcels, the project would use solar photovoltaic (PV) panels or modules on mounting frameworks to convert sunlight directly into electricity. This electricity would be delivered from the panels to inverter stations, where the electricity would be converted from direct current (DC) to alternating current (AC). Each parcel may also include an operations and maintenance (O&M) building, substations, energy storage systems (ESS), and/or transmission facilities, as necessary. In

Figure 1. Project Location Map



Imagery provided by National Geographic Society, ESRI and its licensors © 2020.

CRFig X Project Location TOPO

Figure 2. Southwestern portion Project Site, facing north

Figure 3. Northeastern portion of Project Site, facing south

addition to the solar PV sites, the Project would include a gen-tie corridor to deliver power from the solar facility to the electrical grid. This corridor would run to the SCE Windhub Substation via up to 230 kV overhead and/or underground electrical transmissions lines.

The project may include operations & maintenance (O&M) buildings, substations, ESSs, and transmission facilities, as necessary, or it may share such facilities with other nearby projects or with any future energy projects in the area, and/or it may be remotely operated. Alternatively, if shared facilities are used, those areas designated in the application materials for O&M building, substation, and/or transmission facility may be occupied solar panels.

Up to 20 full-time employees would operate the project. Typically, the majority of staff would work during the day shift (sunrise to sunset) and the remainder during the night shifts and weekend. As noted earlier, it is possible that the project would share O&M, substation, and/or transmission facilities with one or more nearby solar projects, and/or may be remotely operated. In such scenarios, the project's on-site staff could be reduced.

After the useful life of the project, the panels would be disassembled from the mounting frames and the project site would be restored to its pre-development function.

1.2.1 Construction Activities

Project-related construction would occur over approximately 18 to 24 months beginning as early as the fourth quarter of 2021 (October 1, 2021). Construction of the project would include the following types of activities:

- Site preparation
- Grading and earthwork
- Concrete foundations
- Structural steel work
- Electrical/instrumentation work
- Collector line installation
- Architecture and landscaping

No roadways would be affected, except during the project's construction period. Construction traffic would access the Site from Highway 58, Altus Ave, Silver Queen Road, and 50th Street. It is estimated that up to 1,000 workers per day during peak construction periods.

Heavy construction is expected to occur between 6:00 am and 5:00 pm, Monday through Friday. Additional hours may be necessary to make up schedule deficiencies or to complete critical construction activities. Some activities may continue 24 hours per day, seven days per week. Low level noise activities may potentially occur between the hours of 10:00 pm and 7:00 am. Nighttime activities could potentially include, but are not limited to, refueling equipment, staging material for the following day's construction activities, quality assurance/control, and commissioning.

Materials and supplies would be delivered by truck. Truck deliveries would normally occur during daylight hours. However, there would be offloading and/or transporting to the Project Area on weekends and during evening hours.

Earthmoving activities are expected to be limited to the construction of the access roads, O&M building, substation, ESS(s), and any storm water protection or storage (detention) facilities. Final grading may include revegetation with low lying grass or applying earth-binding materials to disturbed areas.

1.2.2 Operational Activities

Once completed, the project would generally be limited to the following maintenance activities:

- Cleaning PV panels
- Monitoring electricity generation
- Providing site security
- Maintaining the facility: replacing or repairing inverters, wiring, and PV modules

The project would operate continuously, seven days a week, until the anticipated repowering or decommissioning of the project in 30 to 40 years. Each CUP could require an operational staff of up to five full-time employees. The project may share an O&M, substation, and/or transmission facilities with one or more nearby solar projects, which could reduce the proposed Project's on-site operational staff. Maintenance activities may occur as-needed seven days a week, 24 hours a day to ensure PV panel output when solar energy is available.

1.3 Personnel

Rincon archaeologist Hannah Haas, MA, RPA provided management oversight for this cultural resources study and serves as principal investigator. Ms. Haas meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historic archaeology (National Park Service 1983). Rincon archaeologist Mark Strother, MA, assisted with the management of this study and is a contributing author of this report. Rincon archaeologist Dustin Merrick conducted the records search, served as field director for the pedestrian survey, and is a contributing author of this report. Cultural resource specialists Daphne Douglas, Nickolas Diaz, Kongmeng Vang, Martin Jorgensen, Yareli Lopez, Sonali Patangay, Matthew Cappetta, Allana Griffin, Rudy Dinarte, Alli Berry, Mary Shockley, Amber Blevins, Amanda Eggers, Courtney Montgomery, and Mary Pfeiffer, and Jake Gonzales and Tommy Gonzales of the Tejon Indian Tribe participated in the pedestrian survey. Geographic information systems analysts Allysen Valencia and John Donoghue prepared the figures for this report. Senior Archaeologist/Principal Investigator Tiffany Clark, PhD, and Principal Christopher Duran, MA, RPA, reviewed this report for quality control.

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2 Regulatory Setting

This section includes a discussion of the applicable state and local laws, ordinances, regulations, and standards governing cultural resources to which the project should adhere before and during implementation.

2.1 State Regulations

CEQA requires a lead agency to determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC], Section 21084.1) or tribal cultural resources (PRC Section 21074[a][1][A]-[B]). A historical resource is a resource listed, or determined to be eligible for listing in the California Register of Historical Resources (CRHR); a resource included in a local register of historical resources; or an object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (State CEQA Guidelines, Section 15064.5[a][1-3]).

A resource shall be considered historically significant if it meets any of the following criteria:

1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
2) Is associated with the lives of persons important to our past
3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values
4) Has yielded, or may be likely to yield, information important in prehistory or history

Generally, a cultural resource must be at least 50 years of age to be considered for listing on the CRHR. Resources that have achieved significance within the past 50 years may also be eligible for inclusion in the CRHR, provided that enough time has lapsed to obtain a scholarly perspective on the events or individuals associated with the resource (Office of Historic Preservation n.d.:3).

If it can be demonstrated that a project will cause damage to a *unique archaeological resource*, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC Section 21083.2[a], [b]).

PRC Section 21083.2(g) defines a *unique archaeological resource* as an artifact, object, or site about which it can be demonstrated clearly that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information
2) Has a special and particular quality such as being the oldest of its type or the best available example of its type
3) Is directly associated with a scientifically recognized important prehistoric or historic event or person

2.2 Local Regulations

The City of California City does not have any specific requirements related to cultural resources. The Kern County General Plan covers specific information that states the County's policy and implementation measures regarding cultural resources, included below.

2.2.1 Kern County General Plan

Policy 25

The County will promote the preservation of cultural and historic resources, which provide ties with the past and constitute a heritage value to residents and visitors.

Implementation Measures

-Measure K Coordinate with the California State University, Bakersfield's Archaeology Inventory Center.

-Measure L The County shall address archaeological and historical resources for discretionary projects in accordance with the California Environmental Quality Act (CEQA).

-Measure M In areas of known paleontological resources, the County should address the preservation of these resources where feasible.

-Measure N The County shall develop a list of Native American organizations and individuals who desire to be notified of proposed discretionary projects. This notification will be accomplished through the established procedures for discretionary projects and CEQA documents.

-Measure O On a project specific basis, the County Planning Department shall evaluate the necessity for the involvement of a qualified Native American monitor for grading or other construction activities on discretionary projects that are subject to a CEQA document.

3 Setting

Archaeologists have proposed several chronological sequences to describe cultural change in southern California (Jones and Klar 2007, Moratto 2004). Most recently, Sutton et al. (2007) devised an updated Mojave Desert cultural history, dividing it into four temporal periods: Pleistocene, Early Holocene, Middle Holocene, and Late Holocene. This chronology is presented in Table 1.

3.1 Prehistoric Context

Table 1. Cultural Chronology for the Mojave Desert

Approximate Date Range	Temporal Period	Cultural Complex	Previously Known As
Pre- 12,000 cal BP*	Late Pleistocene	Pre-Clovis	Early Man Pre-Projectile Point
12,000- 10,000 cal BP	Terminal Pleistocene	Paleoindian	Clovis Big Game Hunting Tradition
10,000- 8,000 cal BP.	Early Holocene	Lake Mojave	Western Pluvial Lakes Tradition San Dieguito Complex
		Pinto	
9,000- 5,000 cal BP	Middle Holocene		Little Lake
		Deadman Lake	N/A
4,000 – 1,600 cal BP	Late Holocene	Gypsum	Newberry
1,600 – 850 cal BP		Rose Spring	Saratoga Springs I Haiwee
850 cal BP - Historic		Late Prehistoric	Shoshonean Marana Protohistoric

Source: Sutton et al. 2007:236

*cal BP refers to Before Present (BP) dates derived by radiocarbon dating, “calibrated” to the year 1950, which is used as the “modern carbon” reference point.

3.1.1 Pleistocene Period (12,000 to 10,000 cal BP)

The climate of the Pleistocene Period in the Mojave Desert is generally characterized as cool and wet (Sutton et al. 2007: 231). During this time, the Mojave Desert featured several pluvial lakes. The presence of lakes generally indicates an environment with plentiful food and water resources suitable for early human habitation, especially compared to the harsher desert environment now present. However, claims of pre-Clovis (ca. before 11,500 BP) archaeological sites in the Mojave Desert remain controversial and are not accepted by most professional archaeologists. Nonetheless, it is possible that such occupation occurred and sites with reliable early dates may yet be found, as has happened elsewhere in the Americas.

The Clovis Complex is the earliest and only Paleo-Indian cultural complex widely accepted in the Mojave Desert (Sutton et al. 2007:233-234). Dating to approximately 11,500 BP, this complex is defined predominantly by large lanceolate-shaped bifaces with fluting, prepared to thin and flatten the base of the artifact for hafting. Other tools associated with the Clovis Complex include large side scrapers, blades derived from prepared cores, and a mixture of expedient flaked tools (Justice 2002:73). Paleo-Indian populations associated with fluted point technology consisted of small, mobile groups who hunted and gathered near permanent sources of water such as pluvial lakes. The tools associated with these populations are found most commonly in the drainage basins of the pluvial lakes (Sutton et al. 2007:234).

Fluted points have been interpreted traditionally as tools used for hunting Pleistocene megafauna due to their clear association with megafaunal remains in the Great Plains and Southwest, but most fluted points found in California have lacked corroborating Pleistocene radiocarbon dates (Arnold et al., 2004). One exception was found during excavations at China Lake in the early 1970s, where fluted points associated with burned remains of extinct megafauna were uncovered (Davis 1975). As Davis and Panlaqui (1978:31) noted, the sites at China Lake demonstrate that Paleo-Indians exploited many available resources, not just megafauna.

Evidence of terminal Pleistocene and early Holocene habitation in the Mojave Desert has remained sparse until recently. Evidence of late Pleistocene occupation was identified on the southern slopes of the Tehachapi Mountains near Cottonwood Creek in the form of a basal fragment of a fluted Clovis projectile point (Glennan, 1971, 1987). Basgall and Overly (2004) have found evidence of occupation near Pleistocene China Lake and Fort Irwin yielding radiocarbon dates from 9,500-8,000 cal BP.

3.1.2 Early Holocene (10,000 to 8,000 cal BP)

Warmer temperatures, reduced precipitation, and the eventual drying up of the Pleistocene pluvial lakes mark the onset of the Early Holocene. These changes are believed to have caused an irregular distribution of resources available to the Early Holocene inhabitants (Sutton et al. 2007:237). The shallow lakes and marshes of the Mojave Desert during this period were biologically productive, but surrounded by desert vegetation typical of later periods, initially dominated by white bursage and later, by creosote bush (Grayson 1993:199-200). The Lake Mojave Complex is the only clear complex in the region during this time and reflects an increasingly diversified subsistence strategy that was necessary for successful adaptation to climatic changes.

The Lake Mojave Complex is identified primarily by heavy, stemmed projectile points attributable to the Great Basin Stemmed series, such as Lake Mojave and Silver Lake. Other Lake Mojave Complex tools include bifaces, steep-edged unifaces, crescents, the occasional cobble-core tool, and, infrequently, ground stone implements (Justice 2002:91). Settlement organization components include extensive residential accumulations, workshops, and small camps containing a handful of formed tools (Sutton et al. 2007: 237).

While earlier research presumed a dependence on lacustrine subsistence strategies, recent studies have found Lake Mojave Complex sites in other contexts (e.g., Basgall 2005, Basgall and Jurich 2006, Giambastiani and Berg 2008:14). Sutton et al. (2007:237) stated that the Lake Mojave assemblages included tools that are “consistent with long-term curation and transport.” The presence of exotic lithic materials and marine shell beads in Lake Mojave Complex assemblages further supports the assertion that these people were highly mobile and possibly traded with groups over long distances.

3.1.3 Middle Holocene (9,000 to 5,000 cal BP)

The middle Holocene climate was generally more arid than periods before and after, but experienced multiple oscillations between wetter and drier conditions throughout the middle Holocene. The desiccation of the lakes and marshes of the Pleistocene and early Holocene required the region's inhabitants to rely on streams and springs for water, resulting in lower occupational densities (Aikens 1978, Basgall 2000, Cleland and Spaulding 1992, Sutton 1996, Warren 1984). Average temperatures and aridity increased, peaking between 8000 and 6000 cal BP Settlement patterns adapted, including a shift to upland settings where sources of water still existed and changes in tool assemblage content and diversity marking the emergence of the Pinto Complex (Sutton 1996).

Campbell and Campbell defined the Pinto Complex in 1935 based on their work at the Pinto Basin site, but the complex has a wider distribution throughout the Mojave Desert than previous ones. During the latter part of the Early Holocene, archaeological data indicate that the Pinto Complex overlaps the Lake Mojave Complex (Sutton et al., 2007:237). The Pinto Complex reflects shifts in subsistence patterns and adaptation to the shrinking of the Pleistocene lakes, including a greater emphasis on the exploitation of plants, with the continued pursuit of artiodactyls and smaller game. The broad distribution of this complex implies a high degree of residential mobility. The hallmarks of the Pinto Complex tool assemblage include concave base and bifurcate base projectile points with strong basal ears and more gradual shoulders (Justice 2002:126, Zyniecki 2003:12). Other diagnostic artifacts of this complex include domed and keeled scrapers, large and small leaf-shaped bifaces, core/cobble tools, large metates and milling slabs, and shaped and unshaped handstones.

Near the end of the middle Holocene the climate became increasingly hotter and more arid. Very few sites date to this period, falling between 5000 and 4000 cal BP This suggests that populations were very low. It is possible that some areas were abandoned during this hot period (Sutton et al. 2007:241).

3.1.4 Late Holocene (4,000 cal BP to European Contact)

The climate of the late Holocene was similar to current conditions: cooler and moister than the middle Holocene, but not as cool and moist as the early Holocene. The climate remained highly variable with periods that included the Mojave lakes refilling to levels of earlier high stands, contrasted with at least two major droughts, circa 1124 to 904 BP, and circa 807 to 660 BP (Stine 1994). A cooler and wetter period occurred between 550 and 100 cal BP (Cleland and Spaulding 1992:4). These climatic changes at the onset of the late Holocene once again resulted in modified subsistence strategies and correlating tool kits of three progressive cultural complexes: Gypsum Complex, Rose Spring Complex, and Late Prehistoric Complex (or period).

Dart-point size projectile points including notched or eared (Elko), concave base (Humboldt), and small-stemmed (Gypsum) types characterized the projectile points of the Gypsum Complex. In addition to these diagnostic points, Gypsum Complex sites included leaf-shaped points, rectangular-based knives, flake scrapers, drills, and occasionally, large scraper planes, choppers, and hammerstones (Warren 1984:416). Manos and milling stones were common, and the mortar and pestle were also introduced during this period. Other artifacts found at Gypsum Complex sites include split-twig animal figurines, *Olivella* shell beads, and *Haliotis* spp. beads and ornaments, which are indicative of trade with people from the southern California coast and southern Great Basin. The inhabitants of the Mojave Desert exported high-quality locally available CCS tool stone such as obsidian, chalcedony, and chert in exchange for exotic materials.

By 1750 cal BP, a slightly cooler climate appears to have provided for increased population, based on a higher frequency of archaeological sites. The Rose Spring Complex was present from approximately 1815 to 915 cal BP, with regional temporal variations known as the Saratoga Springs, Haiwee, or Amargosa periods (Sutton 1996, Sutton et al. 2007:236). The smaller Rose Spring projectile points replaced the dart-size points of previous complexes and heralded the introduction of the bow and arrow (Yohe 1998). The bow and arrow provided its user a way to rapidly fire multiple projectiles during hunting or warfare and from a position of relative security compared to the atl-atl or spear. This technological innovation appears to correspond with the onset of the Numic expansion westward to the coast, which some researchers believe started from southeastern California (Bettinger and Baumhoff 1982, Grayson 1993). Bedrock milling features supplement portable milling stones in villages and ancillary sites within the California deserts.

The Late Prehistoric period (circa 900–250 cal BP) corresponds to the introduction of ceramic artifacts in the Mojave Desert region as well as replacement of Rose Spring projectile points with even smaller Desert Side-notched points and Cottonwood series points. Use of mortar and pestle became more widespread during this period and evidence of food storage facilities becomes increasingly common in the archaeological record. In the central Mojave Desert, the Mojave River became a primary focus of occupation, and trade networks increased along the Mojave River and over the San Gabriel Mountains (Sutton 1996).

Archeological evidence left by highly mobile hunter-gatherers in the Mojave Desert during the Late Prehistoric period is typified by sparse scatters of flaked stone, ground stone, and ceramic artifacts and features such as hearths, rock rings, and trails

3.2 Ethnographic Context

The project area is within a transitional zone that was occupied by multiple cultural groups including the Serrano, Kitanemuk and Tataviam (cf., Bean and Smith 1978; Blackburn and Bean 1978; Kroeber 1925; Sutton 1988). All of these groups are better associated with portions of the surrounding mountains – Serrano to the northeast, Kitanemuk to the northwest, Tataviam to the southwest – but all of them likely visited the Antelope Valley floor as part of their resource exploitation strategies. Ethnographic boundaries in the Mojave Desert are loosely defined, owing to the highly mobile nature of desert settlement and resource extraction strategies, as well as the variety of interpretations presented by previous researchers. The following sections provide brief overviews of the three groups likely to have ethnographically used the project area.

3.2.1 Serrano

The Serrano occupied an area in and around the San Bernardino Mountains between approximately 450 and 3,350 meters (1,500-11,000 feet) above mean sea level. Their territory extended west of the Cajon Pass, east past Twentynine Palms, north of Victorville, and south to Yucaipa Valley. The Serrano language is part of the Serran division of a branch of the Takic family of the Uto-Aztecan linguistic stock (Mithun 2001:539, 543). The two Serran languages, Kitanemuk and Serrano, are closely related. Kitanemuk lands were northwest of Serrano lands. Serrano was spoken originally by a relatively small group located within the San Bernardino and Sierra Madre mountains, and the term “Serrano” has come to be ethnically defined as the name of the people in the San Bernardino Mountains (Kroeber 1925:611). The Vanyume, who lived along the Mojave River and associated Mojave Desert areas and are also referred to as the Desert Serrano, spoke either a dialect of Serrano or a closely related language (Mithun 2001:543). Year-round habitation tended to be

located on the desert floor, at the base of the mountains, and up into the foothills, with all habitation areas requiring year-round water sources (Bean and Smith 1978).

Most Serrano lived in small villages located near water sources (Bean and Smith 1978:571). Houses measuring 12 to 14 feet in diameter were domed and constructed of willow branches and tule thatching; they were occupied by a single extended family. Many of the villages had a ceremonial house, used both as a religious center and the residence of the lineage leaders. Additional structures within a village might include granaries and a large circular subterranean sweathouse. The sweathouses were typically built along streams or pools. A village was usually composed of at least two lineages. The Serrano were organized loosely along patrilineal lines and associated themselves with one of two exogamous moieties or "clans"—the Wahiyam (coyote) or the Tukum (wildcat) moiety.

The subsistence economy of the Serrano was one of hunting and collecting plant goods, with occasional fishing (Bean and Smith 1978:571). They hunted large and small animals, including mountain sheep, deer, antelope, rabbits, small rodents, and various birds, particularly quail. Plant staples consisted of seeds; acorn nuts of the black oak; piñon nuts; bulbs and tubers; and shoots, blooms, and roots of various plants, including yucca, berries, barrel cacti, and mesquite. The Serrano used fire as a management tool to increase yields of specific plants, particularly chía.

Trade and exchange was an important aspect of the Serrano economy. Those living in the lower-elevation, desert floor villages traded foodstuffs with people living in the foothill villages who had access to a different variety of edible resources. In addition to inter-village trade, ritualized communal food procurement events, such as rabbit and deer hunts and piñon, acorn, and mesquite nut-gathering events, integrated the economy and helped distribute resources that were available in different ecozones.

Contact between Serrano and Europeans was relatively minimal prior to the early 1800s. As early as 1790, however, Serrano began to be drawn into mission life (Bean and Vane 2002). More Serrano were relocated to Mission San Gabriel in 1811 after a failed indigenous attack on that mission. Most of the remaining western Serrano were moved to an *asistencia* built near Redlands in 1819 (Bean and Smith 1978:573).

A smallpox epidemic in the 1860s killed many indigenous southern Californians, including many Serrano (Bean and Vane 2002). Oral history accounts of a massacre in the 1860s at Twentynine Palms may have been part of a larger American military campaign that lasted 32 days (Bean and Vane 2002:10). Surviving Serrano sought shelter at Morongo with their Cahuilla neighbors; Morongo later became a reservation (Bean and Vane 2002). Other survivors followed the Serrano leader, Santos Manuel, down from the mountains and toward the valley floors and eventually settled what later became the San Manuel Band of Mission Indians Reservation, formally established in 1891.

Both the San Manuel Band of Mission Indians and the Morongo Band of Mission Indians are federally recognized tribes and include Serrano. People of both tribes participate in cultural programs to revitalize traditional languages, knowledge, and practices.

3.2.2 Kitanemuk

The Kitanemuk are one of the least-understood ethnographic groups in California, despite being considered by researchers as the primary aboriginal inhabitants of Antelope Valley (Sutton 1979, 1987, 1988). Kitanemuk territory extended from the Tehachapi Mountains at the northwestern edge of the Antelope Valley southeast to beyond Rosamond Lake, although their populations were most

dense in the mountains at the southern end of the San Joaquin Valley (Blackburn and Bean 1978:564; Kroeber 1925:611). The Kitanemuk were primarily mountain dwellers who lived in semi-permanent village sites that functioned as year-round base camps; during the late winter and early spring, expeditions ventured onto the desert floor in pursuit of available seasonal resources (Earle 1997).

Kroeber (1925:611) noted that the Kitanemuk were a subdivision of the Serrano, and thus spoke a language of the Takic family that was similar to dialects spoken by groups living as far south and east as Yucca Valley and Twentynine Palms. Although some aspects of Kitanemuk social organization are similar to those of other Takic speaking groups, Blackburn and Bean (1978:564) argue that Kitanemuk ritual, mythology, and shamanism were most strongly shaped by their neighbors to the north (Kawaiisu and Tubatulabal) and west (Chumash). The Kitanemuk appear to have enjoyed particularly strong trade ties with coastal and inland Chumash groups (Blackburn and Bean 1978:564; Kroeber 1925:613). Modern-day descendants of the Kitanemuk live at the Tule River Reservation, Porterville, and Tejon Ranch (Four Directions Institute 2007).

3.2.3 Tataviam

Like the Kitenamuk, the Tataviam were not well documented by early ethnographers. However, researchers today generally agree that the Tataviam spoke a Uto-Aztecan language, most likely a Takic language (Hudson 1982). Tataviam territory included the upper Santa Clara River from Piru Creek eastward, extending over the Sawmill Mountains to the southwest edge of the Antelope Valley (King and Blackburn 1978). Their territory was bounded on the west and north by various Chumash groups; on the south by the Tongva (Gabrielino and Fernandeño, though some Tataviam were also identified as Fernandeño because of their association with Mission San Fernando); and to the east by the Kitanemuk and Serrano.

Exogamous marriage was common, with Tataviam intermarrying with Tongva, Chumash, and Kitanemuk neighbors (King and Blackburn 1978). King and Blackburn (1978) hypothesize that the Tataviam relied on yucca as a food source more than their neighbors because of the predominance of large south-facing slopes within their territory. Additional food resources included acorns, sage seeds, berries, small mammals, and deer. Settlement size ranged from 10 to 200 persons, with small settlements often ancillary to large villages. Archaeological evidence from Bower's Cave – located between Newhall and Piru – combined with ethnographic evidence suggest their ritual organization was similar to both the Chumash and Gabrielino, whose lifestyles were distinct from one another. By 1810, the Tataviam were almost completely "missionized" through baptism at Mission San Fernando.

3.3 Historic Setting

Post-European contact history for the state of California is divided generally into three periods: the Spanish Period (1769 to 1822), the Mexican Period (1822 to 1848), and the American Period (1848 to present). The following provides a general discussion of the history of California following European contact.

3.3.1 Spanish Period (1769 to 1822)

In 1542, Juan Rodriguez Cabrillo led the first European expedition to observe what is now called southern California. For more than 200 years, Cabrillo and other Spanish, Portuguese, British, and

Russian explorers sailed the Alta (upper) California coast and made limited inland expeditions, but they did not establish permanent settlements (Bean 1968, Rolle 2003).

Gaspar de Portolá and Franciscan Father Junípero Serra established the first Spanish settlement in Alta California at Mission San Diego de Alcalá in 1769. This was the first of 21 missions erected by the Spanish between 1769 and 1823. While Spanish missions were established in San Bernardino County, Native Americans in the region were influenced by other Native Americans migrating to the area, driven from their homelands by encroachment of the Spanish.

During this period, Spain also deeded ranchos to prominent citizens and soldiers, though very few in comparison to the following Mexican Period. To manage and expand herds of cattle on these large ranchos, colonists enlisted the labor of the surrounding Native American population (Engelhardt 1927a). The missions were responsible for administrating the local people as well as converting the population to Christianity (Engelhardt 1927b). Inevitably, this increased local population density and contact with diseases brought by Europeans greatly reduced the Native American population (McCawley 1996). Native American populations in San Bernardino County were less affected by the missions. However, in some cases, individuals were taken from their tribes to be educated at one of the missions before being sent back (Morgan 1914).

The first known Spanish explorers to enter the Mojave Desert were a group of soldiers led by Pedro Fages in 1772. In 1776, Friar Francisco Garcés, traveled through the area coming from the Colorado River (Hoover et al. 2002:321). Friar Garcés traveled as far as the Pacific coast along an ancient trade route, known as the Mojave Trail, and he named the Mojave River Arroyo de los Mártires (Stream of the Martyrs). The river was later named Rio de las Animas (River of Souls) by Fr. Joaquín Pasqual Nuez, who accompanied the 1819 expedition of Lt. Gabriel Moraga.

3.3.2 Mexican Period (1822 to 1848)

The Mexican period commenced when news of the success of the Mexican Revolution (1810-1821) against the Spanish crown reached California in 1822. This period saw extensive interior land grant development as well as exploration west of the Sierra Nevada Mountains by American fur trappers. The California missions declined in power and were ultimately secularized in 1834. The hallmark of the Mexican period was large ranchos deeded to prominent Mexican citizens, frequently soldiers, by the governor. These ranchos became important economic and social centers. However, no ranchos were claimed in the arid Mojave Desert. Rancho San Bernardino, situated in the southwestern corner of San Bernardino County, was the closest land grant to the current project site, located approximately 160 kilometers (100 miles) to the west. Governor Pío Pico and his predecessors made more than 600 rancho grants between 1833 and 1846, putting most of the state's lands into private ownership for the first time (Gumprecht 1999). During the Mexican period, trappers and explorers from the eastern United States repeatedly journeyed westward. Jedidiah Strong Smith, one of these early American adventurers, traveled through the Mojave Desert in 1826 and 1827 and nicknamed the Mojave River the "Inconstant River" because of its frequent disappearance beneath the ground surface.

3.3.3 American Period (1848 – Present)

The American Period officially began with the signing of the Treaty of Guadalupe Hidalgo in 1848, in which the United States agreed to pay Mexico $15 million for the conquered territory, including California, Nevada, Utah, and parts of Colorado, Arizona, New Mexico, and Wyoming. In 1850, California was admitted to the Union as the 31st state.

The discovery of gold in northern California in 1848 led to the California Gold Rush and subsequent farming and city/town development in the northern/central portions of California. Southern California remained dominated by cattle ranches in the early American Period, though droughts and increasing population resulted in ranching being increasingly supplanted by farming and more urban professions through the late nineteenth century. By 1853, the population of California exceeded 300,000. Thousands of settlers and immigrants continued to immigrate into the state, particularly after the completion of the transcontinental railroad in 1869.

During the Gold Rush, thousands of people traveled the Mojave River Trail from points east, attempting to reach the fabled goldfields of California. Captain John C. Frémont called the Mojave River Trail the Old Spanish Trail until he met a group of Native Americans northeast of Victorville who told Frémont they had lived along the Mojave River and the mountains to the north and traded with other indigenous peoples in the region along the Mojave River Trail (Frémont 1845:260).

3.3.4 Mojave

Mojave is an unincorporated community located in Kern County in the northwestern portion of the Antelope Valley. The hot and arid conditions of the Mojave Desert during the historic period provided for only sparse settlement and occupation of the Antelope Valley until means of securing water and transportation could be obtained. The community of Mojave was established in 1876 when the Southern Pacific Railroad planned for a town on its path between Los Angeles and San Francisco. In 1894, gold was discovered on Soledad Mountain and other nearby locations. Borax mines also played a role in Mojave's history. Between 1844 and 1889, wagons hauled borax between mines in Death Valley and the railroad in Mojave. Cement production began in 1908 to provide cement for the historical Los Angeles Aqueduct (Mojave Services 2013).

Several small airports were built in Mojave. In 1942, a Naval Air Station was built on the east side of town. During World War II and the Korean Conflict, this air station trained thousands of Navy and Marine pilots for combat before Kern County obtained the title to the airport in 1961. The Mojave Air and Space Port has since become home to the National Test Pilot School and more than 60 companies involved in industrial to advanced aerospace design. The Mojave Air and Space Port was also the first to launch a non-governmental rocket ship to space (Mojave Services 2013).

Mining, cement production, and aviation remain integral parts of the Mojave economy. Mojave continues to be known for providing hospitality to those traveling between Los Angeles and the eastern Sierra and between Bakersfield and Las Vegas.

3.3.5 California City

California City is located in Kern County in the northern portion of the Antelope Valley, approximately 19 km (18 miles) northwest of Edwards Airforce Base. Despite a population of less than 15,000, California City spans over 527 square km (204 square miles), making it the third-largest land area of any city in California. Its vastness is the result of the erstwhile aspirations of Nat Mendelsohn, a Columbia University sociology instructor turned real-estate developer, who purchased 82,000 acres of vacant Mojave Desert land in 1958 (Anton 2010). Buoyed by a strong post-war economy, Mendelsohn was convinced that he could capitalize on a growing California population by providing them with the state's next metropolis – a city he speculated could rival Los Angeles.

By the early 1960s, Mendelsohn had organized his promised city into a sprawling grid system, complete with 298 square km (185 square miles) of mostly unpaved roads, a 26-acre artificial lake, lots for housing, and electrical and water lines. However, only 175 homes had been built, and for most investors the allure of Mendohlson's imagined oasis quickly waned. Eventually realizing its isolation was too much of an impediment to population growth, Mendohlson sold his shares in 1969 and left town for other investment opportunities in Texas (Anton 2010).

Although not at the scale of what its founder envisioned, the population of California City has risen steadily in the last 30 years, growing from roughly 3,200 to over 14,000. Most current residents are employed at Edwards Airforce Base or at the California City Correctional Facility. Those employed by the California City Public Works Department are kept busy addressing the expansive crumbling infrastructure that remains as the legacy of Nat Mendelsohn (Anton 2010).

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4 Background Research

Background research for the cultural resource assessment included records searches, a review of historical maps and aerial photographs, Native American outreach, and historical group consultation. A summary of each of these efforts follows.

4.1 Cultural Resources Record Search

On August 9, 2019 and May 18, 2020, Rincon conducted a search of the California Historical Resources Information System from the Southern San Joaquin Information Center (SSJVIC) at California State University, Bakersfield. The search was conducted to identify any previously recorded cultural resources and previously conducted cultural resources studies at the project site and within a 0.25-mile radius. The records search also included a review of the National Register of Historic Places (NRHP), the CRHR, the Archaeological Determinations Eligibility List, and the Historic Resources Inventory. Appendix A provides a summary of the records search results.

4.1.1 Previous Studies

The SSJVIC records search identified 153 previously conducted cultural resources studies within a 0.25-mile radius of the project site, of which 102 include the project site. A complete list of these studies is included in Appendix A. A majority of previous studies that include the project site intersect small areas of the gen-tie routes. Three studies (KE-01925, KE-03954, and KE-04038) covered vast swaths of the project site, and a fourth (KE-00633) discusses three resources located within the project site. Each report is discussed in further detail below.

KE-00633

Report KE-00633 is a survey and testing report prepared by Michael Macko, Jeanne Binning, David Earle, and Paul Langenwalter in 1993 for Macko Archaeological Consulting on behalf of AT&T, Inc. The survey covered 143 linear miles from Victorville to Bakersfield, California, and resulted in the identification of 37 sites (24 historic and 13 prehistoric) and eight prehistoric isolated finds. Three of these resources, P-15-003368, 003530, and 003537 are located within the project area. The latter two sites are unpaved historic roads that were recommended as ineligible for the NRHP following survey evaluation. P-15-003368, described by the authors as numerous dense surface concentrations of fire affected rock (FAR), also underwent archaeological testing. No subsurface artifacts or features were recovered during testing, and the site was recommended as ineligible for the NRHP. Despite this, Macko et al. recommended archaeological monitoring during ground-disturbing construction at P-15-003368, arguing that there is enough potential for a subsurface deposit to warrant such cautionary measures.

KE-01925

Report KE-01925 is a survey and testing report prepared by Meg McDonald and Jerry Schaefer in 1997 for ASM Affiliates, Inc. on behalf of the Catellus Development Corporation. The 4,810-acre survey resulted in the identification of 14 sites and 12 isolated finds. Historic sites include four refuse deposits and one bridge associated with State Route 58. Prehistoric sites include four temporary camps, four lithic procurement areas, and one lithic scatter. Subsurface testing was

completed for seven of the prehistoric sites, although none was determined NRHP eligible. None of the sites or isolated finds documented in the report overlap with the current project site.

KE-03954

Report KE-03954 is a survey report prepared by David Brunzell in 2009 for BCR Consulting on behalf of the Strata Equity Group, Inc. The 2,945-acre survey resulted in the identification of 20 sites and 61 isolated finds. Historic sites include one refuse deposit, one complex with several associated structures and refuse concentrations, and one gunnery range. Prehistoric sites include 17 lithic scatters. Each of the 17 prehistoric sites as well as the historic-era complex were determined to be potentially eligible for the NRHP. Three of these resources, P-15-013567 (historic refuse deposit), P-15-013568 (historic-era complex), and P-15-013622 (lithic scatter) are located within the current project site.

KE-04038

Report KE-04038 is a survey report prepared by David Brunzell in 2009 for BCR Consulting on behalf of the Strata Equity Group, Inc. The 661-acre survey resulted in the identification of seven isolated prehistoric artifacts: four lithic flakes and three granitic manos. Each of these is recorded within the current project site. As Isolates, Brunzell recommended each of these as ineligible for the NRHP.

4.1.2 Previously Recorded Resources

The SSJVIC records search conducted for this effort identified 362 previously recorded resources within a 0.25-mile radius of the project site. Of those, 90 resources (40 sites, 50 isolates) are recorded within or directly adjacent to the project site. Resources recorded within or adjacent to the project site are listed in Table 2 below. Resources recommended eligible or ineligible have been previously evaluated as part of a previously conducted cultural resources study. Resources that are presumed eligible or ineligible have not been evaluated but are likely eligible or ineligible based on previous resource records. Resources recorded in the 0.25-mile radius are listed in Appendix A.

4.2 Historic Imagery Review

Rincon reviewed historic aerials and topographic maps from HistoricAerials.com and from the United States Geologic Survey (USGS) “Topoview” webpage. These images were reviewed to identify potential cultural resource concerns on the project site. Rincon used aerial imagery and topographic maps to identify roads over 50 years old and to identify buildings that may be present on the project site. The results of the historic imagery review are discussed in the following sections and in the Department of Parks and Recreation (DPR) Series 523 forms prepared for the project.

4.3 Native American Outreach

Rincon contacted the Native American Heritage Commission (NAHC) on September 26, 2019 to request a Sacred Lands File search of the project site. As part of this request, Rincon asked the NAHC to provide a list of Native American groups and/or individuals culturally affiliated with the area who may have knowledge of cultural resources in the project site (Appendix B). The NAHC emailed a response on October 2, 2019, stating that the SLF search was returned with negative results (Attachment C). Rincon sent letters to the Native American contacts provided by the NAHC to

request information regarding their knowledge of cultural resources within the vicinity that may be impacted by the project on October 7, 2019, with no response as of the date of this report.

Table 2. Previously Recorded Cultural Resources Within or Adjacent to Project Site

Primary Number	Trinomial	Resource Type	Description	Recorder(s) and Year(s)	NRHP/CRHR Status
P-15-000560	CA-KER-560H	Historic Railroad	Atchison, Topeka, & Santa Fe (AT&SF) Railroad	Various	NRHP Status Code 6Z: Found ineligible for NRHP, CRHR, or Local designation through survey evaluation
P-15-002050	CA-KER-2050H	Historic Railroad	Southern Pacific Railroad; record also includes refuse/associated features adjacent to rail line	Various	Determined ineligible for NRHP
P-15-002169	CA-KER-2169	Prehistoric Site	Lithic scatter with obsidian Pinto point and fire-affected rock	E. Wohlgemuth et al. 1989; M. Q. Sutton 1985	Not evaluated
P-15-002435	CA-KER-2435	Prehistoric Site	Possible hearth, lithic scatter, and metate fragments	R. Kellawan and L. Daub 2013; L. M. Blair, J. R. Wedding, W. G. White, D. L. Winslow, S. Murphy, D. Smee, W. Andrejack, and A. Brock 2001; M. Sutton 1985	NRHP Status Code 7: Not evaluated for NRHP and CRHR
P-15-002537	CA-KER-2537	Historic Site	Refuse deposit	R. E. Parr 1989	Not evaluated
P-15-002585	CA-KER-2585	Prehistoric Site	Fire-affected rock	J. Wedding 2001; E. Wohlgemuth et al. 1989	NRHP Status Code 7: Not evaluated for NRHP and CRHR
P-15-003368	CA-KER-3368	Prehistoric Site	Numerous dense concentrations of fire-affected rock around a small playa	M. Macko and K. Rhodes 1992	Recommended ineligible
P-15-003534	CA-KER-3534H	Historic Road	Segment of unnamed dirt road with wagon wheel tracks	M. Macko 1993	Not evaluated
P-15-003537	CA-KER-3537H	Historic Road	Oak Creek Road	CH2M Hill 2010; M. Macko 1993	Recommended ineligible
P-15-003549	CA-KER-3549H	Historic Structure	Los Angeles Aqueduct	Various	Recommended eligible

Primary Number	Trinomial	Resource Type	Description	Recorder(s) and Year(s)	NRHP/CRHR Status
P-15-003558	CA-KER-3558	Prehistoric Site	Lithic scatter	G. Alcok, J. Edwards, S. Jackson, J. Garcia, and K. Tremaine 1993	Not evaluated
P-15-003927	CA-KER-3927H	Historic Road	Twenty Mule Team Road	J. Costello and J. Marvin 1993	Not evaluated
P-15-003929	CA-KER-3929H	Historic Road	Los Angeles-Owens Valley Road	Various	NRHP Status Code 6Z: Found ineligible for NRHP, CRHR, or Local designation through survey evaluation
P-15-003930	CA-KER-3930H	Historic Site	Arper Well and associated refuse deposit	J. Costello, J. Marvin, and C. Brownson 1993	Not evaluated
P-15-004112	-	Historic site	Gravel pits	J. Costello, J. Marvin, and C. Brownson 1993	Not evaluated
P-15-004117	CA-KER-4046	Prehistoric Site	Cluster of hearth features	A. Carida and M. Cardia 1993	Not evaluated
P-15-006072	-	Prehistoric Isolate	Isolated mano	ASM Affiliates Inc. 1997	Not evaluated
P-15-007234	CA-KER-5526	Prehistoric Site	Hearth	D. Laylander and J. Binning 1998	Not evaluated
P-15-007596	CA-KER-850	Prehistoric Isolate	Isolated handstone	J. Garcia, J. Edwards, and K. Tremaine 1993	Not evaluated
P-15-007597	CA-KER-851	Prehistoric Isolate	Isolated chert uniface	J. Garcia, J. Edwards, and K. Tremaine 1993	Not evaluated
P-15-007598	CA-KER-852	Prehistoric Isolate	Isolated handstone	J. Garcia, J. Edwards, and K. Tremaine 1993	Not evaluated
P-15-010500	CA-KER-6145	Prehistoric Site	Lithic scatter	K. Moslak and W. Jenson 2002; C. Hacking, R. Farmer, and B. Ladd 2005	Not evaluated
P-15-010501	CA-KER-6146	Prehistoric Site	Temporary camp with lithic scatter, small mammal bone, and fire-affected rock	K. Moslak and W. Jenson 2002; C. Hacking, R. Farmer, and B. Ladd 2005	Not evaluated

Primary Number	Trinomial	Resource Type	Description	Recorder(s) and Year(s)	NRHP/CRHR Status
P-15-010543	-	Prehistoric Isolate	Isolated chert core	V. Avalos 2009; K. Moslak, W. Jenson, and C. Wright 2002	Not evaluated
P-15-012482	-	Historic Site	Glass scatter	K. Ahmet, S. Bholat, N. Hofmeister, M. Espinoza, and E. Crabtree 2006	Not evaluated
P-15-013528	-	Prehistoric Isolate	Isolated chert flake	D. Brunzell 2009	Not evaluated
P-15-013529	-	Prehistoric Isolate	Isolated chalcedony flake	D. Brunzell 2009	Not evaluated
P-15-013530	-	Prehistoric Isolate	Isolated chalcedony flake	D. Brunzell 2009	Not evaluated
P-15-013531	-	Prehistoric Isolate	Isolated mano	D. Brunzell 2009	Not evaluated
P-15-013532	-	Prehistoric Isolate	Isolated mano	D. Brunzell 2009	Not evaluated
P-15-013533	-	Prehistoric Isolate	Isolated mano	D. Brunzell 2009	Not evaluated
P-15-013534	-	Prehistoric Isolate	Isolated chalcedony flake	D. Brunzell 2009	Not evaluated
P-15-013567	CA-KER-7646H	Historic Site	Refuse deposit	V. Avalos 2009	Not evaluated
P-15-013568	CA-KER-7647H	Multicomponent Site	Refuse deposit, dry well, and isolated chert flake	V. Avalos 2009	Not evaluated
P-15-013571	-	Prehistoric Isolate	Isolated quartzite flake	V. Avalos 2009	Not evaluated
P-15-013572	-	Prehistoric Isolate	Isolated chalcedony shatter	V. Avalos 2009	Not evaluated
P-15-013574	-	Prehistoric Isolate	Isolated quartzite shatter	V. Avalos 2009	Not evaluated
P-15-013575	-	Prehistoric Isolate	Isolated chert flake	V. Avalos 2009	Not evaluated
P-15-013576	-	Prehistoric Isolate	Isolated chalcedony flake	V. Avalos 2009	Not evaluated
P-15-013577	-	Prehistoric Isolate	Isolated chert flake	V. Avalos 2009	Not evaluated
P-15-013578	-	Prehistoric Isolate	Isolated chert shatter	V. Avalos 2009	Not evaluated
P-15-013579	-	Prehistoric Isolate	Isolated chalcedony flake	V. Avalos 2009	Not evaluated
P-15-013580	-	Prehistoric Isolate	Isolated chalcedony shatter	V. Avalos 2009	Not evaluated

Primary Number	Trinomial	Resource Type	Description	Recorder(s) and Year(s)	NRHP/CRHR Status
P-15-013581	-	Prehistoric Isolate	Isolated andesite flake and chalcedony flake	V. Avalos 2009	Not evaluated
P-15-013582	-	Prehistoric Isolate	Isolated chalcedony core	V. Avalos 2009	Not evaluated
P-15-013583	-	Prehistoric Isolate	Isolated brown jasper shatter	V. Avalos 2009	Not evaluated
P-15-013584	-	Prehistoric Isolate	Isolated chalcedony shatter	V. Avalos 2009	Not evaluated
P-15-013585	-	Prehistoric Isolate	Isolated chert flake	V. Avalos 2009	Not evaluated
P-15-013586	-	Prehistoric Isolate	Isolated obsidian shatter	V. Avalos 2009	Not evaluated
P-15-013587	-	Prehistoric Isolate	Isolated chalcedony flake	V. Avalos 2009	Not evaluated
P-15-013588	-	Prehistoric Isolate	Isolated chalcedony flake	V. Avalos 2009	Not evaluated
P-15-013589	-	Prehistoric Isolate	Isolated chert shatter and chalcedony shatter	V. Avalos 2009	Not evaluated
P-15-013590	-	Prehistoric Isolate	Isolated metate fragment	V. Avalos 2009	Not evaluated
P-15-013591	-	Prehistoric Isolate	Isolated chert shatter and chalcedony flake	V. Avalos 2009	Not evaluated
P-15-013592	-	Prehistoric Isolate	Isolated chert flake and chalcedony flake	V. Avalos 2009	Not evaluated
P-15-013593	-	Prehistoric Isolate	Isolated chert shatter	V. Avalos 2009	Not evaluated
P-15-013596	-	Prehistoric Isolate	Isolated chalcedony flake	V. Avalos 2009	Not evaluated
P-15-013620	CA-KER-7657	Prehistoric Site	Lithic scatter	V. Avalos 2009	Not evaluated
P-15-013621	CA-KER-7658	Prehistoric Site	Lithic scatter	V. Avalos 2009	Not evaluated
P-15-013622	CA-KER-7659	Prehistoric Site	Lithic scatter	V. Avalos 2009	Recommended ineligible
P-15-013623	CA-KER-7660	Prehistoric Site	Lithic scatter	V. Avalos 2009	Not evaluated
P-15-013631	-	Prehistoric Isolate	Isolated obsidian shatter	V. Avalos 2009	Not evaluated
P-15-013632	-	Prehistoric Isolate	Isolated obsidian flake	V. Avalos 2009	Not evaluated

Primary Number	Trinomial	Resource Type	Description	Recorder(s) and Year(s)	NRHP/CRHR Status
P-15-013633	-	Prehistoric Isolate	Isolated quartzite shatter and chalcedony flake	V. Avalos 2009	Not evaluated
P-15-013634	-	Prehistoric Isolate	Isolated chalcedony shatter	V. Avalos 2009	Not evaluated
P-15-013635	-	Prehistoric Isolate	Isolated obsidian flake	V. Avalos 2009	Not evaluated
P-15-013636	-	Prehistoric Isolate	Isolated chert flake	V. Avalos 2009	Not evaluated
P-15-013637	-	Prehistoric Isolate	Isolated chalcedony core	V. Avalos 2009	Not evaluated
P-15-013638	-	Prehistoric Isolate	Isolated chert flake	V. Avalos 2009	Not evaluated
P-15-013639	-	Prehistoric Isolate	Isolated chert shatter	V. Avalos 2009	Not evaluated
P-15-013640	-	Prehistoric Isolate	Isolated chert flake	V. Avalos 2009	Not evaluated
P-15-013641	-	Prehistoric Isolate	Isolated chert flake	V. Avalos 2009	Not evaluated
P-15-013642	-	Prehistoric Isolate	Isolated chalcedony flake	V. Avalos 2009	Not evaluated
P-15-013643	-	Prehistoric Isolate	Isolated chalcedony flake	V. Avalos 2009	Not evaluated
P-15-013644	-	Prehistoric Isolate	Isolated chalcedony shatter	V. Avalos 2009	Not evaluated
P-15-013646	CA-KER-7663/H	Prehistoric Site	Lithic scatter with single historic can	V. Avalos 2009	Not evaluated
P-15-014894	CA-KER-8319H	Historic site	Refuse deposit	K. R. Way, H. Haas, and A. Ginther 2013; S. Hudlow 2010	Recommended ineligible
P-15-016828	CA-KER-9255H	Historic site	Refuse deposit	H. Haas and T. Giuliano 2013	Recommended ineligible
P-15-016831	CA-KER-9258H	Historic site	Refuse deposit	K. R. Way, H. Haas, and A. Ginther 2013	Recommended ineligible
P-15-016832	CA-KER-9259H	Historic site	Refuse deposit	K. R. Way, H. Haas, and A. Ginther 2013	Recommended ineligible
P-15-017305	-	Historic Road	Segment of State Route 14	T. Lucas and C. Higgins 2013	Not evaluated
P-15-017307	-	Historic Structure	Utility line remnants and associated refuse	D. Martinez and C. Connolly 2013	Not evaluated
P-15-017324	-	Historic Road	Segment of 25th Street	M. Rich and E. Mike 2013	Not evaluated

Primary Number	Trinomial	Resource Type	Description	Recorder(s) and Year(s)	NRHP/CRHR Status
P-15-017326	-	Historic Road	Unnamed dirt road	E. Gingerich and D. Mike 2013	Not evaluated
P-15-017331	-	Historic Road	Segments of Neuralia Road	R. Kellawan and L. Daub 2013	Not evaluated
P-15-018149	CA-KER-9936H	Historic Site	Refuse deposit	K. R. Way, R. Dinarte, V. Harvey, and A. Ginther	Recommended ineligible
P-15-018681	CA-KER-10204H	Historic Structure	Los Angeles Department of Water and Power Owens Gorge 230kV transmission line	M. Dice 2014	Recommended ineligible
P-15-019808	-	Prehistoric Isolate	Isolated chert flake	J. Cervantes 2018	Not evaluated

5 Field Survey

Rincon archaeologists Dustin Merrick, Daphne Douglas, Nickolas Diaz, Kongmeng Vang, Martin Jorgensen, Yareli Lopez, Sonali Patangay, Matthew Cappetta, Allana Griffin, Rudy Dinarte, Alli Berry, and Mary Shockley completed the pedestrian survey from August 19 to September 27, 2019. Jake Gonzales and Tommy Gonzales of the Tejon Indian Tribe also participated in the survey effort. From May 13 to 31, 2020, Rincon archaeologists Dustin Merrick, Ali Berry, Amanda Eggers, Rudy Dinarte, and Courtney Montgomery completed the pedestrian survey of additional parcels.

5.1 Survey Methods

The pedestrian survey involved walking transects spaced 15 meters apart and oriented with the cardinal directions across the project area and oriented parallel to the proposed gen-tie alternatives for all alignments.

The archaeologists examined all exposed ground surface for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, ceramics, fire-affected rock [FAR]), ecofacts (marine shell and bone), soil discoloration that might indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations) or historic debris (e.g., metal, glass, ceramics). Ground disturbances such as burrows and drainages were visually inspected. Survey notes were prepared by the surveyor and are available upon request.

5.2 Survey Findings

The Bellefield project site is generally located on a flat, sandy alluvial plain with 60 to 95 percent ground visibility due to varying levels of vegetation. The pedestrian survey field-verified 13 of the 50 previously recorded isolates and identified 137 new isolates. A 50m radius was inspected around each isolate prior to determining if previously recorded isolates were still present. This was necessary because resource locations from the information centers can be inaccurate. Recorded isolates consist primarily of lithic artifacts and survey markers. Isolated artifacts are summarized and described in Appendix C.

During the field effort, Rincon updated 40 previously recorded sites (Table 3) and identified and recorded 71 new sites (Table 4). These sites are generally categorized as temporary camps, lithic scatters, historic refuse deposits, homesteads, railroads, roads, and utility lines. Features identified within these sites include hearths, prospecting and mining features, foundations, and wells. Identified site and feature types are described in further detail below in Section 5.3. A map depicting the location of each resource in the project site can be found in the associated DPR Series 523 Forms in Appendix D, which is confidential.

The following tables provide summary information for each non-isolate resource on the project site. Additional detail is provided in the DPR Series 523 forms prepared for each resource, included in Appendices E and F, which are confidential. The tables below include Rincon's assessment as to the potential for the site to contain a subsurface deposit. This potential was determined using the following factors: 1) features present; 2) estimated length of occupation indicated by proximity to

water, presence of hearth features, presence of groundstone, etc.; 3) proximity to water source that may have resulted in alluvial deposition of soils over site; 4) presence of partially buried artifacts, and 5) geomorphology.

5.3 Resource Type Descriptions

Archaeological resources within the project area were assigned site function based on the presence of particular features and artifacts. Given the limited number of features identified, this study relies on seven broad functional categories of site type. These include: Temporary/Seasonal Camps, Lithic Scatters and Single-Activity Sites, Historic Refuse Deposits, Homesteads, Roads/Railroads/Utility Lines, Isolates, and Other.

Table 3. Field Survey Results- Previously Recorded Cultural Resources

						Prehistoric Artifact Counts				Historic Artifact Counts					
Primary Number	Trinomial	Age	Description	Site Status	Potential for Subsurface Deposit	FAR	Flakes	Lithic Tools	Groundstone	Glass	Metal	Ceramic	Misc	Features	Size (E/W by N/S)
Aratina-S-20		Historic	Road	No change	N/A									None	9.7 km
P-15-000560	CA-KER-560H	Historic	Atchison, Topeka, and Santa Fe Railroad	No change	N/A									None	Unknown
P-15-002050	CA-KER-2050H	Historic	Southern Pacific Railroad	No change	N/A									None	Unknown
P-15-002169	CA-KER-2169	Prehistoric	Lithic scatter	Site destroyed by pipeline construction; one Pinto point identified on site boundary	None			1						None	N/A
P-15-002435	CA-KER-2435	Prehistoric	Lithic scatter	Unable to relocate	N/A									None	N/A
P-15-002537	CA-KER-2537	Historic	Refuse deposit	No change	N/A									None	N/A
P-15-002585	CA-KER-2585	Prehistoric	Lithic scatter	Unable to relocate	N/A									None	N/A
P-15-003368	CA-KER-3368	Prehistoric	Temporary Camp	No change	Moderate	100								Deflated hearth	25 m by 50 m
P-15-003534	CA-KER-3534H	Historic	Unnamed dirt road	No change	N/A									None	Unknown
P-15-003537	CA-KER-3537H	Historic	Road	No change	N/A									None	4 km
P-15-003549	CA-KER-3549H	Historic	Los Angeles Aqueduct	No change	N/A									None	Unknown
P-15-003558	CA-KER-3558	Prehistoric	Lithic Scatter	Single piece of shatter present	None		1							None	N/A
P-15-003927	CA-KER-3927	Historic	Twenty Mule Team Road	Same condition; updated to include new segment	N/A									None	Unknown
P-15-003929	CA-KER-3929	Historic	Road	Unable to relocate	N/A									None	N/A
P-15-003930	CA-KER-3930H	Historic	Aper Well and associated refuse scatter	Unable to relocated, likely destroyed and within Proteus Road	N/A									None	N/A
P-15-004112		Historic	Gravel Pits	Bisected by State Route 58; actively used by Caltrans	N/A									None	180 m by 280 m
P-15-004117	CA-KER-4046	Prehistoric	Temporary Camp	Single hearth and projectile point fragment identified (Originally four hearths and single chopper)	Moderate	30		1						Deflated possible hearth	80 m by 180 m
P-15-007234	CA-KER-5526	Prehistoric	Deflated Hearth	Unable to relocate	N/A									None	Unknown
P-15-007597	CA-KER-851	Prehistoric	Lithic scatter	Isolate relocated; updated to include newly identified artifacts and expanded site boundary	Low		3	3						None	20 m by 28 m
P-15-010500	CA-KER-6145	Prehistoric	Temporary Camp	Same condition; artifact count increased	High	50	98	1						Possible deflated hearth	60 m by 115 m
P-15-010501	CA-KER-6146	Prehistoric	Temporary Camp	Now bisected by fence and road; no change to portion of site on current project site	High	800	12	5	3					None	75 m by 100 m

Primary Number	Trinomial	Age	Description	Site Status	Potential for Subsurface Deposit	Prehistoric Artifact Counts				Historic Artifact Counts				Features	Size (E/W by N/S)
						FAR	Flakes	Lithic Tools	Groundstone	Glass	Metal	Ceramic	Misc		
P-15-012482		Historic	Refuse deposit	No Access; presumed destroyed	N/A									None	N/A
P-15-013567	CA-KER-7646H	Historic	Refuse deposit	No change	None					15		20	2	None	5 m by 5 m
P-15-013568	CA-KER-7647H	Historic	Homestead remnants and refuse deposit	Updated to include prehistoric component	Moderate	10	32	1	1	586	120	56		Foundations, well, fence lines, concentrations	300 m by 200 m
P-15-013577		Prehistoric	Chert flake	Unable to relocated	None									None	N/A
P-15-013620	CA-KER-7657	Prehistoric	Lithic scatter	No change	Low		45		1					None	45 m by 20 m
P-15-013621	CA-KER-7658	Prehistoric	Lithic scatter	Fewer artifacts present	Low		27							None	55 m by 50 m
P-15-013622	CA-KER-7659	Prehistoric	Lithic scatter	Same condition; addition of possible groundstone	Moderate	3	50	1	8					None	75 m by 60 m
P-15-013623	CA-KER-7660	Prehistoric	Lithic scatter	Unable to relocate	N/A									None	N/A
P-15-013646	CA-KER-7663H	Prehistoric	Lithic scatter	No Access; located in UXO area	Unknown									None	N/A
P-15-014894	CA-KER-8319H	Historic	Refuse deposit	Extension to northwest located	None					>2000	>3000	>2000	>1000	None	300 m by 100 m
P-15-016831	CA-KER-9258H	Historic	Refuse deposit	No change	None						80			None	70 m by 50 m
P-15-016832	CA-KER-9259H	Historic	Refuse deposit	No change	None					20	15			None	65 m by 35 m
P-15-017305		Historic	State Route 14	No change	N/A									None	Unknown
P-15-017307		Historic	Transmission line and associated refuse scatter	No change	None									None	Unknown
P-15-017324		Historic	Road and associated refuse scatter	No change	None									None	0.8 km
P-15-017326		Historic	Unnamed dirt road	No change	N/A									None	2.5 km
P-15-017331		Historic	Neuralia Road	No change	N/A									None	1.5 km
P-15-018149	CA-KER-9936H	Historic	Refuse deposit	No change	None					20	30	20	10	None	30 m by 40 m
P-15-018681	CA-KER-10204H	Historic	Transmission line	No change	N/A									None	Unknown

Table 4. Field Survey Results- Newly Recorded Resources

				Prehistoric Artifact Counts				Historic Artifact Counts					
Site Number	**Age**	**Description**	**Potential for Subsurface Deposit**	FAR	Flakes	Lithic Tools	Groundstone	Glass	Metal	Ceramic	Misc	**Features Present**	**Size (Length or E/W by N/S)**
BEL-S-003H	Historic	Unnamed dirt road	None									None	2.4 km
BEL-S-004H	Historic	Unnamed dirt road, two-track	None									None	1.1 km
BEL-S-005H	Historic	Alignment of utility poles	None									None	0.8 km
BEL-S-006H	Historic	Homestead and refuse scatter	None					900	500	300	200	Chimney	155 m by 120 m
BEL-S-008H	Historic	Unnamed dirt road, two-track	None									None	2.1 km
BEL-S-009	Prehistoric	Lithic scatter	Low		100							None	70 m by 50 m
BEL-S-010	Prehistoric	Lithic scatter	Low		6							None	25 m by 7 m
BEL-S-011H	Historic	Refuse deposit	None					80	40	12		None	55 m by 45 m
BEL-S-012	Prehistoric	Lithic scatter	Low		19							None	90 m by 30 m
BEL-S-013	Prehistoric	Lithic scatter	Moderate-High		94	1						None	70 m by 30 m
BEL-S-014	Prehistoric	Single hearth feature (deflated)	Moderate	110								Deflated hearth	15 m by 10 m
BEL-S-016H	Historic	Refuse deposit	None						15			None	70 m by 65 m
BEL-S-017H	Historic	Refuse deposit	None					90	11	20		None	25 m by 17 m
BEL-S-021	Prehistoric	Lithic Scatter	Low									None	10 m by 7 m
BEL-S-023H	Historic	Refuse deposit	None					500	50		30	None	40 m by 60 m
BEL-S-031H	Historic	Refuse deposit	None						18			None	50 m by 63 m
BEL-S-032H	Historic	Refuse deposit	None					13	34			None	60 m by 70 m
BEL-S-033	Prehistoric	Lithic/FAR Scatter	Low	10	55	1						None	55 m by 40 m
BEL-S-034H	Historic	Refuse deposit	None					1	51			None	30 m by 30 m
BEL-S-037	Prehistoric	Lithic Scatter	Low		43		2					None	65 m by 45 m
BEL-S-050	Prehistoric	Lithic Scatter	No		5							None	25 m by 10 m
BEL-S-053	Prehistoric	FAR scatter	Low	11								Possible deflated hearth	15 m by 7 m
BEL-S-054	Prehistoric	FAR scatter	Low	8								Possible deflated hearth	8 m by 5 m
BEL-S-055H	Historic	Refuse deposit	None					100	1	2		None	10 m by 10 m
BEL-S-056H	Historic	Refuse deposit	None						48			None	40 m by 50 m
BEL-S-057	Prehistoric	Lithic Scatter	Low		4	1						None	10 m by 75 m
BEL-S-058H	Historic	Refuse deposit with potential mining pit	None					80	540	80		None	35 m by 25 m
BEL-S-060	Prehistoric	Lithic Scatter	Low		12	1						None	10 m by 15 m
BEL-S-061H	Historic	Historic site	None									Adit	8 m by 8 m
BEL-S-062H	Historic	Refuse deposit	None					100	138	4		None	100 m by 60 m
BEL-S-063H	Historic	Unpaved Road	None					2	30		50	None	3.4 km
BEL-S-066	Prehistoric	Temporary Camp	High	16	126	15	19					Deflated hearth	165 m by 100 m
BEL-S-068	Prehistoric	Lithic scatter	Low	6	22							None	30 m by 20 m

Site Number	Age	Description	Potential for Subsurface Deposit	Prehistoric Artifact Counts				Historic Artifact Counts				Features Present	Size (Length or E/W by N/S)
				FAR	Flakes	Lithic Tools	Groundstone	Glass	Metal	Ceramic	Misc		
BEL-S-069H	Historic	Refuse deposit	None					60	150	10		One locus	55 m by 65 m
BEL-S-072H	Historic	Refuse deposit	None					5	130			Three loci	25 m by 40 m
BEL-S-073	Prehistoric	Lithic Scatter	Low		6							None	35 m by 15 m
BEL-S-085	Prehistoric	Lithic scatter	Low		5							None	13 m by 13 m
BEL-S-100	Prehistoric	Lithic Scatter	Low		21	1						None	15 m by 40 m
BEL-S-101	Prehistoric	Lithic Scatter	Low	2	3							None	15 m by 10 m
BEL-S-102	Prehistoric	Lithic Scatter	Low		10	1						None	30 m by 20 m
BEL-S-104	Prehistoric	Lithic/FAR Scatter	Moderate	12	8	1						Possible deflated hearth	30 m by 30 m
BEL-S-105	Prehistoric	Lithic Scatter	Low		16	1						None	30 m by 25 m
BEL-S-106	Prehistoric	Lithic Scatter	Low		15	1						None	25 m by 15 m
BEL-S-107	Prehistoric	Temporary Camp	High	81	13							Three deflated hearths	40 m by 25 m
BEL-S-108	Prehistoric	Temporary Camp	High	20	18	1	1					Possible deflated hearth	35 m by 35 m
BEL-S-109	Prehistoric	Lithic Scatter	Low		14							None	8 m by 6 m
BEL-S-110	Prehistoric	Lithic Scatter	Low		11							None	29 m by 27 m
BEL-S-111H	Historic	Well	None									Well, pole	8 m by 10 m
BEL-S-112	Prehistoric	Lithic Scatter	Low		6							None	5 m by 6 m
BEL-S-113	Prehistoric	Temporary Camp	High	7	1							None	10 m by 9 m
BEL-S-114H	Historic	Refuse deposit	None						60			None	7 m by 4 m
BEL-S-118H	Historic	Refuse deposit	None					1	11			None	30 m by 14 m
BEL-S-121H	Historic	Refuse deposit	None					5	30			None	10 m by 23 m
BEL2-S-001	Historic	Refuse deposit	None					99				None	10 m by 16 m
BEL2-S-002	Historic	Refuse deposit	None						9			None	28 m by 8 m
BEL2-S-009	Historic	Refuse deposit	None					23	57			None	28 m by 20 m
BEL2-S-010	Historic	Refuse deposit	None					5	99			None	72 m by 93 m
BEL2-S-011	Historic	Refuse deposit	None					21	33			None	21 m by 28 m
BEL2-S-012	Historic	Refuse deposit	None									None	19 m by 15 m
BEL2-S-013	Historic	Unnamed dirt road	None									None	0.5 km
BEL2-S-014	Historic	Unnamed dirt road, two-track	None									None	1.6 km
BEL2-S-015	Historic	20th Street, dirt road, two-track	None									None	0.8 km
BEL2-S-016	Historic	Unnamed dirt road	None									None	0.5 km
BEL2-S-017	Historic	Altus Avenue, dirt road two track	None									None	2.9 km
BEL2-S-021	Historic	Utility Poles and refuse deposit	None						2		2	Utility Poles	12 m by 18 m
BEL2-S-022	Historic	Refuse deposit	None						33		2	None	14 m by 10 m
BEL2-S-023	Historic	Refuse deposit	None						80			None	15 m by 24 m

				Prehistoric Artifact Counts				Historic Artifact Counts					
Site Number	**Age**	**Description**	**Potential for Subsurface Deposit**	FAR	Flakes	Lithic Tools	Groundstone	Glass	Metal	Ceramic	Misc	**Features Present**	**Size (Length or E/W by N/S)**
BEL2-S-024	Historic	Refuse deposit	None						17			None	8 m by 17 m
BEL2-S-026	Historic	Refuse deposit	None						40			None	10 m by 26 m
BEL2-S-028	Historic	Refuse deposit	None						47			None	31 m by 35 m
BEL2-S-029	Historic	Well, foundation, associated refuse	None					9	13	3	2	Well, concrete foundation	44 m by 38 m

5.3.1 Temporary/Seasonal Camps

This site type was defined by the presence of hearths, a feature represented by roughly circular outlines of clustered FAR, indicative of purposeful fires and continued use of a site over time. Some of these hearths are deflated, leaving a low to moderate density scatter of FAR that is no longer spherical. Other artifacts typically associated with these camps include lithic debitage, lithic and groundstone tools, and in some cases burnt faunal remains. The features and artifact assemblage of temporary camps are indicative of limited yet continued use over time. Significantly higher concentrations of FAR are indicative of more frequent use over time, defined here as seasonal camps. A total of eight prehistoric sites identified during the survey were assigned to this category, including four newly recorded sites (BEL-S-066, 107, 108, and 113) and four relocated, previously recorded sites (P-15-003368, 004117, 010500, and 010501). Of these, P-15-010501 is the only seasonal camp.

5.3.2 Lithic Scatters and Single-Activity Sites

These sites represent the most common prehistoric site type found within the project area. This site type was defined by the presence of surface scatters of lithic debitage or FAR. A considerable degree of variation in site size and artifact density is observed within the lithic and FAR scatters identified in the project area. The lithic scatters consist of various material types including three varieties of cryptocrystalline silica (CCS) (chert, jasper and chalcedony), obsidian, rhyolite, and basalt. Many of the flakes present in these scatters represent early reduction, however in some cases, late stage production flakes and lithic tools are also present. A total of 35 sites identified during the survey were assigned to this category, including 25 newly recorded sites (BEL-S-009, 010, 012, 013, 014, 019, 021, 033, 037, 050, 053, 054, 057, 060, 068, 073, 085, 100, 101, 102, 105, 106, 109, 110, 112) and ten previously recorded sites (P-002169, 002435, 002585, 003558, 007597, 013620, 013621, 013622, 013623, 013646). To date, P-15-013622 is the only of these sites that has undergone testing. Brunzell (2009a) reported that the site did not contain a significant subsurface component.

5.3.3 Historic Refuse Deposits

These sites represent the most common historic site type found within the project area. This site type was defined by the presence of diagnostic historic-era domestic and industrial refuse. Typical diagnostic artifacts present within the project area include church key-opened beverage and sanitary cans, hole-in-top and cone-top cans, and glass fragments of various color and density – some of which consist of date-stamped bottle bases. Based on the artifacts present, most of these sites likely date to the mid-twentieth century. A total of 44 sites identified during the survey were assigned to this category, including 29 newly recorded sites (BEL-S-011H, 016H, 017H, 023H, 031H, 032H, 034H, 055H, 056H, 058H, 062H, 069H, 072H, 114H, 118H, 121H, BEL2-S-001, 002, 009, 010, 011, 012, 021, 022, 023, 024, 026, 028, 029) and eight previously recorded sites (P-15-002537, 012482, 013567, 014894, 016828, 016831, 016832, and 018149).

5.3.4 Homesteads

These sites consist of features such as foundations, structures, and wells indicative of long-term use and possible settlement/habitation. A total of two sites identified during the survey were assigned

to this category, including one newly recorded site (BEL-S-006H) and one previously recorded site (P-15-013568). Both sites contained associated refuse deposits. BEL-006H consists of several historic refuse loci, a fragmented fence line, and one chimney foundation. P-15-013568 consists of seven poured concrete foundations, a dry well, and six loci of historic refuse associated with shepherding circa 1920-1940 (Avalos 2009).

5.3.5 Roads/Railroads/Utility Lines/Aqueducts

These sites are historic-era linear resources consisting of roads, railroads and/or transmission lines. These typically date to the mid-twentieth century and are in varying conditions and states of use. A total of 17 sites identified during the survey were assigned to this category, including 10 new sites (BEL-S-003H, 004H, 005H, 008H, and 063H, BEL2-S-013, 014, 015, 016, 017) and 11 previously recorded sites (P-15-000560, 002050, 003537, 003549, 003927, 003929, 017307, 017326, 017331, 018681, and Aratina S-020H). Nine of the new sites (BEL-S-003H, 004H, 008H, and 0063H, BEL2-S-013, 014, 015, 016, 017) and seven of the previously recorded sites (P-15-003537, 003927, 003929, 017305, 017326, 017331, and Aratina-S-020H) are roads. P-15-003929, however, was not field-verified. Two of the previously recorded sites (P-15-000560 and 002050) are railroads. One of the new sites (BEL-S-005H) and two of the previously recorded sites (P-15-017307 and 018681) are utility lines. Finally, one of the previously recorded sites (P-15-003549) is an aqueduct.

5.3.6 Isolates

These consist of isolated artifacts (n = 1-3) of various time periods not in proximity or association to larger sites. A total of 188 isolates identified during the survey were assigned to this category, including 137 newly recorded isolates and 51 previously recorded isolates. Of the 51 previously recorded isolates, Rincon was able to field-verify 13 (see Appendix C).

5.3.7 Other

Three outliers do not fit into the above site categories. S-061H is historic-era mining site consisting of a wood-shored adit, S-111H is a steel well marked by a nearby 2.3 m pole, and P-15-004112 is gravel pits recorded in 1993. The authors report the two gravel pits appear on the 1956 USGS map and estimate they were in operation between 1940 and 1970 (Costello et al. 1993).

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6 Resource Evaluations

Resources recorded and/or updated as part of the current study were evaluated for CRHR eligibility. A cultural resource is considered historically significant and eligible for the CRHR if it:

1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
2) Is associated with the lives of persons important in our past
3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values
4) Has yielded, or may be likely to yield, information important in prehistory or history

Isolates are typically ineligible for CRHR listing as their data potential is exhausted during the initial recording. Therefore, Rincon recommends each of the identified isolates as ineligible for the CRHR and they are not discussed further here.

Rincon evaluated each non-isolate resource against the four criteria listed above, attempting to identify an association with significant persons or events through a review of BLM GLO records, analysis of artifact types and features present, and review of the potential for the resource to extend to the subsurface. Resources were generally considered ineligible if no significant associations could be identified, if the resource does not have the potential to yield important information, if the data potential of the resource was exhausted during current or past recording efforts, and/or if the resource does not retain integrity. Most sites identified consist clearly of surface scatters of artifacts with no indication of a subsurface deposit that may provide additional data.

A summary of resource evaluation recommendations is included in Table 5 and Table 6. Resources identified as potentially eligible and/or requiring additional archaeological work to evaluate are discussed in further detail below.

Table 5. Evaluations of Previously Recorded Resources

Primary Number	Trinomial	Age	Brief Description	Potential for Subsurface Deposit	Level of Disturbance	Integrity	Previous Eligibility Recommendations	Rincon Significance
Aratina-S-20		Historic	Road	N/A	Low	High	Recommended ineligible	Recommended ineligible
P-15-000560	CA-KER-560H	Historic	Atchison, Topeka, and Santa Fe Railroad	N/A	Moderate	Low	NRHP Status Code 6Z: Found ineligible for NRHP, CRHR, or Local designation through survey evaluation	Recommended ineligible
P-15-002050	CA-KER-2050H	Historic	Southern Pacific Railroad	N/A	Moderate	Low	Recommended ineligible for NRHP and CRHR	Recommended ineligible
P-15-002169	CA-KER-2169	Prehistoric	Lithic scatter	None	High	None	Not evaluated	Presumed ineligible
P-15-002435	CA-KER-2435	Prehistoric	Lithic scatter	N/A	N/A	N/A	NRHP Status Code 7: Not evaluated for NRHP and CRHR	N/A
P-15-002537	CA-KER-2537	Historic	Refuse deposit	None	N/A	N/A	Not evaluated	Recommended ineligible
P-15-002585	CA-KER-2585	Prehistoric	Lithic scatter	N/A	N/A	N/A	NRHP Status Code 7: Not evaluated for NRHP and CRHR	N/A
P-15-003368	CA-KER-3368	Prehistoric	Temporary Camp	Moderate	Moderate	Moderate	Recommended ineligible	Recommended ineligible
P-15-003534	CA-KER-3534H	Historic	Unnamed dirt road	N/A	Moderate	Moderate	Not evaluated	Recommended ineligible
P-15-003537	CA-KER-3537H	Historic	Road	N/A	Low	High	Recommended ineligible	Recommended ineligible
P-15-003549	CA-KER-3549H	Historic	Los Angeles Aqueduct	N/A	Low	High	Recommended eligible for the NRHP and CRHR	**Presumed eligible**

Primary Number	Trinomial	Age	Brief Description	Potential for Subsurface Deposit	Level of Disturbance	Integrity	Previous Eligibility Recommendations	Rincon Significance
P-15-003558	CA-KER-3558	Prehistoric	Lithic Scatter	N/A	High	None	Not evaluated	Presumed ineligible
P-15-003927	CA-KER-3927	Historic	Twenty Mule Team Road	N/A	Low	Moderate	Registered California Point of Historical Interest	Recommended ineligible; may warrant special consideration
P-15-003929	CA-KER-3929	Historic	Road	N/A	N/A	N/A	NRHP Status Code 6Z: Found ineligible for NRHP, CRHR, or Local designation through survey evaluation	N/A
P-15-003930	CA-KER-3930H	Historic	Arper Well and associated refuse	N/A	High	N/A	Not evaluated	N/A; no longer present
P-15-004112		Historic	Gravel Pits	N/A	High	Low	Not evaluated	Recommended ineligible
P-15-004117	CA-KER-4046	Prehistoric	Temporary Camp	Moderate	High	Low	Not evaluated	Recommended ineligible
P-15-007234	CA-KER-5526	Prehistoric	Hearth	None	High	None	Not evaluated	N/A; no longer present
P-15-007597	CA-KER-851	Prehistoric	Lithic scatter	Low	High	Low	Previously recorded as isolate and thus ineligible	Recommended ineligible
P-15-010500	CA-KER-6145	Prehistoric	Temporary Camp	High	Moderate	Moderate	Not evaluated	Potentially eligible
P-15-010501	CA-KER-6146	Prehistoric	Seasonal Camp	High	High	Moderate	Not evaluated	Potentially eligible
P-15-012482		Historic	Refuse deposit	N/A	High	None	Not evaluated	N/A
P-15-013567	CA-KER-7646H	Historic	Refuse deposit	None	Moderate	Moderate	Not evaluated	Recommended ineligible

Primary Number	Trinomial	Age	Brief Description	Potential for Subsurface Deposit	Level of Disturbance	Integrity	Previous Eligibility Recommendations	Rincon Significance
P-15-013568	CA-KER-7647H	Historic	Homestead remnants and refuse deposit	Moderate	Moderate	Moderate	Not evaluated	Potentially eligible
P-15-013577		Prehistoric	Chert flake	Low	High	None	Not evaluated	N/A; no longer present
P-15-013620	CA-KER-7657	Prehistoric	Lithic scatter	Low	Moderate	Moderate	Not evaluated	Recommended ineligible
P-15-013621	CA-KER-7658	Prehistoric	Lithic scatter	Low	Moderate	Moderate	Not evaluated	Recommended ineligible
P-15-013622	CA-KER-7659	Prehistoric	Lithic scatter	Moderate	High	Low	Not evaluated	Potentially eligible
P-15-013623	CA-KER-7660	Prehistoric	Lithic scatter	N/A	High	None	Not evaluated	N/A; no longer present
P-15-013646	CA-KER-7663H	Prehistoric	Lithic scatter	Unknown	N/A	N/A	Not evaluated	N/A; no access
P-15-013813		Historic site	Refuse deposit	None	Low	High	Not evaluated	Recommended ineligible
P-15-014894	CA-KER-8319H	Historic	Refuse deposit	None	Low	High	Recommended ineligible (by Rincon in 2013)	Recommended ineligible
P-15-016831	CA-KER-9258H	Historic	Refuse deposit	None	Low	High	Recommended ineligible (by Rincon in 2013)	Recommended ineligible
P-15-016832	CA-KER-9259H	Historic	Refuse deposit	None	Low	High	Recommended ineligible (by Rincon in 2013)	Recommended ineligible
P-15-017305		Historic	Midland Trail	N/A	Low	High	Not evaluated	Recommended Eligible
P-15-017307		Historic	Transmission line and associated refuse scatter	None	Low	High	Not evaluated	Recommended ineligible
P-15-017324		Historic	Road and associated refuse scatter	None	Low	High	Not evaluated	Recommended ineligible

Primary Number	Trinomial	Age	Brief Description	Potential for Subsurface Deposit	Level of Disturbance	Integrity	Previous Eligibility Recommendations	Rincon Significance
P-15-017326		Historic	Unnamed dirt road	N/A	Low	High	Not evaluated	Recommended ineligible
P-15-017331		Historic	Neuralia Road	N/A	Low	High	Not evaluated	Recommended ineligible
P-15-018149	CA-KER-9936H	Historic	Refuse deposit	None	Low	High	Recommended ineligible	Recommended ineligible
P-15-018681	CA-KER-10204H	Historic	Transmission line	N/A	Low	High	Recommended ineligible	Recommended ineligible

Table 6. Evaluations of Newly Recorded Resources

Site Number	Age	Brief Description	Potential for Subsurface Deposit	Level of Disturbance	Integrity	Significance
BEL-S-003H	Historic	Unnamed dirt road	None	Low	High	Recommended ineligible
BEL-S-004H	Historic	Unnamed dirt road, two-track	None	Low	High	Recommended ineligible
BEL-S-005H	Historic	Alignment of utility poles	None	High	Low	Recommended ineligible
BEL-S-006H	Historic	Homestead and refuse scatter	None	Low	Moderate	Recommended ineligible
BEL-S-008H	Historic	Unnamed dirt road, two-track	None	Moderate	Moderate	Recommended ineligible
BEL-S-009	Prehistoric	Lithic scatter	Low	Moderate	Moderate	Recommended ineligible
BEL-S-010	Prehistoric	Lithic scatter	Low	Moderate	Moderate	Recommended ineligible
BEL-S-011H	Historic	Refuse deposit	None	Low	High	Recommended ineligible
BEL-S-012	Prehistoric	Lithic scatter	Low	Moderate	Moderate	Recommended ineligible
BEL-S-013	Prehistoric	Lithic scatter	Moderate-High	Moderate	Moderate	**Potentially Eligible**
BEL-S-014	Prehistoric	Single hearth feature (deflated)	Moderate	High	Low	Recommended ineligible
BEL-S-016H	Historic	Can Scatter	None	High	Low	Recommended ineligible
BEL-S-017H	Historic	Refuse deposit	None	High	Low	Recommended ineligible

Site Number	Age	Brief Description	Potential for Subsurface Deposit	Level of Disturbance	Integrity	Significance
BEL-S-021	Prehistoric	Lithic Scatter	Low	Moderate	Moderate	Recommended ineligible
BEL-S-023H	Historic	Refuse deposit	None	High	Low	Recommended ineligible
BEL-S-031H	Historic	Refuse deposit	None	High	Low	Recommended ineligible
BEL-S-032H	Historic	Refuse deposit	None	High	Low	Recommended ineligible
BEL-S-033	Prehistoric	Lithic/FAR Scatter	Low	Moderate	Moderate	Recommended ineligible
BEL-S-034H	Historic	Refuse deposit	None	High	Low	Recommended ineligible
BEL-S-037	Prehistoric	Lithic Scatter	Low	Moderate	Moderate	Recommended ineligible
BEL-S-050	Prehistoric	Lithic Scatter	No	Moderate	Moderate	Recommended ineligible
BEL-S-053	Prehistoric	FAR scatter	Low	High	Low	Recommended ineligible
BEL-S-054	Prehistoric	FAR scatter	Low	High	Low	Recommended ineligible
BEL-S-055H	Historic	Refuse deposit	None	Low	High	Recommended ineligible
BEL-S-056H	Historic	Refuse deposit	None	Low	High	Recommended ineligible
BEL-S-057	Prehistoric	Lithic Scatter	Low	Moderate	Moderate	Recommended ineligible
BEL-S-058H	Historic	Refuse deposit with potential mining pit	None	High	Low	Recommended ineligible
BEL-S-060	Prehistoric	Lithic Scatter	Low	Moderate	Moderate	Recommended ineligible
BEL-S-061H	Historic	Historic site	None	Moderate	Moderate	Recommended ineligible
BEL-S-062H	Historic	Refuse deposit	None	Moderate	Moderate	Recommended ineligible
BEL-S-063H	Historic	Unpaved Road	None	Moderate	Moderate	Recommended ineligible
BEL-S-066	Prehistoric	Temporary Camp	High	Low	High	**Potentially Eligible**
BEL-S-068	Prehistoric	Lithic scatter	Low	Moderate	Moderate	Recommended ineligible
BEL-S-069H	Historic	Refuse deposit	None	High	Low	Recommended ineligible
BEL-S-072H	Historic	Refuse deposit	None	Moderate	High	Recommended ineligible
BEL-S-073	Prehistoric	Lithic Scatter	Low	Low	High	Recommended ineligible

Site Number	Age	Brief Description	Potential for Subsurface Deposit	Level of Disturbance	Integrity	Significance
BEL-S-085	Prehistoric	Lithic scatter	Low	Moderate	Moderate	Recommended ineligible
BEL-S-100	Prehistoric	Lithic Scatter	Low	Moderate	Moderate	Recommended ineligible
BEL-S-101	Prehistoric	Lithic Scatter	Low	Moderate	Moderate	Recommended ineligible
BEL-S-102	Prehistoric	Lithic Scatter	Low	Moderate	Moderate	Recommended ineligible
BEL-S-104	Prehistoric	Lithic/FAR Scatter	Moderate	Moderate	Moderate	Recommended ineligible
BEL-S-105	Prehistoric	Lithic Scatter	Low	Moderate	Moderate	Recommended ineligible
BEL-S-106	Prehistoric	Lithic Scatter	Low	Moderate	Moderate	Recommended ineligible
BEL-S-107	Prehistoric	Temporary Camp	High	Moderate	Moderate	**Potentially Eligible**
BEL-S-108	Prehistoric	Temporary Camp	High	High	Moderate	**Potentially Eligible**
BEL-S-109	Prehistoric	Lithic Scatter	Low	Moderate	Moderate	Recommended ineligible
BEL-S-110	Prehistoric	Lithic Scatter	Low	Moderate	Moderate	Recommended ineligible
BEL-S-111H	Historic	Well	None	High	Moderate	Recommended ineligible
BEL-S-112	Prehistoric	Lithic Scatter	Low	Low	High	Recommended ineligible
BEL-S-113	Prehistoric	Temporary Camp	High	Moderate	Moderate	**Potentially Eligible**
BEL-S-114H	Historic	Refuse deposit	None	Moderate	Moderate	Recommended ineligible
BEL-S-118H	Historic	Refuse deposit	None	Low	High	Recommended ineligible
BEL-S-121H	Historic	Refuse deposit	None	Moderate	Moderate	Recommended ineligible
BEL2-S-001	Historic	Refuse deposit	None	High	Low	Recommended ineligible
BEL2-S-002	Historic	Refuse deposit	Low	High	High	Recommended ineligible
BEL2-S-009	Historic	Refuse deposit	None	High	Moderate	Recommended ineligible
BEL2-S-010	Historic	Refuse deposit	None	High	Moderate	Recommended ineligible
BEL2-S-011	Historic	Refuse deposit	None	High	Moderate	Recommended ineligible
BEL2-S-012	Historic	Refuse deposit	None	High	Moderate	Recommended ineligible
BEL2-S-013	Historic	Unnamed dirt road	None	High	Low	Recommended ineligible

Site Number	Age	Brief Description	Potential for Subsurface Deposit	Level of Disturbance	Integrity	Significance
BEL2-S-014	Historic	Unnamed dirt road	None	Moderate	Moderate	Recommended ineligible
BEL2-S-015	Historic	20th Street, two track dirt road	None	Moderate	High	Recommended ineligible
BEL2-S-016	Historic	Unnamed dirt road	None	Moderate	High	Recommended ineligible
BEL2-S-017	Historic	Unnamed dirt road	None	Moderate	High	Recommended ineligible
BEL2-S-021	Historic	Refuse deposit	None	High	Moderate	Recommended ineligible
BEL2-S-022	Historic	Refuse deposit	None	High	Moderate	Recommended ineligible
BEL2-S-023	Historic	Refuse deposit	None	High	Moderate	Recommended ineligible
BEL2-S-024	Historic	Refuse deposit	None	High	Moderate	Recommended ineligible
BEL2-S-026	Historic	Refuse deposit	None	High	Moderate	Recommended ineligible
BEL2-S-027	Historic	Refuse deposit	None	High	Moderate	Recommended ineligible
BEL2-S-028	Historic	Refuse deposit	None	High	Moderate	Recommended ineligible
BEL2-S-029	Historic	Refuse deposit	None	High	High	Recommended ineligible

6.1 P-15-003549

P-15-003549 includes the water conveyance system and related features of the Los Angeles Aqueduct (aqueduct), the construction of which was completed in three phases beginning in 1908. First recorded in 1992, the site stretches from Mono Lake to the San Fernando Powerplant, a distance of 340 miles. Features of the conveyance system such as reservoirs, dams, siphons, tunnels, channels, spillways and power plants are included as part of the site. Following its initial recordation, several updates were prepared. In 2006 (KE-03534), the site was recommended eligible for listing in the NRHP under Criterion D as the First Los Angeles Aqueduct Historical Archaeological District. An updated resource record prepared for the aqueduct in 2010 indicates that that P-15-003549 is also eligible for listing in the CRHR under Criterion 1, for its association with the successful development of the Southern California Region and the City of Los Angeles, and under Criterion 2, for its association with the significant individual, William Mulholland. Based on the results of the current survey, Rincon concurs that the Los Angeles Aqueduct appears eligible for listing in the NRHP and CRHR. The project proposes the construction of gen-tie lines to cross the Los Angeles Aqueduct overhead. The project is not otherwise expected to directly or indirectly impact P-15-003549. No archaeological features associated with the First Los Angeles Aqueduct Historical Archaeological District are present within the proposed project site. The Los Angeles Aqueduct is already crossed by utility lines in this area, thus the setting will not be altered. Construction of the project will not modify the Los Angeles Aqueduct beyond its current state. The project is already designed to avoid the Los Angeles Aqueduct.

6.2 P-15-003927

P-15-003927 is 20 Mule Team Road, a historic-era road which supported the transportation of borax between Death Valley and Mojave by mule-drive wagons. The route was operated by the Harmony Borax Mining Company from 1884-1889 and ran 165 miles from the borax mines near Furnace Creek southwest to the railroad loading dock in Mojave, a round trip which took a period of 20 days (Costello and Marvin 1993). As borax mining shifted south to Calico, the Mojave no longer was the center of the borax trade; however, the road continued to be used as a route from Mojave to tungsten mines at Atoll and gold mines at Randsburg. Archival research and a review of historic and contemporary aerial photographs and maps indicates portions of the road have been displaced since this time. The includes portions which were displaced by the construction of Mojave Marine Corps Auxiliary Station (present-day Mojave Air and Space Port) in the 1940s and California City in the 1950s and 1960s. Other portions near California City appear to have also been paved. Others west of California City could not be located on contemporary aerial imagery as part of this study and may no longer be present.

20 Mule Team Road and at portions of its segments have been subject to previous study and designation over the last 50 years. The road in its entirety was designated a California Point of Historical Interest (#91) in 1968. A review of the California Built Environment Resources Directory also indicates a segment of the road in Inyo County was previously determined eligible for listing in the National Register of Historic Places in 1978 (14-005894).No documentation on either previous finding or designation could be located as part of this study. In 1993, two segments of the road (one near Mojave and the other California City) were recorded but not evaluated for historical significance (Costello and Marvin 1993).

The current survey update was completed in November 2020 as part of the Cultural Resource Assessment Report for the Bellfield Solar Project, Kern County, California. The segment of 20 Mule

Team Road which was recorded as part of the current study spans approximately 1.7 miles and does not appear to have been formally recorded or evaluated for historical significance using California Register of Historical Resources (CRHR) or National Register of Historic Places (NRHP) designation criteria. The 1.7-mile segment is consistent in its appearance as the adjacent segment described by Costello and Marvin in 1993; it is a 12 to 13 foot unpaved dirt road. The road segment appears to follow a similar alignment as depicted on the earliest available topographic map from 1915 and subsequent historic aerial imagery (NETR Online 2020; USGS 1915).

Although the road is a designated California Point of Historical Interest, because it was designated prior to December 1997 this designation does not result in the resource's automatic listing in the CRHR. Further, the segment of 20 Mule Team Road which was formally determined eligible for listing in the NRHP in 1978 appears to be limited to that segment in Inyo County per available documentation. As such, the current 1.7-mile segment does not appear to been previously evaluated for NRHP or CRHR listing. The administrative record indicates 20 Mule Team Road is significant for its association with historic events and the early mining and commercial development in the Mojave Desert and Death Valley. However, while it appears to be significant for these associations under NRHP Criterion A and CRHR Criterion 1; there is insufficient information at this time to confirm if the road in its entirety contains sufficient integrity to be eligible for NRHP or CRHR designation. As described above, portions of the road have been removed and paved, and others could not be located via a review of aerial imagery conducted as part of this study. For these reasons, the subject segment is recommended ineligible for NRHP or CRHR eligibility at this time and it is therefore not considered a historical resource under CEQA. However, given the potential historical significance of 20 Mule Team Road, Rincon recommends a California Historical Resource Status Code of 6L, which indicates the property may warrant special consideration in local planning. Rincon recommends avoidance of P-15-003927 based on this consideration; however, if removal is completed this project element would not result in a significant impact to a historical resource.

6.3 P-15-010500

Site P-15-010500 consists of a temporary camp originally recorded in 2002. Rincon relocated the site during the current survey in a similar condition as originally recorded, though the site is now bisected by a fence line separating the current project site from the Hyundai-Kia Proving Grounds property. Rincon's update of the site has increased the number of identified artifacts and expanded the site boundaries. The site consists of roughly 100 flakes of white and brown chert, jasper, and obsidian, and approximately 50 FAR fragments. There is also one banded rhyolite scraper tool. The resource cannot be associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage (does not meet Criterion 1/A) nor can it be associated with the lives of persons important in our past (does not meet Criterion 2/B). The site does not contain any structures or features that embody any distinctive characteristics (does not meet Criterion 3/C). Thermal features present a high likelihood of datable materials such as charcoal suggesting that the site may provide information about resource procurement, subsistence strategies, and the ability to place those activities within the timeline of prehistoric use of the region. Though the surface of the site was fully recorded during the current survey and the data potential of the surface exhausted, it is possible that a subsurface component of the site exists. Thus, the site has the potential to retain significant data potential (Criterion 4/D) to contribute to local research themes pertaining to prehistory. Based on the surface constituents, P-15-010500 appears potentially eligible for the CRHR. Rincon recommends avoidance of P-15-010500. If avoidance is infeasible, Phase II testing program would be necessary to provide a formal

recommendation for CRHR eligibility and to determine if the current project would have a significant impact on a historical resource (i.e., CRHR eligible site).

6.4 P-15-010501

Site P-15-010501 consists of a seasonal camp originally recorded in 2002. In 2005, the resource record indicates that a series of shovel test pits were excavated on the eastern half of the site and resulted in the identification of subsurface artifacts. No evaluation of the site is included in the resource record or in any reports listed by the SSJVIC. Rincon field-verified the location of the site during the current survey. The site remains in a similar condition as originally recorded, though the site is now bisected by a fence line separating the current project site from the Hyundai-Kia Proving Grounds property. Site constituents identified during the current effort include approximately 15 flakes, roughly 700 FAR fragments, two projectile point tips, and three groundstone fragments. The resource cannot be associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage (does not meet Criterion 1/A) nor can it be associated with the lives of persons important in our past (does not meet Criterion 2/B). The site does not contain any structures or features that embody any distinctive characteristics (does not meet Criterion 3/C). The presence of possible thermal features, associated groundstone, and bone fragments indicates that the site was likely used for food processing and is potentially the result of continued use over time. Thermal features also present a high likelihood of datable materials such as charcoal suggesting that the site may provide information about resource procurement, subsistence strategies, and the ability to place those activities within the timeline of prehistoric use of the region. The surface of the portion of the site on the current project site was fully recorded during the current survey and the data potential of the surface exhausted. Portions of the site were subject to subsurface testing in 2005; a subsurface deposit was identified but no details were submitted to the SSJVIC. Based on the results of the current survey and the known presence of a subsurface deposit, the site has the potential to retain significant data potential (Criterion 4/D) to contribute to local research themes pertaining to prehistory. P-15-010501 appears eligible for the CRHR. Rincon recommends avoidance of P-15-010501. If avoidance is infeasible, Phase II testing program would be necessary to provide a formal recommendation for CRHR eligibility and to determine if the current project would have a significant impact on a historical resource (i.e., CRHR eligible site).

6.5 P-15-017305

P-15-017305 is a segment of State Route 14/Aerospace Highway that originated as a portion of the Midland Trail, an unimproved wagon trail that dates to the 1860s. While a portion of the larger resource was recorded in 2013, an evaluation was not conducted at that time. Following research completed for this study, Rincon recommends the segment of State Route 14/Aerospace Highway as eligible for the CRHR under Criterion 1 for its significance as an early transcontinental transportation route. The project includes construction of gen-tie lines that cross State Route 14 overhead. The project is not otherwise expected to directly or indirectly impact P-15-017305. State Route 14 is already crossed by utility transmission lines at several locations along its alignment, thus the setting will not be altered. Construction of the project will not modify State Route 14 beyond its current state.

6.6 BEL-S-013

Site BEL-S-013 consists of a prehistoric lithic scatter of 94 flakes and one utilized flake. The resource is located directly adjacent to a drainage that may have resulted in alluvial deposition burying a possible subsurface deposit. The resource cannot be associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage (does not meet Criterion 1/A) nor can it be associated with the lives of persons important in our past (does not meet Criterion 2/B). The site does not contain any structures or features that embody any distinctive characteristics (does not meet Criterion 3/C). Despite the relative paucity of surface artifacts and lack of formal features, the location of the site directly adjacent to an active drainage suggests a high likelihood of subsurface deposits obscured by alluvial deposition. Though the surface of the site was fully recorded during the current survey and the data potential of the surface exhausted, it is possible that a subsurface component of the site exists. Thus, the site has the potential to retain significant data potential (Criterion 4/D) to contribute to local research themes pertaining to prehistory. Based on the surface constituents, site BEL-S-013 may be eligible for the CRHR. Rincon recommends avoidance of site BEL-S-013. If avoidance is infeasible, Phase II testing program would be necessary to provide a formal recommendation for CRHR eligibility and to determine if the current project would have a significant impact on a historical resource (i.e., CRHR eligible site).

6.7 BEL-S-066

Site BEL-S-066 consists of a temporary camp containing a deflated hearth comprised of roughly 15 FAR fragments, 19 groundstone fragments, roughly 130 flakes, and 15 lithic tools including bifaces, utilized flakes, and edge-modified flakes are also present. The resource cannot be associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage (does not meet Criterion 1/A) nor can it be associated with the lives of persons important in our past (does not meet Criterion 2/B). The site does not contain any structures or features that embody any distinctive characteristics (does not meet Criterion 3/C). The presence of groundstone indicates that the site may have been used for food processing and is potentially the result of continued use over time. Though the surface of the site was fully recorded during the current survey and the data potential of the surface exhausted, it is possible that a subsurface component of the site exists. Thus, the site has the potential to retain significant data potential (Criterion 4/D) to contribute to local research themes pertaining to prehistory. Based on the surface constituents, site BEL-S-066 appears eligible for the CRHR. Rincon recommends avoidance of site BEL-S-066. If avoidance is infeasible, Phase II testing program would be necessary to provide a formal recommendation for CRHR eligibility and to determine if the project would have a significant impact on a historical resource (i.e., CRHR eligible site).

6.8 BEL-S-107

Site BEL-S-107 consists of a temporary camp containing 13 flakes and three deflated hearths comprised of roughly 81 FAR fragments. The resource cannot be associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage (does not meet Criterion 1/A) nor can it be associated with the lives of persons important in our past (does not meet Criterion 2/B). The site does not contain any structures or features that embody any distinctive characteristics (does not meet Criterion 3/C). Despite the paucity of artifacts, the presence of multiple thermal features suggests continued use over time. Thermal

features also present a high likelihood of datable materials such as charcoal suggesting that the site may provide information about resource procurement, subsistence strategies, and the ability to place those activities within the timeline of prehistoric use of the region. Though the surface of the site was fully recorded during past surveys and the data potential of the surface exhausted, it is possible that a subsurface component of the site exists. Thus, the site has the potential to retain significant data potential (Criterion 4/D) to contribute to local research themes pertaining to prehistory. Based on the surface constituents, site BEL-S-107 appears eligible for the CRHR. Rincon recommends avoidance of site BEL-S-107. If avoidance is infeasible, Phase II testing program would be necessary to provide a formal recommendation for CRHR eligibility and to determine if the project would have a significant impact on a historical resource (i.e., CRHR eligible site).

6.9 BEL-S-108

Site BEL-S-108 consists of a temporary camp containing a possibly deflated hearth comprised of roughly 20 FAR fragments. One groundstone tool, roughly 17 flakes, and one edge-modified flake are also present. The resource cannot be associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage (does not meet Criterion 1/A) nor can it be associated with the lives of persons important in our past (does not meet Criterion 2/B). The site does not contain any structures or features that embody any distinctive characteristics (does not meet Criterion 3/C). The presence of a thermal feature and groundstone indicates that the site may have been used for food processing and is potentially the result of continued use over time. Thermal features also present a high likelihood of datable materials such as charcoal suggesting that the site may provide information about resource procurement, subsistence strategies, and the ability to place those activities within the timeline of prehistoric use of the region. Though the surface of the site was fully recorded during the current survey and the data potential of the surface exhausted, it is possible that a subsurface component of the site exists. Thus, the site has the potential to retain significant data potential (Criterion 4/D) to contribute to local research themes pertaining to prehistory. Based on the surface constituents, site BEL-S-108 appears eligible for the CRHR. Rincon recommends avoidance of site BEL-S-108. If avoidance is infeasible, Phase II testing program would be necessary to provide a formal recommendation for CRHR eligibility and to determine if the project would have a significant impact on a historical resource (i.e., CRHR eligible site).

6.10 BEL-S-113

Site BEL-S-113 consists of a temporary camp containing one lithic core and seven FAR fragments, three of which were partially buried. The site is located within a dune, which increases the possibility that erosional dynamics have created a subsurface deposit. The resource cannot be associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage (does not meet Criterion 1/A) nor can it be associated with the lives of persons important in our past (does not meet Criterion 2/B). The site does not contain any structures or features that embody any distinctive characteristics (does not meet Criterion 3/C). Despite the relative paucity of surface artifacts, the location of the site within a dune and the presence of partially buried FAR suggests a high likelihood of subsurface deposits. Though the surface of the site was fully recorded during the current survey and the data potential of the surface exhausted, it is possible that a subsurface component of the site exists. Thus, the site has the potential to retain significant data potential (Criterion 4/D) to contribute to local research themes pertaining to prehistory. Based on the surface constituents, site BEL-S-113 appears eligible for the

CRHR. Rincon recommends avoidance of site BEL-S-113. If avoidance is infeasible, Phase II testing program would be necessary to provide a formal recommendation for CRHR eligibility and to determine if the project would have a significant impact on a historical resource (i.e., CRHR eligible site).

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7 Findings and Recommendations

Five newly identified cultural resources and seven previously recorded cultural resources identified during the current study require further work to determine CRHR eligibility and establish potential project impacts. Given the number of resources identified within the project site and the presence of prehistoric archaeological sites and historic-period built-environment resources, the project site is considered sensitive for historic and prehistoric archaeological resources. To avoid impacts to subsurface discoveries during construction, Rincon recommends archaeological sensitivity training prior to project ground disturbance and archaeological and Native American monitoring during project ground disturbance.

Table 7. Recommendations for Eligible or Potentially Eligible Resources

Site Designation					
Primary Number	Trinomial Number	Temporary Designation	Age	Brief Description	Recommended Measures
P-15-003549	CA-KER-3549H		Historic	Los Angeles Aqueduct	Avoidance
P-15-003927	CA-KER-3927		Historic	Twenty Mule Team Road	Avoidance; documentation
P-15-010500	CA-KER-6145		Prehistoric	Temporary Camp	Avoidance; archaeological testing
P-15-010501	CA-KER-6146		Prehistoric	Temporary Camp	Avoidance; archaeological testing
P-15-013568	CA-KER-7647H		Historic	Homestead remnants and refuse deposit	Avoidance; archaeological testing
P-15-013622	CA-KER-7659		Prehistoric	Lithic scatter	Avoidance; archaeological testing
P-15-017305			Historic	State Route 14	Avoidance
-	-	BEL-S-013	Prehistoric	Lithic scatter	Avoidance; archaeological testing
-	-	BEL-S-066	Prehistoric	Temporary Camp	Avoidance; archaeological testing
-	-	BEL-S-107	Prehistoric	Temporary Camp	Avoidance; archaeological testing
-	-	BEL-S-108	Prehistoric	Temporary Camp	Avoidance; archaeological testing
-	-	BEL-S-113	Prehistoric	Temporary Camp	Avoidance; archaeological testing

7.1 Avoidance

Preservation in place (avoidance) is the preferred manner of mitigating impacts to cultural resources. Preservation in place maintains the relationship between artifacts and context at archaeological sites and ensures built-environment resources are not altered. Preservation may also avoid conflict with religious or cultural values of groups associated with the resource (e.g., tribal organizations or historical societies). If feasible, prehistoric archaeological sites P-15-010500, P-15-010501, P-15-013568,, P-15-013622, BEL-S-013, BEL-S-066, BEL-S-107, BEL-S-108, and BEL-S-113 and

historic-period built-environment resources P-15-003549, P-15-003927, and P-15-017305 identified within the project site during the current study plus a 100-ft buffer should be avoided. Additional studies would be necessary to determine the significance of project impacts if avoidance is infeasible.

7.2 Documentation

Should it not be feasible for the project to avoid P-15-003927, the Twenty Mule Team Road, the project would remove a 1.7-mile segment of the historically 165-mile long road to construct a solar array. CEQA requires that when an environmental impact or potential impact is identified, measures must be proposed that will eliminate, avoid, rectify, compensate for or reduce those environmental effects (California OHP, n.d.). The Twenty Mule Team Road has been previously altered in the vicinity of the current project area by the development of the Mojave Airport which destroyed a portion of the road. Also to be considered is the resource's extensive size, as its alignment was 165 miles long, and the current project's impact to a small 1.7-mile segment. Rincon recommends the following mitigation measure to compensate for the project's impact to the Twenty Mule Team Road and reduce impacts to less than significant:

MM 1 – Documentation

The segment of the Twenty Mule Team Road impacted by the project shall be documented prior to construction permits being issued for the proposed project. Documentation shall consist of the development of a historical narrative following the National Park Service (NPS) guidance for Historic American Landscapes Survey Level II documentation supported by archival research using primary and secondary sources. This may include, but not be limited to, historical maps, aerial photographs, written histories, newspapers, existing cultural resource reports, and historic photographs. Detailed maps of the road shall be made, and large-format black and white, archival quality photographs shall be taken following the NPS guidelines for Historic American Buildings Survey/Historic American Engineering Record/Historic American Landscapes Survey photography. The documentation report and photographs shall be printed on archival quality paper, saved onto an archival quality CD, and housed in an archival storage box. Copies shall be donated to local repositories.

7.3 Archaeological Testing

If avoidance becomes infeasible, Rincon recommends archaeological testing of P-15-010500, P-15-010501, P-15-013568, P-15-013622, BEL-S-013, BEL-S-066, BEL-S-107, BEL-S-108, and BEL-S-113. All archaeological excavation should be conducted by a qualified archaeologist(s) under the direction of a principal investigator meeting the Secretary of the Interior's (SOI) Professional Qualification Standards for archaeology (NPS 1983). Rincon recommends that archaeological excavation be observed by a Native American monitor. Testing should begin with an Extended Phase I (XPI) study to determine the vertical and horizontal extent of the resource within the project site. XPI testing should comprise a series of shovel test pits and/or hand augured units and mechanical trenching intended to establish the subsurface boundaries of the archaeological sites.

Should an XPI reveal the presence of a subsurface deposit within the current project site, a Phase II investigation would be necessary to determine whether P-15-010500, P-15-010501, P-15-013622568, P-15-013622, BEL-S-013, BEL-S-066, BEL-S-107, BEL-S-108, and BEL-S-113 are eligible for listing on the CRHR. A Phase II evaluation should include the development of a research design based on pertinent local research themes, archival research to identify significant historical associations as well as mapping of surface artifacts, collection of functionally or temporally diagnostic tools and debris, excavation of a sample of the cultural deposit to characterize the nature of the resource, define the artifact and feature contents, and retrieve representative samples of artifacts and other remains for laboratory analysis (e.g., macro/microfloral, faunal, lithic, etc.).

Cultural materials collected from the resource should be processed and analyzed in the laboratory according to standard archaeological procedures. The age of the materials should be determined using radiocarbon dating and/or other appropriate procedures; lithic artifacts, faunal remains, and other cultural materials should be identified and analyzed according to current professional standards. The significance of the resource should be evaluated according to the criteria of the CRHR. The results of the investigations should be presented in a technical report following the Archaeological Resource Monitoring Report (ARMR) Guidelines as recommended by the California Office of Historic Preservation. Upon completion of the work, all artifacts, other cultural remains, records, photographs, and other documentation should be curated at an appropriate curation facility.

7.4 Archaeological Sensitivity Training

Rincon recommends that the qualified archaeologist conduct a Worker's Environmental Awareness Program (WEAP) training for archaeological sensitivity for all construction personnel prior to the commencement of any ground disturbing activities. Archaeological sensitivity training should include a description of the types of cultural material that may be encountered, cultural sensitivity issues, regulatory issues, the proper protocol for treatment of the materials in the event of a find, and an outline of the penalties for the willful and intention damage of cultural resources.

7.5 Archaeological Monitoring

Rincon recommends archaeological monitoring of all project-related ground-disturbing activities. Archaeological monitoring should be performed under the direction of the qualified archaeologist. The qualified archaeologist, in consultation with the County of Kern and the local Tribes, may recommend the reduction or termination of monitoring depending upon observed conditions (e.g., no resources encountered within the first 50 percent of ground disturbance). If archaeological resources are encountered during ground-disturbing activities, work in the immediate area must halt and the find evaluated for CRHR eligibility. Should an unanticipated resource be found as CRHR eligible and avoidance is infeasible, additional analysis (e.g., testing) may be necessary to determine if project impacts would be significant. Pending Assembly Bill 52 of 2014 consultation, Native American monitoring may also be required.

7.6 Unanticipated Discovery of Cultural Resources

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional

Qualification Standards for archaeology (National Park Service 1983) should be contacted immediately to evaluate the find. If the discovery proves to be eligible for listing in the CRHR, additional work such as data recovery excavation and Native American consultation may be warranted to mitigate any significant impacts.

7.7 Unanticipated Discovery of Human Remains

The discovery of human remains is always a possibility during ground-disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be Native American, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD), who has 48 hours from being granted site access to make recommendations for the disposition of the remains. If the MLD does not make recommendations within 48 hours of being granted site access, the land owner shall reinter the remains in an area of the property secure from subsequent disturbance.

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Appendix A

Records Search Summary

Reports w\i .25 mile buffer

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
KE-00210	BLM - Permit No. CA-95-01-0004; NADB-R - 1141258	1995	Self, William	Class I Overview: Santa Fe Pacific Pipeline Partners, L.P. Proposed Concord to Colton Pipeline Project	William Self Associates	15-004754, 15-004757, 15-004758, 15-004759, 15-004760, 15-004762
KE-00276	NADB-R - 1141356	1977	Robinson, R. W.	A cultural resources investigation associated with the Mojave Public Utility District's Sewage Treatment Facility	Archaeological Impact Services, Inc.	
KE-00291	NADB-R - 1140021	1986	Bergin, Kathleen Ann	A preliminary report of archaeological investigations within the All American Pipeline Corridor acrosss Edwards Air Force Base	AFFTC, Edwards AFB	15-000322, 15-000323, 15-001181, 15-002091, 15-002092, 15-002093, 15-002094, 15-002095, 15-002096, 15-002097, 15-002098
KE-00407	NADB-R - 1140092; Submitter - CRF-92-3	1992	Garcia, Juanita	An Archaeological Assessment of PM 236-360-08 in Mojave, Kern County, California	Cultural Resource Facility, California State University, Bakersfield	15-003159
KE-00423	NADB-R - 1140103	1983	Garfinkel, Alan P. and Kerbavaz, Joanne	Negative archaeological survey report DOT-09-KER-14, PM 12.6/16.1, Charge Unit 09-201, EA 204-300	Not identified	
KE-00428	NADB-R - 1140107	1983	Garfinkel, Alan and Kerbavaz, Joanne	Negative archaeological survey report DOT-06-KER-58, PM 113.2/114.4, Charge Unit 09201, EA 204-400	Individual consultant	
KE-00440	NADB-R - 1140247	1991	Glover, Leslie G.	A cultural resources inventory of selected route re-alignments for the Mojave Pipeline in California and Arizona	Far Western Anthropological Research Group, Inc.	15-003326, 15-003332, 15-009039, 15-009040, 15-009041
KE-00470	NADB-R - 1140207	1990	Hanna, David C. and Cheever, Dayle M.	An Archaeological Survey of the Camelot Specific Plan Amendment, a 160-Acre Property in Mojave, Kern County, California	Regional Environmental Consultants	
KE-00633	NADB-R - 1140770	1993	Macko, Michael E., Binning, Jeanne D., Earle, David D., and Langenwalter, Paul E.	National Register Eligibility Determinations for Historic Resources Along the Proposed AT&T Lightguide System, Victorville to Bakersfield, California	Macko Archaeological Consulting Macko Archaeological Consulting	15-000560, 15-001378, 15-001558, 15-002038, 15-002097, 15-002098, 15-003367, 15-003368, 15-003369, 15-003370, 15-003527, 15-003528, 15-003529, 15-003530, 15-003531, 15-003532, 15-003533, 15-003534, 15-003536, 15-003537, 15-003538, 15-003539, 15-003540, 15-003541, 15-003542, 15-003543, 15-003544, 15-003545, 15-003546, 15-003547

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KE-00636	Caltrans - 09-KER-58 P.M. R107.7/R118.0 09-243400; NADB-R - 1140961	1995	Marvin, J and Costello, G	Historic Property Survey Report for the Mojave Bypass Project	California Department of Transportation	15-003366, 15-003549, 15-003558, 15-003559, 15-003927, 15-003928, 15-003929, 15-003930, 15-003931, 15-003932, 15-004112, 15-004113, 15-004114, 15-004115, 15-004116, 15-007596, 15-007597, 15-007598, 15-007735, 15-007736, 15-007737
KE-00636A		1995	Marvin, J. and Costello, J	Supplemental Analysis of Two Historic Resources in the APE for the Mojave Bypass Project, Caltrans District 9, Kern County, California	Unkown	
KE-00636B		1995	Fisher, Jim	A Second Supplemental Historical Study Report for the Mojave Bypass Project	Caltrans District 9	
KE-00636C		1994	Burke, Thomas D., Walsh, Laurie, Markos, Jeffrey A, and Hause, Larry	Archaeological Testing and Evaluation of CA-KER-3558 and CA-KER-3559, Fremont Valley, for the Proposed Mojave Bypass Project, Caltrans District 9, Kern County, California	Archaeological Research Services, Inc.	
KE-00636D		1994	Marvin, Judith and Costello, Julia	Supplemental Archaeological Survey Report and Historic Study Report for the Mojave Bypass Project, Caltrans District 9, Kern County, California	Foothill Resources, Ltd.	
KE-00636E		1993	Tremaine, Kim	Archaeological Survey Report of Three Alternative Alignments for the Proposed Mojave Bypass, Caltrans District 9, Kern County, California	Biosystems Analysis, Inc.	
KE-00669	NADB-R - 1140375; Submitter - CRF-90-34	1990	Murphy, Peggy and Sutton, Mark Q.	An Archaeological Assessment of Tentative Tract No. 5312 in Mojave, Kern County, California	Cultural Resource Facility, California State University, Bakersfield	15-007726
KE-00804	NADB-R - 1140474; Submitter - CRF-89-37	1989	Parr, Robert E.	Archaeological Assessment of a Proposed Residential and Commercial Center Near the City of Mojave, Kern County, California	Cultural Resource Facility, California State University, Bakersfield	15-007592, 15-007593, 15-007594, 15-007595, 15-007715, 15-007716, 15-007717, 15-007718, 15-007719, 15-007720, 15-007721, 15-007722
KE-00808	NADB-R - 1140478; Submitter - CRF-89-54	1989	Parr, Robert E. and Sutton, Mark Q.	An Archaeological Assessment of 320 Acres of the Mojave Proposed Specific Plan, Mojave, Kern County, California	Cultural Resource Facility, California State University, Bakersfield	15-002536, 15-002537, 15-007724
KE-00818	NADB-R - 1140487; Submitter - CRF-90-56	1990	Parr, Robert E.	Archaeological Assessment of Tentative Tract No. 5323 Near Mojave, Kern County, California	Cultural Resource Facility, California State University, Bakersfield	15-007727

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KE-00819	NADB-R - 1140488; Submitter - CRF-90-52	1990	Parr, Robert E.	Archaeological Assessment of 400 Acres of Land Near Mojave, Kern County, California	Cultural Resource Facility, California State University, Bakersfield	15-002717, 15-002723, 15-002724, 15-007728, 15-007729
KE-00820	NADB-R - 1140489; Submitter - CRF-90-20	1990	Parr, Robert E.	An Archaeological Assessment of Tentative Tract No. 5306 in Mojave, Kern County, California	Cultural Resource Facility, California State University, Bakersfield	
KE-00873	NADB-R - 1140519	1974	Peak, Ann	Assessment of archeological resources--California State Department of Transportation freeway project of 12.4 miles near Mojave, Kern County	The CA Foundation for Archeological and Anthropological Research	15-000315, 15-000316, 15-000317, 15-000318, 15-000319, 15-000320, 15-000321
KE-00888	NADB-R - 1140621	1986	Proctor, Martha and Edell, Jack	Negative Archaeological Survey Report for Widening Route 14 from P.M. 12.6 to 16.1-Also Water Line Easement	Dept. of Transportation	
KE-00905	NADB-R - 1141419	1989	Lewis Pruett, Catherine	Environmental Impact Evaluation: An Archaeological Assessment for Tentative Tract No. 5211, Mojave, Kern County	CRF CSU Bakersfield	
KE-00926	NADB-R - 1141437; Submitter - CRF-89-28	1989	Pruett, Catherine Lewis	Environmental Impact Evaluation: Archaeological Evaluation for a Proposed Commercial Retail Center Near Mojave, Kern County	Cultural Resource Facility, California State University, Bakersfield	
KE-00947	NADB-R - 1141458; Submitter - CRF-90-111	1990	Pruett, Catherine Lewis	Archaeological Assessment for Parcel Map No. 9485, East of Mojave, Kern County, California	Cultural Resource Facility, California State University, Bakersfield	
KE-00969	NADB-R - 1141478; Submitter - CRF-90-1	1989	Pruett, Catherine Lewis and Ptomey, Kathy	Environmental Impact Evaluation: An Archaeological Assessment for Parcel Map No. 5815 Mojave, Kern County	Cultural Resource Facility, California State University, Bakersfield	15-002554
KE-01028		1996	Unknown	Cultural Resources Investigation Pacific Pipeline Emidio Route (Including West Liebre Gulch Ridge Alignment and Mojave Alternatives) L.A. and Kern Counties, CA	Science Applications International Corporation, Environmental Programs Division	15-002314, 15-002486, 15-002848, 15-003529, 15-004430, 15-004465
KE-01182		1980	Schiffman, Robert A. and Garfinkel, Alan P.	Draft - Archaeological Overview of Kern County	Bakersfield College	
KE-01183		1981	Schiffman, Robert A. and Garfinkel, Alan P.	Prehistory of Kern County - An Overview	Bakersfield College	
KE-01196		1991	Robinson, R.W.	A Regional Overview of the Cultural Resources of the Willow Springs Specific Plan Update, Southern Kern County, California	Individual Consultant	15-000129, 15-000273, 15-000302, 15-000522, 15-001819, 15-001969, 15-002591, 15-002592, 15-002593, 15-002594, 15-002595, 15-002714, 15-002820, 15-002821

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KE-01215		1986	Schiffman, Robert A.	Archaeological Investigation of Seawest Energy Group, Inc. 640 Acre Wind Generator Farm, Kern County, California	Bakersfield College	
KE-01221		1996	Underwood, Jackson	Historic Resources Overview, Edwards AFB, California	Environmental Services Department, Computer Sciences Corporation	
KE-01226		1994	Diehl, Eugina, Howard, Virginia, Werner, Matthew, and Wessel, Terri Caruso	Interim Phase I Report for Basewide Water Wells (0U3) PA/SI Edwards Air Force Base IRP, Edwards Air Force Base	The Earth Technology Corporation	15-000688, 15-000701, 15-001709, 15-001816, 15-001818, 15-001820, 15-001843, 15-001892, 15-002293, 15-002310, 15-002339, 15-002377, 15-002392, 15-002445, 15-002446, 15-003844, 15-003845, 15-003846, 15-003847
KE-01231	Submitter - Contract No. F331615-90-D-4007,0018	1993	Unknown	A Programmatic Approach to the Management of Historic Water Wells in Support of the Remedial Investigation/Feasibility Study, Edwards Air Force Base	The Earth Technology Corporation	
KE-01245	Submitter - Contract F04611-92-C-0045; Submitter - LOTD 17P3D0017	1995	Kamplain, Jane E.	Final Technical Report for Legacy Private Collections Project	Computer Sciences Corporation	15-000531
KE-01279		1987	Schiffman, Robert A.	Archaeological Investigation for Sea West's Wind Energy Farm West of Mojave, Kern County, California	Bakersfield College	
KE-01307		1988	Schiffman, Robert A.	Archaeological Investigation for Parcel Map No. 8679, Kern County, California	Bakersfield College	
KE-01309		1988	Schiffman, Robert A.	Archaeological Investigation for Parcel Map No. 8747, Kern County, California	Bakersfield College	15-010012, 15-010013
KE-01359		1990	Schiffman, Robert A.	Archaeological Investigation for Lots 1-50, Tentative Tract #4917, Mojave, California	Bakersfield College	
KE-01364		1990	Schiffman, Robert A.	Archaeological Investigation of A 10" Sewer Line and Access Road for the East Kern Airport District, Kern County, California	Bakersfield College	
KE-01406		1991	Schiffman, Robert A.	Archaeological Investigation of 7.12 Acre Parcel APN 427-02-27 Section 21, Township 11N., Range 12W. Mojave, Kern County, California	Bakersfield College	

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KE-01460	NADB-R - 1140754	1995	Schiffman, Robert A.	Archaeological Investigation of Projects for the East Kern Airport District and the Mojave Public Utility District	Bakersfield College	
KE-01495		1990	Schmidt, James	Cultural Resources Investigation: TTM No. 5286, Near the City of Mojave, Kern County	Greenwood and Associates	
KE-01592		1983	Sutton, Mark Q.	An Archaeological Survey of the Camelot Specific Plan Site	Individual Consultant	15-006675, 15-006676, 15-006677, 15-006678, 15-006679
KE-01593		1985	Sutton, Mark Q.	A Cultural Resources Overview of the Tehachapi Windpark Area, Kern County, California	Individual Consultant	
KE-01628		1987	Sutton, Mark Q.	On the Late Prehistory of the Western Mojave Desert	University of California, Riverside	15-000303, 15-000733
KE-01630		1978	Sutton, Mark Q., Forbes, Charles, and Robinson, Sylva	A Possible Paleo-Indian Site Complex in the Western Mojave Desert	Individual Consultants	15-000558, 15-000564, 15-000696, 15-000700, 15-000701
KE-01646	NADB-R - 1140634	1993	Tremaine, Kim	Archaeological Survey Report of Three Alternative Alignments for the Proposed Mojave Bypass, Caltrans District 9, Kern County, California	BioSystems Analysis, Inc.	15-003558, 15-003559
KE-01662		1983	Uli, Jim and Schiffman, Robert	Archaeological Investigation for Western Energies Inc. Wind Generator Farm West of Mojave, Kern County, California	Bakersfield College	15-014068, 15-014069
KE-01755		1990	Unknown	Phase I Archaeological Survey and Cultural Resources Assessment of Parcel Map 196-16, Mojave, Kern County, California	W and S Consultants	
KE-01769		1986	Weigel, Lawrence E., McManus, James, and Schuster, Terry	Negative Archaeological Survey Report for Soil Removal	California Department of Transportation	
KE-01772		1984	Weil, Edward B., Weisbord, Jill, and Blakley, E.R.	Cultural Resources Literature Search, Records Check and Sample Field Survey for the California Portion of the Celeron/All American Pipeline Project	Applied Conservation Technology, Inc.	
KE-01778		1991	Unknown	Environmental Planning and Analysis Program Historic Resource Overview and Management Plan Volume II: Historic Overview	Computer Sciences Corporation	
KE-01807		1991	Wohlgemuth, Eric and McGuire, Kelly	A Cultural Resources Inventory of a Pipeline Corridor Expansion Tract and Re-Route in Kern County, California	Far Western Anthropological Research Group, Inc.	15-007680

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
KE-01829		1978	Young, Daniel L.	Archaeological Survey Report for Highway Improvement Projects Between 3 Miles South of Mojave and Cache Creek On 9-KER-58-106.1/110.0, E.A. 073401; 9-KER-58-111.9/113.0, E.A. 073301; 9-KER-14-13.4/15.4, E.A. 073501	Individual Consultant	
KE-01867		1975	Hall, Matthew C., Barker, James P., Snyder, Toni B., Weaver, Richard A., and Lawton, Harry W.	Background to Prehistory of the El Paso/Red Mountain Desert Region	University of California, Riverside	
KE-01924		1998	Parr, Robert	Archaeological Assessment of the Niklor Chemical Company Manufacturing and Transfer Facility South of Mojave, Kern County, CA	Center for Archaeological Research, CSU Bakersfield	
KE-01925		1997	McDonald, Meg and Schaefer, Jerry	Cultural Resources Inventory and Evaluation of 4,180 Acres in the Western Mojave Land Tenure Adjustment Area	ASM Affiliates, Inc.	15-000385, 15-003951, 15-003952, 15-003953, 15-006052, 15-006053, 15-006054, 15-006055
KE-01960		1986	Cleland, James H., Woods, Clyde M., Skinner, Elizabeth J., Kelly, Michael S., and Apple, Rebecca M.	Kern River Pipeline Cultural Resource Overview	Dames & Moore	
KE-01996	Submitter - Job #96-018	1997	Unknown	Cultural Resource Assessment of the AT&T P-140 Coaxial Cable Line from Clark County, Nevada to near Mojave, Kern County, California	Peak & Associates, Inc.	
KE-02002		1993	Meyers, Thomas B. and Trimble, Michael K.	Archaeological Curation - Needs Assessments for Fort Sill, Oklahoma, Fort Gordon, Georgia, Vandenberg Air Force Base, California, Camp Pendleton Marine Corps Base, California, and Naval Air Weapons Station, China Lake, California	U.S. Army Corps of Engineers	
KE-02012		1976	Clelow, C.W.	Archaeological Resources Along the Proposed LNG Gas Transmission Pipeline from Point Conception to Arvin, and Arvin to El Cajon, CA	Ancient Enterprises	15-000196, 15-000455, 15-000456, 15-000462, 15-000463, 15-000464, 15-000467, 15-000468, 15-000469, 15-000471, 15-000472, 15-000473, 15-000474, 15-000475, 15-000476, 15-000477
KE-02138		1985	Kern River Gas Transmission Company	Pipeline Projects to Supply Natural Gas for Enhanced Oil Recovery in California	Kern River Gas Transmission Company	

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KE-02193	Submitter - 98-25	1998	Fleagle, Dorothy	An Archaeological Assessment of Ninety-Four Acres North of the Mojave/Rosamond Landfill, Kern County, California	Three Girls and a Shovel	
KE-02224	Caltrans - 06-KER-58 P.M. R107.7/R118.0 09-243400	1998	Laylander, Don	Second Supplemental Archaeological Survey Report for the Mojave Bypass Project, Kern County, California	California Department of Transportation	15-007161, 15-007162, 15-007163, 15-007234
KE-02231	Caltrans - 06-KER-58 P.M. R117.8/R129.0 06-396700	1998	Laylander, Don	Archaeological Survey Report for the Cal City PCC Project, Kern County, California	California Department of Transportation	15-000322, 15-000323, 15-002671
KE-02232		1961	Cawley	Cawley Manuscript	University of California, Berkeley	
KE-02233	NADB-R - 1140555	1993	Costello, Julia G. and Marvin, Judith	Recording the Los Angeles Aqueduct	SCA Newsletter	
KE-02244		1994	Everson, G. Dicken and Schneider, Joan S.	Kelso Conference Papers: A Collection of Papers and Abstracts from the First Five Kelso Conferences o nthe Prehistory of the Mojave Desert	Museum of Anthropology, California State University, Bakersfield	
KE-02323		1999	Demos-Petropoulous, Francine, McGowan, Dana, Scott, Barry, O'Brien, Teresa, Norton, Bill, and Rause, Wendy	Cultural Resources Inventory Report for the AT&T Corp. Cable Upgrade Project, Los Angeles, Kern, and San Luis Obispo Counties, California	Jones & Stokes Associates, Inc.	15-008766, 15-008767, 15-008768, 15-008769, 15-008772
KE-02406	Caltrans - 06-KER-Oak Creek Road	2000	Hudlow, Scott M.	Negative Historic Property Survey Report: Asphalt Overlay of Oak Creek Road	California Department of Transportation	
KE-02438		2000	Hudlow, Scott M.	Negative Archaeological Survey Report: Oak Creek Road, Kern County Roads Department	California Department of Transportation	
KE-02586		2001	Ryan, Christopher	Archaeological Survey Report: North Mojave Four-Lane Project, State Route 14, Kern County, CA	CALTRANS	15-003929, 15-009670, 15-010071
KE-02587		2001	Ryan, Christopher	Historical Study Report: North Mojave Four-Lane Project	CALTRANS	15-000571, 15-000573, 15-003929, 15-009670, 15-010071

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KE-02698		2002	Hector, Susan M., Moslak, Ken, and Wright, Catherine A.	Cultural Resources Survey for the Proposed Hyundai Test Track	ASM Affiliates, Inc.	15-010481, 15-010482, 15-010483, 15-010484, 15-010485, 15-010486, 15-010487, 15-010488, 15-010489, 15-010490, 15-010491, 15-010492, 15-010493, 15-010494, 15-010495, 15-010496, 15-010497, 15-010498, 15-010499, 15-010500, 15-010501, 15-010502, 15-010503, 15-010504, 15-010505, 15-010506, 15-010507, 15-010508, 15-010509, 15-010510, 15-010511, 15-010512, 15-010513, 15-010514, 15-010515, 15-010516, 15-010517, 15-010518, 15-010519, 15-010520, 15-010521, 15-010522, 15-010523, 15-010524, 15-010525, 15-010526, 15-010527, 15-010528, 15-010529, 15-010530, 15-010531, 15-010532, 15-010533, 15-010534, 15-010535, 15-010536, 15-010537, 15-010538, 15-010539, 15-010540, 15-010541, 15-010542, 15-010543, 15-010544, 15-010545, 15-010546, 15-010547, 15-010548, 15-010549, 15-010550, 15-010551, 15-010552, 15-010553, 15-010554, 15-010555
KE-02809		2003	Getchell, Barbie S. and Atwood, John E.	Cultural Resources Inventory of the 160-Acre Runway Extension Project Area for the East Kern Airport District in the Community of Mojave, Kern County, California	PAST, Inc.	15-010842, 15-010843
KE-02813		2002	Washington, Daphne H.	Draft Environmental Impact Report: Mojave-Rosamond Sanitary Landfill Vol. 1 of 2	Kern County Waste Management Department	
KE-02813A		2002	Washington, Daphne H.	Draft Environmental Impact Report, Mojave-Rosamond Sanitary Landfill (Volume 2 of 2): Technical Appendices	Kern County Waste Management Department	
KE-02821	Submitter - Clearinghouse Number: 2002041025	2002	Unknown	Draft Environmental Impact Report Redevelopment Area Expansion, Detachment, Annexation, and Automotive Test Course Project, California City	Sapphos Environmental, Inc.	
KE-02821A		2002	Unknown	Phase I Environmental Site Assessment of Automotive Test Course Facility, California City, CA	Sapphos Environmental, Inc.	

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KE-02821B		2002	Cook, John R.	Cultural Resources Survey for the Proposed Hyundai Test Track	ASM Affiliates, Inc.	
KE-02825		2003	Hansen, Linda	Western Mojave Desert Off Road Vehicle Designation Project	Bureau of Land Management	
KE-02826		2003	Pool, Mike and Hansen, Linda	Decision Record CDCA Plan Amendment: Western Mojave Desert Off Road Vehicle Designation Project	Bureau of Land Management	
KE-02827		2003	Hansen, Linda, Hays, Michael E., Priester, Scott, and Pool, Mike	Draft Environmental Impact Report and Statement for the West Mojave Plan: A Habitat Conservation Plan and California Desert Conservation Area Plan Amendment Vol 1	Bureau of Land Management	
KE-02849		2003	Washington, Michon	Draft Environmental Assessment/Initial Study for the East Kern Airport District Launch Site Operator License for Mojave Airport	FAA Environmental Specialist	
KE-02902	Submitter - Contract #DACA05-01-D-0005; Submitter - Task Order 004	2003	Budinger Jr., Fred E., Campbell, Mark M., and Spinney, Harriot E.	The Prehistory of Cultural Resources Management Region 5 Edwards AFB, Kern, Los Angeles, and San Bernardino Counties, California	Tetra Tech, Inc.	15-003992, 15-004843, 15-004883
KE-02903	Submitter - Contract No. DACA-05-01-D-0006	2003	Parker, Mari Pritchard, Puckett, Heather R., and Torres, John A.	A Phase II Evaluation of 94 Archaeological Sites Located Along Roads Throughout Edwards AFB, CA Volumes I, II and III	Earth Tech	15-002557, 15-002734
KE-02951		2004	Tetra Tech, Inc. and Jones & Stokes	Final Cultural Resources Evaluation of Historic Period Homesites on Edwards AFB, Kern and Los Angeles Counties, CA Volume 1: Introduction and Background	Tetra Tech, Inc. and Jones & Stokes	15-000532, 15-000561, 15-001017, 15-001178, 15-001785, 15-001816, 15-001820, 15-001841, 15-001845, 15-001856, 15-001892, 15-001984, 15-002293, 15-002295, 15-002296, 15-002311, 15-002345, 15-002392, 15-002530, 15-002563, 15-002604, 15-002670, 15-003383, 15-003384, 15-003844, 15-003846, 15-003882, 15-003981, 15-005581, 15-005585, 15-005592, 15-005855, 15-007165, 15-009523, 15-010155, 15-010289
KE-02988		2003	Washington, Michon	Mojave Airport Launch Site Operator License, Mojave, Kern County, California	Commercial Space Transporation, Federal Aviation Administration	

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KE-03085	Submitter - KCWM No. 2 (896-2004); Submitter - TG&S #030507	2005	Fleagle, Dorothy	A Cultural Resources Assessment for Approximately 500 Acres for the Mojave/Rosamond Sanitary Landfill Addition Northeast of the Existing Landfill, South of Mojave, Kern County, California	Three Girls and a Shovel, LLC.	15-011611, 15-011612, 15-011613, 15-011614, 15-011615, 15-011616, 15-011617, 15-011618, 15-011619, 15-011620, 15-011621, 15-011622, 15-011623, 15-011624, 15-011625, 15-011626, 15-011627, 15-011628, 15-011629, 15-011630, 15-011631, 15-011632, 15-011633, 15-011634, 15-011635, 15-011636, 15-011637, 15-011638, 15-011639, 15-011640, 15-011641, 15-011642, 15-011643, 15-011644, 15-011645, 15-011646
KE-03180	Submitter - TG&S Job #120536	2005	Fleagle, Dorothy	A Cultural Resources Assessment for Tentative Tract #6545, 39.41 Acres West of the City of Mojave, Kern County, California	Three Girls and a Shovel	15-012206
KE-03181	Submitter - Project # 120535	2006	Pruett, Catherine Lewis	A Cultural Resources Assessment of Tentative Tract No. 6587, a 77 Acre Parcel West of Mojave, Kern County, California	Three Girls and a Shovel, LLC.	15-012208
KE-03228		2005	Schiffman, Robert A. and Gold, Alan P.	Cultural Resource Survey for a 29.54-Acre Parcel, Tract Number 6640, on Koch Street, in the City of Mojave, Eastern Kern County, California	Archaeological Associates of Kern County	
KE-03239		2002	Underwood, Jackson and Cleland, James H.	Cultural Resources Survey of Line 1903, All American Pipeline Conversion Project from Mettler, Kern County, CA to Daggett, San Bernardino County, California	EDAW, Inc.	15-010557, 15-010558, 15-010576, 15-010577, 15-010578, 15-010579, 15-010580, 15-010715
KE-03263	Submitter - Project #040613	2006	Pruett, Catherine Lewis	A Cultural Resources Assessment of Tentative Tract 6666, a 36 Acre Parcel South of Mojave, Kern County, California	Three Girls and a Shovel, LLC.	15-012207
KE-03264	Submitter - Job No. 460	2005	Norwood, Richard H.	Phase I Cultural Resource Investigation for a 35-Acre Property Southeast of the Intersection of 25th Street and Camelot Boulevard Mojave, Kern County, California	RT Factfinders	15-012207
KE-03387		2006	Schiffman, Robert A. and Gold, Alan P.	Cultural Resource Survey for a 310 Acre Parcel Near the Intersection of Purdy Avenue and United Street Near the City of Mojave, Eastern Kern County, California	Archaeological Associates of Kern County	15-015981, 15-015982, 15-015983
KE-03463		2006	Hudlow, Scott M.	A Phase I Cultural Resource Survey for APN 427-007-031, Al Mirage Apartments, Mojave, Kern County, California	Hudlow Cultural Resource Associates	15-012467

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
KE-03490		2007	Hudlow, Scott M.	A Phase I Cultural Resource Survey for AERO Energy Wind Power Project, Application 4, Kern County, California	Hudlow Cultural Resource Associates	
KE-03534		2006	Nilsson, Elena, Bevill, Russel, Kelly, Michael S., and Dwyer, Erin	Archaeological Inventory of the First and Second Los Angeles Aqueducts and Selected Access Roads, Kern, Inyo, and Los Angeles Counties, CA	URS Corporation	15-000402, 15-001594, 15-002142, 15-003048, 15-003536, 15-003549, 15-003868, 15-003939, 15-008781, 15-009656, 15-009657, 15-009658, 15-009659, 15-009660, 15-010028, 15-010082, 15-010083, 15-010084, 15-010085, 15-010086, 15-010087, 15-010088, 15-010089, 15-010090, 15-010091, 15-010092, 15-010093, 15-012665, 15-012666, 15-012667, 15-012686, 15-012711, 15-012715, 15-012722, 15-012725, 15-012726, 15-012727, 15-012728, 15-012732, 15-016119
KE-03546		2006	Ahmet, Koral, Mason, Roger, and Bholat, Sara	Cultural Resources Survey Report for Antelope Transmission Project: Segments 2 & 3 Los Angeles and Kern Counties	ECORP Consulting, Inc.	15-000982, 15-001998, 15-002434, 15-002821, 15-003537, 15-003549, 15-007681, 15-011159, 15-012475, 15-012493, 15-012494, 15-012512, 15-012513
KE-03547		2007	Ahmet, Koral and Mason, Roger	Cultural Resources Survey Report for Antelope Transmission Project: Segment 3, Option C, Kern County, CA	ECORP Consulting	15-012486, 15-012487, 15-012488, 15-012489, 15-012490, 15-012491
KE-03572		2006	Switalski, Hubert	Archaeological Survey for the Proposed Extension of Discovery 12 kV Distribution Line Circuit to the Privated Residence at 2915 Douglas Street, Mojave, Kern County, California	AMEC Earth and Environmental, Inc.	
KE-03611	Submitter - TG&S Job #80917	2009	Fleagle, Dorothy	A Cultural Resources Assessment for 160 Acres of Bureau of Land Management Land Adjacent to the Mojave/Rosamond Sanitary Landfill Buffer, Kern County, California	Three Girls and a Shovel, LLC.	15-015174, 15-015175, 15-015176, 15-015177, 15-015178, 15-015179, 15-015180, 15-015181, 15-015182, 15-015183, 15-015184, 15-015185, 15-015186
KE-03698	Submitter - Project Number: 1753b	2009	Gust, Sherri and Harper, Veronica	Archaeological Assessment, Segment 3B Tehachapi Renewable Distribution Project, 12 kV Distribution Line, Kern County, California	Cogstone Resource Management, Inc.	15-013683, 15-013686

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KE-03777	Submitter - Contract No. 06A1106; Submitter - Expenditure Authorization No. 06-0A7408	2010	Palm-Leach, Laura, Brandy, Paul, King, Jay, Mikkelsen, Pat, Seil, Libby, Hartman, Lindsay, Bradeen, Jill, Larson, Bryan, Freeman, Joseph, Costello, Julia, Rosenthal, Jeffrey, and Jones, Deborah	Cultural Resources Inventory of Caltrans District 6 Rural Conventional Highways in Fresno, Western Kern, Kings, Madera, and Tulare Counties Summary of Methods and Findings	Far Western Antrhopological Research Group, Inc.	15-000025, 15-000070, 15-000071, 15-000106, 15-000213, 15-000215, 15-000222, 15-000400, 15-001108, 15-001683, 15-001684, 15-002583, 15-004024, 15-007767, 15-013664, 15-013665, 15-013668, 15-013670, 15-013671, 15-013672, 15-013673, 15-013674, 15-013675, 15-013677, 15-013678, 15-013679, 15-013680, 15-013709, 15-013712, 15-013713, 15-013716, 15-013729, 15-013730, 15-013734, 15-013735, 15-015820
KE-03875	Submitter - CAR Project No. 07-13	2007	Barket, Theresa and Orfila, Rebecca S.	A Cultural Resources Assessment of Lansing Properties (APN-010-03 and portion of APN 427-010-10), Mojave, Kern County, California	Center for Archaeological Research, California State University, Bakersfield	
KE-03877	Agency Nbr - EAFB Project File: 2006-L THEME7; Submitter - Contract No. DACA05-01-D-005	2008	Puckett, Heather R. and Peyton, Paige M.	Theme Study, Inventory and Evaluation for Various Historic Period Site Types, Edwards Air Force Base, California. Volumes I-VI	Tetra Tech, Inc. ; KAYA Associates, Inc.	15-002446, 15-004987, 15-009422, 15-012882, 15-012883, 15-012887, 15-012888
KE-03877A		2008	Puckett, Heather R. and Peyton, Paige M.	Final Theme Study - Inventory and Evaluation for Various Historic Period Site Types, Edwards Air Force Base, California - Volume VI: Appendices	Tetra Tech, Inc. ; KAYA Associates, Inc.	
KE-03877B		2008	Puckett, Heather R. and Peyton, Paige M.	Final Theme Study - Inventory and Evaluation for Various Historic Period Site Types, Edwards Air Force Base, California - Volume V: Chapters 12 through 16	Tetra Tech, Inc. ; KAYA Associates, Inc.	
KE-03877C		2008	Puckett, Heather R. and Peyton, Paige M.	Final Theme Study - Inventory and Evaluation for Various Historic Period Site Types, Edwards Air Force Base, California - Volume IV: Chapters 10 through 11	Tetra Tech, Inc. ; KAYA Associates, Inc.	
KE-03877D		2008	Puckett, Heather R. and Peyton, Paige M.	Final Theme Study - Inventory and Evaluation for Various Historic Period Site Types, Edwards Air Force Base, California - Volume III: Chapter 9	Tetra Tech, Inc. ; KAYA Associates, Inc.	
KE-03877E		2008	Puckett, Heather R. and Peyton, Paige M.	Final Theme Study - Inventory and Evaluation for Various Historic Period Site Types, Edwards Air Force Base, California - Volume II: Chapters 5 through 8	Tetra Tech, Inc ; KAYA Associates, Inc.	

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KE-03882		2009	Fleagle, Dorothy	A Cultural Resources Assessment for 40 Acres for APN 428-130-10, 11, 12, & 14 Adjacent to the Mojave Airport in the City of Mojave, Kern County, California	Three Girls & a Shovel, LLC.	
KE-03887	Submitter - CAR Project No. 09-34	2009	DeCarlo, Matthew M. and Orfila, Rebecca S.	A Cultural Resources Assessment of 40 Acres Near Mojave (APN 427-080-13, 14, 15), Mojave, Kern County, California	Center for Archaeological Research, California State University, Bakersfield	15-014966
KE-03941		2009	Price, Barry A., Baloian, Mary Clark, Lichtenstein, Robert, and Linder, Marc	Confidential Specialist Report: Cultural Resources Inventory for the Tehachapi Renewable Transmission Project Kern, Los Angeles, and San Bernardino Counties, California	Applied Earthworks, Inc.	15-012779, 15-012781, 15-012792, 15-012793, 15-012803, 15-013655, 15-013656, 15-013657
KE-03954	Submitter - Project No. STR0901	2009	Brunzell, David	Cultural Resources Assessment Strata Equity Group, Property Group D City of California City and Unincorporated Portions of Kern County, California	Brunzell Cultural Resource Consulting	15-010501, 15-010543, 15-010545, 15-011245, 15-013567, 15-013568, 15-013569, 15-013570, 15-013571, 15-013572, 15-013573, 15-013574, 15-013575, 15-013576, 15-013577, 15-013578, 15-013579, 15-013580, 15-013581, 15-013582, 15-013583, 15-013584, 15-013585, 15-013586, 15-013587, 15-013588, 15-013589, 15-013590, 15-013591, 15-013592, 15-013593, 15-013594, 15-013595, 15-013596, 15-013597, 15-013598, 15-013599, 15-013600, 15-013601, 15-013602, 15-013603, 15-013604, 15-013605, 15-013606, 15-013607, 15-013608, 15-013609, 15-013610, 15-013611, 15-013612, 15-013613, 15-013614, 15-013615, 15-013616, 15-013617, 15-013618, 15-013619, 15-013620, 15-013621, 15-013622, 15-013623, 15-013624, 15-013625, 15-015229
KE-03991	Submitter - KCWMD Agreement No. 729-2007 Work Authorization No. 10; Submitter - TG&S Job #50911	2009	Fleagle, Dorothy	A Cultural Resources Assessment for 120 Acres for the Mojave/Rosamond Sanitary Landfill Buffer, South of the City of Mojave, Kern County, California	Three Girls & a Shovel, LLC.	15-015580, 15-015581, 15-015582, 15-015583, 15-015584, 15-015585

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KE-04006		2010	Orfila, Rebecca S.	Re: Archaeological Survey for the Southern California Edison Company: Repair and Maintenance Activities for Three (3) Power Poles on the Discovery 12kV and Keene 12kV Circuits, Kern County, California (O&M IO#301186; SYS ID#1003-0310-2525, -4319, and 1003-0308-2224)	RSO Consulting, Cultural and Historical Resource Management	
KE-04038		2009	Brunzell, David	Cultural Resources Assessment Strata Equity Group, Property Group E California City, Kern County, California	Brunzell Cultural Resource Consulting	15-013528, 15-013529, 15-013530, 15-013531, 15-013532, 15-013533, 15-013534

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KE-04053		2009	Lawson, Natalie	Cultural Resources Inventory Report for the Alta Oak Creek Mojave Wind Project, Kern County, California	CH2M Hill	15-000196, 15-001420, 15-003534, 15-003535, 15-003536, 15-003537, 15-003538, 15-003929, 15-010033, 15-012810, 15-012811, 15-013689, 15-013904, 15-013905, 15-013906, 15-013909, 15-013910, 15-013911, 15-013912, 15-013913, 15-013914, 15-013915, 15-013916, 15-013917, 15-013918, 15-013919, 15-013920, 15-013932, 15-013933, 15-013934, 15-013935, 15-013936, 15-013937, 15-013938, 15-013939, 15-013940, 15-013941, 15-013942, 15-013943, 15-013944, 15-013945, 15-013946, 15-013947, 15-013948, 15-013949, 15-013950, 15-013951, 15-013952, 15-013953, 15-013954, 15-013955, 15-013956, 15-013957, 15-013958, 15-013959, 15-013960, 15-013961, 15-013962, 15-013963, 15-013964, 15-013965, 15-013966, 15-013967, 15-013968, 15-013969, 15-013970, 15-013971, 15-013972, 15-013977, 15-013978, 15-013979, 15-013980, 15-013981, 15-013982, 15-013983, 15-013984, 15-013985, 15-013986, 15-013987, 15-013988, 15-013989, 15-013990, 15-013991, 15-013992, 15-013993, 15-013994, 15-013995, 15-013996, 15-013997, 15-013998, 15-013999, 15-014000, 15-014001, 15-014002, 15-014003, 15-014004, 15-014005, 15-014006, 15-014007, 15-014008, 15-014009, 15-014010, 15-014011, 15-014012, 15-014020, 15-014021, 15-014024, 15-014025, 15-014026, 15-014697, 15-014698, 15-014699, 15-014700, 15-014701, 15-014702, 15-014703, 15-014704
KE-04065		2011	Schmidt, James J.	Re: Arch. Letter Report: Project No. 307780: EKWRA Telecom Failed Poles Project, Kern and Los Angeles Counties, California	Compass Rose Archaeological, Inc., Van Nuys, CA	

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KE-04111	Submitter - CH-067; Submitter - WO 4703-0460; SAP 800255684	2009	Parr, Robert E.	Cultural Resources Assessment for the Replacement of Deteriorated Power Pole #1144901E on the Southern California Edison Company Corum-Goldtown 66 kV Circuit near Mojave, Kern County, California	Cal Heritage	
KE-04117	BLM - Permit No. CA-08-23	2011	Mirro, Vanessa, McDougall, Dennis, and Earle, David	Class III Cultural Resources Survey for the Horizon Wind Energy Rising Tree Wind Farm, Kern County, California	Applied EarthWorks, Inc.	15-014615, 15-014616, 15-014617, 15-014618, 15-014619, 15-014620, 15-014621, 15-014622, 15-014623, 15-014624, 15-014625, 15-014626, 15-014627, 15-014628, 15-014629, 15-014630, 15-014631, 15-014632, 15-014633, 15-014634, 15-014635, 15-014636, 15-014637, 15-014638, 15-014639, 15-014640, 15-014641, 15-014642, 15-014643, 15-014644, 15-014645, 15-014646, 15-014647, 15-014648, 15-014649, 15-014650, 15-014651, 15-014652, 15-014653, 15-014654, 15-014655, 15-014656, 15-014657, 15-014658, 15-014659, 15-014660, 15-014661, 15-014662, 15-014663, 15-014664, 15-014665, 15-014666, 15-014667, 15-014668, 15-014669, 15-014670, 15-014671, 15-014672, 15-014673, 15-014674, 15-014675, 15-014676, 15-014677, 15-014678, 15-014679, 15-014680, 15-014681, 15-014682, 15-014683, 15-014684, 15-014685
KE-04145		2011	Armstrong, Matthew, Panich, Lee, Cimino, Stephanie, and Holson, John	Archaeological Survey Report East Kern Wind Resource Area (EKWRA) 66 kV Reconfiguration Project, Kern County, CA	Pacific Legacy, Inc.	15-000982, 15-001420, 15-002434, 15-002465, 15-003537, 15-010033, 15-011159, 15-012513, 15-012514, 15-012515, 15-012810, 15-012811, 15-012812, 15-013685, 15-015551, 15-015552, 15-015553, 15-015554, 15-015556, 15-015558, 15-015559, 15-015560, 15-015561, 15-015562, 15-015563, 15-015564, 15-015565, 15-015566, 15-015567, 15-015568, 15-015569, 15-015570, 15-015571, 15-015572, 15-015573, 15-015574

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KE-04159		2011	Cardenas, Gloriella	Cultural Resources Inventory Report for the Alta Infill II Wind Energy Project Project, Kern County, California	URS, Sacramento	15-017052, 15-017053, 15-017054, 15-017055, 15-017056, 15-017057, 15-017058, 15-017059, 15-017060, 15-017061, 15-017062, 15-017066, 15-017067, 15-017068, 15-017069, 15-017070, 15-017071, 15-017072, 15-017073, 15-017074, 15-017075, 15-017076, 15-017077, 15-017079, 15-017081, 15-017082, 15-017083, 15-017084, 15-017085, 15-017086, 15-017087, 15-017088, 15-017089, 15-017090, 15-017091, 15-017092, 15-017093, 15-017094, 15-017095, 15-017096, 15-017097, 15-017098, 15-017099, 15-017100, 15-017101, 15-017102, 15-017103, 15-017104, 15-017105, 15-017106, 15-017108, 15-017109, 15-017110, 15-017111, 15-017112, 15-017113, 15-017114, 15-017115, 15-017116, 15-017117, 15-017118, 15-017120, 15-017121, 15-017122, 15-017123, 15-017124, 15-017125, 15-017126, 15-017127, 15-017128, 15-017129, 15-017130, 15-017131, 15-017132, 15-017133, 15-017134, 15-017135, 15-017136, 15-017137, 15-017138, 15-017139, 15-017140, 15-017141, 15-017142, 15-017143, 15-017144, 15-017145, 15-017146, 15-017147, 15-017148, 15-017149, 15-017150, 15-017151, 15-017152, 15-017153, 15-017154, 15-017155, 15-017156, 15-017157, 15-017159, 15-017160, 15-017161, 15-017162, 15-017163, 15-017165, 15-017166, 15-017167, 15-017168, 15-017169, 15-017170, 15-017171, 15-017172, 15-017173, 15-017174, 15-017175, 15-017176, 15-017177, 15-017178, 15-017179, 15-017180, 15-017181, 15-017182, 15-017183, 15-017184, 15-017186, 15-017187, 15-017188, 15-017189, 15-017190, 15-017191, 15-017192, 15-017205, 15-017206, 15-017207, 15-017208, 15-017209, 15-017210, 15-017211,

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						15-017212, 15-017213, 15-017214, 15-017215, 15-017216, 15-017217, 15-017218
KE-04225		2010	Jackson, Thomas, Armstrong, Matthew, and Sikes, Nancy	Cultural Resources Inventory of the Southern California Edison Company Whirlwind to Rosamond and Rosamond to Windhub Telecommunication Line, Kern County, California	Pacific Legacy, Inc. ; Cogstone Resource Management, Inc.	15-013689, 15-013692, 15-013698, 15-013699, 15-013700, 15-013701, 15-013702, 15-013703, 15-013705, 15-013731, 15-016466
KE-04227	Submitter - CWA #2340-10.02.09	2010	Schneider, Tsim D. and Holson, John	Supplemental Archaeological Survey Report #2, Tehachapi Renewable Transmission Project Segment 10, Kern County, California	Pacific Legacy, Inc.	15-012714, 15-016244, 15-016248, 15-016251, 15-016252, 15-016253, 15-016254, 15-016255, 15-016257, 15-016258, 15-016790, 15-016791
KE-04229		2010	Panich, Lee, Cimino, Stephanie, and Holson, John	Supplemental Archaeological Survey Report #1, Tehachapi Renewable Transmission Project Segment 10, Kern County, California	Pacific Legacy, Inc.	15-013830, 15-013831, 15-013832, 15-013833, 15-013834, 15-013835, 15-013836, 15-013837
KE-04230		2011	Bischoff, Wayne	Third Supplemental Survey Report for Additional Roads on Segment 10, Tehachapi Renewable Transmission Project, Kern County, California	Pacific Legacy, Inc.	
KE-04236		2012	Pacific Legacy, Inc.	Supplemental Archaeological Survey Report and Cultural Resources Management Plan, Tehachapi Renewable Transmission Project Segment 3B, Kern County, California	Pacific Legacy, Inc.	15-002434, 15-013842, 15-015569, 15-016231, 15-016232, 15-016234, 15-016239, 15-016240
KE-04247	Submitter - LSA Project No. CH00701	2010	Lawson, Natalie and Cardenas, Gloriella	Class III Cultural Resources Survey of the North Sky River Wind Energy Project, Kern County, California.	CH2MHILL	15-001129, 15-001227, 15-001615, 15-001699, 15-002064, 15-002065, 15-002066, 15-003537, 15-003538, 15-006670, 15-011064, 15-015058, 15-015067, 15-016452, 15-016568, 15-016569, 15-016571, 15-016572, 15-016573, 15-016574, 15-016575, 15-016576, 15-016577, 15-016578, 15-016579, 15-016580, 15-016581, 15-016582, 15-016583, 15-016584, 15-016585
KE-04260		2011	Hudlow, Scott M.	A Phase I Cultural Resource Survey for Seven Kern Desert Solar Farm Sites, Kern County, California	Hudlow Cultural Resource Associates	15-003528, 15-016259, 15-016260, 15-016261, 15-016262, 15-016263, 15-016264, 15-016265, 15-016266, 15-016268, 15-016269, 15-016273, 15-016274, 15-016275

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KE-04279		2011	Lawson, Natalie and Fergusson, Aaron	Alta East Wind Energy Project: Comprehensive Report of 2010-2011 Cultural Resources Investigations, Kern County, California.	CH2MHILL	15-016696, 15-016697, 15-016698, 15-016699, 15-016700, 15-016701, 15-016702, 15-016703, 15-016704, 15-016705, 15-016706, 15-016707, 15-016708, 15-016709, 15-016710, 15-016711, 15-016712, 15-016713, 15-016714, 15-016715, 15-016716, 15-016717, 15-016718, 15-016719, 15-016720, 15-016721, 15-016722, 15-016723, 15-016724, 15-016725, 15-016726, 15-016727, 15-016728, 15-016729, 15-016730, 15-016731, 15-016732, 15-016733, 15-016734, 15-016735, 15-016736, 15-016737, 15-016738, 15-016739, 15-016740, 15-016741, 15-016742, 15-016744, 15-016745, 15-016746, 15-016747, 15-016748, 15-016749, 15-016750, 15-016751, 15-016752, 15-016753, 15-016754, 15-016755, 15-016756, 15-016757, 15-016758, 15-016759, 15-016760, 15-016761, 15-016762, 15-016763, 15-016764, 15-016765, 15-016766, 15-016767, 15-016768, 15-016769, 15-016770, 15-016771, 15-016772, 15-016773, 15-016774, 15-016775, 15-016776, 15-016777, 15-016778, 15-016779, 15-016780, 15-016781, 15-016782, 15-016783, 15-016784, 15-016785, 15-016786, 15-016787
KE-04359		2013	Ramirez, Robert, Hunt, Kevin, and Haas, Hannah	Addendum Report: Phase I Cultural Resources Survey for the RE Columbia Two Solar Project, Mojave, Kern County, California	Rincon Consultants	15-003528, 15-013686, 15-014894, 15-016264, 15-016498, 15-016499, 15-016500, 15-016501, 15-016502, 15-016503, 15-016504, 15-016505, 15-016506, 15-016507, 15-016829, 15-016830, 15-016831, 15-016832, 15-016833, 15-016837
KE-04360		2013	Haas, Hannah and Ramirez, Robert	Phase I Cultural Resources Survey for the RE Clearwater Solar Project in Mojave, Kern County, California	Rincon Consultants	15-016827, 15-016828
KE-04369		2013	Haas, Hannah and Ramirez, Robert	Phase I Cultural Resources Survey for the RE Yakima Solar Project in Mojave, Kern County, California	Rincon Consultants	15-000319, 15-017223, 15-017224, 15-017225

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KE-04435		2010	Meyer, Jack, Young, D. Craig, and Rosenthal, Jeffrey	Volume I: A Geoarchaeological Overview and Assessment of Caltrans Districts 6 and 9 - Cultural Resources Inventory of Caltrans District 6/9 Rural Conventional Highways - EA 06-0A7408 TEA Grant	Far Western Anthropological Research Group, Inc.	
KE-04435A		2010	Meyer, Jack, Young, D. Craig, and Rosenthal, Jeffrey S.	Volume II: Appendices A Geoarchaeological Overview and Assessment of Caltrans District 6 and 9 - Cultural Resources Inventory of Caltrans District 6/9 Rural Conventional Highways - EA 06-0A7408 TEA Grant	Far Western Anthropological Research Group, Inc.	
KE-04472		2014	Honey, Linda L.	Phase I Cultural Resources Assessment for the Fremont Valley Preservation Project Proposed Transmission Line and Pipeline, Kern County and San Bernardino County, California	Great Basin Sage, Inc.	15-002221, 15-002501, 15-003366, 15-013686, 15-017618, 15-017619, 15-017620, 15-017621, 15-017622, 15-017623, 15-017624, 15-017625, 15-017626
KE-04476		2013	Higgins, Courtney, Kellawan, Rebecca, Duke, Daron G., and Lucas, Thomas	Cultural Resources Inventory of 5,300 Acres for the PG&E Pipelines 300A and 300B, San Bernardino and Kern Counties, California	Far Western Anthropological Research Group, Inc.	15-000560, 15-002038, 15-002091, 15-002092, 15-002435, 15-002575, 15-003530, 15-003534, 15-003549, 15-010576, 15-010577, 15-010591, 15-011374, 15-012276, 15-012420, 15-017297, 15-017298, 15-017299, 15-017300, 15-017301, 15-017302, 15-017303, 15-017304, 15-017305, 15-017306, 15-017307, 15-017308, 15-017309, 15-017310, 15-017311, 15-017312, 15-017313, 15-017314, 15-017315, 15-017316, 15-017317, 15-017318, 15-017319, 15-017320, 15-017321, 15-017322, 15-017323, 15-017324, 15-017325, 15-017326, 15-017327, 15-017328, 15-017329, 15-017330, 15-017331, 15-017332, 15-017333
KE-04633	Submitter - SWCA Cultural Resources Report No. 13-518; Submitter - SWCA Project No. 25676	2013	Hoffman, Laura and Denniston, Liz	Cultural and Paleontological Resources Monitoring and Discovery Report for the RE Columbia 3 LLC Solar Facility Project, Kern County, California	SWCA Environmental Consultants	

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
KE-04648		2014	Ramirez, Robert, Haas, Hannah, and Hunt, Kevin	Cultural Resources Study for RE Clearwater Solar Project, Mojave, Kern County, California	Rincon Consultants	15-006676, 15-012207, 15-018149, 15-018150, 15-018151, 15-018152, 15-018153, 15-018154, 15-018155, 15-018156, 15-018157, 15-018158, 15-018159, 15-018160, 15-018161, 15-018162, 15-018163, 15-018164, 15-018165, 15-018166, 15-018167, 15-018168, 15-018169
KE-04649		2015	Ramirez, Robert, Daitch, David, and Hunt, Kevin	Archaeological and Paleontological Monitoring Report for the Camelot Solar Project, Mojave, Kern County, California	Rincon Consultants	15-018170, 15-018171, 15-018172
KE-04672		2011	Greenwald, Alexandra	Archaeological Survey Report for the California High Speed Train Fresno to Bakersfield Section	URS Corporation	
KE-04702		2015	Romani, Gwen	Archaeological Survey Report for the Mojave Pedestrian Path Improvement Project Sierra Highway and State Route 14	Compass Rose	
KE-04765	IC Record Search Nbr - 16-009	2016	Hudlow, Scott	A Phase I Architectural Survey/Evaluatoin Mojave Veterans Memorial Building ADA Compliance Project, Mojave, Kern County, California	Hudlow Cultural Resource Associates	15-018757
KE-04910	Submitter - 6117000218	2017	Etheridge, Johni and Perez, Don C.	Archaeological Survey Report 1863 Highway 58, Mojave, Kern County, California	EBI Consulting	

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KE-00210	BLM - Permit No. CA-95-01-0004; NADB-R - 1141258	1995	Self, William	Class I Overview: Santa Fe Pacific Pipeline Partners, L.P. Proposed Concord to Colton Pipeline Project	William Self Associates	15-004754, 15-004757, 15-004758, 15-004759, 15-004760, 15-004762
KE-00423	NADB-R - 1140103	1983	Garfinkel, Alan P. and Kerbavaz, Joanne	Negative archaeological survey report DOT-09-KER-14, PM 12.6/16.1, Charge Unit 09-201, EA 204-300	Not identified	
KE-00428	NADB-R - 1140107	1983	Garfinkel, Alan and Kerbavaz, Joanne	Negative archaeological survey report DOT-06-KER-58, PM 113.2/114.4, Charge Unit 09201, EA 204-400	Individual consultant	
KE-00440	NADB-R - 1140247	1991	Glover, Leslie G.	A cultural resources inventory of selected route re-alignments for the Mojave Pipeline in California and Arizona	Far Western Anthropological Research Group, Inc.	15-003326, 15-003332, 15-009039, 15-009040, 15-009041
KE-00633	NADB-R - 1140770	1993	Macko, Michael E., Binning, Jeanne D., Earle, David D., and Langenwalter, Paul E.	National Register Eligibility Determinations for Historic Resources Along the Proposed AT&T Lightguide System, Victorville to Bakersfield, California	Macko Archaeological Consulting Macko Archaeological Consulting	15-000560, 15-001378, 15-001558, 15-002038, 15-002097, 15-002098, 15-003367, 15-003368, 15-003369, 15-003370, 15-003527, 15-003528, 15-003529, 15-003530, 15-003531, 15-003532, 15-003533, 15-003534, 15-003536, 15-003537, 15-003538, 15-003539, 15-003540, 15-003541, 15-003542, 15-003543, 15-003544, 15-003545, 15-003546, 15-003547
KE-00636	Caltrans - 09-KER-58 P.M. R107.7/R118.0 09-243400; NADB-R - 1140961	1995	Marvin, J and Costello, G	Historic Property Survey Report for the Mojave Bypass Project	California Department of Transportation	15-003366, 15-003549, 15-003558, 15-003559, 15-003927, 15-003928, 15-003929, 15-003930, 15-003931, 15-003932, 15-004112, 15-004113, 15-004114, 15-004115, 15-004116, 15-007596, 15-007597, 15-007598, 15-007735, 15-007736, 15-007737
KE-00636A		1995	Marvin, J. and Costello, J	Supplemental Analysis of Two Historic Resources in the APE for the Mojave Bypass Project, Caltrans District 9, Kern County, California	Unkown	
KE-00636B		1995	Fisher, Jim	A Second Supplemental Historical Study Report for the Mojave Bypass Project	Caltrans District 9	
KE-00636C		1994	Burke, Thomas D., Walsh, Laurie, Markos, Jeffrey A, and Hause, Larry	Archaeological Testing and Evaluation of CA-KER-3558 and CA-KER-3559, Fremont Valley, for the Proposed Mojave Bypass Project, Caltrans District 9, Kern County, California	Archaeological Research Services, Inc.	

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KE-00636D		1994	Marvin, Judith and Costello, Julia	Supplemental Archaeological Survey Report and Historic Study Report for the Mojave Bypass Project, Caltrans District 9, Kern County, California	Foothill Resources, Ltd.	
KE-00636E		1993	Tremaine, Kim	Archaeological Survey Report of Three Alternative Alignments for the Proposed Mojave Bypass, Caltrans District 9, Kern County, California	Biosystems Analysis, Inc.	
KE-00669	NADB-R - 1140375; Submitter - CRF-90-34	1990	Murphy, Peggy and Sutton, Mark Q.	An Archaeological Assessment of Tentative Tract No. 5312 in Mojave, Kern County, California	Cultural Resource Facility, California State University, Bakersfield	15-007726
KE-00804	NADB-R - 1140474; Submitter - CRF-89-37	1989	Parr, Robert E.	Archaeological Assessment of a Proposed Residential and Commercial Center Near the City of Mojave, Kern County, California	Cultural Resource Facility, California State University, Bakersfield	15-007592, 15-007593, 15-007594, 15-007595, 15-007715, 15-007716, 15-007717, 15-007718, 15-007719, 15-007720, 15-007721, 15-007722
KE-00808	NADB-R - 1140478; Submitter - CRF-89-54	1989	Parr, Robert E. and Sutton, Mark Q.	An Archaeological Assessment of 320 Acres of the Mojave Proposed Specific Plan, Mojave, Kern County, California	Cultural Resource Facility, California State University, Bakersfield	15-002536, 15-002537, 15-007724
KE-00888	NADB-R - 1140621	1986	Proctor, Martha and Edell, Jack	Negative Archaeological Survey Report for Widening Route 14 from P.M. 12.6 to 16.1- Also Water Line Easement	Dept. of Transportation	
KE-00905	NADB-R - 1141419	1989	Lewis Pruett, Catherine	Environmental Impact Evaluation: An Archaeological Assessment for Tentative Tract No. 5211, Mojave, Kern County	CRF CSU Bakersfield	
KE-00926	NADB-R - 1141437; Submitter - CRF-89-28	1989	Pruett, Catherine Lewis	Environmental Impact Evaluation: Archaeological Evaluation for a Proposed Commercial Retail Center Near Mojave, Kern County	Cultural Resource Facility, California State University, Bakersfield	
KE-00947	NADB-R - 1141458; Submitter - CRF-90-111	1990	Pruett, Catherine Lewis	Archaeological Assessment for Parcel Map No. 9485, East of Mojave, Kern County, California	Cultural Resource Facility, California State University, Bakersfield	
KE-01028		1996	Unknown	Cultural Resources Investigation Pacific Pipeline Emidio Route (Including West Liebre Gulch Ridge Alignment and Mojave Alternatives) L.A. and Kern Counties, CA	Science Applications International Corporation, Environmental Programs Division	15-002314, 15-002486, 15-002848, 15-003529, 15-004430, 15-004465
KE-01182		1980	Schiffman, Robert A. and Garfinkel, Alan P.	Draft - Archaeological Overview of Kern County	Bakersfield College	
KE-01183		1981	Schiffman, Robert A. and Garfinkel, Alan P.	Prehistory of Kern County - An Overview	Bakersfield College	

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
KE-01196		1991	Robinson, R.W.	A Regional Overview of the Cultural Resources of the Willow Springs Specific Plan Update, Southern Kern County, California	Individual Consultant	15-000129, 15-000273, 15-000302, 15-000522, 15-001819, 15-001969, 15-002591, 15-002592, 15-002593, 15-002594, 15-002595, 15-002714, 15-002820, 15-002821
KE-01279		1987	Schiffman, Robert A.	Archaeological Investigation for Sea West's Wind Energy Farm West of Mojave, Kern County, California	Bakersfield College	
KE-01307		1988	Schiffman, Robert A.	Archaeological Investigation for Parcel Map No. 8679, Kern County, California	Bakersfield College	
KE-01364		1990	Schiffman, Robert A.	Archaeological Investigation of A 10" Sewer Line and Access Road for the East Kern Airport District, Kern County, California	Bakersfield College	
KE-01592		1983	Sutton, Mark Q.	An Archaeological Survey of the Camelot Specific Plan Site	Individual Consultant	15-006675, 15-006676, 15-006677, 15-006678, 15-006679
KE-01593		1985	Sutton, Mark Q.	A Cultural Resources Overview of the Tehachapi Windpark Area, Kern County, California	Individual Consultant	
KE-01628		1987	Sutton, Mark Q.	On the Late Prehistory of the Western Mojave Desert	University of California, Riverside	15-000303, 15-000733
KE-01630		1978	Sutton, Mark Q., Forbes, Charles, and Robinson, Sylva	A Possible Paleo-Indian Site Complex in the Western Mojave Desert	Individual Consultants	15-000558, 15-000564, 15-000696, 15-000700, 15-000701
KE-01646	NADB-R - 1140634	1993	Tremaine, Kim	Archaeological Survey Report of Three Alternative Alignments for the Proposed Mojave Bypass, Caltrans District 9, Kern County, California	BioSystems Analysis, Inc.	15-003558, 15-003559
KE-01662		1983	Uli, Jim and Schiffman, Robert	Archaeological Investigation for Western Energies Inc. Wind Generator Farm West of Mojave, Kern County, California	Bakersfield College	15-014068, 15-014069
KE-01772		1984	Weil, Edward B., Weisbord, Jill, and Blakley, E.R.	Cultural Resources Literature Search, Records Check and Sample Field Survey for the California Portion of the Celeron/All American Pipeline Project	Applied Conservation Technology, Inc.	
KE-01829		1978	Young, Daniel L.	Archaeological Survey Report for Highway Improvement Projects Between 3 Miles South of Mojave and Cache Creek On 9-KER-58-106.1/110.0, E.A. 073401; 9-KER-58-111.9/113.0, E.A. 073301; 9-KER-14-13.4/15.4, E.A. 073501	Individual Consultant	

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
KE-01867		1975	Hall, Matthew C., Barker, James P., Snyder, Toni B., Weaver, Richard A., and Lawton, Harry W.	Background to Prehistory of the El Paso/Red Mountain Desert Region	University of California, Riverside	
KE-01924		1998	Parr, Robert	Archaeological Assessment of the Niklor Chemical Company Manufacturing and Transfer Facility South of Mojave, Kern County, CA	Center for Archaeological Research, CSU Bakersfield	
KE-01925		1997	McDonald, Meg and Schaefer, Jerry	Cultural Resources Inventory and Evaluation of 4,180 Acres in the Western Mojave Land Tenure Adjustment Area	ASM Affiliates, Inc.	15-000385, 15-003951, 15-003952, 15-003953, 15-006052, 15-006053, 15-006054, 15-006055
KE-01960		1986	Cleland, James H., Woods, Clyde M., Skinner, Elizabeth J., Kelly, Michael S., and Apple, Rebecca M.	Kern River Pipeline Cultural Resource Overview	Dames & Moore	
KE-01996	Submitter - Job #96-018	1997	Unknown	Cultural Resource Assessment of the AT&T P-140 Coaxial Cable Line from Clark County, Nevada to near Mojave, Kern County, California	Peak & Associates, Inc.	
KE-02002		1993	Meyers, Thomas B. and Trimble, Michael K.	Archaeological Curation - Needs Assessments for Fort Sill, Oklahoma, Fort Gordon, Georgia, Vandenberg Air Force Base, California, Camp Pendleton Marine Corps Base, California, and Naval Air Weapons Station, China Lake, California	U.S. Army Corps of Engineers	
KE-02138		1985	Kern River Gas Transmission Company	Pipeline Projects to Supply Natural Gas for Enhanced Oil Recovery in California	Kern River Gas Transmission Company	
KE-02193	Submitter - 98-25	1998	Fleagle, Dorothy	An Archaeological Assessment of Ninety-Four Acres North of the Mojave/Rosamond Landfill, Kern County, California	Three Girls and a Shovel	
KE-02224	Caltrans - 06-KER-58 P.M. R107.7/R118.0 09-243400	1998	Laylander, Don	Second Supplemental Archaeological Survey Report for the Mojave Bypass Project, Kern County, California	California Department of Transportation	15-007161, 15-007162, 15-007163, 15-007234
KE-02232		1961	Cawley	Cawley Manuscript	University of California, Berkeley	
KE-02233	NADB-R - 1140555	1993	Costello, Julia G. and Marvin, Judith	Recording the Los Angeles Aqueduct	SCA Newsletter	

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KE-02244		1994	Everson, G. Dicken and Schneider, Joan S.	Kelso Conference Papers: A Collection of Papers and Abstracts from the First Five Kelso Conferences o nthe Prehistory of the Mojave Desert	Museum of Anthropology, California State University, Bakersfield	
KE-02323		1999	Demos-Petropoulous, Francine, McGowan, Dana, Scott, Barry, O'Brien, Teresa, Norton, Bill, and Rause, Wendy	Cultural Resources Inventory Report for the AT&T Corp. Cable Upgrade Project, Los Angeles, Kern, and San Luis Obispo Counties, California	Jones & Stokes Associates, Inc.	15-008766, 15-008767, 15-008768, 15-008769, 15-008772
KE-02406	Caltrans - 06-KER-Oak Creek Road	2000	Hudlow, Scott M.	Negative Historic Property Survey Report: Asphalt Overlay of Oak Creek Road	California Department of Transportation	
KE-02438		2000	Hudlow, Scott M.	Negative Archaeological Survey Report: Oak Creek Road, Kern County Roads Department	California Department of Transportation	
KE-02586		2001	Ryan, Christopher	Archaeological Survey Report: North Mojave Four-Lane Project, State Route 14, Kern County, CA	CALTRANS	15-003929, 15-009670, 15-010071
KE-02587		2001	Ryan, Christopher	Historical Study Report: North Mojave Four-Lane Project	CALTRANS	15-000571, 15-000573, 15-003929, 15-009670, 15-010071

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KE-02698		2002	Hector, Susan M., Moslak, Ken, and Wright, Catherine A.	Cultural Resources Survey for the Proposed Hyundai Test Track	ASM Affiliates, Inc.	15-010481, 15-010482, 15-010483, 15-010484, 15-010485, 15-010486, 15-010487, 15-010488, 15-010489, 15-010490, 15-010491, 15-010492, 15-010493, 15-010494, 15-010495, 15-010496, 15-010497, 15-010498, 15-010499, 15-010500, 15-010501, 15-010502, 15-010503, 15-010504, 15-010505, 15-010506, 15-010507, 15-010508, 15-010509, 15-010510, 15-010511, 15-010512, 15-010513, 15-010514, 15-010515, 15-010516, 15-010517, 15-010518, 15-010519, 15-010520, 15-010521, 15-010522, 15-010523, 15-010524, 15-010525, 15-010526, 15-010527, 15-010528, 15-010529, 15-010530, 15-010531, 15-010532, 15-010533, 15-010534, 15-010535, 15-010536, 15-010537, 15-010538, 15-010539, 15-010540, 15-010541, 15-010542, 15-010543, 15-010544, 15-010545, 15-010546, 15-010547, 15-010548, 15-010549, 15-010550, 15-010551, 15-010552, 15-010553, 15-010554, 15-010555
KE-02813		2002	Washington, Daphne H.	Draft Environmental Impact Report: Mojave-Rosamond Sanitary Landfill Vol. 1 of 2	Kern County Waste Management Department	
KE-02813A		2002	Washington, Daphne H.	Draft Environmental Impact Report, Mojave-Rosamond Sanitary Landfill (Volume 2 of 2): Technical Appendices	Kern County Waste Management Department	
KE-02821	Submitter - Clearinghouse Number: 2002041025	2002	Unknown	Draft Environmental Impact Report Redevelopment Area Expansion, Detachment, Annexation, and Automotive Test Course Project, California City	Sapphos Environmental, Inc.	
KE-02821A		2002	Unknown	Phase I Environmental Site Assessment of Automotive Test Course Facility, California City, CA	Sapphos Environmental, Inc.	
KE-02821B		2002	Cook, John R.	Cultural Resources Survey for the Proposed Hyundai Test Track	ASM Affiliates, Inc.	
KE-02825		2003	Hansen, Linda	Western Mojave Desert Off Road Vehicle Designation Project	Bureau of Land Management	

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KE-02826		2003	Pool, Mike and Hansen, Linda	Decision Record CDCA Plan Amendment: Western Mojave Desert Off Road Vehicle Designation Project	Bureau of Land Management	
KE-02827		2003	Hansen, Linda, Hays, Michael E., Priester, Scott, and Pool, Mike	Draft Environmental Impact Report and Statement for the West Mojave Plan: A Habitat Conservation Plan and California Desert Conservation Area Plan Amendment Vol 1	Bureau of Land Management	
KE-02902	Submitter - Contract #DACA05-01-D-0005; Submitter - Task Order 004	2003	Budinger Jr., Fred E., Campbell, Mark M., and Spinney, Harriot E.	The Prehistory of Cultural Resources Management Region 5 Edwards AFB, Kern, Los Angeles, and San Bernardino Counties, California	Tetra Tech, Inc.	15-003992, 15-004843, 15-004883
KE-02903	Submitter - Contract No. DACA-05-01-D-0006	2003	Parker, Mari Pritchard, Puckett, Heather R., and Torres, John A.	A Phase II Evaluation of 94 Archaeological Sites Located Along Roads Throughout Edwards AFB, CA Volumes I, II and III	Earth Tech	15-002557, 15-002734
KE-02951		2004	Tetra Tech, Inc. and Jones & Stokes	Final Cultural Resources Evaluation of Historic Period Homesites on Edwards AFB, Kern and Los Angeles Counties, CA Volume 1: Introduction and Background	Tetra Tech, Inc. and Jones & Stokes	15-000532, 15-000561, 15-001017, 15-001178, 15-001785, 15-001816, 15-001820, 15-001841, 15-001845, 15-001856, 15-001892, 15-001984, 15-002293, 15-002295, 15-002296, 15-002311, 15-002345, 15-002392, 15-002530, 15-002563, 15-002604, 15-002670, 15-003383, 15-003384, 15-003844, 15-003846, 15-003882, 15-003981, 15-005581, 15-005585, 15-005592, 15-005855, 15-007165, 15-009523, 15-010155, 15-010289
KE-03085	Submitter - KCWM No. 2 (896-2004); Submitter - TG&S #030507	2005	Fleagle, Dorothy	A Cultural Resources Assessment for Approximately 500 Acres for the Mojave/Rosamond Sanitary Landfill Addition Northeast of the Existing Landfill, South of Mojave, Kern County, California	Three Girls and a Shovel, LLC.	15-011611, 15-011612, 15-011613, 15-011614, 15-011615, 15-011616, 15-011617, 15-011618, 15-011619, 15-011620, 15-011621, 15-011622, 15-011623, 15-011624, 15-011625, 15-011626, 15-011627, 15-011628, 15-011629, 15-011630, 15-011631, 15-011632, 15-011633, 15-011634, 15-011635, 15-011636, 15-011637, 15-011638, 15-011639, 15-011640, 15-011641, 15-011642, 15-011643, 15-011644, 15-011645, 15-011646

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KE-03181	Submitter - Project # 120535	2006	Pruett, Catherine Lewis	A Cultural Resources Assessment of Tentative Tract No. 6587, a 77 Acre Parcel West of Mojave, Kern County, California	Three Girls and a Shovel, LLC.	15-012208
KE-03239		2002	Underwood, Jackson and Cleland, James H.	Cultural Resources Survey of Line 1903, All American Pipeline Conversion Project from Mettler, Kern County, CA to Daggett, San Bernardino County, California	EDAW, Inc.	15-010557, 15-010558, 15-010576, 15-010577, 15-010578, 15-010579, 15-010580, 15-010715
KE-03387		2006	Schiffman, Robert A. and Gold, Alan P.	Cultural Resource Survey for a 310 Acre Parcel Near the Intersection of Purdy Avenue and United Street Near the City of Mojave, Eastern Kern County, California	Archaeological Associates of Kern County	15-015981, 15-015982, 15-015983
KE-03534		2006	Nilsson, Elena, Bevill, Russel, Kelly, Michael S., and Dwyer, Erin	Archaeological Inventory of the First and Second Los Angeles Aqueducts and Selected Access Roads, Kern, Inyo, and Los Angeles Counties, CA	URS Corporation	15-000402, 15-001594, 15-002142, 15-003048, 15-003536, 15-003549, 15-003868, 15-003939, 15-008781, 15-009656, 15-009657, 15-009658, 15-009659, 15-009660, 15-010028, 15-010082, 15-010083, 15-010084, 15-010085, 15-010086, 15-010087, 15-010088, 15-010089, 15-010090, 15-010091, 15-010092, 15-010093, 15-012665, 15-012666, 15-012667, 15-012686, 15-012711, 15-012715, 15-012722, 15-012725, 15-012726, 15-012727, 15-012728, 15-012732, 15-016119
KE-03546		2006	Ahmet, Koral, Mason, Roger, and Bholat, Sara	Cultural Resources Survey Report for Antelope Transmission Project: Segments 2 & 3 Los Angeles and Kern Counties	ECORP Consulting, Inc.	15-000982, 15-001998, 15-002434, 15-002821, 15-003537, 15-003549, 15-007681, 15-011159, 15-012475, 15-012493, 15-012494, 15-012512, 15-012513
KE-03547		2007	Ahmet, Koral and Mason, Roger	Cultural Resources Survey Report for Antelope Transmission Project: Segment 3, Option C, Kern County, CA	ECORP Consulting	15-012486, 15-012487, 15-012488, 15-012489, 15-012490, 15-012491
KE-03572		2006	Switalski, Hubert	Archaeological Survey for the Proposed Extension of Discovery 12 kV Distribution Line Circuit to the Privated Residence at 2915 Douglas Street, Mojave, Kern County, California	AMEC Earth and Environmental, Inc.	

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KE-03611	Submitter - TG&S Job #80917	2009	Fleagle, Dorothy	A Cultural Resources Assessment for 160 Acres of Bureau of Land Management Land Adjacent to the Mojave/Rosamond Sanitary Landfill Buffer, Kern County, California	Three Girls and a Shovel, LLC.	15-015174, 15-015175, 15-015176, 15-015177, 15-015178, 15-015179, 15-015180, 15-015181, 15-015182, 15-015183, 15-015184, 15-015185, 15-015186
KE-03698	Submitter - Project Number: 1753b	2009	Gust, Sherri and Harper, Veronica	Archaeological Assessment, Segment 3B Tehachapi Renewable Distribution Project, 12 kV Distribution Line, Kern County, California	Cogstone Resource Management, Inc.	15-013683, 15-013686
KE-03777	Submitter - Contract No. 06A1106; Submitter - Expenditure Authorization No. 06-0A7408	2010	Palm-Leach, Laura, Brandy, Paul, King, Jay, Mikkelsen, Pat, Seil, Libby, Hartman, Lindsay, Bradeen, Jill, Larson, Bryan, Freeman, Joseph, Costello, Julia, Rosenthal, Jeffrey, and Jones, Deborah	Cultural Resources Inventory of Caltrans District 6 Rural Conventional Highways in Fresno, Western Kern, Kings, Madera, and Tulare Counties Summary of Methods and Findings	Far Western Antrhopological Research Group, Inc.	15-000025, 15-000070, 15-000071, 15-000106, 15-000213, 15-000215, 15-000222, 15-000400, 15-001108, 15-001683, 15-001684, 15-002583, 15-004024, 15-007767, 15-013664, 15-013665, 15-013668, 15-013670, 15-013671, 15-013672, 15-013673, 15-013674, 15-013675, 15-013677, 15-013678, 15-013679, 15-013680, 15-013709, 15-013712, 15-013713, 15-013716, 15-013729, 15-013730, 15-013734, 15-013735, 15-015820
KE-03875	Submitter - CAR Project No. 07-13	2007	Barket, Theresa and Orfila, Rebecca S.	A Cultural Resources Assessment of Lansing Properties (APN-010-03 and portion of APN 427-010-10), Mojave, Kern County, California	Center for Archaeological Research, California State University, Bakersfield	
KE-03877	Agency Nbr - EAFB Project File: 2006-L THEME7; Submitter - Contract No. DACA05-01-D-005	2008	Puckett, Heather R. and Peyton, Paige M.	Theme Study, Inventory and Evaluation for Various Historic Period Site Types, Edwards Air Force Base, California. Volumes I-VI	Tetra Tech, Inc. ; KAYA Associates, Inc.	15-002446, 15-004987, 15-009422, 15-012882, 15-012883, 15-012887, 15-012888
KE-03877A		2008	Puckett, Heather R. and Peyton, Paige M.	Final Theme Study - Inventory and Evaluation for Various Historic Period Site Types, Edwards Air Force Base, California - Volume VI: Appendices	Tetra Tech, Inc. ; KAYA Associates, Inc.	
KE-03877B		2008	Puckett, Heather R. and Peyton, Paige M.	Final Theme Study - Inventory and Evaluation for Various Historic Period Site Types, Edwards Air Force Base, California - Volume V: Chapters 12 through 16	Tetra Tech, Inc. ; KAYA Associates, Inc.	
KE-03877C		2008	Puckett, Heather R. and Peyton, Paige M.	Final Theme Study - Inventory and Evaluation for Various Historic Period Site Types, Edwards Air Force Base, California - Volume IV: Chapters 10 through 11	Tetra Tech, Inc. ; KAYA Associates, Inc.	

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KE-03877D		2008	Puckett, Heather R. and Peyton, Paige M.	Final Theme Study - Inventory and Evaluation for Various Historic Period Site Types, Edwards Air Force Base, California - Volume III: Chapter 9	Tetra Tech, Inc. ; KAYA Associates, Inc.	
KE-03877E		2008	Puckett, Heather R. and Peyton, Paige M.	Final Theme Study - Inventory and Evaluation for Various Historic Period Site Types, Edwards Air Force Base, California - Volume II: Chapters 5 through 8	Tetra Tech, Inc ; KAYA Associates, Inc.	
KE-03941		2009	Price, Barry A., Baloian, Mary Clark, Lichtenstein, Robert, and Linder, Marc	Confidential Specialist Report: Cultural Resources Inventory for the Tehachapi Renewable Transmission Project Kern, Los Angeles, and San Bernardino Counties, California	Applied Earthworks, Inc.	15-012779, 15-012781, 15-012792, 15-012793, 15-012803, 15-013655, 15-013656, 15-013657
KE-03954	Submitter - Project No. STR0901	2009	Brunzell, David	Cultural Resources Assessment Strata Equity Group, Property Group D City of California City and Unincorporated Portions of Kern County, California	Brunzell Cultural Resource Consulting	15-010501, 15-010543, 15-010545, 15-011245, 15-013567, 15-013568, 15-013569, 15-013570, 15-013571, 15-013572, 15-013573, 15-013574, 15-013575, 15-013576, 15-013577, 15-013578, 15-013579, 15-013580, 15-013581, 15-013582, 15-013583, 15-013584, 15-013585, 15-013586, 15-013587, 15-013588, 15-013589, 15-013590, 15-013591, 15-013592, 15-013593, 15-013594, 15-013595, 15-013596, 15-013597, 15-013598, 15-013599, 15-013600, 15-013601, 15-013602, 15-013603, 15-013604, 15-013605, 15-013606, 15-013607, 15-013608, 15-013609, 15-013610, 15-013611, 15-013612, 15-013613, 15-013614, 15-013615, 15-013616, 15-013617, 15-013618, 15-013619, 15-013620, 15-013621, 15-013622, 15-013623, 15-013624, 15-013625, 15-015229
KE-03991	Submitter - KCWMD Agreement No. 729-2007 Work Authorization No. 10; Submitter - TG&S Job #50911	2009	Fleagle, Dorothy	A Cultural Resources Assessment for 120 Acres for the Mojave/Rosamond Sanitary Landfill Buffer, South of the City of Mojave, Kern County, California	Three Girls & a Shovel, LLC.	15-015580, 15-015581, 15-015582, 15-015583, 15-015584, 15-015585

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
KE-04006		2010	Orfila, Rebecca S.	Re: Archaeological Survey for the Southern California Edison Company: Repair and Maintenance Activities for Three (3) Power Poles on the Discovery 12kV and Keene 12kV Circuits, Kern County, California (O&M IO#301186; SYS ID#1003-0310-2525, -4319, and 1003-0308-2224)	RSO Consulting, Cultural and Historical Resource Management	
KE-04038		2009	Brunzell, David	Cultural Resources Assessment Strata Equity Group, Property Group E California City, Kern County, California	Brunzell Cultural Resource Consulting	15-013528, 15-013529, 15-013530, 15-013531, 15-013532, 15-013533, 15-013534

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
KE-04053		2009	Lawson, Natalie	Cultural Resources Inventory Report for the Alta Oak Creek Mojave Wind Project, Kern County, California	CH2M Hill	15-000196, 15-001420, 15-003534, 15-003535, 15-003536, 15-003537, 15-003538, 15-003929, 15-010033, 15-012810, 15-012811, 15-013689, 15-013904, 15-013905, 15-013906, 15-013909, 15-013910, 15-013911, 15-013912, 15-013913, 15-013914, 15-013915, 15-013916, 15-013917, 15-013918, 15-013919, 15-013920, 15-013932, 15-013933, 15-013934, 15-013935, 15-013936, 15-013937, 15-013938, 15-013939, 15-013940, 15-013941, 15-013942, 15-013943, 15-013944, 15-013945, 15-013946, 15-013947, 15-013948, 15-013949, 15-013950, 15-013951, 15-013952, 15-013953, 15-013954, 15-013955, 15-013956, 15-013957, 15-013958, 15-013959, 15-013960, 15-013961, 15-013962, 15-013963, 15-013964, 15-013965, 15-013966, 15-013967, 15-013968, 15-013969, 15-013970, 15-013971, 15-013972, 15-013977, 15-013978, 15-013979, 15-013980, 15-013981, 15-013982, 15-013983, 15-013984, 15-013985, 15-013986, 15-013987, 15-013988, 15-013989, 15-013990, 15-013991, 15-013992, 15-013993, 15-013994, 15-013995, 15-013996, 15-013997, 15-013998, 15-013999, 15-014000, 15-014001, 15-014002, 15-014003, 15-014004, 15-014005, 15-014006, 15-014007, 15-014008, 15-014009, 15-014010, 15-014011, 15-014012, 15-014020, 15-014021, 15-014024, 15-014025, 15-014026, 15-014697, 15-014698, 15-014699, 15-014700, 15-014701, 15-014702, 15-014703, 15-014704

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
KE-04159		2011	Cardenas, Gloriella	Cultural Resources Inventory Report for the Alta Infill II Wind Energy Project Project, Kern County, California	URS, Sacramento	15-017052, 15-017053, 15-017054, 15-017055, 15-017056, 15-017057, 15-017058, 15-017059, 15-017060, 15-017061, 15-017062, 15-017066, 15-017067, 15-017068, 15-017069, 15-017070, 15-017071, 15-017072, 15-017073, 15-017074, 15-017075, 15-017076, 15-017077, 15-017079, 15-017081, 15-017082, 15-017083, 15-017084, 15-017085, 15-017086, 15-017087, 15-017088, 15-017089, 15-017090, 15-017091, 15-017092, 15-017093, 15-017094, 15-017095, 15-017096, 15-017097, 15-017098, 15-017099, 15-017100, 15-017101, 15-017102, 15-017103, 15-017104, 15-017105, 15-017106, 15-017108, 15-017109, 15-017110, 15-017111, 15-017112, 15-017113, 15-017114, 15-017115, 15-017116, 15-017117, 15-017118, 15-017120, 15-017121, 15-017122, 15-017123, 15-017124, 15-017125, 15-017126, 15-017127, 15-017128, 15-017129, 15-017130, 15-017131, 15-017132, 15-017133, 15-017134, 15-017135, 15-017136, 15-017137, 15-017138, 15-017139, 15-017140, 15-017141, 15-017142, 15-017143, 15-017144, 15-017145, 15-017146, 15-017147, 15-017148, 15-017149, 15-017150, 15-017151, 15-017152, 15-017153, 15-017154, 15-017155, 15-017156, 15-017157, 15-017159, 15-017160, 15-017161, 15-017162, 15-017163, 15-017165, 15-017166, 15-017167, 15-017168, 15-017169, 15-017170, 15-017171, 15-017172, 15-017173, 15-017174, 15-017175, 15-017176, 15-017177, 15-017178, 15-017179, 15-017180, 15-017181, 15-017182, 15-017183, 15-017184, 15-017186, 15-017187, 15-017188, 15-017189, 15-017190, 15-017191, 15-017192, 15-017205, 15-017206, 15-017207, 15-017208, 15-017209, 15-017210, 15-017211,

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
						15-017212, 15-017213, 15-017214, 15-017215, 15-017216, 15-017217, 15-017218
KE-04225		2010	Jackson, Thomas, Armstrong, Matthew, and Sikes, Nancy	Cultural Resources Inventory of the Southern California Edison Company Whirlwind to Rosamond and Rosamond to Windhub Telecommunication Line, Kern County, California	Pacific Legacy, Inc. ; Cogstone Resource Management, Inc.	15-013689, 15-013692, 15-013698, 15-013699, 15-013700, 15-013701, 15-013702, 15-013703, 15-013705, 15-013731, 15-016466
KE-04227	Submitter - CWA #2340-10.02.09	2010	Schneider, Tsim D. and Holson, John	Supplemental Archaeological Survey Report #2, Tehachapi Renewable Transmission Project Segment 10, Kern County, California	Pacific Legacy, Inc.	15-012714, 15-016244, 15-016248, 15-016251, 15-016252, 15-016253, 15-016254, 15-016255, 15-016257, 15-016258, 15-016790, 15-016791
KE-04230		2011	Bischoff, Wayne	Third Supplemental Survey Report for Additional Roads on Segment 10, Tehachapi Renewable Transmission Project, Kern County, California	Pacific Legacy, Inc.	
KE-04236		2012	Pacific Legacy, Inc.	Supplemental Archaeological Survey Report and Cultural Resources Management Plan, Tehachapi Renewable Transmission Project Segment 3B, Kern County, California	Pacific Legacy, Inc.	15-002434, 15-013842, 15-015569, 15-016231, 15-016232, 15-016234, 15-016239, 15-016240
KE-04247	Submitter - LSA Project No. CH00701	2010	Lawson, Natalie and Cardenas, Gloriella	Class III Cultural Resources Survey of the North Sky River Wind Energy Project, Kern County, California.	CH2MHILL	15-001129, 15-001227, 15-001615, 15-001699, 15-002064, 15-002065, 15-002066, 15-003537, 15-003538, 15-006670, 15-011064, 15-015058, 15-015067, 15-016452, 15-016568, 15-016569, 15-016571, 15-016572, 15-016573, 15-016574, 15-016575, 15-016576, 15-016577, 15-016578, 15-016579, 15-016580, 15-016581, 15-016582, 15-016583, 15-016584, 15-016585

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
KE-04279		2011	Lawson, Natalie and Fergusson, Aaron	Alta East Wind Energy Project: Comprehensive Report of 2010-2011 Cultural Resources Investigations, Kern County, California.	CH2MHILL	15-016696, 15-016697, 15-016698, 15-016699, 15-016700, 15-016701, 15-016702, 15-016703, 15-016704, 15-016705, 15-016706, 15-016707, 15-016708, 15-016709, 15-016710, 15-016711, 15-016712, 15-016713, 15-016714, 15-016715, 15-016716, 15-016717, 15-016718, 15-016719, 15-016720, 15-016721, 15-016722, 15-016723, 15-016724, 15-016725, 15-016726, 15-016727, 15-016728, 15-016729, 15-016730, 15-016731, 15-016732, 15-016733, 15-016734, 15-016735, 15-016736, 15-016737, 15-016738, 15-016739, 15-016740, 15-016741, 15-016742, 15-016744, 15-016745, 15-016746, 15-016747, 15-016748, 15-016749, 15-016750, 15-016751, 15-016752, 15-016753, 15-016754, 15-016755, 15-016756, 15-016757, 15-016758, 15-016759, 15-016760, 15-016761, 15-016762, 15-016763, 15-016764, 15-016765, 15-016766, 15-016767, 15-016768, 15-016769, 15-016770, 15-016771, 15-016772, 15-016773, 15-016774, 15-016775, 15-016776, 15-016777, 15-016778, 15-016779, 15-016780, 15-016781, 15-016782, 15-016783, 15-016784, 15-016785, 15-016786, 15-016787
KE-04359		2013	Ramirez, Robert, Hunt, Kevin, and Haas, Hannah	Addendum Report: Phase I Cultural Resources Survey for the RE Columbia Two Solar Project, Mojave, Kern County, California	Rincon Consultants	15-003528, 15-013686, 15-014894, 15-016264, 15-016498, 15-016499, 15-016500, 15-016501, 15-016502, 15-016503, 15-016504, 15-016505, 15-016506, 15-016507, 15-016829, 15-016830, 15-016831, 15-016832, 15-016833, 15-016837
KE-04360		2013	Haas, Hannah and Ramirez, Robert	Phase I Cultural Resources Survey for the RE Clearwater Solar Project in Mojave, Kern County, California	Rincon Consultants	15-016827, 15-016828
KE-04369		2013	Haas, Hannah and Ramirez, Robert	Phase I Cultural Resources Survey for the RE Yakima Solar Project in Mojave, Kern County, California	Rincon Consultants	15-000319, 15-017223, 15-017224, 15-017225

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
KE-04435		2010	Meyer, Jack, Young, D. Craig, and Rosenthal, Jeffrey	Volume I: A Geoarchaeological Overview and Assessment of Caltrans Districts 6 and 9 - Cultural Resources Inventory of Caltrans District 6/9 Rural Conventional Highways - EA 06-0A7408 TEA Grant	Far Western Anthropological Research Group, Inc.	
KE-04435A		2010	Meyer, Jack, Young, D. Craig, and Rosenthal, Jeffrey S.	Volume II: Appendices A Geoarchaeological Overview and Assessment of Caltrans District 6 and 9 - Cultural Resources Inventory of Caltrans District 6/9 Rural Conventional Highways - EA 06-0A7408 TEA Grant	Far Western Anthropological Research Group, Inc.	
KE-04472		2014	Honey, Linda L.	Phase I Cultural Resources Assessment for the Fremont Valley Preservation Project Proposed Transmission Line and Pipeline, Kern County and San Bernardino County, California	Great Basin Sage, Inc.	15-002221, 15-002501, 15-003366, 15-013686, 15-017618, 15-017619, 15-017620, 15-017621, 15-017622, 15-017623, 15-017624, 15-017625, 15-017626
KE-04476		2013	Higgins, Courtney, Kellawan, Rebecca, Duke, Daron G., and Lucas, Thomas	Cultural Resources Inventory of 5,300 Acres for the PG&E Pipelines 300A and 300B, San Bernardino and Kern Counties, California	Far Western Anthropological Research Group, Inc.	15-000560, 15-002038, 15-002091, 15-002092, 15-002435, 15-002575, 15-003530, 15-003534, 15-003549, 15-010576, 15-010577, 15-010591, 15-011374, 15-012276, 15-012420, 15-017297, 15-017298, 15-017299, 15-017300, 15-017301, 15-017302, 15-017303, 15-017304, 15-017305, 15-017306, 15-017307, 15-017308, 15-017309, 15-017310, 15-017311, 15-017312, 15-017313, 15-017314, 15-017315, 15-017316, 15-017317, 15-017318, 15-017319, 15-017320, 15-017321, 15-017322, 15-017323, 15-017324, 15-017325, 15-017326, 15-017327, 15-017328, 15-017329, 15-017330, 15-017331, 15-017332, 15-017333
KE-04648		2014	Ramirez, Robert, Haas, Hannah, and Hunt, Kevin	Cultural Resources Study for RE Clearwater Solar Project, Mojave, Kern County, California	Rincon Consultants	15-006676, 15-012207, 15-018149, 15-018150, 15-018151, 15-018152, 15-018153, 15-018154, 15-018155, 15-018156, 15-018157, 15-018158, 15-018159, 15-018160, 15-018161, 15-018162, 15-018163, 15-018164, 15-018165, 15-018166, 15-018167, 15-018168, 15-018169

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
KE-04672		2011	Greenwald, Alexandra	Archaeological Survey Report for the California High Speed Train Fresno to Bakersfield Section	URS Corporation	

Resources w/i .25miles

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-000471	CA-KER-000471		Site	Prehistoric	AP02	1976 (Clewlow/Huberman)	KE-02012
P-15-000560	CA-KER-000560H	Resource Name - Atchison, Topeka, & Santa Fe Railroad; Resource Name - AT&SF Railroad; OHP Property Number - 110736	Structure, Site	Historic	AH04; AH07; HP11	1977 (Sutton/Temblay); 1988 (Patrick Haynal, Frnak Ritz, Diane Adams, William Manley, RECON); 1993 (Macko Archaeological Consulting, Macko Archaeological Consulting); 1994 (T. Wahoff, P. Eisentraut, Dames & Moore); 1994 (Lawrence McGetrick and Cristopher Onzol); 1995 (William Hayden, Neil Rhodes, and Gina Zanelli, Macko Archaeogical Consulting); 1995 (K. Lark, T. de la Garza, L. Wear, R. Bock, M. Pittman, L. Ramirez, M. Ryan, B. Woods, M Hangan, A Jackson, S. White, Computer Sciences Corporation); 1996 (Marcia Kimball, Sarah Cunkelman, BLM); 1998 (T. O'Brien, Jones and Stokes); 1998 (T. O'Brien, Jones and Stokes); 2000 (Dr. J. Underwood, KEA Environmental); 2001 (Jeffrey R. Wedding, Harry Reid Center for Environmental Studies); 2007 (H. Puckett, Tetra Tech); 2009 (Polly Allen, JRP Historical Consulting, LLC); 2013 (R. Kellawan, D. Martinez, L. Daub, D. Mike, Far Western)	KE-00101, KE-00182, KE-00191, KE-00209, KE-00243, KE-00283, KE-00374, KE-00548, KE-00633, KE-01993, KE-04476
P-15-000571	CA-KER-000571	Resource Name - DOT-09-004	Site	Prehistoric	AP02	1974 (J. Humbert, A. Paek, R. Gerry,)	KE-02587
P-15-000761	CA-KER-000761	Resource Name - AVAS-49	Site	Prehistoric	AP02; AP08	1974 (A.V. Eggers)	
P-15-000806	CA-KER-000806	Resource Name - AVAS-49	Site	Prehistoric	AP02; AP16	1974 (A.V. Eggers); 1998 (Dorothy Fleagle, Three Girls and a Shovel)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-001997	CA-KER-001997		Site	Prehistoric	AP11	1985 (M.Q. Sutton); 2001 (Jeffrey R. Wedding, Harry Reid Center for Environmental Studies)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-002050	CA-KER-002050H	Resource Name - Southern Pacific Railroad, McKittrick Branch; Resource Name - Midway-Sunset 2; Resource Name - KS-1; Resource Name - FCG-27; Resource Name - Old Southern Pacific Railroad Grade; Resource Name - Asphalto Line of the South Pacific Railroad	Structure, Site	Historic	AH02; AH04; AH07; HP39	1985 (R. Apple, J. Underwood, Wirth Environmental Services); 1987 (R. Schiffman); 1994 (Bruce Steidl, Keith Colvin, Helen Johnson, Woodward-Clyde Cosultants); 1995 (R.E. Parr, Center for Archaeological Research, California State University, Bakersfield); 1996 (R. Tidmore, J. Gardner, R.E. Parr, J. Hinshaw, Center for Archaeological Research, California State University, Bakersfield); 1998 (B. Hatoff, P. Frazier, D. Lawler, Woodward-Clyde International-Americas); 1998 (P. Frazier, L. Wear, B. Hattoff, D. Lawler, Woodward-Clyde International-Americans); 1999; 1999 (Mike Aviña, Jones & Stokes Associates, Inc.); 1999 (B. Hatoff, B. Bass, D. Lawler, URS Greiner Woodward-Clyde); 2009 (K.R. Way, J.M. Hamad, J. Sprague, G. Sprague, Pacific Legacy, Inc.); 2009 (K.R. Way, J. Sprague, N. Sims, P. Sharp-Garcia, C. Davis, M. Armstrong, A Stevenson, Pacific Legacy, Inc.); 2010 (L. Hoffman, J. Covert, SWCA Environmental Consultants); 2011 (M. Dalope, S. Andrews, C. Whitley, J. Neal, ASM Affiliates, Inc.); 2012 (S. Andrews, ASM Affiliates, Inc.); 2012 (A. Bell, C. Rambo, C. Whitley, S. Escamilla, A. Troupin, R. Azpitrate, ASM Affiliates, Inc.); 2016 (P. Carey, ASM Affiliates, Inc.)	KE-00861, KE-00865, KE-01267, KE-01958, KE-01994, KE-02162, KE-02278, KE-02452, KE-02560, KE-04056, KE-04383, KE-04414, KE-04503, KE-05045

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-002169	CA-KER-002169	Resource Name - AAP-011-002; Resource Name - A1006	Site	Prehistoric	AP02; AP11	(MQ Sutton, UC Riverside); 1985 (M. Sutton, Cultural Resources Management Division, New Mexico State University); 1989 (E. Wohlgemuth et al., Far Western Anthropological Research Group, Inc.)	
P-15-002435	CA-KER-002435	Resource Name - AAP 011-001	Site	Prehistoric	AP02; AP11	1985 (M. Sutton, Cultural Resource Management Division, New Mexico State University); 2001 (Jeffrey R. Wedding, Harry Reid Center for Environmental Studies); 2013 (R. Kellawan, L. Daub, Far Western)	KE-04476
P-15-002537	CA-KER-002537H		Site	Historic	AH04	1989 (R.E. Parr, CRF CSU Bakersfield)	KE-00808
P-15-002554	CA-KER-002554H		Site	Historic	AH04	1990 (Pruett, Ptomey, Cultural Resource Facility, CSUB)	KE-00969
P-15-002574	CA-KER-002574H	Resource Name - MP-20	Site	Historic	AH04	1989 (L. Glover, Far Western Archaeological Research Group, Inc.)	
P-15-002585	CA-KER-002585	Resource Name - MP-40	Site	Prehistoric	AP02; AP15	1989 (E. Wolhgemuth et al., Far Western Anthropological Research Group, Inc.); 2001 (Jeffrey R. Wedding, Harry Reid Center for Environmental Studies)	
P-15-002723	CA-KER-002723	Resource Name - 2/26-1	Site	Prehistoric	AP02	1990 (R.E. Parr, Cultural Resource Facility, California State University, Bakersfield)	KE-00819
P-15-003159	CA-KER-003159H		Site	Historic	AH04	1992 (J. Garcia, Cultural Resource Facility, California State University, Bakersfield)	KE-00407
P-15-003368	CA-KER-003368	Resource Name - AT&T-P-4	Site	Prehistoric	AP15	1992 (Michael E. Macko, Keith D. Rhodes, Macko Archaeological Consulting)	KE-00633
P-15-003369	CA-KER-003369	Resource Name - AT&T-P-3	Site	Prehistoric	AP02; AP15	1992 (Michael E. Macko, Keith D. Rhodes, Macko Archaeological Consulting)	KE-00633

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-003527	CA-KER-003527H	Resource Name - ATT-R-9	Site	Historic	AH07	1993 (M. Macko, Macko Archaeological Consulting)	KE-00633, KE-03600
P-15-003528	CA-KER-003528H		Site	Historic	AH07	1993 (M. Macko, Macko Archaeological Consulting (Huntington Beach)); 2010 (Scott M. Hudlow, Hudlow Cultural Resource Associates); 2012 (R. Ramirez and H. Haas, Rincon Consultants); 2014 (K.R. Way, R. Dinarte, A. Ginther, Rincon Consultants)	KE-00633, KE-04260, KE-04359
P-15-003530	CA-KER-003530H	Resource Name - Southern Pacific (Colorado Division) Road; Resource Name - ATT-R-5	Site	Historic	AH07	1993 (M. Macko, Macko Archaeological Consulting); 2000 (Dr. J. Underwood, KEA Environmental); 2013 (R. Kellawan, L. Daub, Far Western)	KE-00633, KE-04476
P-15-003534	CA-KER-003534H	Resource Name - ATT-R-10	Site	Historic	AH07	1993 (M. Macko, Macko Archaeological Consulting); 2013 (C. Higgins, T. Lucas, T. Newman, L. Daub, Far Western)	KE-00633, KE-04053, KE-04476
P-15-003537	CA-KER-003537H	Resource Name - ATT-R-12; Resource Name - Oak Creek Road	Site	Historic	AH07	1993 (M. Macko, Macko Archaeological Consulting); 2010	KE-00633, KE-03546, KE-04053, KE-04145, KE-04247
P-15-003549	CA-KER-003549H	Resource Name - Los Angeles Aqueduct; Resource Name - AG-3; Resource Name - ATT-H-3; Resource Name - CA-INY-4591H	Structure	Historic	HP20	1992 (J. Costello, J. Marvin, J. Todoff, Foothill Resources, Ltd.); 1993 (M. Macko, Macko Archaeological Consulting); 1993 (J. Costello, J. Marvin, Foothill Resources, Ltd.); 2000 (Dr. J. Underwood, KEA Environmental, Inc.); 2009 (S. Melvin, JRP Historical Consulting); 2013 (R. Kellawan, D. Martinez, C. Connolly, Far Western); 2015 (Alyssa Newcomb, Rebekka Knierim, SWCA Environmental Consultants)	KE-00636, KE-03534, KE-03546, KE-04469, KE-04476
P-15-003558	CA-KER-003558	Resource Name - MB-1	Site	Prehistoric	AP02	1993 (G. Alcock, J. Edwards, S. Jackson, J. Garcia, K. Tremaine, BioSystems Analysis, Inc.)	KE-00636, KE-01646

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-003927	CA-KER-003927H	Resource Name - MBP - 1; Resource Name - 20-Mule Team Road	Site	Historic	AH07	1993 (J. Costello, J. Marvin, Foothill Resources, Ltd.)	KE-00636
P-15-003929	CA-KER-003929H	Resource Name - MBP - 3; Resource Name - Arper Well	Site	Historic	AH02; AH04; AH05	1993 (J. Costello, J. Marvin, C. Brownson, Foothill Resources, Ltd.)	KE-00636, KE-02208, KE-02586, KE-02587, KE-04053
P-15-003930	CA-KER-003930H	Resource Name - MBP - 4; Resource Name - USGS Observation Well	Site	Historic	AH04; AH05; AH11	1993 (J. Costello, J. Marvin, C. Brownson, Foothill Resources, Ltd.)	KE-00636
P-15-003931	CA-KER-003931H	Resource Name - MBP - 5; Resource Name - Observation Well	Site	Historic	AH04; AH05	1993 (J. Costell, J. Marvin, C. Brownson, Foothill Resources, Ltd.)	KE-00636
P-15-004112		Resource Name - PR-2; Resource Name - Gravel Pits	Site	Historic	AH09	1993 (J. Costello, J. Marvin, C. Brownson)	KE-00636
P-15-004114		Resource Name - PR-7; Resource Name - Isolated Historic Refuse Deposit	Site	Historic	AH04	1993 (J. Costello, J. Marvin, C. Brownson)	KE-00636
P-15-004117	CA-KER-004046	Resource Name - AT&T P6	Site	Prehistoric	AP11	1994 (Ak Cardia, Mary Cardia, Macko Archaeological Consulting)	
P-15-004761	CA-KER-004415H	Resource Name - MP168.0	Site	Historic	AH04	1995 (Ann Samuelson, Bryan Mischke, John Yelding-Sloan, Charlane Gross, WSA)	
P-15-004762	CA-KER-004416H	Resource Name - MP169.4	Site	Historic	AH04	1995 (Ann Samuelson, Bryan Mischke, John Yelding-Sloan, Charlane Gross, William Self Associates)	KE-00210
P-15-004811	CA-KER-004430H	Resource Name - Mojave-2	Site	Historic	AH04	1995 (L. Haslouer, D. Kay, A. Van Wyke, Science Applications International Corporation)	
P-15-006050	CA-KER-005054	Resource Name - CC2	Site	Prehistoric	AP11	1997	
P-15-006072		Resource Name - CC-I-13	Other	Prehistoric	AP02	1997	
P-15-006677		IC Informal - IF-Ker-038; Resource Name - Camelot-3	Other	Prehistoric	AP16	1983 (Mark Q. Sutton, Unknown)	KE-01592
P-15-006678		IC Informal - IF-KER-039; Resource Name - Camelot-4	Other	Prehistoric	AP16	1983 (Mark Q. Sutton, Unknown)	KE-01592
P-15-006679		IC Informal - IF-KER-040; Resource Name - Camelot-5	Other	Prehistoric	AP16	1983 (Mark Q. Sutton)	KE-01592

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-007234	CA-KER-005526	Resource Name - 2-1	Site	Prehistoric	AP11	1998 (Don Laylander, Jeanne Binning, Caltrans)	KE-02224
P-15-007596		Resource Name - MB-ISO-1; IC Informal - IF-KER-850	Other	Prehistoric	AP02	1993 (J. Garcia, J. Edwards, K. Tremaine, BioSystems Analysis, Inc.)	KE-00636
P-15-007597		Resource Name - MB-ISO-2; IC Informal - IF-KER-851	Other	Prehistoric	AP02	1993 (J. Garcia, J. Edwards, K. Tremaine, BioSystems Analysis, Inc.)	KE-00636
P-15-007598		Resource Name - MB-ISO-3	Other	Prehistoric	AP02	1993 (J. Garcia, J. Edwards, K. Tremaine, BioSystems Analysis, Inc.)	KE-00636
P-15-007715		Resource Name - #5; IC Informal - IF-KER-443	Other	Prehistoric	AP02	1989 (Parr et al., California State University, Bakersfield)	KE-00804
P-15-007716		Resource Name - #7; IC Informal - IF-KER-444	Other	Prehistoric	AP02	1989 (Parr et al., California State University, Bakersfield)	KE-00804
P-15-007720		Resource Name - #11; IC Informal - IF-KER-448	Other	Prehistoric	AP02	1989 (Parr, et al., California State University, Bakersfield)	KE-00804
P-15-007722		IC Informal - IF-KER-450; Resource Name - #6	Other	Prehistoric	AP02	1989 (Parr, et al., California State University, Bakersfield)	KE-00804
P-15-007725		IC Informal - IF-KER-488	Other	Prehistoric	AP02	1989 (Pruett, Novickas, Moreland, Cultural Resource Facility, California State University, Bakersfield)	
P-15-007726		IC Informal - IF-KER-501	Other	Prehistoric	AP02	1990 (Peggy Murphy, Kathy Ptomey, Steven Ptomey, Cultural Resource Facility, California State University, Bakersfield)	KE-00669
P-15-007730		Resource Name - IF 1-TT4917; IC Informal - IF-KER-601	Other	Prehistoric	AP02	1990 (R. Schiffman, Bakersfield College)	
P-15-009293		Resource Name - IF-1	Other	Prehistoric	AP02	1998 (Dorothy Fleagle, Three Girls and a Shovel)	
P-15-009294		Resource Name - IF-2	Other	Prehistoric	AP04	1998 (Dorothy Fleagle, Three Girls and a Shovel)	
P-15-009459		Resource Name - EAFB ISO #6878; Resource Name - 99-485IF5	Other	Historic	AH04	1999 (K. Lark, M. Ronning, L. Solis, J. Wiggins, Computer Sciences Corporation)	
P-15-009606	CA-KER-005847	Resource Name - WS04/CG-2	Site	Historic	AH04	1999 (Richard S. Shepard, Chambers Group, Inc.)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-009609		Resource Name - WS04/CG-5 Historic Isolate	Other	Historic	AH04	1999 (Richard S. Shepard, Chambers Group, Inc.)	
P-15-009610	CA-KER-005849	Resource Name - WS04/CG-6	Site	Historic	AH04	1999 (Richard S. Shepard, Chambers Group, Inc.)	
P-15-010012		Resource Name - IF-1; IC Informal - IF-KER-262	Other	Prehistoric	AP02	1988 (R. Schiffman, Bakersfield College)	KE-01309
P-15-010013		Resource Name - IF 2; IC Informal - IF-KER-263	Other	Prehistoric	AP02	1988 (R. Schiffman, Bakersfield College)	KE-01309
P-15-010449		Resource Name - LA Department of Water and Power, Mojave District Headquarters	Building	Historic	HP14	2001 (Douglas W. Dodd, Caltrans)	
P-15-010498	CA-KER-006143	Resource Name - ASM-18	Site	Prehistoric	AP02; AP15	2002 (Ken Moslak, Wil Jenson, ASM Affiliates, Inc.); 2005 (C. Hacking, R. Farmer, B. Ladd, URS Corporation)	KE-02698
P-15-010500	CA-KER-006145	Resource Name - ASM-20	Site	Prehistoric	AP02; AP15	2002 (Ken Moslak, Wil Jenson, ASM Affiliates, Inc.); 2005 (C. Hacking, R. Farmer, B. Ladd, URS Corporation)	KE-02698
P-15-010501	CA-KER-006146	Resource Name - ASM-21	Site	Prehistoric	AP02; AP15	2002 (K. Moslak, W. Jenson, ASM Affiliates)	KE-02698, KE-03954
P-15-010536		Resource Name - ISO-33	Other	Prehistoric	AP15	2002 (K. Moslak, W. Jenson, C. Wright, M. Dalope, ASM Affiliates)	KE-02698
P-15-010537		Resource Name - ISO-34	Other	Prehistoric	AP16	2002 (K. Moslak, W. Jenson, C. Wright, M. Dalope, ASM Affiliates)	KE-02698
P-15-010543		Resource Name - ISO-40	Other	Prehistoric	AP02	2002 (K. Moslak, W. Jenson, C. Wright, M. Dalope, ASM Affiliates, Inc.); 2009 (Victoria Avalos, BCR Consulting)	KE-02698, KE-03954
P-15-010546		Resource Name - ISO-43	Other	Prehistoric	AP02	2002 (K. Moslak, W. Jenson, C. Wright, M. Dalope, ASM Affiliates, Inc.)	KE-02698
P-15-010578		Resource Name - AAPL-JU-ISO-3	Other	Prehistoric	AP02	2000 (J. Underwood, KEA Environmental, Inc.)	KE-03239
P-15-010579		Resource Name - AAPL-JU-ISO-2	Other	Prehistoric	AP02	2000 (J. Underwood, KEA Environmental, Inc.)	KE-03239

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-010580		Resource Name - AAPL-SR-ISO-1H	Other	Historic	AH04	2000 (S. Rose, G. Merel, KEA Environmental, Inc.)	KE-03239
P-15-011233	CA-KER-006524	Resource Name - HTC3; Resource Name - Prehistoric Lithic and Fire Affected Rock Scatter	Site	Prehistoric	AP02	2004 (T.R. Farmer, C. Hacking, URS Corporation)	
P-15-011237	CA-KER-006528	Resource Name - HTC 7; Resource Name - Prehistoric Fire Affected Rock Scatter	Site	Prehistoric	AP02; AP11	2004 (D. Kay et al., URS Corporation)	
P-15-011240	CA-KER-006531	Resource Name - HTC 10; Resource Name - Prehistoric Lithic Scatter	Site	Prehistoric	AP02	2004 (D. Kay, C. Bouscaren, URS Corporation)	
P-15-011241	CA-KER-006532	Resource Name - HTC 11; Resource Name - Prehistoric Lithic Scatter	Site	Prehistoric	AP02	2004 (D. Douglas et al., URS Corporation)	
P-15-011242	CA-KER-006533	Resource Name - HTC 12; Resource Name - Prehistoric Lithic and Fire Affected Rock Scatter	Site	Prehistoric	AP02	2004 (R. Farmer et al., URS Corporation)	
P-15-011245	CA-KER-006536	Resource Name - HTC 15; Resource Name - Prehistoric Sparse Lithic Scatter	Site	Prehistoric	AP02	2004 (D. Kay, C. Bouscaren, URS Corporation); 2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-011246	CA-KER-006537	Resource Name - HTC 16; Resource Name - Prehistoric Lithic and Fire Affected Rock Scatter	Site	Prehistoric	AP02; AP11	2004 (D. Kay et al., URS Corporation)	
P-15-011247	CA-KER-006538	Resource Name - HTC 17; Resource Name - Prehistoric Lithic Scatter	Site	Prehistoric	AP02	2004 (C. Hacking et al., URS Corporation)	
P-15-011248	CA-KER-006539	Resource Name - HTC 18; Resource Name - Prehistoric Lithic Scatter	Site	Prehistoric	AP02	2004 (D. Kay, C. Bouscaren, URS Corporation)	
P-15-011249	CA-KER-006540	Resource Name - HTC 19; Resource Name - Prehistoric Lithic and Fire Affected Rock Scatter	Site	Prehistoric	AP02	2004 (C. Hacking et al., URS Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-011252	CA-KER-006543	Resource Name - HTC 22; Resource Name - Prehistoric Lithic and Fire Affected Rock Scatter	Site	Prehistoric	AP02; AP11	2004 (T.R. Farmer, URS Corporation)	
P-15-011321		Resource Name - Isolate A; Resource Name - Lithic - Debitage	Other	Prehistoric	AP02	2004 (C. Hacking, K. Rose, URS Corporation)	
P-15-011322		Resource Name - Isolate B; Resource Name - Lithic - Debitage	Other	Prehistoric	AP02	2004 (C. Hacking, K. Rose, URS Corporation)	
P-15-011323		Resource Name - Isolate C; Resource Name - Lithic - Debitage	Other	Prehistoric	AP02	2004 (C. Hacking, K. Rose, URS Corporation)	
P-15-011324		Resource Name - Isolate D; Resource Name - Lithic - Debitage	Other	Prehistoric	AP02	2004 (C. Hacking, K. Rose, URS Corporation)	
P-15-011325		Resource Name - Isolate E; Resource Name - Lithic - Debitage	Other	Prehistoric	AP02	2004 (C. Hacking, K. Rose, URS Corporation)	
P-15-011326		Resource Name - Isolate F; Resource Name - Lithic - Debitage	Other	Prehistoric	AP02	2004 (C. Hacking, K. Rose, URS Corporation)	
P-15-011327		Resource Name - Isolate G; Resource Name - Lithic - Debitage	Other	Prehistoric	AP02	2004 (C. Hacking, K. Rose, URS Corporation)	
P-15-011328		Resource Name - Isolate H; Resource Name - Lithic - Debitage	Other	Prehistoric	AP02	2004 (C. Hacking, K. Rose, URS Corporation)	
P-15-011329		Resource Name - Isolate I; Resource Name - Lithic - Debitage	Other	Prehistoric	AP02	2004 (C. Hacking, K. Rose, URS Corporation)	
P-15-011330		Resource Name - Isolate J; Resource Name - Lithic - Debitage	Other	Prehistoric	AP02	2004 (C. Hacking, K. Rose, URS Corporation)	
P-15-011331		Resource Name - Isolate K; Resource Name - Lithic - Debitage	Other	Prehistoric	AP02	2004 (C. Hacking, K. Rose, URS Corporation)	
P-15-011332		Resource Name - Isolate L; Resource Name - Lithic - Debitage	Other	Prehistoric	AP02	2004 (C. Hacking, K. Rose, URS Corporation)	
P-15-011333		Resource Name - Isolate M; Resource Name - Lithic - Debitage	Other	Prehistoric	AP02	2004 (C. Hacking, K. Rose, URS Corporation)	
P-15-011334		Resource Name - Isolate N; Resource Name - Lithic - Core Fragment	Other	Prehistoric	AP02	2004 (C. Hacking, URS Corporation)	
P-15-011339		Resource Name - Isolate S; Resource Name - Lithic - Debitage	Other	Prehistoric	AP02	2004 (C. Bouscaren, URS Corporation)	
P-15-011350		Resource Name - Isolate AD; Resource Name - Lithic - Debitage	Other	Prehistoric	AP02	2004 (C. Hacking, URS Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-011351		Resource Name - Isolate AE; Resource Name - Lithic - Debitage	Other	Prehistoric	AP02	2004 (C. Hacking, URS Corporation)	
P-15-011611		Resource Name - 30507-1	Other	Prehistoric	AP02	2005 (Dorothy Fleagle, Three Girls and a Shovel, LLC.)	KE-03085
P-15-011612		Resource Name - 30507-2	Other	Prehistoric	AP02	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011613		Resource Name - 30507-3	Other	Prehistoric	AP02	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011614		Resource Name - 30507-4	Other	Prehistoric	AP02	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011615		Resource Name - 30507-5	Other	Prehistoric	AP02	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011616		Resource Name - 30507-6	Other	Prehistoric	AP02	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011617		Resource Name - 30507-7	Other	Prehistoric	AP02	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011618		Resource Name - 30507-8	Other	Prehistoric	AP02	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011619		Resource Name - 30507-9	Other	Prehistoric	AP02	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011620		Resource Name - 30507-10	Other	Prehistoric	AP02	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011621		Resource Name - 30507-12	Other	Prehistoric	AP02	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011622		Resource Name - 30507-13	Other	Prehistoric	AP02	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011623		Resource Name - 30507-14	Other	Prehistoric	AP02	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011624		Resource Name - 30507-15	Other	Prehistoric	AP02	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011625		Resource Name - 30507-16	Other	Prehistoric	AP02	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011626		Resource Name - 30507-17	Other	Prehistoric	AP02	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011628		Resource Name - 30507-19	Other	Prehistoric	AP02	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-011629		Resource Name - 30507-20	Other	Historic	AH04	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011630		Resource Name - 30507-21	Other	Historic	AH04	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011631		Resource Name - 30507-22	Other	Historic	AH04	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011632		Resource Name - 30507-23	Other	Historic	AH04	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011633		Resource Name - 30507-24	Other	Historic	AH04	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011635		Resource Name - 30507-26	Other	Historic	AH04	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011636		Resource Name - 30507-27	Other	Historic	AH04	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011637		Resource Name - 30507-28	Other	Historic	AH04	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011638		Resource Name - 30507-29	Other	Historic	AH04	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011639		Resource Name - 30507-30	Other	Historic	AH04	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011640		Resource Name - 30507-31	Other	Prehistoric	AP02	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011641		Resource Name - 30507-32	Other	Historic	AH04	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011642		Resource Name - 30507-33	Other	Historic	AH04	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011643		Resource Name - 30507-34	Other	Historic	AH04	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-011646		Resource Name - 30507-37	Other	Prehistoric	AP02	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03085
P-15-012206	CA-KER-006911H	Resource Name - 120536-1	Site	Historic	AH04	2005 (Dorothy Fleagle, Three Girls and a Shovel)	KE-03180
P-15-012208		Resource Name - WA #1	Other	Prehistoric	AP02	2005 (Dorothy Fleagle, Catherine Lewis Pruett, Three Girls and a Shovel)	KE-03181

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-012467		Resource Name - G-1	Building	Historic	HP04	2006 (Scott M. Hudlow, Hudlow Cultural Resource Assoicates)	KE-03463
P-15-012481		Resource Name - AP-3 1007-I	Other	Prehistoric	AP02	2006 (Koral Ahmet, Sara Bholat, Nicole Hofmeister, Maria Espinoza, Evan Crabtree, ECORP Consulting, Inc.)	
P-15-012482		Resource Name - AP-3 1008-I	Other	Historic	AH04	2006 (Koral Ahmet, Sara Bholat, Nicole Hofmeister, Maria Espinoza, Evan Crabtree, ECORP Consulting, Inc.)	
P-15-012483		Resource Name - AP-3 1009-I	Other	Prehistoric	AP02	2006 (Koral Ahmet, Sara Bholat, Nicole Hofmeister, Maria Espinoza, Evan Crabtree, ECORP Consulting, Inc.)	
P-15-012484		Resource Name - AP-3 1010-I	Other	Prehistoric	AP02	2006 (Koral Ahmet, Sara Bholat, Nicole Hofmeister, Maria Espinoza, Evan Crabtree, ECORP Consulting, Inc.)	
P-15-012497	CA-KER-007039	Resource Name - AP2-115	Site	Prehistoric	AP02	2006 (Koral Ahmet, Sara Bholat, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	
P-15-012498	CA-KER-007040	Resource Name - AP3-116	Site	Prehistoric	AP02	2006 (Koral Ahmet, Sara Bholat, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	
P-15-012499	CA-KER-007041	Resource Name - AP3-117	Site	Prehistoric	AP02	2006 (Koral Ahmet, Sara Bholat, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	
P-15-012500	CA-KER-007042	Resource Name - AP3-118	Site	Prehistoric	AP02	2006 (Sara Bholat, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	
P-15-012501	CA-KER-007043	Resource Name - AP3-119	Site	Prehistoric	AP02	2006 (Koral Ahmet, Sara Bholat, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	
P-15-012502	CA-KER-007044	Resource Name - AP3-120	Site	Prehistoric	AP02	2006 (Sara Bholat, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	
P-15-012503	CA-KER-007045	Resource Name - AP3-121	Site	Prehistoric	AP02	2006 (Koral Ahmet, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-012507	CA-KER-007049	Resource Name - AP3-125	Site	Prehistoric	AP02	2006 (Sara Bholat, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	
P-15-012508	CA-KER-007050	Resource Name - AP3-126	Site	Prehistoric	AP02	2006 (Koral Ahmet, Sara Bholat, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	
P-15-012509	CA-KER-007051	Resource Name - AP3-127	Site	Prehistoric	AP02	2006 (Koral Ahmet, Sara Bholat, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	
P-15-012510	CA-KER-007052	Resource Name - AP3-128	Site	Prehistoric	AP02	2006 (Sara Bholat, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	
P-15-012511	CA-KER-007053	Resource Name - AP3-129	Site	Prehistoric	AP02	2006 (Sara Bholat, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	
P-15-012705	CA-KER-007163H	Resource Name - MT-55	Site	Historic	AH02; AH04; AH09	2002 (B. Brown, S. Lippman, URS Corporation)	
P-15-012718	CA-KER-007176/H	Resource Name - BB-25	Site	Prehistoric, Historic	AH04; AP02	2002 (S. Lippman, B. Brown, URS Corporation)	
P-15-012790		Resource Name - PL-SCE-Tehachapi-Iso 15	Other	Prehistoric	AP02	2007 (H. Blind, F.H. Arellano, M. Elliott, Pacific Legacy, Inc.)	
P-15-012791		Resource Name - PL-SCE-Tehachapi-Iso 16	Other	Prehistoric	AP02	2007 (H. Blind, F.H. Arellano, L. MacDonald, L. Schrader, A. Monastero, Pacific Legacy, Inc.)	
P-15-013528		Resource Name - STR0901-I-17	Other	Prehistoric	AP16	2009 (David Brunzell, BRC Consulting)	KE-04038
P-15-013529		Resource Name - STR0901-I-18	Other	Prehistoric	AP16	2009 (David Brunzell, BRC Consulting)	KE-04038
P-15-013530		Resource Name - STR0901-I-19	Other	Prehistoric	AP16	2009 (David Brunzell, BCR Consulting)	KE-04038
P-15-013531		Resource Name - STR0901-I-20	Other	Prehistoric	AP02	2009 (David Brunzell, BCR Consulting)	KE-04038
P-15-013532		Resource Name - STR0901-I-21	Other	Prehistoric	AP02	2009 (David Brunzell, BCR Consulting)	KE-04038
P-15-013533		Resource Name - STR0901-I-22	Other	Prehistoric	AP02	2009 (David Brunzell, BCR Consulting)	KE-04038
P-15-013534		Resource Name - STR0901-I-23	Other	Prehistoric	AP02	2009 (David Brunzell, BCR Consulting)	KE-04038

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-013567	CA-KER-007646H	Resource Name - STR0901-H-4	Site	Historic	AH04	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013568	CA-KER-007647H	Resource Name - STR0901-H-5	Site	Prehistoric, Historic	AH04; AH05; AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013571		Resource Name - STR0901-I-46	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013572		Resource Name - STR0901-I-47	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013573		Resource Name - STR0901-I-48	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013574		Resource Name - STR0901-I-49	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013575		Resource Name - STR0901-I-50	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013576		Resource Name - STR0901-I-51	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013577		Resource Name - STR0901-I-52	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013578		Resource Name - STR0901-I-53	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013579		Resource Name - STR0901-I-54	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013580		Resource Name - STR0901-I-55	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013581		Resource Name - STR0901-I-56	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013582		Resource Name - STR0901-I-57	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013583		Resource Name - STR0901-I-58	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013584		Resource Name - STR0901-I-59	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013585		Resource Name - STR0901-I-60	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013586		Resource Name - STR0901-I-61	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-013587		Resource Name - STR0901-I-62	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013588		Resource Name - STR0901-I-63	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013589		Resource Name - STR0901-I-64	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013590		Resource Name - STR0901-I-65	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013591		Resource Name - STR0901-I-45	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013592		Resource Name - STR0901-I-66	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013593		Resource Name - STR0901-I-67	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013594		Resource Name - STR0901-I-68	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013595		Resource Name - STR0901-I-69	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013596		Resource Name - STR0901-I-70	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013597		Resource Name - STR0901-I-71	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013598		Resource Name - STR0901-I-72	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013603		Resource Name - STR0901-I-77	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013604		Resource Name - STR0901-I-78	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013609		Resource Name - STR0901-I-83	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013610		Resource Name - STR0901-I-84	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013616	CA-KER-007653	Resource Name - STR0901-S-21	Site	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013617	CA-KER-007654	Resource Name - STR0901-S-22	Site	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-013618	CA-KER-007655	Resource Name - STR0901-S-24	Site	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013619	CA-KER-007656	Resource Name - STR0901-S-25	Site	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013620	CA-KER-007657	Resource Name - STR0901-S-27	Site	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013621	CA-KER-007658	Resource Name - STR0901-S-28	Site	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013622	CA-KER-007659	Resource Name - STR0901-S-29	Site	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013623	CA-KER-007660	Resource Name - STR0901-S-30	Site	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013625	CA-KER-007662	Resource Name - STR0901-S-32	Site	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013629		Resource Name - STR0901-I-29	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	
P-15-013630		Resource Name - STR0901-I-30	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	
P-15-013631		Resource Name - STR0901-I-31	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	
P-15-013632		Resource Name - STR0901-I-32	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	
P-15-013633		Resource Name - STR0901-I-33	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	
P-15-013634		Resource Name - STR0901-I-34	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	
P-15-013635		Resource Name - STR0901-I-35	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	
P-15-013636		Resource Name - STR0901-I-36	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	
P-15-013637		Resource Name - STR0901-I-37	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	
P-15-013638		Resource Name - STR0901-I-38	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	
P-15-013639		Resource Name - STR0901-I-39	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-013640		Resource Name - STR0901-I-40	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	
P-15-013641		Resource Name - STR0901-I-41	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	
P-15-013642		Resource Name - STR0901-I-42	Other	Prehistoric	AP16	2009 (Victoria Avalos, BCR Consulting)	
P-15-013643		Resource Name - STR0901-I-43	Other	Prehistoric	AP15	2009 (Victoria Avalos, BCR Consulting)	
P-15-013644		Resource Name - STR0901-I-44	Other	Prehistoric	AP16	2009 (Victoria Avalos, BCR Consulting)	
P-15-013646		Resource Name - STR0901-S-26	Other	Prehistoric, Historic	AH16	2009 (Victoria Avalos, BCR Consulting)	
P-15-013683		Resource Name - 12kv-iso-1	Other	Prehistoric	AP02	2008 (Steve McCormick, Cogstone Resource Management)	KE-03698
P-15-013686	CA-KER-008373H	Resource Name - 12kv-hist-1	Site	Historic	AH04	2008 (Steve McCormick, Cogstone Resource Management); 2013 (K.R. Way, H. Haas, A. Ginther, Rincon Consultants); 2013 (Linda Honey, Great Basin Sage, Inc.)	KE-03698, KE-04359, KE-04472
P-15-013693		Resource Name - Seg 10-Isolate-1	Other	Prehistoric	AP02	2009 (Ivan Strudwick, Heather Drought, LSA/SCE, Cogstone)	
P-15-013797	CA-KER-007732H	Resource Name - AS-1	Site	Historic	AH04	2010 (K. Smolik, HDR | e²M)	
P-15-013798	CA-KER-007733H	Resource Name - AS-2	Site	Historic	AH04	2010 (N. Blotner, K. Smolik, S. Clowery, HDR | e²M)	
P-15-013799	CA-KER-007734H	Resource Name - AS-3	Site	Historic	AH04	2010 (N. Blotner, K. Smolik, S. Clowery, HDR | e²M)	
P-15-013800	CA-KER-007735H	Resource Name - AS-4	Site	Historic	AH04	2010 (N. Blotner, K. Smolik, S. Clowery, HDR | e²M)	
P-15-013801	CA-KER-007736H	Resource Name - AS-5	Site	Historic	AH04	2010 (N. Blotner, K. Smolik, S. Clowery, HDR | e²M)	
P-15-013802	CA-KER-007737H	Resource Name - AS-6	Site	Historic	AH04	2010 (N. Blotner, K. Smolik, S. Clowery, HDR | e²M)	
P-15-013803		Resource Name - S-2	Other	Historic	AH04	2010 (K. Smolik, HDR | e²M)	
P-15-013804		Resource Name - S-3	Other	Historic	AH04	2010 (K. Smolik, N. Blotner, HDR | e²M)	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-013805		Resource Name - S-7	Other	Historic	AH04	2010 (K. Smolik, N. Blotner, HDR | e²M)	
P-15-013806		Resource Name - S-9	Other	Historic	AH04	2010 (K. Smolik, N. Blotner, HDR | e²M)	
P-15-013807		Resource Name - S-10	Other	Historic	AH04	2010 (K. Smolik, N. Blotner, HDR | e²M)	
P-15-013808		Resource Name - S-11	Other	Historic	AH04	2010 (K. Smolik, N. Blotner, HDR | e²M)	
P-15-013809		Resource Name - S-12	Other	Historic	AH04	2010 (K. Smolik, N. Blotner, HDR | e²M)	
P-15-013810		Resource Name - S-13	Other	Historic	AH04	2010 (K. Smolik, N. Blotner, HDR | e²M)	
P-15-013811		Resource Name - S-14	Other	Historic	AH04	2010 (K. Smolik, HDR | e²M)	
P-15-013812		Resource Name - S-15	Other	Historic	AH04	2010 (K. Smolik, HDR | e²M)	
P-15-013813		Resource Name - S-18	Other	Historic	AH04	2010 (K. Smolik, N. Blotner, HDR | e²M)	
P-15-013814		Resource Name - S-20	Other	Historic	AH04	2010 (K. Smolik, N. Blotner, HDR | e²M)	
P-15-013815		Resource Name - S-21	Other	Historic	AH04	2010 (K. Smolik, N. Blotner, HDR | e²M)	
P-15-013816		Resource Name - S-22	Other	Historic	AH04	2010 (K. Smolik, HDR | e²M)	
P-15-013817		Resource Name - S-23	Other	Historic	AH04	2010 (K. Smolik, N. Blotner, HDR | e²M)	
P-15-013818		Resource Name - S-24	Other	Historic	AH04	2010 (K. Smolik, HDR | e²M)	
P-15-013819		Resource Name - S-25	Other	Historic	AH04	2010 (K. Smolik, N. Blotner, HDR | e²M)	
P-15-013820		Resource Name - S-26	Other	Historic	AH04	2010 (K. Smolik, HDR | e²M)	
P-15-013821		Resource Name - S-27	Other	Historic	AH16	2010 (K. Smolik, N. Blotner, HDR | e²M)	
P-15-013822		Resource Name - S-29	Other	Historic	AH04	2010 (K. Smolik, N. Blotner, HDR | e²M)	
P-15-013828		Resource Name - PL-SCE-3A-SUB-ISO 1	Other	Prehistoric	AP02	2008 (K.R. Way, Pacific Legacy, Inc.)	
P-15-013841	CA-KER-007749	Resource Name - PL-SCE-TRTP-3A-10	Site	Prehistoric	AP02; AP15	2008 (K. Ross Way, Kenneth S. Norwood, Pacific Legacy, Inc.)	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-013909	CA-KER-007793H	Resource Name - EP-5	Site	Historic	AH04	2009 (A. Fergusson, H. Calicher, R. Rolston, CH2M Hill)	KE-03779, KE-04053
P-15-013914	CA-KER-007798H	Resource Name - EP-11	Site	Historic	AH04	2009 (A.Fergusson, H. Calicher, R.Rolston, CH2M HILL)	KE-03779, KE-04053
P-15-013915	CA-KER-007799H	Resource Name - EP-12	Site	Historic	AH04	2009 (A.Fergusson, H. Calcher, R. Rolston, CH2M HILL)	KE-03779, KE-04053
P-15-013931	CA-KER-009932H	Resource Name - S-37	Site	Historic	AH07	2009 (A. Fergusson, N. Lawson, B. Harmon, E. Peters, R. Rolston, H. Calicher, CH2M Hill)	KE-03779
P-15-013939		Resource Name - EPi8	Other	Historic	AH04	2009 (N. Lawson, C. Calicher, B. Harmon, E. Peters, R. Rolston, CH2M Hill)	KE-04053
P-15-013940		Resource Name - EPi10	Other	Historic	AH04	2009 (N. Lawson, C. Calicher, B. Harmon, E. Peters, R. Rolston, CH2M Hill)	KE-04053
P-15-013941		Resource Name - EPi11	Other	Historic	AH04	2009 (N. Lawson, C. Calicher, B. Harmon, E. Peters, CH2M Hill)	KE-04053
P-15-013942		Resource Name - EPi12	Other	Historic	AH04	2009 (N. Lawson, C. Calicher, B. Harmon, E. Peters, R. Rolston, CH2M Hill)	KE-04053
P-15-013944		Resource Name - EPi15	Other	Historic	AH04	2009 (N. Lawson, C. Calicher, B. Harmon, E. Peters, R. Rolston, CH2M Hill)	KE-04053
P-15-013989		Resource Name - I-23	Other	Historic	AH04	2009 (N. Lawson, C. Calicher, B. Harmon, E. Peters, R. Rolston, A. Fergusson, CH2M Hill)	KE-04053
P-15-014001		Resource Name - I-38	Other	Historic	AH04	2009 (N. Lawson, C. Calicher, B. Harmon, E. Peters, R. Rolston, A. Fergusson, CH2M Hill)	KE-04053
P-15-014016		Resource Name - IF-54	Other	Historic	AH04	2009 (N. Lawson, C. Calicher, B. Harmon, E. Peters, R. Rolston, CH2M Hill)	
P-15-014894	CA-KER-008319H	Resource Name - RBF-3	Site	Historic	AH04	2010 (Scott M. Hudlow, Hudlow Cultural Resource Associates); 2013 (K. Ross Way, H. Haas, A. Ginther, Rincon Consultants)	KE-04359

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-014966	CA-KER-008354	Resource Name - 09-34-1	Site	Historic	AH04	2009 (Matthew DeCarlo, Marissa Guenther, Center for Archaeological Research, California State University, Bakersfield)	KE-03887
P-15-015174		Resource Name - IF# - 1	Other	Prehistoric	AP02	2009 (Peggy Murphy, Catherine Pruett, Dorothy Fleagle, Three Girls and a Shovel)	KE-03611
P-15-015175		Resource Name - IF# - 2	Other	Prehistoric	AP02	2009 (Peggy Murphy, Catherine Pruett, Dorothy Fleagle, Three Girls and a Shovel)	KE-03611
P-15-015230	CA-KER-008432	Resource Name - STR0901-S-23	Site	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	
P-15-015521	CA-KER-008584H	Resource Name - S-DE-200	Site	Historic	AH04	2011 (Dan Ewers, CH2M HILL)	
P-15-015522		Resource Name - IF-31	Other	Prehistoric	AP16	2011 (Gloriella Cardenas, CH2M HILL)	
P-15-015523		Resource Name - IF-32	Other	Historic	AH16	2011 (Gloriella Cardenas, CH2M HILL)	
P-15-015548		Resource Name - IF-DE-203	Other	Historic	AH01	2011 (Dan Ewers, CH2M HILL)	
P-15-015549		Resource Name - IF-DE-204	Other	Historic	AH04	2011 (Dan Ewers, CH2M Hill)	
P-15-015580	CA-KER-008594/H	Resource Name - 50911-S1; Resource Name - Locus 1	Site	Prehistoric, Historic	AH04; AP02	2009 (D. Fleagle, Three Girls and a Shovel)	KE-03991
P-15-015581		Resource Name - 50911-IF-1	Other	Prehistoric	AP02	2009 (D. Fleagle, Three Girls and a Shovel)	KE-03991
P-15-015582		Resource Name - 50911-IF-2	Other	Prehistoric	AP02	2009 (D. Fleagle, Three Girls and a Shovel)	KE-03991
P-15-015583		Resource Name - 50911-IF-3	Other	Prehistoric	AP02	2009 (D. Fleagle, Three Girls and a Shovel)	KE-03991
P-15-015584		Resource Name - 50911-IF-4	Other	Prehistoric	AP02	2009 (D. Fleagle, Three Girls and a Shovel)	KE-03991
P-15-015585		Resource Name - 50911-IF-5	Other	Prehistoric	AP02	2009 (D. Fleagle, Three Girls and a Shovel)	KE-03991
P-15-015981		Resource Name - CCCP-1; Resource Name - Covington Capital Corporation 1	Site	Prehistoric	AP11	2006 (Alan Gold, Robert Schiffman, Archaeological Associates of Kern County)	KE-03387
P-15-016432		Resource Name - I-KD-1	Other	Prehistoric, Historic	AH04; AP02	2010 (Kenneth DeOra, PaleoWest)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-016772		Resource Name - IF-52	Other	Historic	AH04	2011 (Gloriella Cardenas, CH2M Hill)	KE-04279
P-15-016827	CA-KER-009254H	Resource Name - Clrwtr Site 1	Site	Historic	AH04	2013 (H. Haas, T. Giuliano, Rincon Consultants, Inc.)	KE-04360
P-15-016828	CA-KER-009255H	Resource Name - Clrwtr Site 2	Site	Historic	AH04	2013 (H. Haas, T. Giuliano, Rincon Consultants, Inc.)	KE-04360
P-15-016831	CA-KER-009258H	Resource Name - C-S-13	Site	Historic	AH04	2013 (K.R. Way, H. Haas, A. Ginther, Rincon Consultants, Inc.)	KE-04359
P-15-016832	CA-KER-009259H	Resource Name - C-S-14	Site	Historic	AH04	2013 (K.R. Way, H. Haas, A. Ginther, Rincon Consultants, Inc.)	KE-04359
P-15-016833	CA-KER-009260H	Resource Name - C-S-15	Site	Historic	AH04	2013 (K.R. Way, H. Haas, A. Ginther, Rincon Consultants, Inc.)	KE-04359
P-15-017053		Resource Name - IF-JKS-01	Other	Historic	AH04	2011 (Ryan Rolston, John McDermott, Kurt Lambert, CH2M Hill)	KE-04159
P-15-017087	CA-KER-009384H	Resource Name - S-JKS-02	Site, Other	Historic	AH04	2011 (Aaron Fergusson, CH2M Hill)	KE-04159
P-15-017099	CA-KER-009397H	Resource Name - S-RR-07	Site	Historic	AH04	2011 (Jesse Shelmire, Eric Hall, Erica Maier, Kurt Lambert, CH2M Hill)	KE-04159
P-15-017101	CA-KER-009399/H	Resource Name - S-RR-09; HST-BP-BE-1	Site	Prehistoric, Historic	AH04; AP15	2011 (Ben Elliot, URS Corporation); 2011 (Aaron Fergusson, CH2M Hill)	KE-04159
P-15-017112	CA-KER-009410H	Resource Name - S-E-10	Site	Historic	AH04	2011 (Aaron Fergusson, CH2M Hill)	KE-04159
P-15-017113	CA-KER-009411H	Resource Name - S-E-12	Site	Historic	AH04	2011 (Aaron Fergusson, CH2M Hill)	KE-04159
P-15-017114	CA-KER-009412H	Resource Name - S-E-13	Site	Historic	AH04	2011 (Aaron Fergusson, CH2M Hill)	KE-04159
P-15-017125		Resource Name - IF-RR-11	Other	Historic	AH04	2011 (Ryan Rolston, John McDermott, Kurt Lambert, CH2M Hill)	KE-04159
P-15-017126		Resource Name - IF-RR-12	Other	Historic	AH04	2011 (Ryan Rolston, John McDermott, Kurt Lambert, CH2M Hill)	KE-04159
P-15-017127		Resource Name - IF-RR-13	Other	Historic	AH04	2011 (Ryan Rolston, John McDermott, Kurt Lambert, CH2M Hill)	KE-04159
P-15-017128		Resource Name - IF-RR-14	Other	Historic	AH04	2011 (Ryan Rolston, John McDermott, Kurt Lambert, CH2M Hill)	KE-04159

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-017129		Resource Name - IF-RR-15	Other	Historic	AH04	2011 (Ryan Rolston, John McDermott, Kurt Lambert, CH2M Hill)	KE-04159
P-15-017166		Resource Name - IF-E-31	Other	Historic	AH04	2011 (Aaron Fergusson, CH2M Hill)	KE-04159
P-15-017167		Resource Name - IF-E-32	Other	Historic	AH04	2011 (Aaron Fergusson, CH2M Hill)	KE-04159
P-15-017168		Resource Name - IF-E-33	Other	Historic	AH04	2011 (Aaron Fergusson, CH2M Hill)	KE-04159
P-15-017169		Resource Name - IF-E-34	Other	Historic	AH04	2011 (Aaron Fergusson, CH2M Hill)	KE-04159
P-15-017170		Resource Name - IF-E-35	Other	Historic	AH04	2011 (Aaron Fergusson, CH2M Hill)	KE-04159
P-15-017171		Resource Name - IF-E-36	Other	Historic	AH04	2011 (Aaron Fergusson, CH2M HILL)	KE-04159
P-15-017173		Resource Name - IF-E-39	Other	Historic	AH04	2011 (Aaron Fergusson, CH2M Hill)	KE-04159
P-15-017174		Resource Name - IF-E-40	Other	Historic	AH04	2011 (Aaron Fergusson, CH2M Hill)	KE-04159
P-15-017175		Resource Name - IF-E-41	Other	Historic	AH04	2011 (Aaron Fergusson, CH2M Hill)	KE-04159
P-15-017176		Resource Name - IF-E-42	Other	Historic	AH04	2011 (Aaron Fergusson, CH2M Hill)	KE-04159
P-15-017186	CA-KER-009414H	Resource Name - S-E-15	Site	Historic	AH04	2011 (Aaron Fergusson, CH2M Hill)	KE-04159
P-15-017187	CA-KER-009415H	Resource Name - S-E-16	Site	Historic	AH04	2011 (Aaron Fergusson, CH2M Hill)	KE-04159
P-15-017188	CA-KER-009416H	Resource Name - S-E-17	Site	Historic	AH04	2011 (Aaron Fergusson, CH2M Hill)	KE-04159
P-15-017189	CA-KER-009417/H	Resource Name - S-E-18	Site	Prehistoric, Historic	AH04; AP02	2011 (Aaron Fergusson, CH2M Hill)	KE-04159
P-15-017191		Resource Name - IF-E-51	Other	Historic	AH04	2011 (Aaron Fergusson, CH2M Hill)	KE-04159
P-15-017192		Resource Name - IF-E-52	Other	Historic	AH04	2011 (Aaron Fergusson, CH2M Hill)	KE-04159
P-15-017223		Resource Name - Yakima Iso 1	Other	Prehistoric	AP02	2013 (H. Haas, T. Giuliano, Rincon Consultants, Inc.)	KE-04369
P-15-017297	CA-KER-009487/H	Resource Name - ERIC-08/H	Site	Prehistoric, Historic	AH04; AP02	2013 (A. Tingey, M. Rich, E. Mike, L. Daub, Far Western)	KE-04476
P-15-017300	CA-KER-009490H	Resource Name - COUR-04H	Site	Historic	AH04	2013 (A. Tingey, M. Rich, L. Daub, E. Mike, Far Western)	KE-04476
P-15-017301		Resource Name - COUR-05H	Structure, Site	Historic	AH07	2013 (C. Higgins, T. Lucas, Far Western)	KE-04476
P-15-017302	CA-KER-009491H	Resource Name - COUR-06H	Site	Historic	AH07	2013 (C. Higgins, T. Lucas, Far Western)	KE-04476
P-15-017303		Resource Name - COUR-07H	Structure	Historic	AH07	2013 (C. Higgins, T. Lucas, Far Western)	KE-04476

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-017304	CA-KER-009492H	Resource Name - COUR-23H; State Route 58 (Kern County); Resource Name - State Route 58; US Highway 466; Mojave Barstow Highway	Structure	Historic	AH04; AH07	2013 (C. Higgins, T. Lucas, Far Western)	KE-04476
P-15-017305		Resource Name - COUR-25H; Resource Name - Midland Trail; U.S. Route 6; State Route 14; Aerospace Highway	Structure	Historic	AH07	2013 (T. Lucas, C. Higgins, Far Western)	KE-04476
P-15-017306		Resource Name - DANI-03H	Site	Historic	AH07	2013 (C. Higgins, L. Daub, Far Western)	KE-04476
P-15-017307		Resource Name - DANI-05H	Structure	Historic	AH16	2013 (D. Martinez, C. Connolly, Far Western)	KE-04476
P-15-017324		Resource Name - EDWA-06H	Structure	Historic	AH04; AH07	2013 (M. Rich, E. Mike, Far Western)	KE-04476
P-15-017326		Resource Name - ERIC-07H	Site	Historic	AH07	2013 (E. Gingerich, D. Mike, Far Western)	KE-04476
P-15-017327		Resource Name - GENE-08H	Site	Historic	AH07	2013 (T. Lucas, C. Higgins, Far Western)	KE-04476
P-15-017331		Resource Name - REB-08H	Site	Historic	AH07	2013 (R. Kellawan, L. Daub, Far Westeren)	KE-04476
P-15-017332	CA-KER-009498H	Resource Name - REB-10H	Site	Historic	AH11	2013 (A. Tingey, L. Daub, M. Rich, E. Mike, Far Western)	KE-04476
P-15-017333		Resource Name - REB-11H	Structure	Historic	AH16	2013 (R. Kellawan, L. Daub, E. Mike, M. Rich, Far Western)	KE-04476
P-15-017660		Resource Name - IF-38	Other	Prehistoric	AH16; AP02	2008 (Peggy Murphy, Catherine Pruett, Dorthy Feagle, 3 Girls and a Shovel, LLC)	
P-15-017661		Resource Name - IF-41	Other	Prehistoric	AH16; AP02	2008 (Peggy Murphy, Catherine Pruett, Dorthy Feagle, 3 Girls and a Shovel, LLC)	
P-15-018149	CA-KER-009936H	Resource Name - CLAK-1	Site	Historic	AH04	2014 (K.R. Way, R. Dinarte, V. Harvey, A. Ginther, Rincon Consultants, Inc.)	KE-04648
P-15-018150	CA-KER-009937H	Resource Name - CLAK-4	Site	Historic	AH04	2014 (K.R. Way, R. Dinarte, V. Harvey, A. Ginther, Rincon Consultants, Inc.)	KE-04648

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-018151	CA-KER-009938H	Resource Name - CLAK-5	Site	Historic	AH04	2014 (K.R. Way, R. Dinarte, V. Harvey, A. Ginther, Rincon Consultants, Inc.)	KE-04648
P-15-018152	CA-KER-009939/H	Resource Name - CLAK-6	Site	Prehistoric, Historic	AH04; AP02; AP11	2014 (K.R. Way, R. Dinarte, V. Harvey, A. Ginther, Rincon Consultants, Inc.)	KE-04648
P-15-018153	CA-KER-009940H	Resource Name - CLAK-7	Site	Historic	AH04	2014 (K.R. Way, R. Dinarte, V. Harvey, A. Ginther, Rincon Consultants, Inc.)	KE-04648
P-15-018154	CA-KER-009941H	Resource Name - CLAK-8	Site	Historic	AH04	2014 (K.R. Way, R. Dinarte, V. Harvey, A. Ginther, Rincon Consultants, Inc.)	KE-04648
P-15-018155	CA-KER-009942H	Resource Name - CLAK-10	Site	Historic	AH04	2014 (K.R. Way, R. Dinarte, V. Harvey, A. Ginther, Rincon Consultants, Inc.)	KE-04648
P-15-018156	CA-KER-009943H	Resource Name - CLAK-12	Site	Historic	AH04	2014 (K.R. Way, R. Dinarte, V. Harvey, A. Ginther, Rincon Consulting, Inc.)	KE-04648
P-15-018157	CA-KER-009944H	Resource Name - CLAK-13	Site	Historic	AH04	2014 (K.R. Way, R. Dinarte, V. Harvey, A. Ginther, Rincon Consultants, Inc.)	KE-04648
P-15-018158	CA-KER-009945H	Resource Name - CLAK-14	Site	Historic	AH04	2014 (K.R. Way, R. Dinarte, V. Harvey, A. Ginther, Rincon Consultants, Inc.)	KE-04648
P-15-018160	CA-KER-009947H	Resource Name - CLAK-18	Site	Historic	AH04	2014 (K.R. Way, Rincon Consultants, Inc.)	KE-04648
P-15-018161		Resource Name - CLAK-Iso-1	Other	Historic	AH04	2014 (K.R. Way, R. Dinarte, Rincon Consulting, Inc.)	KE-04648
P-15-018162		Resource Name - CLAK-Iso-2	Other	Historic	AH04	2014 (K.R. Way, R. Dinarte, Rincon Consultants, Inc.)	KE-04648
P-15-018163		Resource Name - CLAK-Iso-3	Other	Historic	AH04	2014 (K.R. Way, R. Dinarte, Rincon Consultants, Inc.)	KE-04648
P-15-018164		Resource Name - CLAK-Iso-4	Other	Historic	AH04	2014 (K.R. Way, R. Dinarte, Rincon Consulting, Inc.)	KE-04648
P-15-018165		Resource Name - CLAK-Iso-5	Other	Historic	AH04	2014 (K.R. Way, D. Dinarte, Rincon Consultants, Inc.)	KE-04648
P-15-018166		Resource Name - CLAK-Iso-6	Other	Historic	AH04	2014 (K.R. Way, R. Dinarte, Rincon Consulting, Inc.)	KE-04648

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-018167		Resource Name - CLAK-Iso-7	Other	Prehistoric	AP02	2014 (K.R. Way, R. Dinarte, Rincon Consultants, Inc.)	KE-04648
P-15-018168		Resource Name - CLAK-Iso-8	Other	Historic	AH04	2014 (K.R. Way, R. Dinarte, Rincon Consultants, Inc.)	KE-04648
P-15-018169		Resource Name - CLAK-Iso-10	Other	Historic	AH16	2014 (K.R. Way, R. Dinarte, Rincon Consultants, Inc.)	KE-04648
P-15-018671	CA-KER-010194H	Resource Name - TW-12	Site	Historic	AH04	2014 (Trish Webb, Johanna Marty, POWER Engineers)	
P-15-018681	CA-KER-010204H	Resource Name - LADWP Owens Gorge 230kV transmission line	Structure	Historic	HP11	2014 (Michael Dice, POWER Engineers)	
P-15-018757		Resource Name - Mojave Veterans' Memorial Building	Building	Historic	HP13	2016 (Scott Hudlow, Hudlow Cultural Resource Associates)	KE-04765
P-15-019808		Resource Name - 2204-T-1231-IJC-02	Other	Prehistoric	AP02	2017 (Juan Cervantes, Far Western Anthropological Research Group, Inc.)	
P-15-019809		Resource Name - 2204-T-1231-IJC-01	Other	Prehistoric	AP16	2017 (Juan Cervantes, Far Western Anthropological Research Group, Inc.)	

Resources w/in project site

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-000560	CA-KER-000560H	Resource Name - Atchison, Topeka, & Santa Fe Railroad; Resource Name - AT&SF Railroad; OHP Property Number - 110736	Structure, Site	Historic	AH04; AH07; HP11	1977 (Sutton/Temblay); 1988 (Patrick Haynal, Frnak Ritz, Diane Adams, William Manley, RECON); 1993 (Macko Archaeological Consulting, Macko Archaeological Consulting); 1994 (T. Wahoff, P. Eisentraut, Dames & Moore); 1994 (Lawrence McGetrick and Cristopher Onzol); 1995 (William Hayden, Neil Rhodes, and Gina Zanelli, Macko Archaeogical Consulting); 1995 (K. Lark, T. de la Garza, L. Wear, R. Bock, M. Pittman, L. Ramirez, M. Ryan, B. Woods, M Hangan, A Jackson, S. White, Computer Sciences Corporation); 1996 (Marcia Kimball, Sarah Cunkelman, BLM); 1998 (T. O'Brien, Jones and Stokes); 1998 (T. O'Brien, Jones and Stokes); 2000 (Dr. J. Underwood, KEA Environmental); 2001 (Jeffrey R. Wedding, Harry Reid Center for Environmental Studies); 2007 (H. Puckett, Tetra Tech); 2009 (Polly Allen, JRP Historical Consulting, LLC); 2013 (R. Kellawan, D. Martinez, L. Daub, D. Mike, Far Western)	KE-00101, KE-00182, KE-00191, KE-00209, KE-00243, KE-00283, KE-00374, KE-00548, KE-00633, KE-01993, KE-04476
P-15-000761	CA-KER-000761	Resource Name - AVAS-49	Site	Prehistoric	AP02; AP08	1974 (A.V. Eggers)	
P-15-000806	CA-KER-000806	Resource Name - AVAS-49	Site	Prehistoric	AP02; AP16	1974 (A.V. Eggers); 1998 (Dorothy Fleagle, Three Girls and a Shovel)	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-002050	CA-KER-002050H	Resource Name - Southern Pacific Railroad, McKittrick Branch; Resource Name - Midway-Sunset 2; Resource Name - KS-1; Resource Name - FCG-27; Resource Name - Old Southern Pacific Railroad Grade; Resource Name - Asphalto Line of the South Pacific Railroad	Structure, Site	Historic	AH02; AH04; AH07; HP39	1985 (R. Apple, J. Underwood, Wirth Environmental Services); 1987 (R. Schiffman); 1994 (Bruce Steidl, Keith Colvin, Helen Johnson, Woodward-Clyde Cosultants); 1995 (R.E. Parr, Center for Archaeological Research, California State University, Bakersfield); 1996 (R. Tidmore, J. Gardner, R.E. Parr, J. Hinshaw, Center for Archaeological Research, California State University, Bakersfield); 1998 (B. Hatoff, P. Frazier, D. Lawler, Woodward-Clyde International-Americas); 1998 (P. Frazier, L. Wear, B. Hattoff, D. Lawler, Woodward-Clyde International-Americans); 1999; 1999 (Mike Aviña, Jones & Stokes Associates, Inc.); 1999 (B. Hatoff, B. Bass, D. Lawler, URS Greiner Woodward-Clyde); 2009 (K.R. Way, J.M. Hamad, J. Sprague, G. Sprague, Pacific Legacy, Inc.); 2009 (K.R. Way, J. Sprague, N. Sims, P. Sharp-Garcia, C. Davis, M. Armstrong, A Stevenson, Pacific Legacy, Inc.); 2010 (L. Hoffman, J. Covert, SWCA Environmental Consultants); 2011 (M. Dalope, S. Andrews, C. Whitley, J. Neal, ASM Affiliates, Inc.); 2012 (S. Andrews, ASM Affiliates, Inc.); 2012 (A. Bell, C. Rambo, C. Whitley, S. Escamilla, A. Troupin, R. Azpitrate, ASM Affiliates, Inc.); 2016 (P. Carey, ASM Affiliates, Inc.)	KE-00861, KE-00865, KE-01267, KE-01958, KE-01994, KE-02162, KE-02278, KE-02452, KE-02560, KE-04056, KE-04383, KE-04414, KE-04503, KE-05045

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-002169	CA-KER-002169	Resource Name - AAP-011-002; Resource Name - A1006	Site	Prehistoric	AP02; AP11	(MQ Sutton, UC Riverside); 1985 (M. Sutton, Cultural Resources Management Division, New Mexico State University); 1989 (E. Wohlgemuth et al., Far Western Anthropological Research Group, Inc.)	
P-15-002435	CA-KER-002435	Resource Name - AAP 011-001	Site	Prehistoric	AP02; AP11	1985 (M. Sutton, Cultural Resource Management Division, New Mexico State University); 2001 (Jeffrey R. Wedding, Harry Reid Center for Environmental Studies); 2013 (R. Kellawan, L. Daub, Far Western)	KE-04476
P-15-002585	CA-KER-002585	Resource Name - MP-40	Site	Prehistoric	AP02; AP15	1989 (E. Wolhgemuth et al., Far Western Anthropological Research Group, Inc.); 2001 (Jeffrey R. Wedding, Harry Reid Center for Environmental Studies)	
P-15-003368	CA-KER-003368	Resource Name - AT&T-P-4	Site	Prehistoric	AP15	1992 (Michael E. Macko, Keith D. Rhodes, Macko Archaeological Consulting)	KE-00633
P-15-003530	CA-KER-003530H	Resource Name - Southern Pacific (Colorado Division) Road; Resource Name - ATT-R-5	Site	Historic	AH07	1993 (M. Macko, Macko Archaeological Consulting); 2000 (Dr. J. Underwood, KEA Environmental); 2013 (R. Kellawan, L. Daub, Far Western)	KE-00633, KE-04476
P-15-003537	CA-KER-003537H	Resource Name - ATT-R-12; Resource Name - Oak Creek Road	Site	Historic	AH07	1993 (M. Macko, Macko Archaeological Consulting); 2010	KE-00633, KE-03546, KE-04053, KE-04145, KE-04247

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-003549	CA-KER-003549H	Resource Name - Los Angeles Aqueduct; Resource Name - AG-3; Resource Name - ATT-H-3; Resource Name - CA-INY-4591H	Structure	Historic	HP20	1992 (J. Costello, J. Marvin, J. Todoff, Foothill Resources, Ltd.); 1993 (M. Macko, Macko Archaeological Consulting); 1993 (J. Costello, J. Marvin, Foothill Resources, Ltd.); 2000 (Dr. J. Underwood, KEA Environmental, Inc.); 2009 (S. Melvin, JRP Historical Consulting); 2013 (R. Kellawan, D. Martinez, C. Connolly, Far Western); 2015 (Alyssa Newcomb, Rebekka Knierim, SWCA Environmental Consultants)	KE-00636, KE-03534, KE-03546, KE-04469, KE-04476
P-15-003558	CA-KER-003558	Resource Name - MB-1	Site	Prehistoric	AP02	1993 (G. Alcock, J. Edwards, S. Jackson, J. Garcia, K. Tremaine, BioSystems Analysis, Inc.)	KE-00636, KE-01646
P-15-003927	CA-KER-003927H	Resource Name - MBP - 1; Resource Name - 20-Mule Team Road	Site	Historic	AH07	1993 (J. Costello, J. Marvin, Foothill Resources, Ltd.)	KE-00636
P-15-003929	CA-KER-003929H	Resource Name - MBP - 3; Resource Name - Arper Well	Site	Historic	AH02; AH04; AH05	1993 (J. Costello, J. Marvin, C. Brownson, Foothill Resources, Ltd.)	KE-00636, KE-02208, KE-02586, KE-02587, KE-04053
P-15-004112		Resource Name - PR-2; Resource Name - Gravel Pits	Site	Historic	AH09	1993 (J. Costello, J. Marvin, C. Brownson)	KE-00636
P-15-004117	CA-KER-004046	Resource Name - AT&T P6	Site	Prehistoric	AP11	1994 (Ak Cardia, Mary Cardia, Macko Archaeological Consulting)	
P-15-006072		Resource Name - CC-I-13	Other	Prehistoric	AP02	1997	
P-15-007596		Resource Name - MB-ISO-1; IC Informal - IF-KER-850	Other	Prehistoric	AP02	1993 (J. Garcia, J. Edwards, K. Tremaine, BioSystems Analysis, Inc.)	KE-00636
P-15-007597		Resource Name - MB-ISO-2; IC Informal - IF-KER-851	Other	Prehistoric	AP02	1993 (J. Garcia, J. Edwards, K. Tremaine, BioSystems Analysis, Inc.)	KE-00636
P-15-010500	CA-KER-006145	Resource Name - ASM-20	Site	Prehistoric	AP02; AP15	2002 (Ken Moslak, Wil Jenson, ASM Affiliates, Inc.); 2005 (C. Hacking, R. Farmer, B. Ladd, URS Corporation)	KE-02698

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-010501	CA-KER-006146	Resource Name - ASM-21	Site	Prehistoric	AP02; AP15	2002 (K. Moslak, W. Jenson, ASM Affiliates)	KE-02698, KE-03954
P-15-010543		Resource Name - ISO-40	Other	Prehistoric	AP02	2002 (K. Moslak, W. Jenson, C. Wright, M. Dalope, ASM Affiliates, Inc.); 2009 (Victoria Avalos, BCR Consulting)	KE-02698, KE-03954
P-15-012482		Resource Name - AP-3 1008-I	Other	Historic	AH04	2006 (Koral Ahmet, Sara Bholat, Nicole Hofmeister, Maria Espinoza, Evan Crabtree, ECORP Consulting, Inc.)	
P-15-012790		Resource Name - PL-SCE-Tehachapi-Iso 15	Other	Prehistoric	AP02	2007 (H. Blind, F.H. Arellano, M. Elliott, Pacific Legacy, Inc.)	
P-15-012791		Resource Name - PL-SCE-Tehachapi-Iso 16	Other	Prehistoric	AP02	2007 (H. Blind, F.H. Arellano, L. MacDonald, L. Schrader, A. Monastero, Pacific Legacy, Inc.)	
P-15-013528		Resource Name - STR0901-I-17	Other	Prehistoric	AP16	2009 (David Brunzell, BRC Consulting)	KE-04038
P-15-013529		Resource Name - STR0901-I-18	Other	Prehistoric	AP16	2009 (David Brunzell, BRC Consulting)	KE-04038
P-15-013530		Resource Name - STR0901-I-19	Other	Prehistoric	AP16	2009 (David Brunzell, BCR Consulting)	KE-04038
P-15-013531		Resource Name - STR0901-I-20	Other	Prehistoric	AP02	2009 (David Brunzell, BCR Consulting)	KE-04038
P-15-013532		Resource Name - STR0901-I-21	Other	Prehistoric	AP02	2009 (David Brunzell, BCR Consulting)	KE-04038
P-15-013533		Resource Name - STR0901-I-22	Other	Prehistoric	AP02	2009 (David Brunzell, BCR Consulting)	KE-04038
P-15-013534		Resource Name - STR0901-I-23	Other	Prehistoric	AP02	2009 (David Brunzell, BCR Consulting)	KE-04038
P-15-013567	CA-KER-007646H	Resource Name - STR0901-H-4	Site	Historic	AH04	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013568	CA-KER-007647H	Resource Name - STR0901-H-5	Site	Prehistoric, Historic	AH04; AH05; AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013571		Resource Name - STR0901-I-46	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013572		Resource Name - STR0901-I-47	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-013573		Resource Name - STR0901-I-48	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013574		Resource Name - STR0901-I-49	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013575		Resource Name - STR0901-I-50	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013578		Resource Name - STR0901-I-53	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013579		Resource Name - STR0901-I-54	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013580		Resource Name - STR0901-I-55	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013581		Resource Name - STR0901-I-56	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013584		Resource Name - STR0901-I-59	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013585		Resource Name - STR0901-I-60	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013586		Resource Name - STR0901-I-61	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013587		Resource Name - STR0901-I-62	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013588		Resource Name - STR0901-I-63	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013589		Resource Name - STR0901-I-64	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013590		Resource Name - STR0901-I-65	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013591		Resource Name - STR0901-I-45	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013592		Resource Name - STR0901-I-66	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013596		Resource Name - STR0901-I-70	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013620	CA-KER-007657	Resource Name - STR0901-S-27	Site	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-013621	CA-KER-007658	Resource Name - STR0901-S-28	Site	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013622	CA-KER-007659	Resource Name - STR0901-S-29	Site	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013623	CA-KER-007660	Resource Name - STR0901-S-30	Site	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	KE-03954
P-15-013631		Resource Name - STR0901-I-31	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	
P-15-013633		Resource Name - STR0901-I-33	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	
P-15-013634		Resource Name - STR0901-I-34	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	
P-15-013635		Resource Name - STR0901-I-35	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	
P-15-013636		Resource Name - STR0901-I-36	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	
P-15-013637		Resource Name - STR0901-I-37	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	
P-15-013638		Resource Name - STR0901-I-38	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	
P-15-013639		Resource Name - STR0901-I-39	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	
P-15-013640		Resource Name - STR0901-I-40	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	
P-15-013641		Resource Name - STR0901-I-41	Other	Prehistoric	AP02	2009 (Victoria Avalos, BCR Consulting)	
P-15-013643		Resource Name - STR0901-I-43	Other	Prehistoric	AP15	2009 (Victoria Avalos, BCR Consulting)	
P-15-013644		Resource Name - STR0901-I-44	Other	Prehistoric	AP16	2009 (Victoria Avalos, BCR Consulting)	
P-15-013646		Resource Name - STR0901-S-26	Other	Prehistoric, Historic	AH16	2009 (Victoria Avalos, BCR Consulting)	
P-15-013802	CA-KER-007737H	Resource Name - AS-6	Site	Historic	AH04	2010 (N. Blotner, K. Smolik, S. Clowery, HDR | e²M)	
P-15-013828		Resource Name - PL-SCE-3A-SUB-ISO 1	Other	Prehistoric	AP02	2008 (K.R. Way, Pacific Legacy, Inc.)	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-013841	CA-KER-007749	Resource Name - PL-SCE-TRTP-3A-10	Site	Prehistoric	AP02; AP15	2008 (K. Ross Way, Kenneth S. Norwood, Pacific Legacy, Inc.)	
P-15-014894	CA-KER-008319H	Resource Name - RBF-3	Site	Historic	AH04	2010 (Scott M. Hudlow, Hudlow Cultural Resource Associates); 2013 (K. Ross Way, H. Haas, A. Ginther, Rincon Consultants)	KE-04359
P-15-016828	CA-KER-009255H	Resource Name - Clrwtr Site 2	Site	Historic	AH04	2013 (H. Haas, T. Giuliano, Rincon Consultants, Inc.)	KE-04360
P-15-017053		Resource Name - IF-JKS-01	Other	Historic	AH04	2011 (Ryan Rolston, John McDermott, Kurt Lambert, CH2M Hill)	KE-04159
P-15-017302	CA-KER-009491H	Resource Name - COUR-06H	Site	Historic	AH07	2013 (C. Higgins, T. Lucas, Far Western)	KE-04476
P-15-017305		Resource Name - COUR-25H; Resource Name - Midland Trail; U.S. Route 6; State Route 14; Aerospace Highway	Structure	Historic	AH07	2013 (T. Lucas, C. Higgins, Far Western)	KE-04476
P-15-017306		Resource Name - DANI-03H	Site	Historic	AH07	2013 (C. Higgins, L. Daub, Far Western)	KE-04476
P-15-017307		Resource Name - DANI-05H	Structure	Historic	AH16	2013 (D. Martinez, C. Connolly, Far Western)	KE-04476
P-15-017324		Resource Name - EDWA-06H	Structure	Historic	AH04; AH07	2013 (M. Rich, E. Mike, Far Western)	KE-04476
P-15-017326		Resource Name - ERIC-07H	Site	Historic	AH07	2013 (E. Gingerich, D. Mike, Far Western)	KE-04476
P-15-017331		Resource Name - REB-08H	Site	Historic	AH07	2013 (R. Kellawan, L. Daub, Far Westeren)	KE-04476
P-15-017333		Resource Name - REB-11H	Structure	Historic	AH16	2013 (R. Kellawan, L. Daub, E. Mike, M. Rich, Far Western)	KE-04476
P-15-018149	CA-KER-009936H	Resource Name - CLAK-1	Site	Historic	AH04	2014 (K.R. Way, R. Dinarte, V. Harvey, A. Ginther, Rincon Consultants, Inc.)	KE-04648
P-15-018681	CA-KER-010204H	Resource Name - LADWP Owens Gorge 230kV transmission line	Structure	Historic	HP11	2014 (Michael Dice, POWER Engineers)	
P-15-019808		Resource Name - 2204-T-1231-IJC-02	Other	Prehistoric	AP02	2017 (Juan Cervantes, Far Western Anthropological Research Group, Inc.)	

Appendix B

Native American Outreach

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691 Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov

October 2, 2019

Mark Strother
Rincon Consultants, Inc.

VIA Email to: mstrother@rinconconsultants.com

RE: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, Bellefield Solar #19-08159 Project, Kern County

Dear Mr. Strother:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

> Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;

- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;

- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and

- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

   - Any report that may contain site forms, site significance, and suggested mitigation measures.

     All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was negative.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green
Staff Services Analyst

Attachment

Native American Heritage Commission
Native American Contacts List
October 2, 2019

Big Pine Paiute Tribe of the Owens Valley
James Rambeau, Sr., Chairperson
P.O. Box 700 — Paiute - Shoshone
Big Pine ,CA 93513
j.rambeau@bigpinepaiute.org
(760) 938-2003
(976) 938-2942 Fax

Big Pine Paiute Tribe of Owens Valley
Sally Manning, Environmental Director
P.O. Box 700 — Paiute
Big Pine ,CA 93513
s.manning@bigpinepaiute.org
(760) 938-2003
(760) 938-2942 Fax

Big Pine Paiute Tribe of the Owens Valley
Danelle Gutierrez THPO
P.O. Box 700 — Paiute
Big Pine ,CA 93513
d.gutierrez@bigpinepaiute.org
(760) 938-2003, ext. 228
(760) 938-2942 Fax

Chumash Council of Bakersfield
Julio Quair, Chairperson
729 Texas Street — Chumash
Bakersfield ,CA 93307
chumashtribe@sbcglobal.net
(661) 322-0121

Kern Valley Indian Community
Julie Turner, Secretary
P.O. Box 1010 — Kawaiisu, Tubatulabal
Lake Isabella ,CA 93240
(661) 340-0032 Cell

Kern Valley Indian Community
Robert Robinson, Chairperson
P.O. Box 1010 — Tubatulabal, Kawaiisu
Lake Isabella ,CA 93240
bbutterbredt@gmail.com
(760) 378-2915 Cell

Kern Valley Indian Community
Brandy Kendricks
30741 Foxridge Court — Kawaiisu, Tubatulabal
Tehachapi ,CA 93561
krazykendricks@hotmail.com
(661) 821-1733
(661) 972-0445

Kitanemuk & Yowlumne Tejon Indians
Delia Dominguez, Chairperson
115 Radio Street — Yowlumne, Kitanemuk
Bakersfield ,CA 93305
2deedominguez@gmail.com
(626) 339-6785

San Manuel Band of Mission Indians
Lee Clauss, Director-CRM Dept.
26569 Community Center Drive — Serrano
Highland ,CA 92346
lclauss@sanmanuel-nsn.gov
(909) 864-8933
(909) 864-3370 Fax

San Manuel Band of Mission Indians
Lynn Valbuena, Chairwoman
26569 Community Center Dr. — Serrano
Highland ,CA 92346
(909) 864-8933

This list is current as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code,Section 5097.94 of the Public Resources Code, or Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans Tribes for the proposed:
Bellefield Solar #19-08159 Project, Kern County.

Native American Heritage Commission
Native American Contacts List
October 2, 2019

Santa Rosa Rancheria Tachi Yokut Tribe
Rueben Barrios Sr., Chairperson
P.O. Box 8 — Tache
Lemoore ,CA 93245 — Tachi
(559) 924-1278 — Yokut
(559) 924-3583 Fax

Wuksache Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson
1179 Rock Haven Ct. — Foothill Yokuts
Salinas ,CA 93906 — Mono
kwood8934@aol.com — Wuksache
(831) 443-9702

Tejon Indian Tribe
Octavio Escobedo, Chairperson
1731 Hasti-acres Drive, Suite 108 — Kitanemuk
Bakersfield ,CA 93309
oescobedo@tejonindiantribe-nsn.gov
(661) 834-8566
(661) 834-8564 Fax

Tejon Indian Tribe
Colin Rambo, Cultural Resources Management
1731 Hasti-Acres Drive, Suite 108 — Kitanemuk
Bakersfield ,CA 93309
colin.rambo@tejonindiantribe-nsn.go
(661) 834-8566
(484) 515-4790 Cell

Tubatulabals of Kern Valley
Robert L. Gomez, Jr., Tribal Chairperson
P.O. Box 226 — Tubatulabal
Lake Isabella ,CA 93240
(760) 379-4590
(760) 379-4592 Fax

Tule River Indian Tribe
Neil Peyron, Chairperson
P.O. Box 589 — Yokuts
Porterville ,CA 93258
neil.peyron@tulerivertribe-nsn.gov
(559) 781-4271
(559) 781-4610 Fax

This list is current as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code,Section 5097.94 of the Public Resources Code, or Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans Tribes for the proposed:
Bellefield Solar #19-08159 Project, Kern County.

Rincon Consultants, Inc.

180 North Ashwood Avenue
Ventura, California 93003

805 644 4455 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

Representative Sample Letter
1 of 16 Letters Sent to NAHC Listed Contacts

October 3, 2019

Robert Robinson, Chairperson
Kern Valley Indian Community
P.O. Box 1010
Lake Isabella, California 93283

RE: Consultation for the Proposed Bellefield Solar Project in Kern County, California

Dear Chairperson Robinson:

Rincon Consultants, Inc. (Rincon) was retained by 8minute Solar Energy to conduct a cultural resources survey for the proposed Bellefield Solar Project (project) located in unincorporated portions of Kern County, California (see enclosed project location map). The project proposes to develop a photovoltaic (PV) energy facility and ESS within the project area. Power generated by the Project would be delivered from the project site via up to 230 kV overhead and/or underground electrical transmission line(s) originating from one or more on-site substation(s)/switchyard(s) and terminating at the Southern California Edison (SCE) Windhub Substation. The project may include operations & maintenance (O&M) buildings, substations, ESSs, and transmission facilities, as necessary, or it may share such facilities with other nearby projects or with any future energy projects in the area, and/or it may be remotely operated. Alternatively, if shared facilities are used, those areas designated in the application materials for O&M building, substation, and/or transmission facility may be occupied by solar panels.

As part of the process of identifying cultural resources for this project, Rincon contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American tribal organizations and individuals who may have knowledge of sensitive cultural resources in or near the project site. Rincon received a response from the NAHC on October 2, 2019, which stated the SLF search had been completed with "negative results." The NAHC suggested we contact you to discuss this project further.

If you have knowledge of cultural resources that may exist within or near the project site, please do not hesitate to contact me at mstrother@rinconconsultants.com, or by telephone at (760) 918-9444 ext. 2047. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

Mark Strother, MA
Associate Archaeologist

Enclosure: Project Location Map

Appendix C

Isolate Tables

Table C-1. Previously Recorded Isolates

Primary Number	Age	Description	Isolate Status
P-15-006072	Prehistoric	Mano	Unable to relocate
P-15-007596	Prehistoric	Handstone	Relocated, same condition
P-15-007598	Prehistoric	Handstone	Relocated, same condition
P-15-010543	Prehistoric	Dark reddish-brown chert core	Unable to relocate
P-15-013528	Prehistoric	Tan-white chert flake	Relocated, same condition
P-15-013529	Prehistoric	White chalcedony flake	Relocated, same condition
P-15-013530	Prehistoric	White chalcedony flake	Unable to relocate
P-15-013531	Prehistoric	Granitic mano/hammerstone	Relocated, same condition
P-15-013532	Prehistoric	Granitic mano/hammerstone	Unable to relocate
P-15-013533	Prehistoric	Granitic mano/hammerstone	Unable to relocate
P-15-013534	Prehistoric	Grey/white chalcedony flake	Unable to relocate
P-15-013571	Prehistoric	Orange/yellow quartzite flake	Unable to relocate
P-15-013572	Prehistoric	Brown/gray chalcedony shatter	Unable to relocate
P-15-013574	Prehistoric	White quartzite shatter	Unable to relocate
P-15-013575	Prehistoric	Brown chert flake	Unable to relocate
P-15-013576	Prehistoric	White chalcedony flake	Unable to relocate
P-15-013577	Prehistoric	Gray chert flake	Unable to relocate
P-15-013578	Prehistoric	Milky white chert shatter	Unable to relocate
P-15-013579	Prehistoric	Brown/gray chalcedony flake	Relocated, same condition
P-15-013580	Prehistoric	White chalcedony shatter	Unable to relocate
P-15-013581	Prehistoric	Purple andesite flake	Relocated, same condition
P-15-013582	Prehistoric	Small brown chalcedony core	Unable to relocate
P-15-013583	Prehistoric	Brown jasper shatter	Unable to relocate
P-15-013584	Prehistoric	Gray/brown chalcedony shatter	Unable to relocate
P-15-013585	Prehistoric	Gray/white chalcedony flake	Unable to relocate
P-15-013586	Prehistoric	Obsidian shatter	Unable to relocate
P-15-013587	Prehistoric	Dark brown/gray chalcedony flake	Unable to relocate
P-15-013588	Prehistoric	Gray/brown chalcedony core	Unable to relocate
P-15-013589	Prehistoric	White chert shatter	Unable to relocate
P-15-013590	Prehistoric	Rhyolite metate fragment	No access
P-15-013591	Prehistoric	White chert shatter	Unable to relocate
P-15-013592	Prehistoric	Brown chert and white chalcedony flakes	Relocated, same condition
P-15-013593	Prehistoric	Brown chert shatter	Relocated, same condition
P-15-013596	Prehistoric	Brown chalcedony flake	Unable to relocate
P-15-013631	Prehistoric	Obsidian shatter	No access

Primary Number	Age	Description	Isolate Status
P-15-013632	Prehistoric	Obsidian flake	Unable to relocate
P-15-013633	Prehistoric	Quartzite shatter and chalcedony flake	No access
P-15-013634	Prehistoric	Brown chalcedony shatter	No access
P-15-013635	Prehistoric	Obsidian flake	No access
P-15-013636	Prehistoric	White chert flake	No access
P-15-013637	Prehistoric	Red chalcedony core	Unable to relocate
P-15-013638	Prehistoric	White chert flake	Unable to relocate
P-15-013639	Prehistoric	White chert shatter	Unable to relocate
P-15-013640	Prehistoric	White chert secondary flake	Unable to relocate
P-15-013641	Prehistoric	White cortical chert flake	Unable to relocate
P-15-013642	Prehistoric	Brown/gray chalcedony flake	Unable to relocate
P-15-013643	Prehistoric	Blue mottled chalcedony flake	Unable to relocate
P-15-013644	Prehistoric	Brown/gray chalcedony shatter	Unable to relocate
P-15-017053	Historic	Hole-in-top can	Unable to relocate
P-15-019808	Prehistoric	Chert flake	Relocated, same condition

Table C-2. Newly Recorded Isolates

Isolate Number	Age	Description
BEL-ISO-001	Prehistoric	White CCS flake
BEL-ISO-002	Historic	Survey marker
BEL-ISO-003	Prehistoric	Brown CCS flake
BEL-ISO-004	Prehistoric	Brown CCS shatter
BEL-ISO-005	Historic	Survey marker
BEL-ISO-006	Historic	Survey marker
BEL-ISO-007	Historic	Survey marker
BEL-ISO-008	Prehistoric	Tan chert flake
BEL-ISO-009	Historic	Survey marker
BEL-ISO-010	Historic	Survey marker
BEL-ISO-011	Historic	Survey marker
BEL-ISO-012	Historic	Survey marker
BEL-ISO-013	Prehistoric	Tan CCS flake
BEL-ISO-014	Prehistoric	Two rhyolite flakes
BEL-ISO-015	Prehistoric	Grey CCS flake
BEL-ISO-016	Prehistoric	Brown CCS flake
BEL-ISO-017	Prehistoric	Two obsidian flakes and one brown chert flake
BEL-ISO-018	Prehistoric	Brown and white CCS flake

Isolate Number	Age	Description
BEL-ISO-019	Prehistoric	Obsidian biface fragment
BEL-ISO-020	Historic	Survey marker
BEL-ISO-021	Prehistoric	Grey chert flake
BEL-ISO-022	Prehistoric	Brown CCS flake
BEL-ISO-023	Prehistoric	Jasper flake
BEL-ISO-024	Prehistoric	Metate fragment
BEL-ISO-025	Prehistoric	White CCS flake
BEL-ISO-026	Prehistoric	Orange and white CCS flake
BEL-ISO-027	Prehistoric	Grey and red CCS flake
BEL-ISO-028	Prehistoric	Rhyolite flake fragment
BEL-ISO-029	Prehistoric	Rhyolite flake fragment
BEL-ISO-030	Prehistoric	Clam shell and granite flake
BEL-ISO-031	Prehistoric	Tan and white chalcedony flake
BEL-ISO-032	Prehistoric	White CCS flake
BEL-ISO-035	Prehistoric	Quartz projectile point
BEL-ISO-036	Historic	Concrete pad
BEL-ISO-037	Prehistoric	Utilized rhyolite flake
BEL-ISO-038	Prehistoric	Metate fragment
BEL-ISO-039	Prehistoric	Quartzite flake
BEL-ISO-040	Historic	Survey marker
BEL-ISO-041	Prehistoric	Grey and tan CCS flake
BEL-ISO-042	Historic	Survey marker
BEL-ISO-043	Prehistoric	Tan CCS flake
BEL-ISO-044	Prehistoric	White CCS flake
BEL-ISO-046	Prehistoric	Rhyolite flake
BEL-ISO-047	Prehistoric	White CCS flake
BEL-ISO-048	Prehistoric	Mottled white CCS flake
BEL-ISO-049	Prehistoric	Tan CCS flake
BEL-ISO-052	Prehistoric	Tan CCS flake
BEL-ISO-053	Prehistoric	White CCS flake
BEL-ISO-054	Prehistoric	Two tan chalcedony and one banded rhyolite flake
BEL-ISO-056	Historic	Survey marker
BEL-ISO-057	Historic	Survey marker
BEL-ISO-059	Prehistoric	Tan and orange CCS flake
BEL-ISO-060	Prehistoric	Two chalcedony flakes and a chalcedony biface fragment
BEL-ISO-061	Prehistoric	Tan CCS flake

Isolate Number	Age	Description
BEL-ISO-062	Prehistoric	Brown CCS flake
BEL-ISO-063	Prehistoric	Reddish brown and white CCS flake
BEL-ISO-064	Prehistoric	Orange and white chalcedony lanceolate projectile point
BEL-ISO-065	Prehistoric	White CCS flake
BEL-ISO-066	Historic	Survey marker
BEL-ISO-067	Prehistoric	Utilized brown chert flake
BEL-ISO-068	Prehistoric	Two white CCS flakes
BEL-ISO-069	Prehistoric	Brown CCS flake
BEL-ISO-070	Prehistoric	White CCS flake
BEL-ISO-071	Prehistoric	Andesite flake
BEL-ISO-072	Historic	Survey marker
BEL-ISO-073	Historic	Survey marker
BEL-ISO-074	Prehistoric	Tan CCS Flake
BEL-ISO-075	Prehistoric	Grey and tan CCS flake
BEL-ISO-076	Prehistoric	White chalcedony flake
BEL-ISO-077	Prehistoric	Tan CCS Flake
BEL-ISO-078	Prehistoric	Grey CCS flake
BEL-ISO-079	Prehistoric	Quartzite flake
BEL-ISO-080	Prehistoric	Rhyolite flake
BEL-ISO-081	Prehistoric	White CCS flake
BEL-ISO-082	Prehistoric	Two tan CCS flakes
BEL-ISO-083	Prehistoric	Tan chalcedony flake
BEL-ISO-084	Prehistoric	Mottled brown and white CCS flake
BEL-ISO-085	Prehistoric	Mottled white CCS flake
BEL-ISO-091	Prehistoric	White CCS flake
BEL-ISO-092	Prehistoric	Obsidian flake
BEL-ISO-094	Prehistoric	Chalcedony flake
BEL-ISO-100	Prehistoric	Utilized tan CCS flake
BEL-ISO-102	Prehistoric	Tan CCS flake
BEL-ISO-103	Prehistoric	White CCS biface fragment
BEL-ISO-104	Prehistoric	Reddish brown CCS flake
BEL-ISO-105	Prehistoric	Rhyolite flake
BEL-ISO-106	Prehistoric	Mottled white CCS flake
BEL-ISO-107	Prehistoric	White CCS flake
BEL-ISO-109	Prehistoric	Granite metate
BEL-ISO-110	Prehistoric	Brown CCS flake

Isolate Number	Age	Description
BEL-ISO-111	Prehistoric	Brown CCS flake
BEL-ISO-112	Prehistoric	Mano fragment
BEL-ISO-114	Prehistoric	White CCS flake
BEL-ISO-115	Prehistoric	Mottled grey CCS flake
BEL-ISO-116	Prehistoric	Tan CCS flake
BEL-ISO-117	Prehistoric	Reddish brown CCS flake
BEL-ISO-118	Prehistoric	Mottled white CCS flake
BEL-ISO-119	Prehistoric	White CCS flake
BEL-ISO-120	Prehistoric	Two CCS flakes
BEL-ISO-121	Prehistoric	Mottled white CCS flake
BEL-ISO-122	Prehistoric	Metavolcanic flake
BEL-ISO-123	Prehistoric	Quartz biface
BEL-ISO-124	Prehistoric	White quartz flake
BEL-ISO-125	Prehistoric	White CCS flake
BEL-ISO-126	Historic	Survey marker
BEL-ISO-128	Prehistoric	Utilized grey CCS flake
BEL-ISO-129	Prehistoric	Mottled white CCS flake
BEL-ISO-130	Prehistoric	Brown CCS core
BEL-ISO-131	Prehistoric	Mottled tan metavolcanic flake
BEL-ISO-132	Prehistoric	Mottled red and grey metavolcanic flake
BEL-ISO-134	Historic	Survey marker
BEL-ISO-136	Historic	Survey marker
BEL-ISO-138	Historic	Survey marker
BEL-ISO-139	Historic	Survey marker
BEL-ISO-140	Historic	Survey marker
BEL-ISO-141	Historic	Survey marker
BEL-ISO-142	Historic	Survey marker
BEL-ISO-143	Historic	Survey marker
BEL-ISO-155	Prehistoric	Basalt biface and CCS flake
BEL-ISO-156	Prehistoric	Brown CCS flake
BEL2-ISO-004	Prehistoric	Chalcedony quartz flake
BEL2-ISO-007	Prehistoric	Rhyolite flake
BEL2-ISO-008	Historic	Survey Marker
BEL2-ISO-009	Prehistoric	Quartz tertiary flake
BEL2-ISO-010	Historic	10 pieces of sun-affected glass, SCA bottle
BEL2-ISO-011	Prehistoric	Chalcedony primary utilized flake

Isolate Number	Age	Description
BEL2-ISO-012	Historic	Survey marker
BEL2-ISO-013	Historic	Kern county survey marker
BEL2-ISO-014	Prehistoric	Chalcedonay tertiary flake
BEL2-ISO-015	Historic	Survey marker
BEL2-ISO-016	Historic	Survey marker
BEL2-ISO-017	Prehistoric	Chalcedony tertiary flake
BEL2-ISO-018	Historic	Survey Marker
BEL2-ISO-019	Historic	Survey marker

Confidential Appendix D

Confidential Figures

Confidential Appendix E

Isolate Record Updates

Confidential Appendix F

Site Record Updates

Confidential Appendix G

Newly Recorded Isolates

Confidential Appendix H

Newly Recorded Sites

Appendix F
Energy Consumption Technical Memorandum

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Memo

Date:	February 5, 2020
Project:	Bellefield Solar Farm Project
To:	Erec DeVost, 8minute Solar Energy
From:	Sharyn Del Rosario, Project Manager, HDR
Subject:	Bellefield Solar Farm – Energy Consumption Technical Memorandum

Introduction

This memorandum assesses possible construction and operational energy demand impacts by the development of the Bellefield Solar Farm project.

Project Description

The project site consists of 90 assessor's parcels located in portions of unincorporated Kern County and California City. The project site straddles State Route 58, east of Mojave and just west and south of the Hyundai-Kia Proving Ground.

The project proponent proposes to develop a photovoltaic solar facility and energy storage system capable of producing up to 1,500 megawatts (MW) of alternating current (AC) power, and up to 1,500 MW hours of storage capacity on approximately 8,371 gross acres of privately-owned land. The project would be supported by a 230-kilovolt (kV) gen-tie overhead and/or underground electrical transmission line(s) originating from one or more on-site substations and terminating at the Southern California Edison's Windhub Station. The project's permanent facilities would include, service roads, a power collection system, communication cables, overhead and underground transmission lines, electrical switchyards, project substations, energy storage system(s), and operations and maintenance facilities.

The construction period for the proposed project from site preparation through construction, testing, and commercial operation is expected to commence as early as fourth quarter of 2021 and would extend for approximately 18 to 24 months.

Fuel Consumption Standards of Significance

The 2019 California Environmental Quality Act Guidelines Appendix G includes Section VI – *Energy*, which is an analysis of potential impacts of a project related to the consumption of energy resources. The thresholds as written in the Guidelines are:

- Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

- Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

While no quantitative thresholds related to energy are included, the Guidelines states as follows:

The goal of conserving energy implies the wise and efficient use of energy. The means of achieving this goal include:

1. Decreasing overall per capita energy consumption;
2. Decreasing reliance on natural gas and oil, and
3. Increasing reliance on renewable energy resources.

Fuel Consumption Impact Analysis

Methodology

The diesel and gasoline fuel consumptions were calculated using the carbon dioxide (CO_2) emissions contained in the *Bellefield Solar Farm Project Air Quality and Greenhouse Gas Study* (Rincon Consultants, Inc. [Rincon] 2020) and EPA's default emission rates of 19.4 pounds of CO_2 per gallon of gasoline and 22.2 pounds of CO_2 per gallon of diesel[1]. The fuel consumption calculations are provided in Appendix A.

CONSTRUCTION PHASE ENERGY USAGE

Electricity. Electricity is not expected to be consumed in large quantity during project construction, as construction equipment and vehicles are typically diesel- or gas-powered, not electric. Electricity for construction would be provided by Southern California Edison and a hookup would be installed on the project site (and this hookup would also provide electricity onsite for the operational phase of the project); however, electricity usage from such connection is anticipated to be minimal (i.e. mostly for security lighting). Therefore, electricity associated with construction- or decommissioning-related activities was not calculated.

Natural Gas. Natural gas is not expected to be consumed during project construction- , decommissioning-, or operation-related activities by construction equipment (i.e., no natural gas-powered equipment or vehicles). Therefore, natural gas associated with construction activities was not calculated. The proposed project would have no significant impact on natural gas consumption.

Diesel and Gasoline. Regarding transportation-related fuel consumption during construction, it is assumed that only diesel fuel would be used in off-road construction equipment and for haul trucks used during delivery of solar panels to the project site. On-road vehicles for construction workers are assumed to be solely powered by gasoline.

Construction of the project would result in fuel consumption from the use of construction tools and equipment, haul truck trips, and vehicle trips generated from construction workers traveling to and

[1] U.S. EPA, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, February 2005.

from the site. Project construction is expected to consume a total of approximately 595,932.2 gallons of diesel fuel from construction equipment and vendor, hauling, and water truck trips, and approximately 66,469 gallons of gasoline from construction worker vehicle trips.

Construction activities and corresponding fuel energy consumption would be temporary and localized, as the use of diesel fuel and heavy-duty equipment would not be a typical condition of the project. As shown on Table 1, the gasoline consumed during construction represents approximately 0.02 percent of all gasoline sold within Kern County in 2018 (396 millions of gallons) (California Energy Commission 2019). As shown on Table 1, the diesel consumed during project construction would represent approximately 0.55 percent of all diesel sold in Kern County in 2018 (108 millions of gallons) (California Energy Commission 2019). In addition, there are no unusual project characteristics that would cause the use of construction equipment to be less energy efficient compared with other similar construction sites in other parts of the State. Therefore, construction-related fuel consumption by the project would not result in inefficient, wasteful, or unnecessary energy use compared with other construction sites in the region. The project would have a less than significant impact on gasoline and diesel consumption.

Table 1. Fuel Consumption During Construction

Fuel Consumption During Project Construction (gallons)	2018 Kern County Fuel Sales (gallons) [2]	Project Fuel Consumption (%)
Gasoline		
66,469	396,000,000	0.02
Diesel		
595,932.2	108,000,000	0.55

OPERATION PHASE ENERGY USAGE

Operational energy usage would be minimal involving a very limited amount of worker trips for facility maintenance including the occasional washing of solar panels.

[2] California Energy Commission. 2019. 2010-2018 California Retail Fuel Outlet Annual Reporting Results and Analysis. Available at: https://ww2.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html. Accessed April 2020.

Electricity. Electricity required during operation (e.g., to operate lights and air conditioners) would be greatly offset by the electricity produced by the solar facility. As discussed in the *Bellefield Solar Farm Project Air Quality and Greenhouse Gas Study* (Rincon 2020), construction and operation of renewable energy facilities would offset GHG emissions by replacing energy generated by fossil-fueled power plants. The project would generate approximately 2,833 gigawatt-hours (GWh) of solar-generated electricity each year, totaling approximately 84,990 GWh over a 30-year life span that would be added to the power grid and be used in place of electricity generated by fossil-fuel sources. Based on these considerations, the project would have a less than significant impact on electricity consumption.

Natural Gas. Natural gas is not expected to be consumed during operation of the proposed project. Therefore, the proposed project would have no significant impact on natural gas consumption.

Diesel and Gasoline. The proposed project would not consume diesel during operation. During operation, it is estimated that the operational and maintenance activities would consume approximately 590.9 gallons of gasoline annually. The gasoline fuel consumption was calculated using the CO_2 emissions (5.2 metric tons of CO_2) contained in the *Bellefield Solar Farm Project Air Quality and Greenhouse Gas Study* (Rincon 2020) and EPA's default emission rates of 19.4 pounds of CO_2 per gallon of gasoline.

Potential Changes in Electricity Usage

No major changes in electricity usage are anticipated throughout the construction and operation of the proposed project. The project would generate approximately 2,833 GWh of solar-generated electricity each year, totaling approximately 84,990 GWh over a 30-year life span. The project would generate solar-generated electricity over a 30-year life span and this production is anticipated to remain relatively constant throughout the operation of the proposed project. Additionally, the electricity required to construct and operate the project is anticipated to be negligible compared to the amount of electricity generated by the project. Activities involved with the decommissioning of the solar facility would be similar to those involved with construction but would be expected to result in lower fuel demand, as technology improves, and equipment becomes more fuel efficient.

Compliance with State and Local Renewable Energy Plans

Executive Order S-14-08

Executive Order S-14-08 was established by California Governor Schwarzenegger in November 2008. The order establishes a Renewables Portfolio Standard (RPS) for all retail sellers of electricity. The specifics of this executive order including the following:

- Requires retail sellers of electricity to serve 33 percent of their load with renewable energy by 2020;
- Requires various state agencies to streamline processes for the approval of new renewable energy facilities and determine priority renewable energy zones; and,

- Establishes the requirement for the creation/adoption of the Desert Renewable Energy Conservation Plan (DRECP) process for the Mojave and Colorado Desert regions.

California's Renewable Portfolio Standard (RPS) Program

The California Public Utilities Commission (CPUC) and the California Energy Commission jointly implement the RPS Program. The CPUC's responsibilities include: (1) determining annual procurement targets and enforcing compliance; (2) reviewing and approving each investor-owned utility's renewable energy procurement plan; (3) reviewing contracts for RPS-eligible energy; and (4) establishing the standard terms and conditions used in contracts for eligible renewable energy.

Senate Bill 1078. California's RPS program was first established in 2002 by Senate Bill (SB) 1078 with the initial requirement that 20 percent of electricity retail sales must be served by renewable resources by 2017.

SB X1-2. In April 2011, Governor Brown signed SB X1-2 that revised California's RPS target to be 33 percent renewables by 2020.

SB 350. In October 2015, Governor Brown signed SB 350, which expands and increases the target of the RPS Program to 50 percent by the end of 2030.

SB 100. In 2018, SB 100 further increased California's RPS and required retail sellers and local publicly owned electric utilities to procure eligible renewable electricity for 44 percent of retail sales by the end of 2024, 52 percent by the end of 2027, and 60 percent by the end of 2030; and that the California Air Resources Board (CARB) should plan for 100 percent eligible renewable energy resources and zero-carbon resources by the end of 2045.

Kern County General Plan

The goals, policies, and implementation measures in the Energy Element of the Kern County General Plan (Kern County 2009) applicable to energy, as related to the project, are provided below. The Kern County General Plan contains additional policies, goals, and implementation measures that are more general in nature and not specific to development such as the project. Therefore, they are not listed below.

Chapter 5. Energy Element

5.4.5 Solar Energy Development

<u>Goal</u>

Goal 1: Encourage safe and orderly commercial solar development.

<u>Policies</u>

Policy 1: The County shall encourage domestic and commercial solar energy uses to conserve fossil fuels and improve air quality.

Policy 3: The County should permit solar energy development in the desert and valley planning regions that does not pose significant environmental or public health and safety hazards.

Construction

Construction equipment would comply with federal, State, and regional requirements where applicable. With respect to truck fleet operators, the U.S. Environmental Protection Agency (USEPA) and National Highway Traffic Safety Administration (NHTSA) have adopted fuel efficiency standards for medium- and heavy-duty trucks. The Phase 1 heavy-duty truck standards apply to combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles for model years 2014 through 2018 and will result in a reduction in fuel consumption from 6 to 23 percent over the 2010 baseline, depending on the vehicle type. The USEPA and NHTSA also adopted the Phase 2 heavy-duty truck standards, which cover model years 2021 through 2027 and require the phase-in of a 5 to 25 percent reduction in fuel consumption over the 2017 baseline depending on the compliance year and vehicle type (USEPA and NHTSA 2016). The energy modeling for trucks does not take into account specific fuel reductions from these regulations, since they would apply to fleets as they incorporate newer trucks meeting the regulatory standards; however, these regulations would have an overall beneficial effect on reducing fuel consumption from trucks over time as older trucks are replaced with newer models that meet the standards.

In addition, construction equipment and trucks are required to comply with CARB regulations (Title 13, California Code of Regulations, Section 2485) regarding heavy-duty truck idling limits of five minutes at a location and the phase-in of off-road emission standards that result in an increase in energy savings in the form of reduced fuel consumption from more fuel efficient engines. Although these regulations are intended to reduce criteria pollutant emissions, compliance with the anti-idling and emissions regulations would also result in the efficient use of construction-related energy.

Operations

The Scoping Plan addresses the 2030 target established by SB 32, and establishes a proposed framework of action for California to meet a 40 percent reduction in GHG emissions by 2030 compared to 1990 levels. One of the key programs that the 2017 Climate Change Scoping Plan (Scoping Plan) builds on includes increasing the use of renewable energy in the state. In order to meet the SB 32 GHG emissions reduction mandate of 40 percent below 1990 levels by 2030, the 2017 Scoping Plan relies on achievement of the 50 percent RPS by 2030. SB 100 further increased California's RPS and required retail sellers and local publicly owned electric utilities to procure eligible renewable electricity for 44 percent of retail sales by the end of 2024, 52 percent by the end of 2027, and 60 percent by the end of 2030; and that CARB should plan for 100 percent eligible renewable energy resources and zero-carbon resources by the end of 2045. The project and other similar projects are essential to achieving the RPS. Further, as discussed previously, the project is reasonably expected to displace region-wide and statewide emissions of GHGs over the expected life of the project. The reduction in GHG emissions are a direct result of increasing the share of renewable energy available to investor owned utilities required to meet RPS. The project directly aligns with the goals of RPS by generating solar-generated electricity.

The Office of the California Attorney General has listed examples of types of mitigation measures that local agencies may consider to offset or reduce global climate change impacts from a project. The Attorney General assures that the presented lists are examples and not intended to be

exhaustive, but instead provide measures and policies that could be undertaken. Specifically, the project complies with the Attorney General's Recommended Measures:

- Install solar, wind, and geothermal power systems and solar hot water heaters.
- Include energy storage where appropriate to optimize renewable energy generation systems and avoid peak energy use (State of California Department of Justice, Attorney General's Office 2010).

As the project would generate up to 1,500 MW of renewable energy, including up to 1,500 MWh of energy storage, the project would be consistent with the Office of the California Attorney General's recommended measures to reduce GHG emissions. Therefore, the project would be compliant with the Attorney General's Recommended Measures regarding renewable energy. Because the project is below regional regulatory thresholds and could result in a reduction of GHG emissions, no mitigation measures are required. Additionally, as shown on Table 2, development of the project would be consistent with the goal and related policies in the Energy Element of the Kern County General Plan to encourage safe and orderly commercial solar development, like the project.

Table 2. Consistency Analysis with Energy Element of the Kern County General Plan

Chapter 5, Energy Element		
5.4.5 Solar Energy Development		
Goal 1: Encourage safe and orderly commercial solar development.	Consistent	Consistent with this goal, the proposed project would develop a solar PV facility that would generate up to 1,500 MW of solar energy and up to 1,500 MWh of energy storage and offset an equivalent amount of fossil fuel-generated electrical power. The site is on privately owned land, which has been previously disturbed. The proposed project would be designed in compliance with all applicable regulations and requirements (i.e., Zoning Ordinance, Grading Ordinance, and Floodplain Management Ordinance) to ensure a safe and orderly development of the solar facility.
Policy 1: The County shall encourage domestic and commercial solar energy uses to conserve fossil fuels and improve air quality.	Consistent	Consistent with this policy, the proposed project would develop a solar PV facility capable of generating up to 1,500 MW of solar energy and up to 1,500 MWh of energy storage and would offset an equivalent amount of fossil fuel-generated electrical power in the desert region of Kern County, on a previously disturbed site. Operation of the proposed project would improve air quality within the County and assist the County in meeting attainment goals.
Policy 3: The County should permit solar energy development in the desert and valley planning regions that does not pose significant environmental or public health and safety hazards.	Consistent	Consistent with this policy, the project proposes the development of a PV power generation facility in the desert region of Kern County. Final review of the proposed project by the Kern County Planning and Natural Resources Department, as well as adherence to all applicable local, state and federal regulations, would ensure that the proposed project would not

		pose significant environmental or public health and safety hazards.

Overall, because the main objectives of the project are to assist California Investor-Owned utilities in meeting their obligations under California's RPS Program and assist California in meeting the GHG emissions reduction goal of 40 percent below 1990 levels by 2030, the project would be compliant with the applicable recommended actions of the CARB Climate Change Scoping Plan, as well as applicable federal, State, and local policies. Specifically, the project would assist the State and regulated utility providers to generate a greater portion of energy from renewable sources consistent with the 2030 RPS. Therefore, this impact would be less than significant.

Energy Saving Measures Included in the Project

The project would generate approximately 2,833 GWh of solar-generated electricity each year, totaling approximately 84,990 GWh over a 30-year life span. Because the project is intended to generate electricity from a renewable source of energy, operation of the project would displace energy production that would otherwise be generated by non-renewable energy facilities using either natural gas or coal.

Approximately 795,348 metric tons (MT) CO_2e of net greenhouse gases annually would be displaced by the implementation of the project (Rincon 2020). Over the lifetime of the project, the total displaced emissions would be approximately 23,860 $MTCO_2e$ (795,348 * 30 years) which would assist in the attainment of the State's goal to reduced GHG emissions to 40 percent below 1990 levels by 2030. Appendix B contains the detailed calculations related to the project's annual energy generation and associated displacement of emissions.

Conclusion

The construction phase of the proposed project would result in the consumption of approximately 595,932.2 gallons of diesel fuel and 66,469 gallons of gasoline, while the operation phase would result in a yearly consumption of approximately 590.9 gallons of gasoline annually. The proposed project would not consume diesel during operation. Once operational, the project would result in the annual generation of approximately 2,833 GWh of solar-generated electricity each year, totaling approximately 84,990 GWh over a 30-year life span. Because the project is intended to generate electricity from a renewable source of energy, operation of the project would displace energy production that would otherwise be generated by non-renewable energy facilities using either natural gas or coal.

The project would therefore not result in potentially significant impacts due to wasteful, inefficient or unnecessary consumption of energy resources. In addition, the project will be consistent and not conflict with or obstruct a State or local plan for renewable energy. Impacts would be less than significant.

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A

Fuel Consumption Calculations

Bellefield Solar Project - Energy

Construction Activities

Construction - Off-road Emissions

		CO2 (Metric Tons)		Fuel (Gallons)	
Phase	**Duration (days)**	**Diesel**	**Gasoline**	**Diesel**	**Gasoline**
Phase 1 - Site Prep and Grading	218	835.3	0.0	82,952.5	0.0
Phase 2 - Tracker Foundations	250	1,347.5	0.0	133,816.2	0.0
Phase 3 - Underground Cabling	250	824.5	0.0	81,880.0	0.0
Phase 4 - Mechanical Installation	292	1,608.2	0.0	159,702.4	0.0
Phase 5 - Electrical Installation	334	1,363.2	0.0	135,376.3	0.0
Total		**5,978.8**	**0.0**	**593,727.6**	**0.0**

Construction - On-road Emissions

		CO2 (Metric Tons)		Fuel (Gallons)	
Phase	**Duration (days)**	**Diesel**	**Gasoline**	**Diesel**	**Gasoline**
Activity 1 - Site Preparation	218	3.0	20.8	299.5	2,361.9
Activity 2 - Grading and Earthwork	218	3.1	83.1	304.6	9,448.4
Activity 3, 4, 5 - Concrete Foundations, Structural Steel Work, and Electrical/Instrumentation Work	495	15.1	472.0	1,496.6	53,634.8
Activity 6 - Collector Line Installation	126	1.0	9.0	103.9	1,023.9
Total		**22.2**	**584.9**	**2,204.6**	**66,469.0**

Total Construction Diesel Gallons =	**595,932.2**
Total Construction Gasoline Gallons =	**66,469.0**

Operational Activities

		CO2 (Metric Tons)		Fuel (Gallons)	
Activity	**Duration (days)**	**Diesel**	**Gasoline**	**Diesel**	**Gasoline**
On-road Mobile Emissions	244	0.0	5.2	0.0	590.9
		0.0	**5.2**	**0.0**	**590.9**

Annual Operational Diesel Gallons =	**0.0**
Annual Operational Gasoline Gallons =	**590.9**

B

Displacement Emissions Calculations

Bellefield Solar Project - 1,500 MW

Displaced Energy Production during 30-year Project life

Annual Energy Production	
Grid Size (MW)	1500
Total hrs/year	8760
% Operational time[1]	*28%*
Operational hours/year	2,464
KWh produced per year	3,695,625,000
Assumed Heat Rate (Btu/KWh)	10,000
Annual Fuel Equivalent (MMBtu)[2]	36,956,250

California Power Mix[3]		Annual Fuel Displacement (MMBtu)
Coal[4]	4.13%	1,526,293
Large Hydro	14.72%	5,439,960
Natural Gas[4]	33.67%	12,443,169
Nuclear	9.08%	3,355,628
Oil	0.01%	3,696
Other (petroleum coke/waste heat)	0.14%	51,739
Renewables	29.00%	10,717,313
Unspecified sources of Power	9.25%	3,418,453
Total	**100.00%**	**36,956,250**

Annual Pollutant Displacement[4]

Natural Gas Turbine Emissions					
Pollutant	**AP-42 Emission Factor (lb/MMBtu)[5]**	**Controlled Emission Factor (lb/MMBtu)**	**Controlled Emissions (lb)**	**Controlled Emissions (ton)**	**AP-42 Emission Factor Source Notes[5]**
NO_2	0.099	0.099	1,231,874	615.94	Table 3.1-1, lean premix; Assume SCR Control Efficiency
CO	0.015	0.015	186,648	93.32	Table 3.1-1, lean premix; Assume Ox. Cat. Control Efficiency
PM_{10}	0.0047	0.0047	58,483	29.24	Table 3.1-2a, PM (condensible)
$PM_{2.5}$	0.0019	0.0019	23,642	11.82	Table 3.1-2a, PM (filterable)
SO_2	0.0034	0.0034	42,307	21.15	Table 3.1-2a
CO_2	110	110	1,368,748,631	684,374.32	Table 3.1-2a

Coal Combustion Emissions					
Pollutant	**AP-42 Emission Factor (lb/ton)[6]**	**Controlled Emission Factor (lb/ton)**	**Emissions (lb)[7]**	**Emissions (ton)**	**AP-42 Emission Factor Source Notes[6]**
NOx	12	12	763147	381.57	Table 1.1-3 pulverized coal, wall fired, bituminous coal NSPS
CO	0.5	0.5	31798	15.90	Table 1.1-3 pulverized coal, wall fired, bituminous coal NSPS
PM_{10}[8]	0.46	0.084	5342	2.67	Table 1.1-4, PC-fired dry bottom wall-fired, scrubber control
$PM_{2.5}$[8]	0.12	0.06	3816	1.91	Table 1.1-4, PC-fired dry bottom wall-fired, scrubber control
SO_2[9]	2.85	0.57	36249	18.12	Table 1.1-3 pulverized coal, wall fired, bituminous coal NSPS
CO_2	6040	6040	384117103	192,058.55	Table 1.1-20
Total NMHC	0.06	0.06	3816	1.91	Table 1.1-19; assumed all hydrocarbons are reactive
CH_4	0.04	0.04	2544	1.27	Table 1.1-19
N_2O	0.03	0.03	1908	0.95	Table 1.1-19

Total Displaced Emissions Associated With Direct Combustion		
Pollutant	**tons/year[8]**	**tons/lifetime (30 years)**
ROG (NMHC)	1.91	57.24
NO_X	997.51	29,925.30
CO	109.22	3,276.68
PM_{10}	31.91	957.37
$PM_{2.5}$	13.73	411.87
SO_X	39.28	1,178.34
CO_2E	795,348.16	23,860,444.80

Notes:

1. Operational time is based on annual average solar radiation hours per day per year (6.75) for the project area. Source: National Renewable Energy Laboratories, U.S. Department of Energy (https://pvwatts.nrel.gov/pvwatts.php)
2. The Project is assumed to displace existing power generation equivalent to the current power mix(each year of operation.
3. California Power Mix assumptions are based on data from Total California Electrical System Power (http://www.energyalmanac.ca.gov/electricity/total_system_power.html).
4. Combustion of natural gas and coal for power are of the greatest concern related to the generation of criteria pollutants and GHG emissions, therefore only fuel displacement of natural gas and coal due to electricty production from the Solar Scarlet facility are considered in this assessment.
5. EPA Air Pollution Emission Factors AP-42 Section 3.1, Stationary Gas Turbines
6. EPA Air Pollution Emission Factors AP-42 Section 1.1, Bituminous and Subbituminous Coal Combustion
7. Coal characteristics used for conversion: Assumed coal heat content = 24 MMBtu/ton
8. Total particulate matter (CPM-TOT) is expressed in terms of coal ash content therefore emission factor is determined by multiplying % ash content of coal (assumed to be 20% herein) by value listed in Table 1.1-4. Organic fraction of particulate matter is 20% of total CPM-TOT (Table 1.1-5) and listed as controlled emission factor.
9. SO_x emission factor calculated by multiplying the weight percent of sulfur (assumed to be 7.5%) by the value listed in Table 1.1-3
10. CO_2E volumes are in metric tons rather than short (US) tons

Source: Rincon 2020

Appendix G
CEQA Level Geotechnical Study

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CEQA Level Geotechnical Study

California City & Kern County

November 11, 2020

Prepared for:

50LW 8ME LLC
c/o 8minute Solar Energy
250 Sutter Street, Suite 600
San Francisco, CA 94108

Prepared by:

Stantec Consulting Services Inc.

This document entitled CEQA Level Geotechnical Study was prepared by Stantec Consulting Services Inc. ("Stantec") for the account of 50LW 8me LLC (the "Client").

Prepared by _____
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Principal, Senior Geotechnical Engineer

Reviewed by _____
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Caitlin Barns

Senior Biologist, Project Manager

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Acronyms and Abbreviations

AC	alternating electrical current
Applicant	50LW 8me LLC
ASTM	ASTM International
CAL	California
CDMG	California Department of Conservation, Department of Mines and Geology
CEQA	California Environmental Quality Act
CO_2e	Carbon dioxide equivalent
CUP	Conditional Use Permit
CGS	California Geological Survey
Client	50 LW 8me LLC
DC	direct electrical current
DWR	California Department of Water Resources
ESS	Energy Storage System
g	acceleration due to gravity
gen-tie	generation tie
ISO	International Organization for Standardization
kV	kilovolt
MW	megawatt
MWh	megawatt-hour
O&M	operations and maintenance
Project	Bellefield Solar Farm Project
PV	photovoltaic
SCE	Southern California Edison
Stantec	Stantec Consulting Services Inc.
USCS	Unified Soil Classification System
USGS	U.S. Geological Survey

Executive Summary

Stantec Consulting Services Inc. (Stantec) has prepared this California Environmental Quality Act (CEQA) Level Geotechnical Study for the proposed Bellefield Solar Farm Project (Project), located northeast of the intersection of the Barstow-Bakersfield Highway and California State Highway 58, near California City and unincorporated Kern County, California. 50LW 8me LLC (Applicant) is seeking approval of a conditional use permit (CUP) for the construction of an up to 1,500-megawatt (MW) alternating electrical current (AC) utility-scale solar farm with an up to 1,500 megawatt-hour (MWh) Energy Storage System (ESS). The Project is comprised of 90 assessor's parcels (Project area) totaling about 8,371 gross acres.

This geotechnical investigation outlines subsurface information for the Project area, describes methods undertaken to excavate and sample test pits and perform soil mechanics laboratory testing on select soil samples, and presents results of Stantec's evaluations of the geotechnical properties of soils pertinent to the CEQA Guidelines and recommended mitigation.

Thirty-three shallow test pits (BTP1 through BTP33) were advanced at locations throughout the Project area to a depth of 10 feet using a California (CAL) sampler and following ASTM International (ASTM) D3550 (Standard Practice for Ring-Lined Barrel Sampling of Soils) procedures. Disturbed bulk samples were excavated at locations where CAL sampling could not be completed. Samples were classified in the field using the Unified Soil Classification System (USCS), in accordance with ASTM D2488 (Standard Practice for Description and Identification of Soils [Visual-Manual Method]) procedures. The laboratory testing confirmed or modified field classifications for presentation on the boring logs.

The near-surface soils encountered in the test pits are sand with variable amounts of silt (SW, SW-SM, SP-SM and SM USCS soil type) and silt with variable amounts of sand (ML USCS soil type). Near-surface sandy soil was dry to the maximum depth of exploration. Bedrock was encountered in eleven test pits (BTP19 through BTP26, BTP30, BTP32, and BTP33) located in the southeastern portion of the Project at depths of approximately 1.5 to 6 feet below the alluvium. Groundwater was not encountered during this investigation, but groundwater data from an offsite location approximately 1.3 miles east of the northeast portion of the site indicates that the depth to groundwater is approximately 133 feet below the ground surface.

The Project site is not located within currently a mapped Alquist-Priolo Special Studies Fault Zone, California Liquefaction Hazard Zone, or subsidence area, and is not located near free faces, steep slopes, or bodies of water. Therefore, the following geologic hazards are considered to be low-risk: fault rupture, liquefaction-related ground failure including liquefaction, lateral spreading, subsidence, presence of expansive soils, and landslides. However, the predominately coarse-grained soils underlying the site are potentially susceptible to erosion or the loss of topsoil due to surface water flows. In addition, strong ground shaking can be expected at the site during moderate to severe earthquakes in the general region. This is common to most areas in southern California.

Mitigation of soil erosion may include selective grading, establishment of anchoring vegetation, design of runoff control features such as drainage ditches, and construction of erosion control features such as pavements and surface mats. These mitigation options should be addressed in the design level evaluations for the Project.

1.0 PROJECT DESCRIPTION

1.1 INTRODUCTION

Stantec Consulting Services Inc. (Stantec) has prepared this California Environmental Quality Act (CEQA) Level Geotechnical Study to provide support documentation for the Environmental Checklist Form in accordance with the CEQA Guidelines for the proposed Bellefield Solar Farm, located northeast of the intersection of the Barstow-Bakersfield Highway and California State Highway 58, near California City and unincorporated Kern County, California.

1.2 PROJECT INFORMATION

Applicant is seeking approval of conditional use permits (CUPs) for the construction of an up to 1,500-megawatt (MW) alternating electrical current (AC) utility-scale solar farm with an up to 1,500 megawatt-hour (MWh) Energy Storage System (ESS) known as Bellefield Solar Project (Project) in unincorporated Kern County and California City, California (Figure 1). The applicant proposes to construct, own, and operate the Project, and will secure CUPs from both Kern County and California City along with permits from other relevant agencies as required by law.

1.2.1 Project Site Information

The Project is comprised of 90 assessor's parcels (Project area) totaling approximately 8,371 gross acres. The Project includes 82 parcels totaling 6,269 gross acres within unincorporated Kern County and 8 assessor's parcels totaling approximately 2,102 gross acres within California City (Table 1). The permanent disturbance acreage associated with development of the solar facility and associated infrastructure (Project site) within the Project area would be less than the gross acreage of the Project area. The topography of the Project Area is relatively flat.

1.2.2 Location

The Project is located in portions of unincorporated Kern County and California City. The Project straddles State Route 58, east of Mojave and just west and south of the Hyundai-Kia Proving Ground.

Table 1: Bellefield Parcels

No.	Assessor's Parcel Number (APN)	Acres
California City		
1	235-061-02	658.81
2	235-101-45	304.04
3	235-101-46	103.66
4	235-101-47	154.85
5	235-101-48	151.16
6	235-101-49	464.68
7	235-101-51	262.88

No.	Assessor's Parcel Number (APN)	Acres
8	235-282-22	2.55
	California City Total	**2,102.63**
Unincorporated Kern County		
9	235-022-01	657.12
10	235-024-01	123.44
11	235-024-14	82.19
12	235-024-15	79.93
13	235-024-17	63.64
14	235-024-40	10.57
15	235-024-41	654.99
16	235-024-42	40.98
17	235-024-43	41.45
18	235-064-01	332.71
19	235-064-12	41.38
20	235-064-25	41.40
21	235-064-26	41.39
22	235-064-27	41.39
23	235-064-28	41.36
24	235-064-29	77.86
25	235-065-04	15.49
26	235-065-05	0.98
27	235-065-07	1.49
28	235-065-17	33.48
29	235-065-18	442.64
30	235-081-03	10.19
31	235-081-04	10.20
32	235-081-05	10.20
33	235-081-07	10.19
34	235-081-09	61.18
35	235-081-10	20.43
36	235-081-11	10.18
37	235-081-12	10.17
38	235-082-01	5.10
39	235-082-06	25.52
40	235-082-07	5.11
41	235-082-12	1.27
42	235-082-15	20.47

No.	Assessor's Parcel Number (APN)	Acres
43	235-082-16	40.99
44	235-082-17	5.11
45	235-082-18	5.11
46	235-082-19	10.21
47	235-082-24	2.55
48	235-082-25	2.55
49	235-101-29	23.55
50	235-102-01	11.58
51	235-102-02	305.09
52	235-132-16	601.46
53	235-134-01	490.80
54	235-191-01	10.32
55	235-221-01	489.91
56	235-340-07	10.30
57	235-340-09	82.69
58	235-340-10	10.37
59	235-340-11	10.38
60	235-340-19	10.36
61	235-340-28	41.59
62	235-340-29	2.58
63	235-340-36	2.59
64	235-351-01	81.52
65	235-351-02	20.46
66	235-351-03	20.45
67	235-351-04	40.86
68	235-353-11	5.15
69	235-353-21	2.57
70	235-353-22	2.57
71	235-410-02	10.15
72	235-410-04	8.04
73	235-410-06	10.07
74	428-010-02	171.11
75	428-010-03	170.94
76	428-010-10	42.60
77	428-010-11	263.76
78	428-041-02	20.51
79	428-041-03	20.55

No.	Assessor's Parcel Number (APN)	Acres
80	428-041-04	20.60
81	428-041-05	5.21
82	428-041-38	15.68
83	428-042-02	20.43
84	428-042-03	20.48
85	428-042-04	20.53
86	428-042-35	7.35
87	428-052-15	4.31
88	428-052-17	7.20
89	428-053-16	10.19
90	428-053-18	9.35
	Unincorporated Kern County Total	**6,268.81**
	Total	**8,371.44**

1.3 DESCRIPTION OF PROPOSED PROJECT

The applicant proposes to develop a photovoltaic (PV) energy facility and ESS. Energy generated by the Project would be delivered from the Project site via an up to 230-kilovolt (kV) overhead and/or underground generation-tie line (gen-tie) originating from one or more onsite substation(s)/switchyard(s) and terminating at the Southern California Edison (SCE) Windhub Substation.

The Project may include operations & maintenance (O&M) buildings, substations, ESSs, and gen-tie facilities, as necessary, or it may share such facilities with other nearby Projects or with any future energy Projects in the area, and/or it may be remotely operated. Alternatively, if shared facilities are used, those areas designated in the application materials for O&M building, substation, and/or transmission facility may be occupied by solar panels.

Up to 20 full-time employees would operate the Project. Typically, most staff would work during the day shift (sunrise to sunset) and the remainder would work during the night shifts and weekends. If the Project shared O&M, substation, and/or transmission facilities with one or more nearby solar Projects, and/or became remotely operated, the Project's onsite staff could be reduced.

After the useful life of the Project, the panels would be disassembled from the mounting frames and the Project site would be restored to its pre-development condition.

1.3.1 PV Module Configuration

The Project would use PV panels or modules[1] on mounting frameworks to convert sunlight into electricity. Individual panels would be installed on either fixed-tilt or tracker mount systems (single- or dual-axis using galvanized steel or aluminum). If the panels are configured for fixed tilt, the panels would be oriented toward the south. For tracking systems, the panels would rotate to follow the sun over the course of the day. Although the panels could stand up to 20 feet high depending on the mounting system used and on local building codes, they are expected to be between 6 and 8 feet high.

The foundations for the mounting structures can extend up to 10 feet below ground surface, depending on the mounting structure, soil conditions, and wind loads, and may be encased in concrete or use small concrete footings. Final solar panel layout and spacing would be optimized for site characteristics and the desired energy production profile.

1.3.2 Inverter Stations

Direct Current (DC) energy is delivered from the panels via cables to inverter stations, generally located near the center of each block. Inverter stations convert the DC energy to AC energy, which can be dispatched to the transmission system. Inverter stations are typically comprised of one or more inverter modules with a rated power of up to 2 MW each, a unit transformer, and voltage switch gear. The unit transformer and voltage switch gear are housed in steel enclosures, while the inverter module(s) are housed in cabinets. Depending on the supplier selected, the inverter station may lie within an enclosed or canopied metal structure, typically on a skid or concrete-mounted pad.

1.3.3 Energy Storage System

The Project may include one or more ESSs, located at or near a substation/switchyard (onsite or shared) and/or at the inverter stations, but possibly elsewhere onsite. Such large-scale ESSs would be up to 1,500 MWh in capacity and occupy up to 50 acres. ESSs consist of modular and scalable battery packs and battery control systems that conform to U.S. national safety standards. The ESS modules, which could include commercially available lithium or flow batteries, typically consist of International Organization for Standardization (ISO) standard containers (40 feet long by 8 feet wide by 8 feet high) housed in pad- or post-mounted, stackable metal structures but may also be housed in dedicated building(s) in compliance with applicable regulations. The maximum height of the structure is not expected to exceed 25 feet. The actual dimensions and number of energy storage modules and structures would vary depending on the application, supplier, and configuration chosen, as well as on offtaker/power and/or purchase agreement requirements and on County building standards.

1.3.4 Substation

Output from the inverter stations would be transferred via electrical conduits and electrical conductor wires to one or more onsite substation(s) or switchyard(s) (collectively referred to as a substation herein). Each substation may contain several components, including auxiliary power transformers, distribution cabinets, revenue metering systems,

[1] Including but not limited to concentrated photovoltaic technology

a microwave transmission tower, and voltage switch gear. Each substation would occupy an area of approximately 5 acres, secured separately by an additional chain-link fence, and typically located along the perimeter of the Project. The final location(s) would be determined before issuance of building permits.

Substations typically include a small control building (roughly 500 square feet) standing 10 feet tall. The building would either be prefabricated concrete or steel housing with rooms for the voltage switch gear and metering equipment, a room for the station supply transformer, and a separate control technology room within which the main computer, intrusion detection system, and main distribution equipment would be housed. Components of this building (e.g., control technology room and intrusion detection system) may instead be located at the O&M building(s) below.

1.3.5 Gen-tie Line

Power would be transmitted from the Project's substation(s) to SCE's Windhub Substation via an up to 230 kV overhead and/or underground gen-tie line. A franchise and/or encroachment agreement along Kern County and California City roads may ultimately be required for portions of the gen-tie.

1.3.6 Water Usage

Water demand for panel washing and O&M use is not expected to exceed 100 acre-feet per year (afy). Water usage during construction, primarily for dust-suppression purposes, is not expected to exceed 900 acre-feet (af). Water is anticipated to be obtained from onsite wells or delivered via truck or pipeline from an offsite source(s). A small water treatment system with a footprint of up to 30 feet by 30 feet may be installed to provide deionized water for panel washing.

1.3.7 Water Storage Tank(s)

One or more aboveground water storage tanks with a total capacity of up to 80,000 gallons (greater if required by local regulations) may be placed on-site near the O&M building(s). The storage tank(s) near the O&M building(s) would have appropriate fire department connections to be used for fire suppression.

1.3.8 Operations and Maintenance Building

The Project may include an O&M building of approximately 40 feet long by 80 feet wide with associated onsite parking. The O&M building would be steel framed with metal siding and roof panels. The O&M building may include the following:

1. Office
2. Repair building/parts storage
3. Control room
4. Restroom
5. Septic tank and leach field

Roads, driveways, and parking lot entrances would be constructed in accordance with Kern County and California City improvement standards. Parking spaces and walkways would be constructed in conformance with all California accessibility regulations.

1.3.9 Project Site Security and Fencing

The Project site would be enclosed within a chain link fence with barbed wire measuring up to 8 feet above finished grade. An intrusion alarm system would be integrated into the perimeter fence, with intrusion detection cabinets placed every 1,500 feet along the perimeter fence. An intrusion control unit or similar technology may be installed in the substation control room or at the O&M building. Additionally, the Project may include additional security measures including, but not limited to, low-voltage electrified fences with reflective warning reflective signage, controlled access points, security alarms, security camera systems, and security guard vehicle patrols to deter trespassing and unauthorized activities.

Gates would be maintained at the main entrances to the Project to restrict access. Project access would be provided to offsite emergency responders in the event of an after-hours emergency. Enclosure gates would be manually operated with a key provided in an identified key box location.

1.3.10 Project Lighting

Project lighting would be directed away from public rights-of-way and would be minimal. Lighting may include motion sensor lights for added security purposes. Lighting would be of the lowest intensity in compliance with any applicable regulations, measured at the property line after dark.

1.4 CONSTRUCTION ACTIVITIES

Site preparation, construction, and testing will be completed, and commercial operation is expected to commence as early as Q4 2021 and would extend for 18 to 24 months.

Construction would include the following:

- site preparation
- grading and earthwork
- concrete foundations
- structural steel work
- electrical/instrumentation work
- collector line installation
- architecture and landscaping

No roads would be affected except during construction. Construction traffic would access the site from Highway 58, Altus Avenue, Silver Queen Road, and 50th Street. Up to 1,000 workers per day would access the site during peak construction periods.

Heavy construction would occur between 6:00 AM and 5:00 PM, Monday through Friday. Additional hours may be necessary to make up schedule deficiencies or to complete critical construction activities. Some activities may continue 24 hours per day, seven days per week. Low-level noise activities may occur between 10:00 PM and 7:00 AM. Nighttime activities could include, but are not limited to, refueling equipment, staging materials, quality assurance and control, and commissioning.

Truck deliveries would normally occur during daylight. However, there would be offloading and/or transporting to the Project area on weekends and during evenings. Earth-moving is expected to be limited to the construction of the access roads, O&M building, substation, ESS(s), and any stormwater protection or storage (detention) facilities. Final grading may include revegetation with low growing grass or applying earth-binding materials to disturbed areas. In addition, a palliative with more reflective properties is being considered for use on the Project. Supplemental simulations are included in this report to provide a representation of its use.

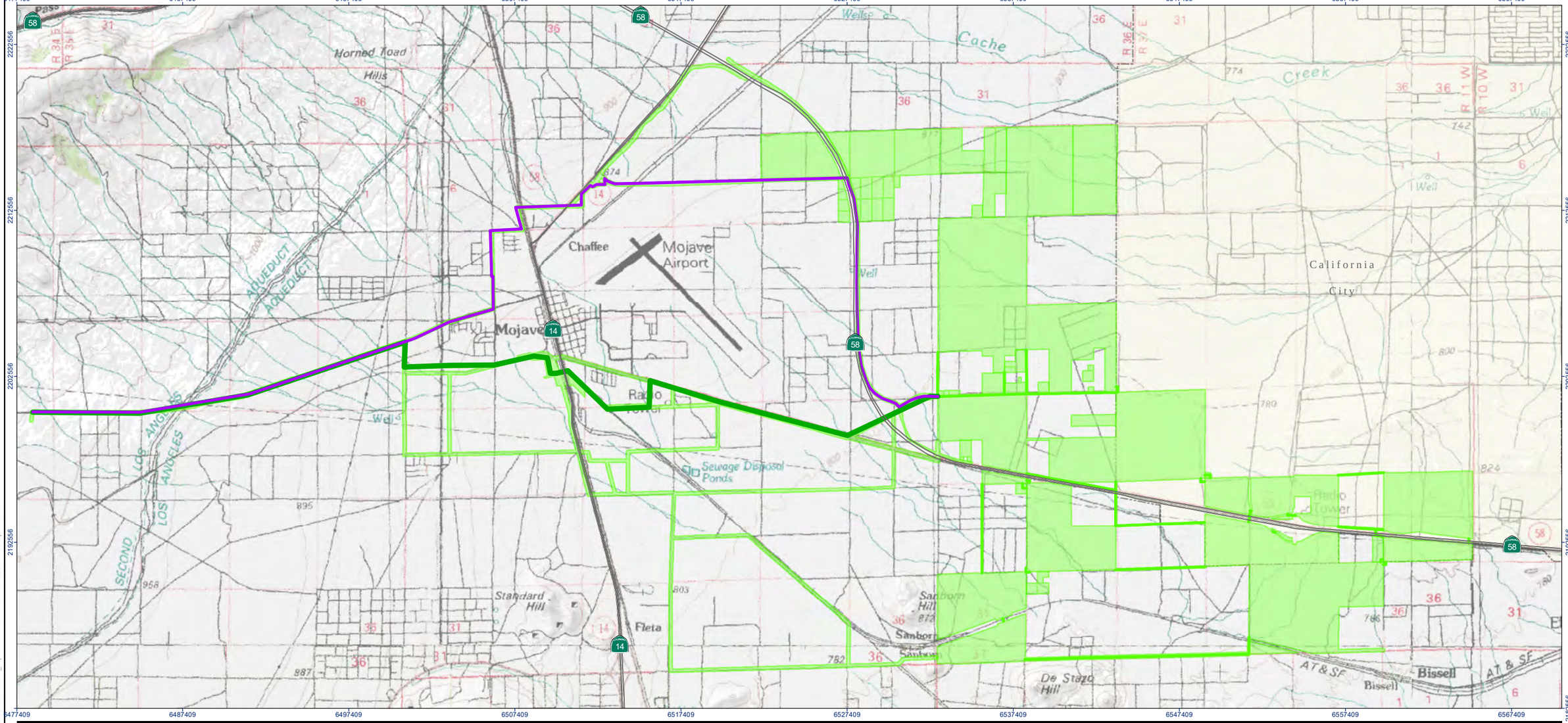
2.0 STUDY METHODS

2.1 PURPOSE AND SCOPE OF WORK

- Review available subsurface information for the sites,
- excavate and sample 33 test pits to a maximum depth of 10 feet,
- perform soil mechanics laboratory testing on select soil samples,
- evaluate geotechnical properties of soils pertinent to the CEQA Guidelines, and
- summarize findings, conclusions, and recommendations in this study.

2.2 PRE-FIELD ACTIVITIES

Test pit locations were selected based on review of conceptual development plans and confirmed in the field at the time of field sampling. In addition, a site-specific Health and Safety Plan was developed in accordance with California Occupational Safety and Health Administration requirements to guide field activities.



Gen-Tie Middle Route 2
Gen-Tie Northern Route
Bellefield Collector Route
Bellefield Survey Area
Incorporated City

0 6,000 12,000 Feet
(At original document size of 11x17)
1:72,000

N

Stantec

8MINUTE SOLAR ENERGY

Project Location
SW of California City
Kern County, CA

Prepared by SET on 2020-11-02
TR by JF on 2020-11-03
IR by CB on 2020-11-03

Client/Project 185704636_0015

8 Minute Solar Energy
Bellefield Solar Project

Figure No.
1

Title
Site Location Map

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Sources: 8Minute Solar Energy and Stantec, 2020.
3. Basemap USGS Topographic 1:100,000 scale mapsheets Tehachapi (1977), Cuddeback Lake (1973), Lancaster (1979), and Victorville (1979).

V:\1857\Active\185704635_Kudu_Bellefield\03_data\gis_cad\gis\185704635_0015_Bellefield\Location_Topo11x17.mxd Revised: 2020-11-02 By: stroedson

2.4 FIELD EXPLORATION ACTIVITIES

Thirty-three shallow test pits (BTP1 through BTP33) were advanced at selected locations throughout the site to at most 10 feet deep (Figures 2 and 3). Relatively undisturbed samples were obtained using a modified California (CAL) sampler, which is a ring-lined split tube sampler with a 3-inch outer diameter and 2.5-inch inner diameter. CAL sampling followed ASTM International (ASTM) D3550 (Standard Practice for Ring-Lined Barrel Sampling of Soils) procedures. Disturbed bulk samples were excavated at locations where CAL sampling could not be completed. The CAL sampler was advanced with a backhoe bucket.

Samples were classified in the field using the United Soil Classification System (USCS), in accordance with ASTM D2488 (Standard Practice for Description and Identification of Soils [Visual-Manual Method]) procedures. The laboratory testing confirmed or modified field classifications as necessary for presentation on the boring logs. Soil samples were removed from the samplers, placed in appropriate containers, and transported in accordance with ASTM D4220 (Standard Practice for Preserving and Transporting Soil Samples).

The test pit logs are located in Appendix A. Soils are classified in accordance with the USCS, which is explained in "Symbols and Terms Used on Borehole and Test Pit Records" in Appendix A. The approximate test pit locations are shown on Figures 2 and 3.

2.5 LABORATORY SOIL TESTING

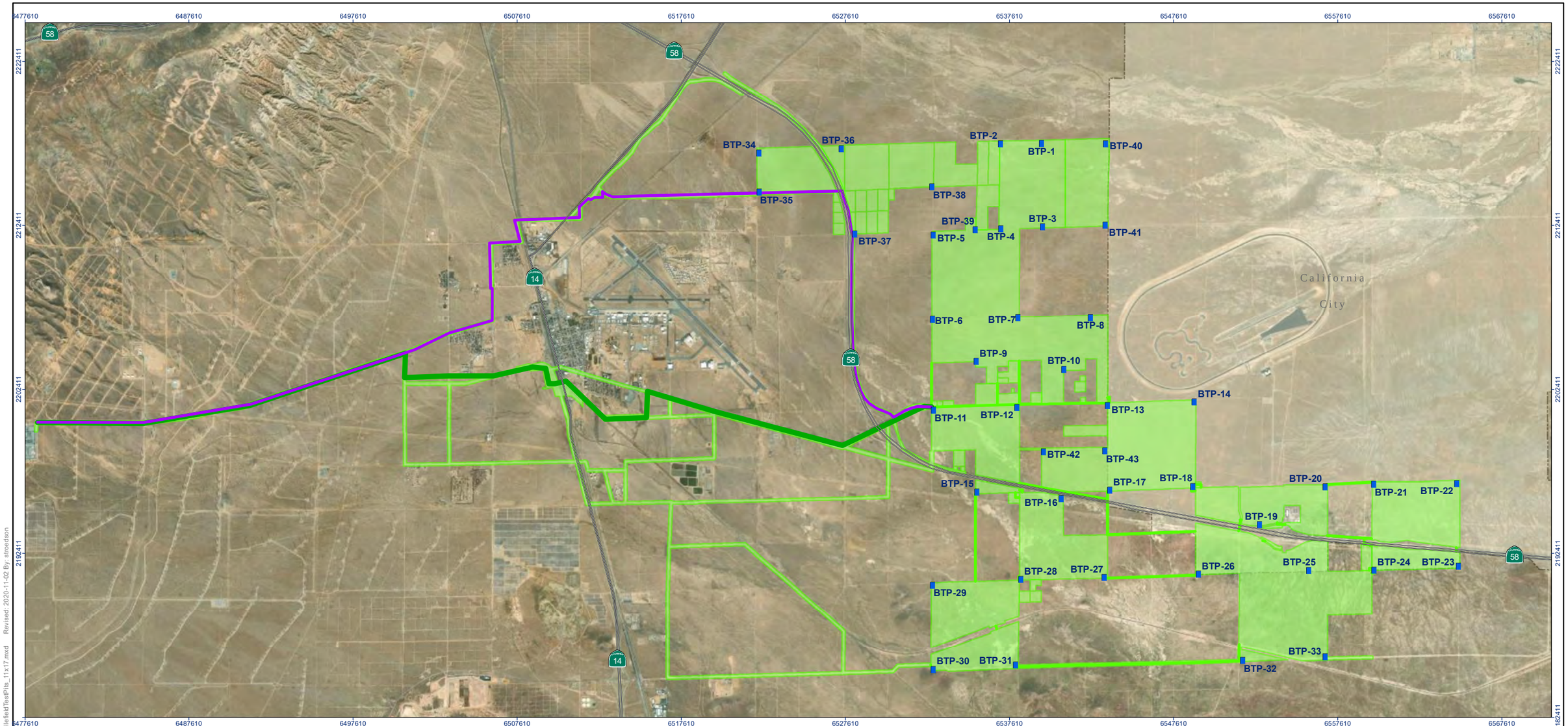
The following laboratory tests were performed on samples collected at the Site either in general accordance with the ASTM or contemporary practices of the soil engineering profession (Table 2):

Table 2. Summary of Laboratory Tests

Type of Test	ASTM Designation	Number Performed
Sieve Analysis	ASTM D422 and ASTM C136	31
Atterberg Limits	ASTM D4318	1
Chemical Tests for Corrosion Potential	Caltrans test methods	3

Notes:
ASTM = ASTM International
Caltrans = California Department of Transportation

The results of the laboratory tests are presented in Appendix B.



- Test Pit Location
- Gen-Tie Middle Route 2
- Gen-Tie Northern Route
- Bellefield Collector Route
- Bellefield Survey Area
- Incorporated City

0 6,000 12,000 Feet
(At original document size of 11x17)
1:72,000

N

Stantec

8MINUTE SOLAR ENERGY

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Sources: 8Minute Solar Energy and Stantec, 2020.
3. Basemap Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Project Location
SW of California City
Kern County, CA

Prepared by SET on 2020-11-02
TR by JF on 2020-11-03
IR by CB on 2020-11-03

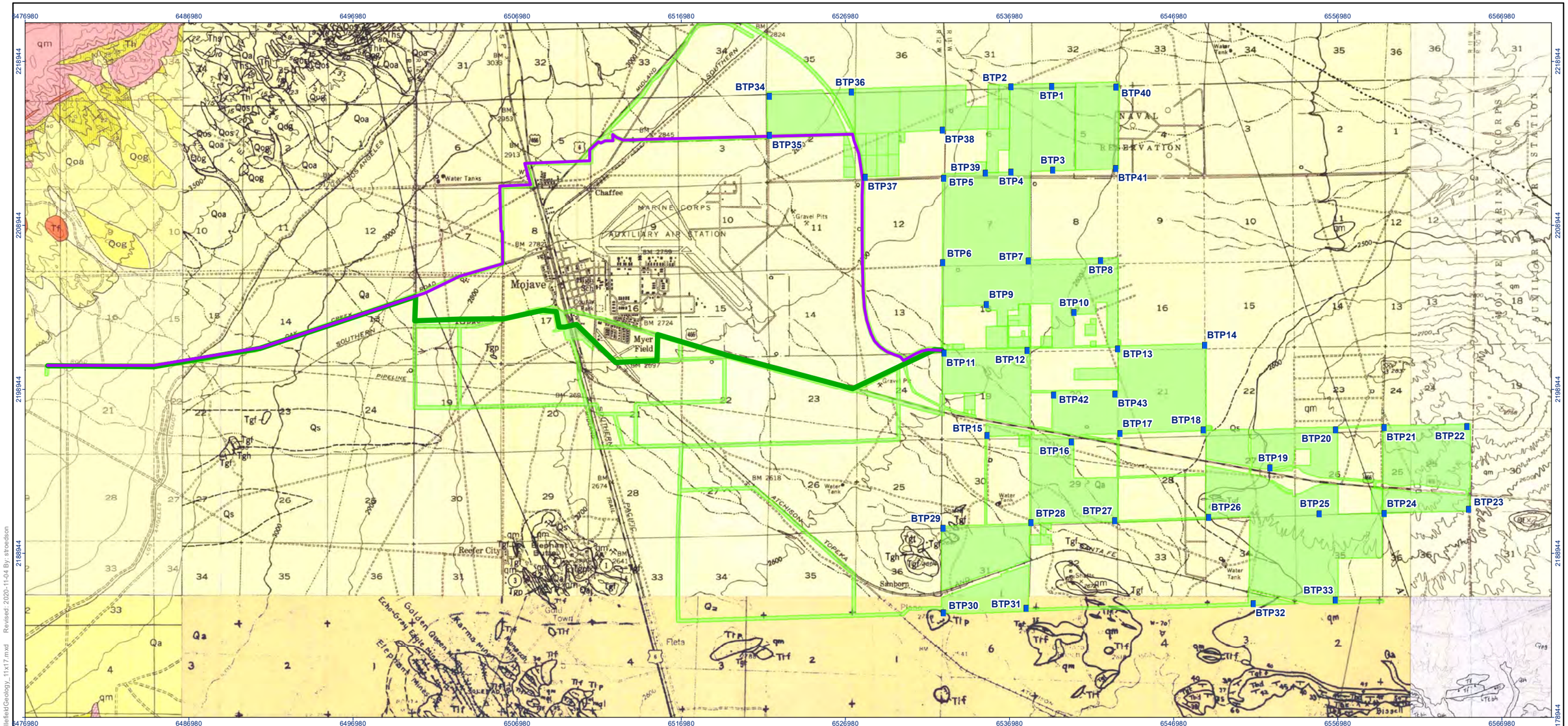
Client/Project 185704636_0016

8 Minute Solar Energy
Bellefield Solar Project

Figure No.
2

Title
Subsurface Exploration Map

V:\1857\Active\185704635_Kudu_Bellefield\03_data\gis_cad\gis\185704636_0016_BellefieldTestPits_11x17.mxd Revised: 2020-11-02 By: stroedson



Test Pit Location
Gen-Tie Middle Route 2
Gen-Tie Northern Route
Bellefield Collector Route
Bellefield Survey Area

Geologic Units In Survey Area

- Qa - Alluvium
- Qs - Wind Blown Sand
- Tgf - Gem Hill Tuff
- Tlp - Bobtail Quartz Latite Porphyry
- qm - Quartz Monzonite

0 6,000 12,000 Feet
(At original document size of 11x17)
1:72,000

N

Stantec

8 MINUTE SOLAR ENERGY

Project Location
SW of California City
Kern County, CA

Prepared by SET on 2020-11-02
TR by JF on 2020-11-03
IR by CB on 2020-11-03

Client/Project
185704636_0017

8 Minute Solar Energy
Bellefield Solar Project

Figure No.
3

Title
Geologic Map

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Sources: 8 Minute Solar Energy and Stantec, 2020.

Notes Continued
3. Base geologic maps: Geologic Map of the Castle Butte Quadrangle, Dibblee, 1958. Geologic Map of the Tehachapi Quadrangle, Dibblee and Louke, 1970. Geology of the Rosamond Quadrangle, Dibblee, 1959. Geology of the Willow Springs and Rosamond Quadrangles, Dibblee, 1963. Preliminary Geologic Map of the Edwards Quadrangle, Dixon and Ward, 2002. Preliminary Geologic Map of the Mojave Quadrangle, Dibblee, 1959.

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3.0 RESULTS

3.1 REGIONAL GEOLOGY

The site is located in the western portion of the Mojave Desert Geomorphic Province in the southern part of California. The surface topography within the province is controlled by two sets of faults—a prominent northwest to southeast trending set and a secondary set trending east to west.

According to the California Geological Survey (CGS) website, the Mojave Desert Geomorphic Province is a broad interior region of isolated mountains separated by desert plains with an enclosed drainage system. The Mojave Desert Geomorphic Province is wedged in a sharp angle between the San Andreas and Garlock faults (CGS 2008). Displacement along both faults is predominantly strike slip (right-lateral in the case of the San Andreas Fault; left lateral in the case of the Garlock Fault).

Geologic mapping presented in the United States Geological Survey (USGS) Geologic Maps of the Castle Butte Quadrangle (USGS 1958) and Rosamond Quadrangle (USGS 1959) indicates that the site is underlain by Quaternary Alluvium (Qa), Quaternary sand (Qs), Tertiary Bobtail Quartz Latite Porphury (Tlp) deposits, Tertiary Gem Hill Formation Felsite (Tgt) deposits, and Mesozoic Quartz Monzonite (qm) deposits. Literature from the USGS indicates that the alluvium deposits include unconsolidated and undissected valley fill derived from adjacent highlands consisting of gravel, sand, and silt. The quartz and felsite deposits are very hard intrusive igneous rock.

Quaternary Alluvium (Qa) – Holocene age unconsolidated sediments of undissected fill of valley areas composed of alluvial sand, gravel and silt derived from adjacent higher ground. The recent alluvium deposits were encountered throughout most of the western portion of the site.

Quaternary Sand (Qa) – Holocene age loose, windblown sand sediments. The recent sand deposits were encountered throughout most of the eastern portion of the site.

Tertiary Bobtail Quartz Latite Porphury (Tgt) – Tertiary age quartz latite consists of intrusive igneous rock and is found along the southern boundary of the site.

Tertiary Gem Hill Formation Felsite (Tlp) – Tertiary age igneous rock described as hard and intrusive is found in small areas in the southwestern and southeastern portions of the site.

Mesozoic Quartz Monzonite (qm) – Mesozoic age gray-white, massive, medium grained, equigranular quartz, alkali feldspar (orthoclase and microcline), and Plagioclase (oligoclase) in variable proportions ranging from about equal to approximately 50 percent plagioclase, with a small percentage of biotite and less than one percent of muscovite, sphene, apatite, hematite, and magnetite (Dibblee, 1959). The quartz deposits were encountered is the southeastern portion of the site.

3.2 SUBSURFACE CONDITIONS IN TEST PIT EXPLORATIONS

The near surface (approximately 10 feet deep) soils encountered in the test pits we performed are sand with variable amounts of silt (SW, SW-SM, SP-SM, and SM USCS soil type) and silt with variable amounts of sand (ML USCS soil type). Near-surface sandy soil was dry to the maximum depth of exploration. Bedrock was encountered in eleven test pits (BTP19 through BTP26, BTP30, BTP32, and BTP33) located in the southeastern portion of the Project at depths of approximately 1.5 to 6 feet below the alluvium.

With the exception of the test pits where bedrock was encountered, the subsurface soils were not difficult to penetrate, and the test pit excavations did not cave to the maximum depth of exploration while the test pits were open. Excavation refusal was encountered between 1.5 and 9 feet in test pits BTP21, BTP23, BTP24, BTP25, BTP30, BTP32, and BTP33. Groundwater was not encountered during this investigation.

3.3 REGIONAL GROUNDWATER

Fremont Valley Groundwater Basin underlies the western portion of the Mojave Desert and is part of the South Lahontan Hydrologic Region. The basin is bounded on the northwest by the Garlock Fault Zone, on the east by crystalline rocks of the Summit Range, Red Mountain, Lava Mountains, Rand Mountains, Castle Bute, Bissel Hills, and Rosamond Hills, and on the southwest and southeast by the Antelope Valley Groundwater Basin (DWR 2004).

Static groundwater was not encountered in the test performed for this investigation. Groundwater data from an offsite location approximately 1.3 miles east of the northeast portion of the site indicates that the depth to groundwater is approximately 133 feet below the ground surface (DWR 2010). Groundwater levels may fluctuate in the future due to rainfall, irrigation, broken pipes, or changes in site drainage.

3.4 REGIONAL SEISMICITY

The Project site is located within a highly active seismic zone. A regional faulting and seismicity map is presented in Figure 4. This fault map also provides information regarding recent earthquakes in the Project area. Several of the more recent earthquakes in the Project area include the 1992 Johnson earthquake, the 1992 Big Bear earthquake, the 1994 Northridge earthquake, and the 1999 Hector Mine earthquake (CGS 1999).

The estimated distance of the site to the nearest expected surface expression of an active fault is presented in Table 3. The distance measurement was taken from a location in the middle of the site as the site lies between the Garlock (Center) and Garlock (West) faults; the closest active faults relative to the site. The location from which measurements were obtained has a latitude of 35.042200°, and a longitude of -118.042715°.

Table 3. Faults within 35 Miles of the Project Area

Fault	Distance (miles) [1]	Maximum Moment Magnitude [1]
Garlock (Center)	10.8	7.7
Garlock (West)	7.5	7.5
South Sierra Nevada	17.4	7.5
Lenwood-Lockhart-Old Woman Springs	19.2	7.5
Helendale – South Lockhart	25.6	7.4
South San Andreas	32.5	8.1

Note:
1. Measured from 2008 National Seismic Hazard Maps—Source Parameters Website—USGS (USGS 2008).

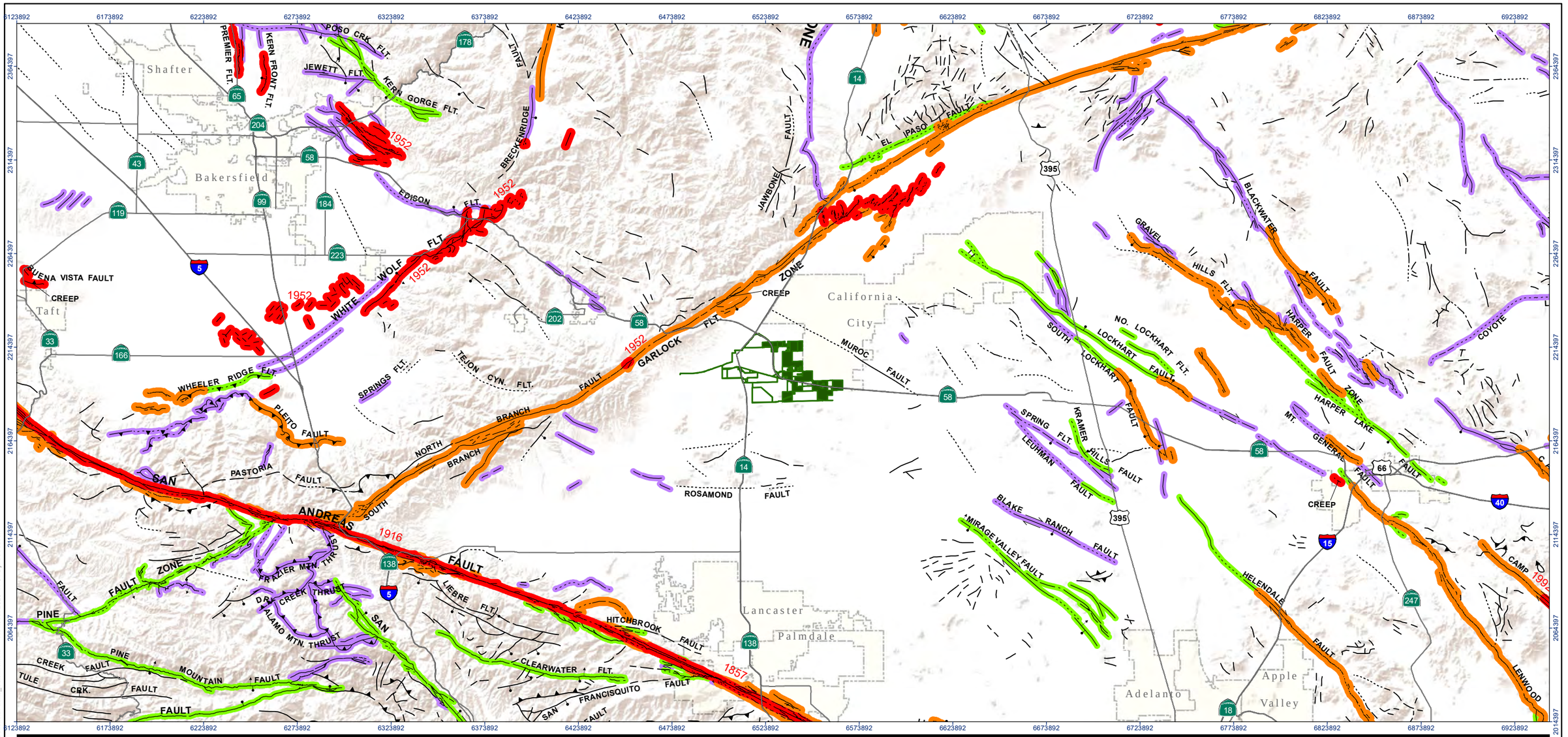
3.4.1 Fault Rupture Hazard

The site is not located within a currently mapped Alquist-Priolo Special Studies Fault Zone (CDMG 2002). As noted above, the nearest active fault is the Garlock (Center) Fault, located approximately 10.8 miles northeast of the site. No active faults are known to underlie or Project toward the site. Therefore, the probability of surface fault rupture at the site from a known active fault is considered low.

3.4.2 Strong Ground Shaking

Strong ground shaking can be expected at the site during moderate to severe earthquakes in the general region. This is common to most areas in southern California.

Information published by USGS indicates the peak ground acceleration with a 2 percent probability of being exceeded at the site in 50 years is 0.42g (USGS 2008), where g is the acceleration due to gravity determined in accordance with the U.S. Seismic Design Maps web site. Mitigation of strong ground shaking is typically provided by designing structures in accordance with the latest addition of the California Building Code.



1916 Surface Rupture Point Labeled By Year
fault, approx. located
fault, certain
fault, concealed
thrust fault, certain
thrust fault, approx. located
thrust fault, concealed
dextral fault, certain
dextral fault, concealed
sinistral fault, certain
thrust fault, certain (2)
fault, certain (ball and bar)
fault, approx. located (ball and bar)
fault, concealed (ball and bar)
dextral fault, certain (ball and bar)
reverse fault, certain
reverse fault, approx. located

Recency of Movement

Historic
Holocene
Late Quaternary
Quaternary

Bellefield Survey Area

0 5 10 Miles
(At original document size of 11x17)
1:633,600

N

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Sources: Fault Activity Map from California Geological Survey, 2015. Seismicity from USGS, 2012. Project Data from 8 Minute Solar Energy and Stantec, 2020.
3. Basemap Sources: Esri, USGS, NOAA data service, Statewide Geologic Map, 2010.

Stantec

8MINUTE SOLAR ENERGY

Project Location
SW of California City
Kern County, CA

Prepared by SET on 2020-11-03
TR by JF on 2020-11-04
IR by CB on 2020-11-04

Client/Project
185704636_0010
8 Minute Solar Energy
Bellefield Solar Project

Figure No.
4

Title
Regional Faulting and Seismicity

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3.4.3 Liquefaction

Liquefaction of saturated sandy soils is generally caused by the sudden decrease in soil shear strength due to vibration. During cyclic shaking typically caused by an earthquake, the soil mass is distorted, and inter-particle stresses are transferred from the soil particles to the pore water. As pore pressure increases, the bearing capacity decreases, and the soil may behave temporarily as a viscous fluid (liquefaction), and consequently loses its capacity to support the structures founded thereon.

Engineering research of soil liquefaction potential (Seed, et al. 1985, Seed and Idris 1982) indicates that generally, the following three basic factors must exist concurrently for liquefaction to occur:

- A source of ground shaking such as an earthquake capable of generating soil mass distortions.
- A relatively loose sandy soil fabric exhibiting a potential for volume reduction.
- A relative shallow groundwater table (within approximately 50 feet below ground surface) or completely saturated soil conditions that would allow positive pore pressure generation.

The site is not located within a current, mapped California Liquefaction Hazard Zone. In addition, groundwater in the Project area is expected to be approximately 133 feet below the ground surface (DWR 2010). Based on the near surface soil conditions and depth to groundwater, it is our opinion that the potential for liquefaction-related ground failure, including liquefaction, is low.

3.4.4 Lateral Spreading

Lateral spreading typically occurs as a form of horizontal displacement of relatively flat-lying alluvial material toward an open or “free” face such as an open body of water, channel, or excavation. This movement is generally due to failure along a weak plane, and may often be associated with liquefaction. As cracks develop within the weakened material, blocks of soil displace laterally toward the open face. Cracking and lateral movement may gradually propagate away from the face as blocks continue to break free.

Due to the low potential for liquefaction, the depth of groundwater, and the fact that the site is not located near free faces or bodies of water, the potential for lateral spreading is considered low.

3.5 SUBSIDENCE

Groundwater levels in the Antelope Valley adjacent to the east of the Fremont Valley where the site is located have declined more than 270 feet since the 1970s (USGS 2017) in some parts of the groundwater basin, especially near the City of Lancaster. These groundwater-level declines have caused the aquifer system to compact, resulting in land subsidence. Land subsidence within the Antelope Valley has been most recently evaluated by the USGS through the use of Interferometric Synthetic Aperture Radar between 1992 and 2009 (USGS 2000). Based on these recent studies, the site is not within an area that has sustained measurable subsidence due to groundwater draw down. Due to the depth of groundwater and the fact that the site is not located in a mapped subsidence area, the potential for subsidence is considered low.

3.6 EXPANSIVE SOIL POTENTIAL

Expansion and contraction of volume can occur when expansive soils undergo alternating cycles of wetting (swelling) and drying (shrinking). Since near-surface soils encountered during the recent geotechnical investigation are mostly sandy soils whose expansion potential is considered low, special design for expansive soils would likely not be necessary for the proposed development.

3.7 SLOPES

The site is relatively flat, with a topographic gradient less than 2 percent. Permanent slopes steeper than 5:1 (horizontal to vertical) or higher than 5 feet are not anticipated to be constructed or built upon for the Project. Due to the existing topography and the proposed grading, landslides are not considered a potential hazard for the Project. The stability of slopes, if any, should be verified when design-grading information becomes available.

3.8 EROSION

The predominantly coarse-grained soils underlying the site are potentially susceptible to erosion or the loss of topsoil due to surface water flows.

Mitigation of soil erosion may include selective grading, establishment of anchoring vegetation, design of runoff control features such as drainage ditches, and construction of erosion control features such as pavements and surface mats. These mitigation options should be addressed in the design-level evaluations for the Project.

4.0 CONCLUSIONS

Based on the currently planned development, it is our opinion that the soils would require additional assessment to determine mitigation measures for strong ground shaking and erosion.

Mitigation options for these hazards are provided in the preceding sections. Impacts should be mitigated through the application of standard conditions of development, which require preparation of a design-level geotechnical study as a condition of grading permit issuance.

Based on the findings of this CEQA Level Geotechnical Study, a completed CEQA questionnaire for the Geology and Soils Section has been included as Appendix C. As recommended above, items checked as “Less than Significant with Mitigation” should be addressed in the scope of a future design-level geotechnical investigation.

5.0 REFERENCES

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Appendix A TEST PIT LOGS

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/23/19** COMPLETED: **9/23/19**
INSTALLATION: STARTED **9/23/19** COMPLETED: **9/23/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-01

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 5' 7.79"**
LONGITUDE: **118° 4' 19.74"**
GROUND ELEV (ft): **2628**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **10.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SP-SM	**POORLY GRADED SAND WITH SILT** ; SP-SM; reddish brown; 1% fine gravel; 93% fine to coarse grained sand; 6% fines; loose; dry; no petroleum hydrocarbon odor (PHCO), no staining		BTP1-2'	SA, CORR			
5					BTP1-5'				5
					BTP1-10'				
10			Hole terminated at 10 feet.						10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/23/19** COMPLETED: **9/23/19**
INSTALLATION: STARTED **9/23/19** COMPLETED: **9/23/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-02

Stantec

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 5' 7.72"**
LONGITUDE: **118° 4' 55.89"**
GROUND ELEV (ft): **2648**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **10.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SP	**POORLY GRADED SAND** ; SP; reddish brown; 23% fine gravel; 75% fine to coarse grained sand; 2% fines; loose; dry; no PHCO, no staining		BTP2-2'	SA			
5					BTP2-5'				5
					BTP2-10'				
10			Hole terminated at 10 feet.						10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/23/19** COMPLETED: **9/23/19**
INSTALLATION: STARTED **9/23/19** COMPLETED: **9/23/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-03

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 4' 17.29"**
LONGITUDE: **118° 4' 20.25"**
GROUND ELEV (ft): **2621**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **10.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SM	**SILTY SAND WITH GRAVEL** ; SM; reddish brown; 16% fine gravel; 67% fine to coarse grained sand; 17% fines; loose; dry; no PHCO, no staining		BTP3-2'	SA			
5					BTP3-5'				5
		ML	**SANDY SILT** ; ML; tan; 30% fine to coarse grained sand; 70% fines; very stiff; dry; no PHCO, no staining		BTP3-10'				
10			Hole terminated at 10 feet.						10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/23/19** COMPLETED: **9/23/19**
INSTALLATION: STARTED **9/23/19** COMPLETED: **9/23/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-04

Stantec

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 4' 16.45"**
LONGITUDE: **118° 4' 55.83"**
GROUND ELEV (ft): **2642**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **10.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SP-SM	**POORLY GRADED SAND WITH SILT** ; SP-SM; reddish brown; 90% fine to coarse grained sand; 10% fines; loose; dry; no PHCO, no staining		BTP4-2'	SA			
5					BTP4-5'				5
		ML	**SANDY SILT** ; ML; tan; 30% fine to coarse grained sand; 70% fines; very stiff; dry; no PHCO, no staining		BTP4-10'				
10			Hole terminated at 10 feet.						10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/24/19** COMPLETED: **9/24/19**
INSTALLATION: STARTED **9/24/19** COMPLETED: **9/24/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-05

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 4' 12.66"**
LONGITUDE: **118° 5' 45.19"**
GROUND ELEV (ft): **2681**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **10.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SM	**SILTY SAND** ; SM; reddish brown; 77% fine to coarse grained sand; 23% fines; dense; dry; no PHCO, no staining		BTP5-2'	SA			
5					BTP5-5'				5
					BTP5-10'				
10			Hole terminated at 10 feet.						10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/24/19** COMPLETED: **9/24/19**
INSTALLATION: STARTED **9/24/19** COMPLETED: **9/24/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-06

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 3' 21.8"**
LONGITUDE: **118° 5' 45.82"**
GROUND ELEV (ft): **2652**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **10.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SM	**SILTY SAND** ; SM; brown; 73% fine to coarse grained sand; 27% fines; loose; dry; no PHCO, no staining		BTP6-2'	SA, AL			
5					BTP6-5'				5
					BTP6-10'				
10			Hole terminated at 10 feet.						10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/24/19** COMPLETED: **9/24/19**
INSTALLATION: STARTED **9/24/19** COMPLETED: **9/24/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-07

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 3' 22.74"**
LONGITUDE: **118° 4' 43.05"**
GROUND ELEV (ft): **2615**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **10.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SM	**SILTY SAND** ; SM; reddish brown; 2% fine gravel; 86% fine to coarse grained sand; 12% fines; medium dense; dry; no PHCO, no staining		BTP7-2'	SA			
5					BTP7-5'				5
					BTP7-10'				
10			Hole terminated at 10 feet.						10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/24/19** COMPLETED: **9/24/19**
INSTALLATION: STARTED **9/24/19** COMPLETED: **9/24/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-08

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 3' 23.44"**
LONGITUDE: **118° 3' 47.57"**
GROUND ELEV (ft): **2685**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **10.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SM	**SILTY SAND** ; SM; reddish brown; 87% fine to coarse grained sand; 13% fines; loose; dry; no PHCO, no staining		BTP8-2'	SA			
5					BTP8-5'				5
					BTP8-10'				
10			Hole terminated at 10 feet.						10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/24/19** COMPLETED: **9/24/19**
INSTALLATION: STARTED **9/24/19** COMPLETED: **9/24/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-09

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 2' 54.43"**
LONGITUDE: **118° 5' 12.4"**
GROUND ELEV (ft): **2619**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **10.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SM	**SILTY SAND** ; SM; brown; 88% fine to coarse grained sand; 12% fines; medium dense; dry; no PHCO, no staining		BTP9-2'	SA			
5					BTP9-5'				5
					BTP9-10'				
10			Hole terminated at 10 feet.						10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/24/19** COMPLETED: **9/24/19**
INSTALLATION: STARTED **9/24/19** COMPLETED: **9/24/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-10

Stantec

NORTHING (ft): EASTING (ft):
LATITUDE: **35° 2' 51.17"** LONGITUDE: **118° 4' 8.66"**
GROUND ELEV (ft): **2691** TOC ELEV (ft):
INITIAL DTW (ft): **NE** BOREHOLE DEPTH (ft): **10.0**
STATIC DTW (ft): **NE** WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---** BOREHOLE DIAMETER (in):
LOGGED BY: **BF** CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SM	**SILTY SAND** ; SM; reddish brown; 1% fine gravel; 84% fine to coarse grained sand; 15% fines; medium dense; dry; no PHCO, no staining		BTP10-2'	SA, CORR			
5		ML	**SANDY SILT** ; ML; tan; 30% fine to coarse grained sand; 70% fines; very stiff; dry; no PHCO, no staining		BTP10-5'				5
10		SP-SM	**POORLY GRADED SAND WITH SILT** ; SP-SM; brown; 90% fine to coarse grained sand; 10% fines; medium dense; dry; no PHCO, no staining		BTP10-10'				10

Hole terminated at 10 feet.

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/24/19** COMPLETED: **9/24/19**
INSTALLATION: STARTED **9/24/19** COMPLETED: **9/24/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-11

Stantec

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 2' 27.05"**
LONGITUDE: **118° 5' 44.83"**
GROUND ELEV (ft): **2619**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **10.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SM	**SILTY SAND** ; SM; reddish brown; 3% fine gravel; 70% fine to coarse grained sand; 27% fines; medium dense; dry; no PHCO, no staining		BTP11-2'	SA			
5		ML	**SANDY SILT** ; ML; tan; 30% fine to coarse grained sand; 70% fines; very stiff; dry; no PHCO, no staining		BTP11-5'				5
10		SP-SM	**POORLY GRADED SAND WITH SILT** ; SP-SM; brown; 90% fine to coarse grained sand; 10% fines; medium dense; dry; no PHCO, no staining		BTP11-10'				10
			Hole terminated at 10 feet.						

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/24/19** COMPLETED: **9/24/19**
INSTALLATION: STARTED **9/24/19** COMPLETED: **9/24/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-12

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 2' 28.64"**
LONGITUDE: **118° 4' 43.84"**
GROUND ELEV (ft): **2692**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **10.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
		SM	**QUATERNARY ALLUVIUM** **SILTY SAND** ; SM; reddish brown; 2% fine gravel; 76% fine to coarse grained sand; 22% fines; medium dense; dry; no PHCO, no staining						
					BTP12-2'	SA			
5		ML	**SANDY SILT** ; ML; tan; 30% fine to coarse grained sand; 70% fines; very stiff; dry; no PHCO, no staining		BTP12-5'				5
		SP-SM	**POORLY GRADED SAND WITH SILT** ; SP-SM; brown; 90% fine to coarse grained sand; 10% fines; medium dense; dry; no PHCO, no staining		BTP12-10'				
10			Hole terminated at 10 feet.						10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/25/19** COMPLETED: **9/25/19**
INSTALLATION: STARTED **9/25/19** COMPLETED: **9/25/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-13

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 2' 30.49"**
LONGITUDE: **118° 3' 55.78"**
GROUND ELEV (ft): **2575**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **10.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SM	**SILTY SAND** ; SM; reddish brown; 80% fine to coarse grained sand; 20% fines; loose; dry; no PHCO, no staining		BTP13-2'	SA			
5					BTP13-5'				5
		SW	**WELL GRADED SAND** ; SW; brown; 95% fine to coarse grained sand; 5% fines; loose; dry; no PHCO, no staining		BTP13-10'				
10			Hole terminated at 10 feet.						10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/25/19** COMPLETED: **9/25/19**
INSTALLATION: STARTED **9/25/19** COMPLETED: **9/25/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-14

Stantec

NORTHING (ft): EASTING (ft):
LATITUDE: **35° 2' 31.92"** LONGITUDE: **118° 2' 33.77"**
GROUND ELEV (ft): **2551** TOC ELEV (ft):
INITIAL DTW (ft): **NE** BOREHOLE DEPTH (ft): **10.0**
STATIC DTW (ft): **NE** WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---** BOREHOLE DIAMETER (in):
LOGGED BY: **BF** CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SP-SM	**POORLY GRADED SAND WITH SILT** ; SP-SM; reddish brown; 89% fine to coarse grained sand; 11% fines; loose; dry; no PHCO, no staining		BTP14-2'	SA			
5		ML	**SANDY SILT** ; ML; tan; 30% fine to coarse grained sand; 70% fines; very stiff; dry; no PHCO, no staining		BTP14-5'				5
		SW	**WELL GRADED SAND** ; SW; brown; 90% fine to coarse grained sand; 10% fines; medium dense; dry; no PHCO, no staining		BTP14-10'				
10			Hole terminated at 10 feet.						10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/25/19** COMPLETED: **9/25/19**
INSTALLATION: STARTED **9/25/19** COMPLETED: **9/25/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-15

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 1' 36.39"**
LONGITUDE: **118° 5' 12.86"**
GROUND ELEV (ft): **2578**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **10.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SM	**SILTY SAND** ; SM; reddish brown; 77% fine to coarse grained sand; 23% fines; loose; dry; no petroleum hydrocarbon odor (PHCO), no staining		BTP15-2'	SA			
5					BTP15-5'				5
					BTP15-10'				
10			Hole terminated at 10 feet.						10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/25/19** COMPLETED: **9/25/19**
INSTALLATION: STARTED **9/25/19** COMPLETED: **9/25/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-16

Stantec

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 1' 33.59"**
LONGITUDE: **118° 4' 11.36"**
GROUND ELEV (ft): **2561**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **10.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SP-SM	**POORLY GRADED SAND WITH SILT** ; SP-SM; reddish brown; 94% fine to coarse grained sand; 6% fines; medium dense; dry; no PHCO, no staining		BTP16-2'	SA			
5		ML	**SANDY SILT** ; ML; tan; 30% fine to coarse grained sand; 70% fines; very stiff; dry; no PHCO, no staining		BTP16-5'				5
					BTP16-10'				
10			Hole terminated at 10 feet.						10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/25/19** COMPLETED: **9/25/19**
INSTALLATION: STARTED **9/25/19** COMPLETED: **9/25/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-17

Stantec

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 1' 38.67"**
LONGITUDE: **118° 3' 35.78"**
GROUND ELEV (ft): **2555**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **10.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SM	**SILTY SAND** ; SM; reddish brown; 74% fine to coarse grained sand; 26% fines; loose; dry; no PHCO, no staining						
				✋	BTP17-2'	SA			
5		ML	**SANDY SILT** ; ML; tan; 30% fine to coarse grained sand; 70% fines; very stiff; dry; no PHCO, no staining	✋	BTP17-5'				5
		SW-SM	**WELL GRADED SAND WITH SILT** ; SW-SM; brown; 90% fine to coarse grained sand; 10% fines; loose; dry; no PHCO, no staining	✋	BTP17-10'				
10			Hole terminated at 10 feet.						10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/25/19** COMPLETED: **9/25/19**
INSTALLATION: STARTED **9/25/19** COMPLETED: **9/25/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-18

Stantec

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 1' 40.93"**
LONGITUDE: **118° 2' 34.72"**
GROUND ELEV (ft): **2553**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **10.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SP-SM	**POORLY GRADED SAND WITH SILT** ; SP-SM; reddish brown; 92% fine to coarse grained sand; 8% fines; loose; dry; no PHCO, no staining		BTP18-2'	SA			
5		ML	**SANDY SILT** ; ML; tan; 30% fine to coarse grained sand; 70% fines; very stiff; dry; no PHCO, no staining		BTP18-5'				5
		SW	**WELL GRADED SAND** ; SW; brown; 95% fine to coarse grained sand; 5% fines; loose; dry; no PHCO, no staining		BTP18-10'				
10			Hole terminated at 10 feet.						10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/25/19** COMPLETED: **9/25/19**
INSTALLATION: STARTED **9/25/19** COMPLETED: **9/25/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-19

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 1' 17.96"**
LONGITUDE: **118° 1' 45.92"**
GROUND ELEV (ft): **2605**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **10.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
		SM	**QUATERNARY ALLUVIUM** **SILTY SAND** ; SM; reddish brown; 80% fine to coarse grained sand; 20% fines; loose; dry; no PHCO, no staining						
			BEDROCK Quartz Monzanite; highly fractured; highly weathered; dry		BTP19-2'	SA			
5			Quartz Monzanite; very dense; dry		BTP19-5'				5
					BTP19-10'				
10			Hole terminated at 10 feet.						10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/28/19** COMPLETED: **9/25/19**
INSTALLATION: STARTED **9/28/19** COMPLETED: **9/25/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-20

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 1' 39.97"**
LONGITUDE: **118° 0' 58.9"**
GROUND ELEV (ft): **2687**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **5.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
		SW	**QUATERNARY ALLUVIUM** **WELL GRADED SAND WITH GRAVEL** ; SW; reddish brown; 41% fine gravel; 56% fine to coarse grained sand; 2% fines; loose; dry; no PHCO, no staining						
			BEDROCK						
			Quartz Monzanite; highly fractured; highly weathered; dry; iron oxide staining		BTP20-2'	SA, CORR			
5					BTP20-5'				5
					BTP20-10'				
10			Refusal at 5 feet. Hole terminated at 5 feet.						10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/28/19** COMPLETED: **9/25/19**
INSTALLATION: STARTED **9/28/19** COMPLETED: **9/25/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-21

Stantec

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 1' 41.39"**
LONGITUDE: **118° 0' 21.14"**
GROUND ELEV (ft): **2724**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **5.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SM	**SILTY SAND** ; SM; reddish brown; 4% fine gravel; 75% fine to coarse grained sand; 21% fines; loose; dry; no PHCO, no staining		BTP21-2'	SA			
			BEDROCK Quartz Monzanite; highly fractured; highly weathered; dry; iron oxide staining						
5			Refusal at 5 feet. Hole terminated at 5 feet.		BTP21-5'				5
10					BTP21-10'				10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/28/19** COMPLETED: **9/25/19**
INSTALLATION: STARTED **9/28/19** COMPLETED: **9/25/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-22

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 1' 42.8"**
LONGITUDE: **117° 59' 21.42"**
GROUND ELEV (ft): **2706**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **10.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SM	**SILTY SAND** ; SM; reddish brown; 3% fine gravel; 70% fine to coarse grained sand; 27% fines; loose; dry; no PHCO, no staining		BTP22-2'	SA			
5					BTP22-5'				5
			BEDROCK Quartz Monzanite; highly fractured; highly weathered; dry; iron oxide staining						
					BTP22-10'				
10			Hole terminated at 10 feet.						10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/27/19** COMPLETED: **9/27/19**
INSTALLATION: STARTED **9/27/19** COMPLETED: **9/27/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-23

Stantec

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 0' 51.36"**
LONGITUDE: **117° 59' 20.47"**
GROUND ELEV (ft): **2620**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **4.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SP	**POORLY GRADED SAND WITH GRAVEL** ; SP; brown; 45% fine gravel; 53% fine to coarse grained sand; 2% fines; loose; dry; no PHCO, no staining		BTP23-2'	SA			
			BEDROCK Quartz Monzanite; highly fractured; highly weathered; dry; iron oxide staining						
			Refusal at 4 feet. Hole terminated at 4 feet.						
5					BTP23-5'				5
10					BTP23-10'				10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/28/19** COMPLETED: **9/28/19**
INSTALLATION: STARTED **9/28/19** COMPLETED: **9/28/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-24

Stantec

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 0' 50.51"**
LONGITUDE: **118° 0' 22.05"**
GROUND ELEV (ft): **2635**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **8.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SM	**SILTY SAND** ; SM; reddish brown; 1% fine gravel; 75% fine to coarse grained sand; 24% fines; loose; dry; no PHCO, no staining		BTP24-2'	SA			
5			**BEDROCK** Quartz Monzanite; highly fractured; highly weathered; dry; iron oxide staining		BTP24-5'				5
			Refusal at 8 feet. Hole terminated at 8 feet.						
10					BTP24-10'				10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/28/19** COMPLETED: **9/28/19**
INSTALLATION: STARTED **9/28/19** COMPLETED: **9/28/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-25

Stantec

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 0' 49.35"**
LONGITUDE: **118° 1' 9.57"**
GROUND ELEV (ft): **2630**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **5.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
		SP-SM	**QUATERNARY ALLUVIUM** **POORLY GRADED SAND WITH SILT AND GRAVEL** ; SP-SM; reddish brown; 38% fine gravel; 52% fine to coarse grained sand; 10% fines; loose; dry; no PHCO, no staining						
			BEDROCK Quartz Monzanite; highly fractured; highly weathered; dry; iron oxide staining		BTP25-2'	SA			
5			Refusal at 5 feet. Hole terminated at 5 feet.		BTP25-5'				5
10					BTP25-10'				10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/26/19** COMPLETED: **9/26/19**
INSTALLATION: STARTED **9/26/19** COMPLETED: **9/26/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-26

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 0' 48.1"**
LONGITUDE: **118° 2' 30.71"**
GROUND ELEV (ft): **2554**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **10.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SM	**SILTY SAND** ; SM; reddish brown; 80% fine to coarse grained sand; 20% fines; loose; dry; no PHCO, no staining		BTP26-2'				
5			**BEDROCK** Quartz Monzanite; highly fractured; highly weathered; dry; iron oxide staining		BTP26-5'				5
					BTP26-10'				
10			Hole terminated at 10 feet.						10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/26/19** COMPLETED: **9/26/19**
INSTALLATION: STARTED **9/26/19** COMPLETED: **9/26/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-27

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 0' 46.04"**
LONGITUDE: **118° 3' 39.72"**
GROUND ELEV (ft): **2541**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **10.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SM	**SILTY SAND** ; SM; reddish brown; 2% fine gravel; 82% fine to coarse grained sand; 16% fines; loose; dry; no PHCO, no staining		BTP27-2'	SA			
5					BTP27-5'				5
					BTP27-10'				
10			Hole terminated at 10 feet.						10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/28/19** COMPLETED: **9/28/19**
INSTALLATION: STARTED **9/28/19** COMPLETED: **9/28/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-28

Stantec

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 0' 44"**
LONGITUDE: **118° 4' 40.63"**
GROUND ELEV (ft): **2556**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **10.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SM	**SILTY SAND** ; SM; reddish brown; 80% fine to coarse grained sand; 20% fines; medium dense; dry; no PHCO, no staining		BTP28-2'				
5		ML	**SANDY SILT** ; ML; tan; 30% fine to coarse grained sand; 70% fines; very stiff; dry; no PHCO, no staining		BTP28-5'				5
		SW	**WELL GRADED SAND** ; SW; brown; 95% fine to coarse grained sand; 5% fines; loose; dry; no PHCO, no staining		BTP28-10'				
10			Hole terminated at 10 feet.						10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/26/19** COMPLETED: **9/26/19**
INSTALLATION: STARTED **9/26/19** COMPLETED: **9/26/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-29

NORTHING (ft):
EASTING (ft):
LATITUDE: **35° 0' 40.24"**
LONGITUDE: **118° 5' 46.35"**
GROUND ELEV (ft): **2582**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **10.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SM	**SILTY SAND** ; SM; reddish brown; 2% fine gravel; 70% fine to coarse grained sand; 28% fines; loose; dry; no PHCO, no staining		BTP29-2'	SA			
5									5
		ML	**SANDY SILT** ; ML; tan; 30% fine to coarse grained sand; 70% fines; very stiff; dry; no PHCO, no staining		BTP29-5'				
					BTP29-10'				
10			Hole terminated at 10 feet.						10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/27/19** COMPLETED: **9/27/19**
INSTALLATION: STARTED **9/27/19** COMPLETED: **9/27/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-30

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NORTHING (ft):
EASTING (ft):
LATITUDE: **34° 59' 50.45"**
LONGITUDE: **118° 5' 45.05"**
GROUND ELEV (ft): **2620**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **2.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SM	**SILTY SAND** ; SM; reddish brown; 80% fine to coarse grained sand; 20% fines; loose; dry; no PHCO, no staining						
			BEDROCK Quartz Latite; highly fractured; hard; dry						
			Refusal at 2 feet. Hole terminated at 2.5 feet.		BTP30-2'				
5					BTP30-5'				5
10					BTP30-10'				10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/27/19** COMPLETED: **9/27/19**
INSTALLATION: STARTED **9/27/19** COMPLETED: **9/27/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-31

Stantec

NORTHING (ft):
EASTING (ft):
LATITUDE: **34° 59' 53.21"**
LONGITUDE: **118° 4' 44.51"**
GROUND ELEV (ft): **2550**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **10.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SM	**SILTY SAND** ; SM; reddish brown; 82% fine to coarse grained sand; 18% fines; loose; dry; no PHCO, no staining		BTP31-2'	SA			
5		ML	**SANDY SILT** ; ML; brown; 30% fine to coarse grained sand; 70% fines; very stiff; dry; no PHCO, no staining		BTP31-5'				5
		SW	**WELL GRADED SAND** ; SW; tan; 95% fine to coarse grained sand; 5% fines; loose; dry; no PHCO, no staining		BTP31-10'				
10			Hole terminated at 10 feet.						10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/27/19** COMPLETED: **9/27/19**
INSTALLATION: STARTED **9/27/19** COMPLETED: **9/27/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-32

NORTHING (ft):
EASTING (ft):
LATITUDE: **34° 59' 56.07"**
LONGITUDE: **118° 1' 58.16"**
GROUND ELEV (ft): **2548**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **9.0**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SM	**SILTY SAND** ; SM; reddish brown; 1% fine gravel; 75% fine to coarse grained sand; 24% fines; loose; dry; no PHCO, no staining		BTP32-2'	SA			
			BEDROCK						
5			Quartz Monzanite; highly fractured; highly weathered; dry; iron oxide staining		BTP32-5'				5
			Refusal at 9 feet. Hole terminated at 9 feet.		BTP32-10'				
10									10

PROJECT: **Bellefield Solar Farm**
LOCATION: **Mojave, California**
PROJECT NUMBER: **185704636**
DRILLING: STARTED **9/27/19** COMPLETED: **9/27/19**
INSTALLATION: STARTED **9/27/19** COMPLETED: **9/27/19**
DRILLING COMPANY: **4Granite**
DRILLING EQUIPMENT: **Backhoe**
DRILLING METHOD: **Test Pit**
SAMPLING EQUIPMENT: **Backhoe Bucket**

WELL / TEST PIT / BOREHOLE NO:

BTP-33

NORTHING (ft):
EASTING (ft):
LATITUDE: **34° 59' 57.59"**
LONGITUDE: **118° 0' 57.58"**
GROUND ELEV (ft): **2547**
TOC ELEV (ft):
INITIAL DTW (ft): **NE**
BOREHOLE DEPTH (ft): **7.5**
STATIC DTW (ft): **NE**
WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---**
BOREHOLE DIAMETER (in):
LOGGED BY: **BF**
CHECKED BY: **JF**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)
			QUATERNARY ALLUVIUM						
		SM	**SILTY SAND** ; SM; reddish brown; 7% fine gravel; 86% fine to coarse grained sand; 7% fines; loose; dry; no PHCO, no staining		BTP33-2'				
5			**BEDROCK** Quartz Monzanite; highly fractured; highly weathered; dry; iron oxide staining		BTP33-5'				5
			Refusal at 7.5 feet. Hole terminated at 7.5 feet.						
					BTP33-10'				
10									10

Appendix B LABORATORY TEST RESULTS

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Gradation Analysis
ASTM D 422

Project Name	8me Bellefield	Project Number	185704636
Source	Grab	Lab ID	BTP1-2'
		Date Received	09-28-2019
Preparation Method	ASTM D 1140 Method A	Preparation Date	09-29-2019
Particle Shape		Test Date	09-30-2019
Particle Hardness			
Sample Dry Mass (g)	342.70	Analysis based on total sample.	
Moisture Content (%)	6.0		

Sieve Size	Grams Retained	% Retained	% Passing
No. 4	2.80	0.8	99.2
No. 8	5.30	1.5	97.6
No. 16	14.70	4.3	93.3
No. 30	63.50	18.5	74.8
No. 50	94.10	27.5	47.4
No. 100	84.00	24.5	22.8
No. 200	58.50	17.1	5.8
Pan	19.80	5.8	---

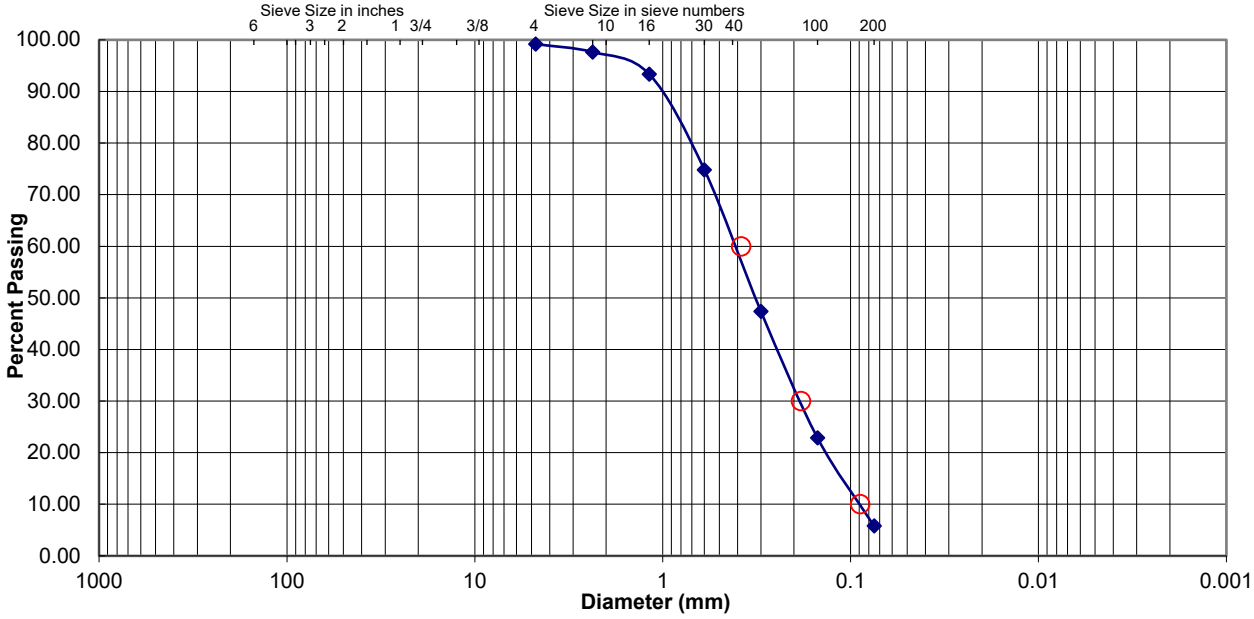
% Gravel	0.8
% Sand	93.4
% Fines	5.8
Fines Classification	ML
D_{10} (mm)	0.0890
D_{30} (mm)	0.1836
D_{60} (mm)	0.3828
Cu	4.30
Cc	0.99

Classification

Poorly Graded Sand (SP-SM) with Silt

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By JF

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Gradation Analysis
ASTM D 422

Project Name 8me Bellefield
Source Grab

Preparation Method ASTM D 1140 Method A
Particle Shape
Particle Hardness
Sample Dry Mass (g) 368.60
Moisture Content (%) 1.3

Project Number 185704636
Lab ID BTP2-2'
Date Received 10-03-2019
Preparation Date 10-03-2019
Test Date 10-05-2019

Analysis based on total sample.

Sieve Size	Grams Retained	% Retained	% Passing
1/2"	15.50	4.2	95.8
3/8"	5.60	1.5	94.3
No. 4	62.00	16.8	77.5
No. 8	66.20	18.0	59.5
No. 16	86.20	23.4	36.1
No. 30	73.90	20.0	16.1
No. 50	36.60	9.9	6.1
No. 100	10.80	2.9	3.2
No. 200	3.80	1.0	2.2
Pan	8.00	2.2	---

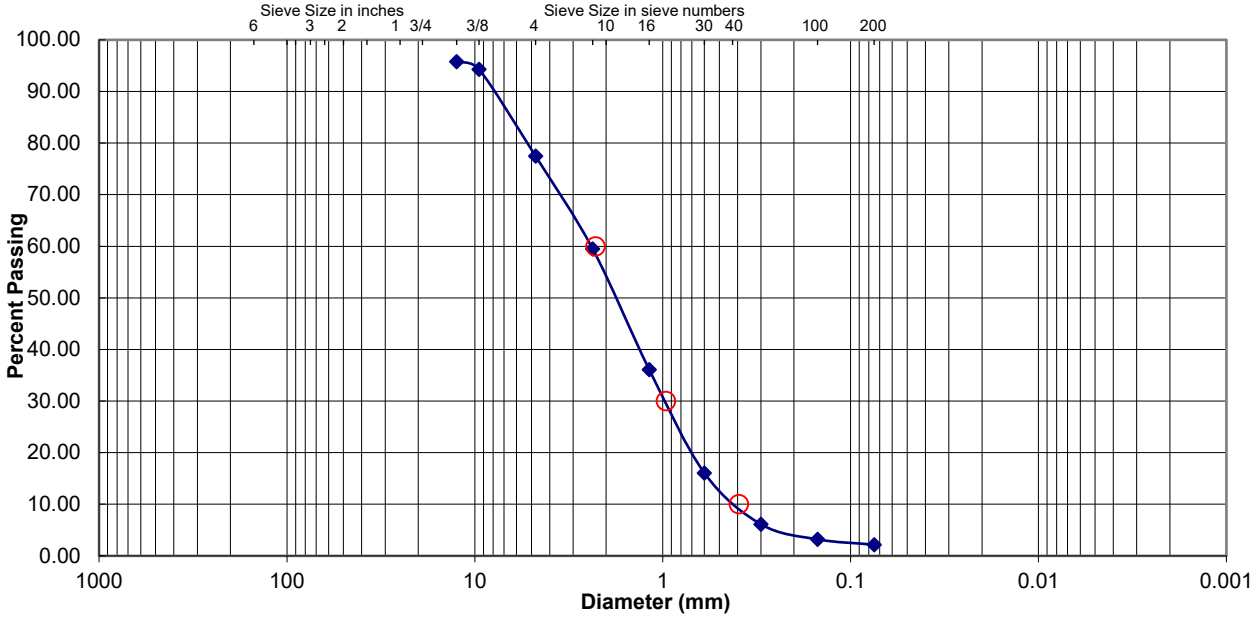
% Gravel	22.5
% Sand	75.3
% Fines	2.2
Fines Classification	ML
D_{10} (mm)	0.3930
D_{30} (mm)	0.9602
D_{60} (mm)	2.2768
Cu	5.79
Cc	1.03

Classification

Poorly Graded Sand (SP) with Gravel

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

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Gradation Analysis
ASTM D 422

Project Name 8me Bellefield
Source Grab

Preparation Method ASTM D 1140 Method A
Particle Shape
Particle Hardness
Sample Dry Mass (g) 419.90
Moisture Content (%) 6.3

Project Number 185704636
Lab ID BPT3-2'
Date Received 09-28-2019
Preparation Date 10/1/19
Test Date 10-01-2019

Analysis based on total sample.

Sieve Size	Grams Retained	% Retained	% Passing
1/2"	16.10	3.8	96.2
3/8"	0.00	0.0	96.2
No. 4	50.80	12.1	84.1
No. 8	45.30	10.8	73.3
No. 16	48.90	11.6	61.6
No. 30	60.00	14.3	47.3
No. 50	68.90	16.4	30.9
No. 100	40.70	9.7	21.2
No. 200	16.10	3.8	17.4
Pan	73.10	17.4	---

% Gravel 15.9
% Sand 66.7
% Fines 17.4
Fines Classification ML

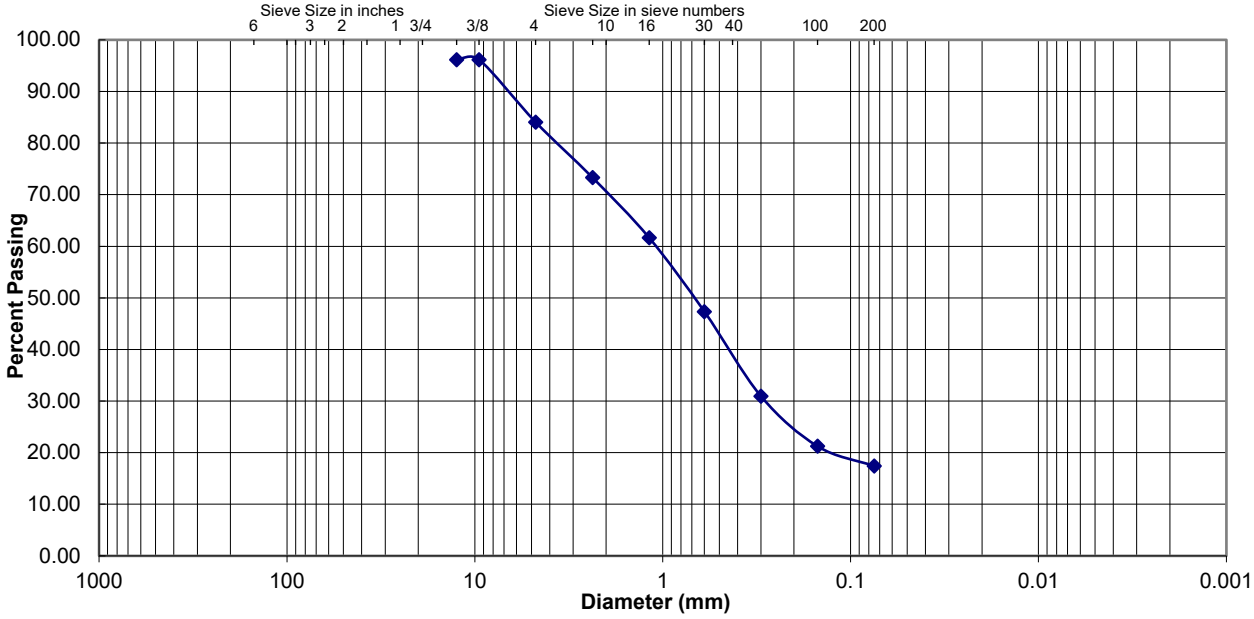
D_{10} (mm) N/A
D_{30} (mm) N/A
D_{60} (mm) N/A

Cu N/A
Cc N/A

Classification
Silty Sand (SM) with Gravel

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By JF

Stantec

Gradation Analysis
ASTM D 422

Project Name	8me Bellefield	Project Number	185704636
Source	Grab	Lab ID	BTP4-2'
		Date Received	10-03-2019
Preparation Method	ASTM D 1140 Method A	Preparation Date	10-03-2019
Particle Shape		Test Date	10-05-2019
Particle Hardness			
Sample Dry Mass (g)	339.60	Analysis based on total sample.	
Moisture Content (%)	1.5		

Sieve Size	Grams Retained	% Retained	% Passing
No. 8	6.10	1.8	98.2
No. 16	17.30	5.1	93.1
No. 30	60.30	17.8	75.4
No. 50	87.80	25.9	49.5
No. 100	82.70	24.4	25.1
No. 200	52.40	15.4	9.7
Pan	33.00	9.7	---

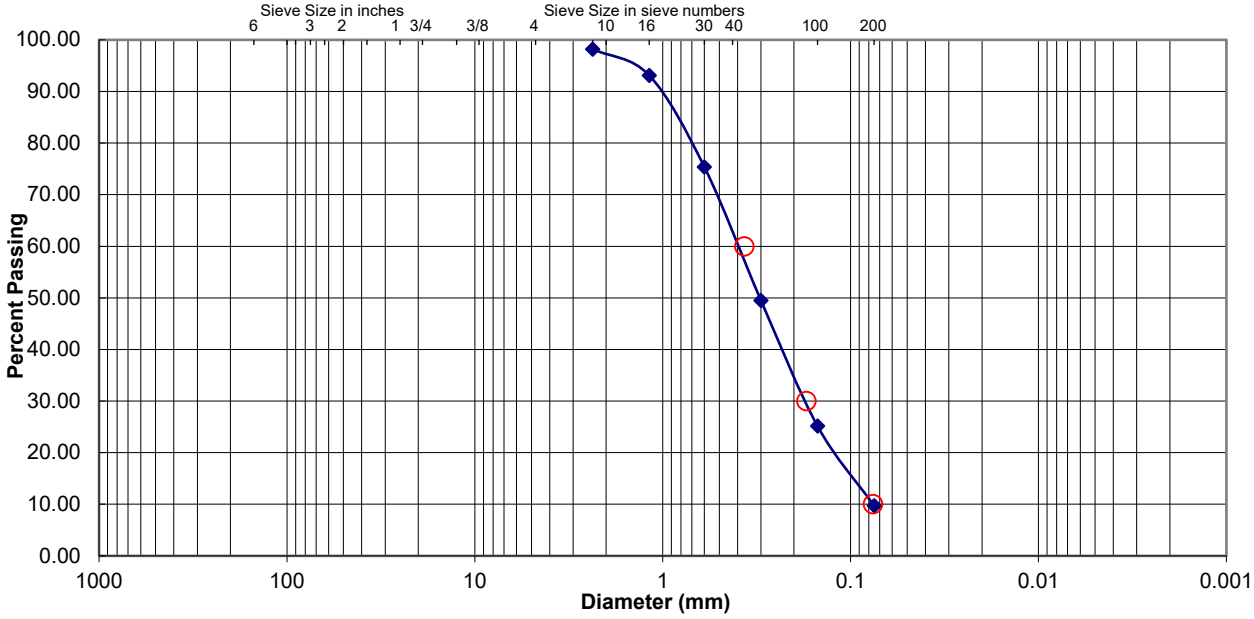
% Gravel	0.0
% Sand	90.3
% Fines	9.7
Fines Classification	ML
D_{10} (mm)	0.0760
D_{30} (mm)	0.1722
D_{60} (mm)	0.3675
Cu	4.84
Cc	1.06

Classification

Poorly Graded Sand (SP-SM) with Silt

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By

Stantec

Gradation Analysis
ASTM D 422

Project Name 8me Bellefield
Source Grab

Preparation Method ASTM D 1140 Method A
Particle Shape
Particle Hardness
Sample Dry Mass (g) 337.30
Moisture Content (%) 2.8

Project Number 185704636
Lab ID BTP5-2'
Date Received 09-28-2019
Preparation Date 09-29-2019
Test Date 09-30-2019

Analysis based on total sample.

Sieve Size	Grams Retained	% Retained	% Passing
No. 4	1.50	0.4	99.6
No. 8	7.90	2.3	97.2
No. 16	15.80	4.7	92.5
No. 30	40.50	12.0	80.5
No. 50	82.00	24.3	56.2
No. 100	73.50	21.8	34.4
No. 200	39.00	11.6	22.9
Pan	77.10	22.9	---

% Gravel 0.4
% Sand 76.7
% Fines 22.9
Fines Classification ML

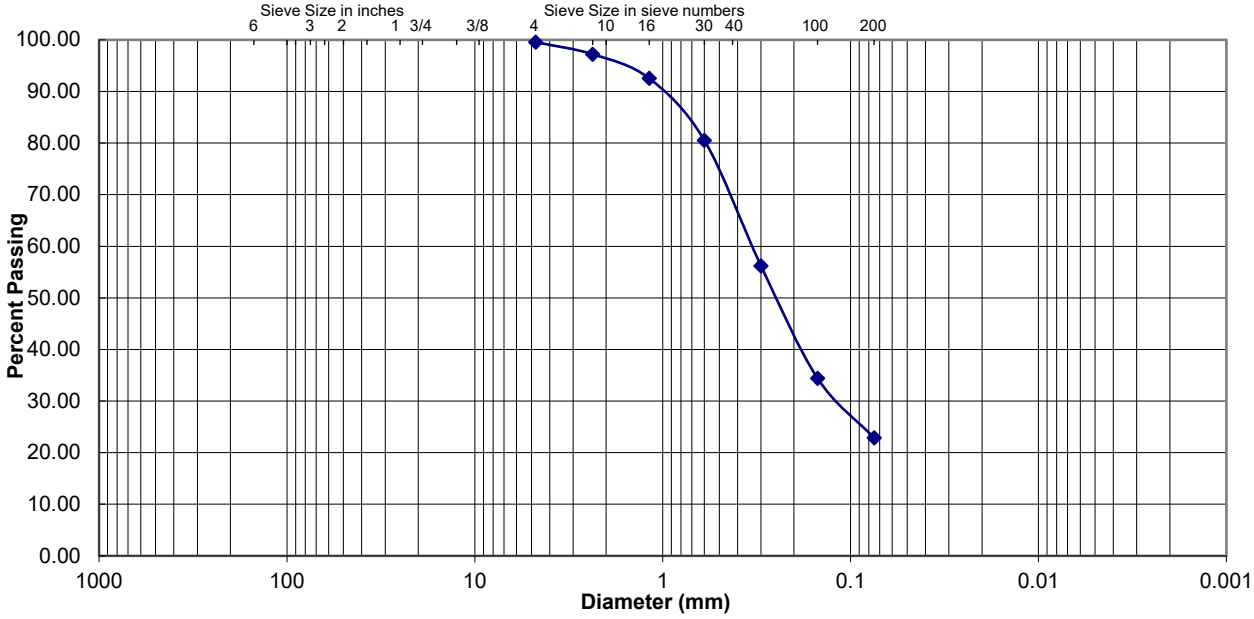
D_{10} (mm) N/A
D_{30} (mm) N/A
D_{60} (mm) N/A

Cu N/A
Cc N/A

Classification
Silty Sand (SM)

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By JF

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Gradation Analysis
ASTM D 422

Project Name 8me bellefield
Source Grab

Preparation Method ASTM D 1140 Method A
Particle Shape
Particle Hardness
Sample Dry Mass (g) 308.20
Moisture Content (%) 5.1

Project Number 185704636
Lab ID BTP6-2'
Date Received 10-03-2019
Preparation Date 10-03-2019
Test Date 10-05-2019

Analysis based on total sample.

Sieve Size	Grams Retained	% Retained	% Passing
No. 8	9.30	3.0	97.0
No. 16	42.40	13.8	83.2
No. 30	45.40	14.7	68.5
No. 50	57.30	18.6	49.9
No. 100	44.40	14.4	35.5
No. 200	24.70	8.0	27.5
Pan	84.70	27.5	---

% Gravel 0.0
% Sand 72.5
% Fines 27.5
Fines Classification ML

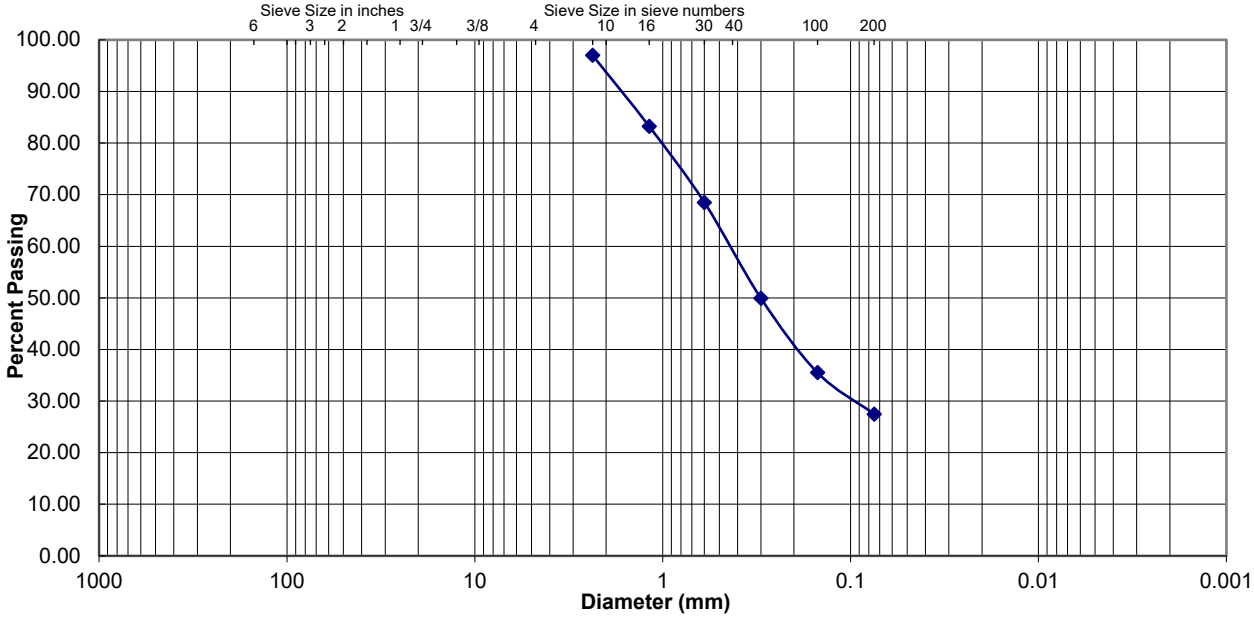
D_{10} (mm) N/A
D_{30} (mm) N/A
D_{60} (mm) N/A

Cu N/A
Cc N/A

Classification
Silty Sand (SM)

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By

File: 8me_Bellefield-Sieve_6-2.xlsm Sheet: Report
Preparation Date: 1-2008
Revision Date: 4-2008

Stantec Consulting Services Inc.

Laboratory Document
Prepared By: JW
Approved By: TLK

Stantec

Gradation Analysis
ASTM D 422

Project Name 8me Bellefield
Source Grab

Preparation Method ASTM D 1140 Method A
Particle Shape
Particle Hardness
Sample Dry Mass (g) 289.80
Moisture Content (%) 2.7

Project Number 185704636
Lab ID BTP7-2'
Date Received 09-28-2019
Preparation Date 10/1/19
Test Date 10-02-2019

Analysis based on total sample.

Sieve Size	Grams Retained	% Retained	% Passing
No. 4	5.80	2.0	98.0
No. 8	3.90	1.3	96.7
No. 16	13.40	4.6	92.0
No. 30	45.10	15.6	76.5
No. 50	78.10	26.9	49.5
No. 100	70.60	24.4	25.2
No. 200	36.90	12.7	12.4
Pan	36.00	12.4	---

% Gravel 2.0
% Sand 85.6
% Fines 12.4
Fines Classification ML

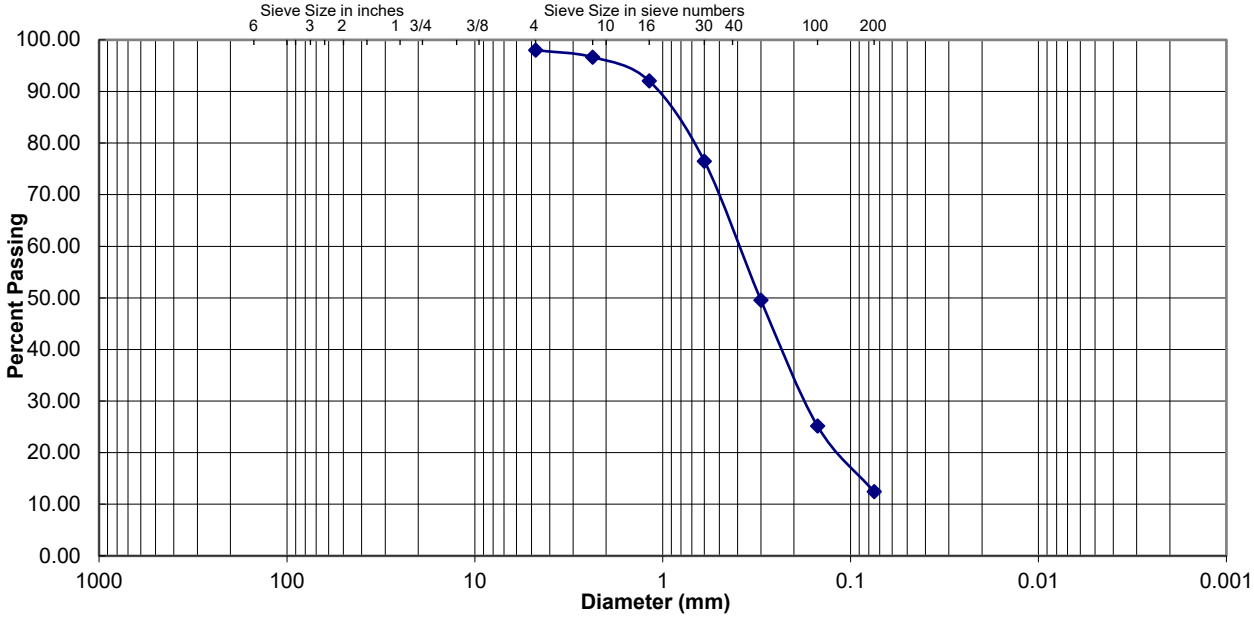
D_{10} (mm) N/A
D_{30} (mm) N/A
D_{60} (mm) N/A

Cu N/A
Cc N/A

Classification
Silty Sand (SM)

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By JF

Stantec

Gradation Analysis
ASTM D 422

Project Name	8me Bellefield	Project Number	185704636
Source	Grab	Lab ID	BTP8-2'
		Date Received	10-03-2019
Preparation Method	ASTM D 1140 Method A	Preparation Date	10-03-2019
Particle Shape		Test Date	10-04-2019
Particle Hardness			
Sample Dry Mass (g)	341.30	Analysis based on total sample.	
Moisture Content (%)	2.3		

Sieve Size	Grams Retained	% Retained	% Passing
No. 4	0.80	0.2	99.8
No. 8	3.00	0.9	98.9
No. 16	13.90	4.1	94.8
No. 30	63.40	18.6	76.2
No. 50	89.80	26.3	49.9
No. 100	79.60	23.3	26.6
No. 200	46.20	13.5	13.1
Pan	44.60	13.1	---

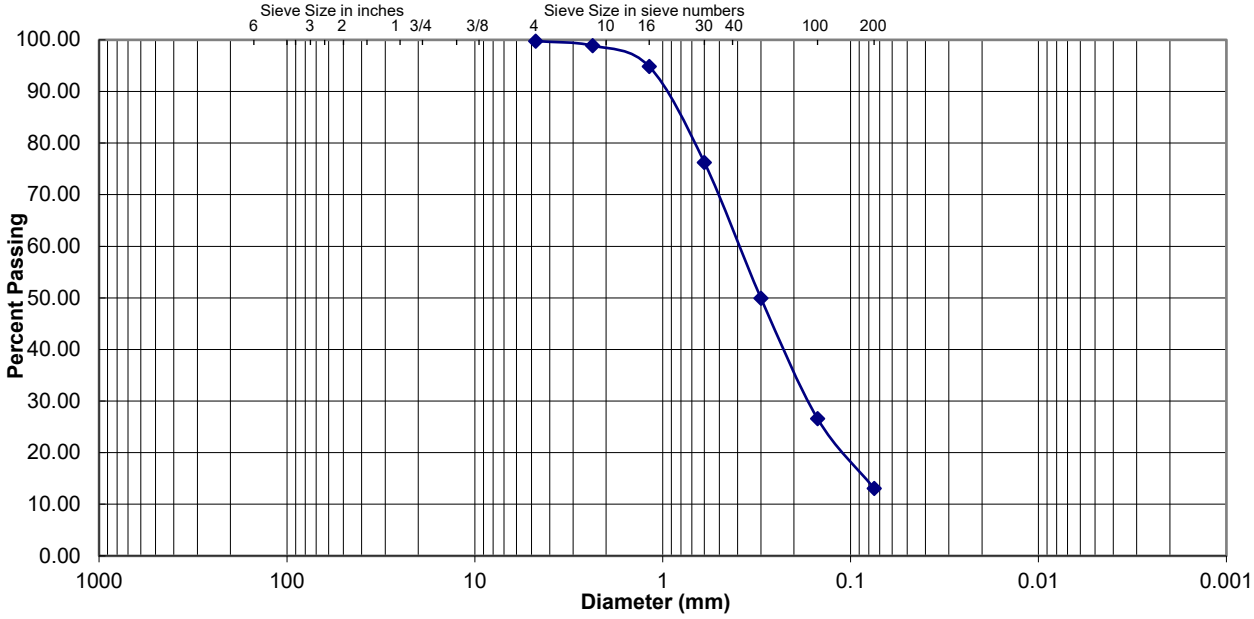
% Gravel	0.2
% Sand	86.7
% Fines	13.1
Fines Classification	ML
D_{10} (mm)	N/A
D_{30} (mm)	N/A
D_{60} (mm)	N/A
Cu	N/A
Cc	N/A

Classification

Silty Sand (SM)

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By

Stantec

Gradation Analysis
ASTM D 422

Project Name	8me Bellefield	Project Number	185704636
Source	Grab	Lab ID	BTP9-2'
		Date Received	09-28-2019
Preparation Method	ASTM D 1140 Method A	Preparation Date	10/1/19
Particle Shape		Test Date	09-30-2019
Particle Hardness			
Sample Dry Mass (g)	382.50	Analysis based on total sample.	
Moisture Content (%)	1.6		

Sieve Size	Grams Retained	% Retained	% Passing
No. 4	1.00	0.3	99.7
No. 8	5.60	1.5	98.3
No. 16	27.00	7.1	91.2
No. 30	66.40	17.4	73.9
No. 50	87.60	22.9	51.0
No. 100	89.60	23.4	27.5
No. 200	58.80	15.4	12.2
Pan	46.50	12.2	---

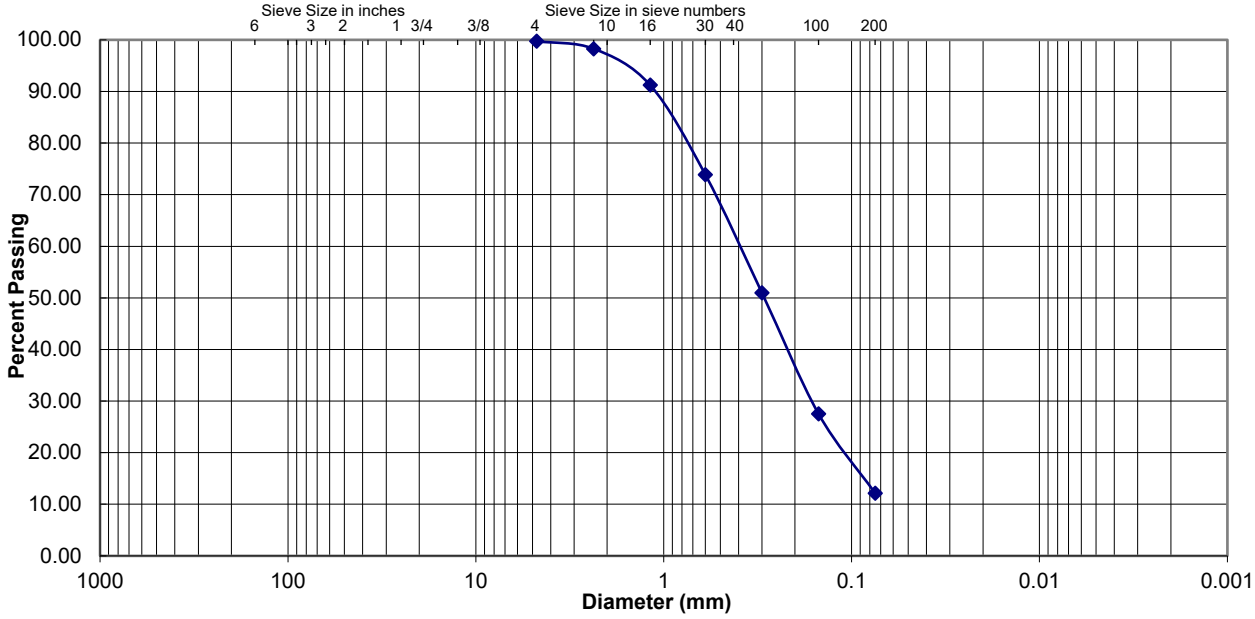
% Gravel	0.3
% Sand	87.6
% Fines	12.2
Fines Classification	ML
D_{10} (mm)	N/A
D_{30} (mm)	N/A
D_{60} (mm)	N/A
Cu	N/A
Cc	N/A

Classification

Silty Sand (SM)

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By JF

Stantec

Gradation Analysis
ASTM D 422

Project Name 8me Bellefield
Source Grab

Preparation Method ASTM D 1140 Method A
Particle Shape
Particle Hardness
Sample Dry Mass (g) 342.10
Moisture Content (%) 2.9

Project Number 185704636
Lab ID BTP10-2'
Date Received 10-03-2019
Preparation Date 10-03-2019
Test Date 10-05-2019

Analysis based on total sample.

Sieve Size	Grams Retained	% Retained	% Passing
No. 4	3.20	0.9	99.1
No. 8	5.90	1.7	97.3
No. 16	28.50	8.3	89.0
No. 30	54.30	15.9	73.1
No. 50	76.00	22.2	50.9
No. 100	73.70	21.5	29.4
No. 200	47.30	13.8	15.6
Pan	53.20	15.6	---

% Gravel 0.9
% Sand 83.5
% Fines 15.6
Fines Classification ML

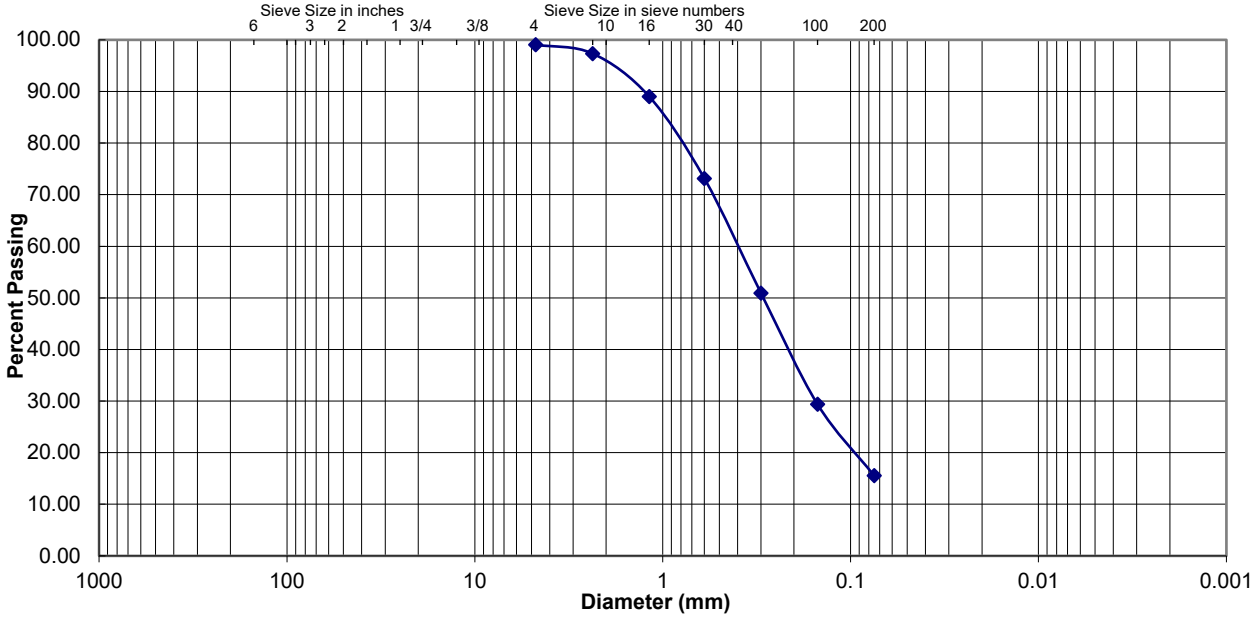
D_{10} (mm) N/A
D_{30} (mm) N/A
D_{60} (mm) N/A

Cu N/A
Cc N/A

Classification
Silty Sand (SM)

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By

File: 8me_Bellefield_Sieve_BTP10-2.xlsm Sheet: Report
Preparation Date: 1-2008
Revision Date: 4-2008

Stantec Consulting Services Inc.

Laboratory Document
Prepared By: JW
Approved By: TLK

Stantec

Gradation Analysis
ASTM D 422

Project Name 8me Bellefield
Source Grab

Preparation Method ASTM D 1140 Method A
Particle Shape
Particle Hardness
Sample Dry Mass (g) 460.00
Moisture Content (%) 3.7

Project Number 185704636
Lab ID BTP11-2'
Date Received 09-28-2019
Preparation Date 10/1/19
Test Date 10-02-2019

Analysis based on total sample.

Sieve Size	Grams Retained	% Retained	% Passing
No. 4	15.70	3.4	96.6
No. 8	19.80	4.3	92.3
No. 16	30.10	6.5	85.7
No. 30	47.00	10.2	75.5
No. 50	80.80	17.6	58.0
No. 100	90.10	19.6	38.4
No. 200	54.20	11.8	26.6
Pan	122.30	26.6	---

% Gravel 3.4
% Sand 70.0
% Fines 26.6
Fines Classification ML

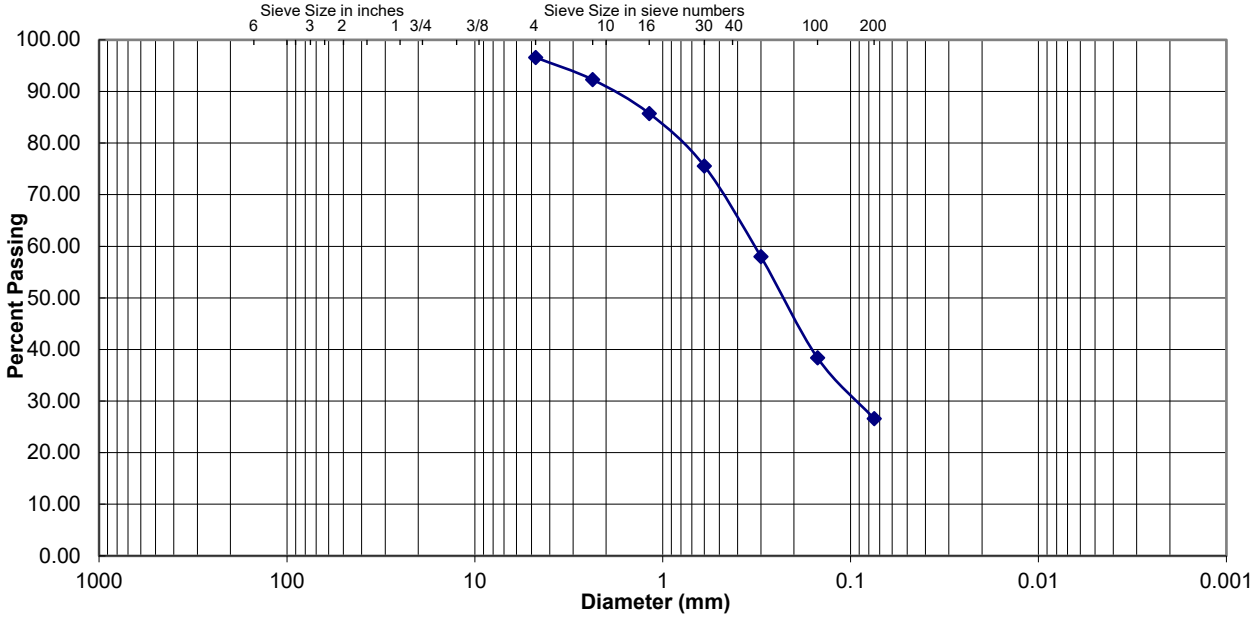
D_{10} (mm) N/A
D_{30} (mm) N/A
D_{60} (mm) N/A

Cu N/A
Cc N/A

Classification
Silty Sand (SM)

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By JF

Stantec

Gradation Analysis
ASTM D 422

Project Name 8me Bellefield
Source Grab

Preparation Method ASTM D 1140 Method A
Particle Shape
Particle Hardness
Sample Dry Mass (g) 300.20
Moisture Content (%) 3.3

Project Number 185704636
Lab ID BTP12-2'
Date Received 10-03-2019
Preparation Date 10-03-2019
Test Date 10-05-2019

Analysis based on total sample.

Sieve Size	Grams Retained	% Retained	% Passing
No. 4	6.80	2.3	97.7
No. 8	25.30	8.4	89.3
No. 16	35.40	11.8	77.5
No. 30	32.70	10.9	66.6
No. 50	40.10	13.4	53.3
No. 100	50.00	16.7	36.6
No. 200	45.00	15.0	21.6
Pan	64.90	21.6	---

% Gravel 2.3
% Sand 76.1
% Fines 21.6
Fines Classification ML

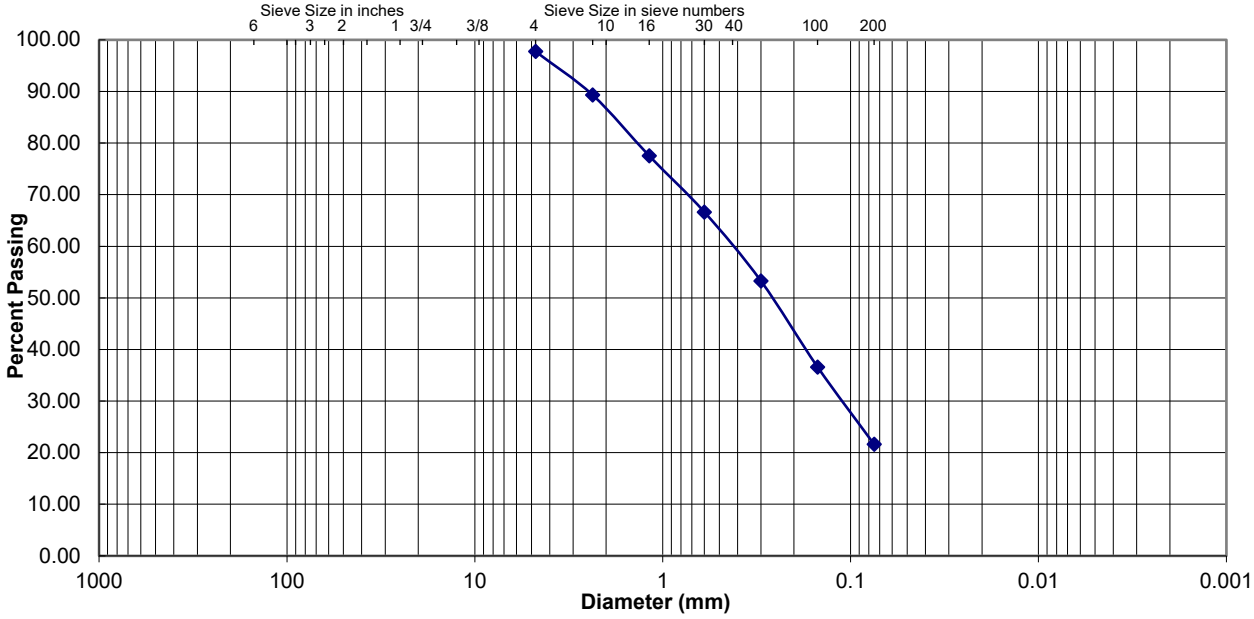
D_{10} (mm) N/A
D_{30} (mm) N/A
D_{60} (mm) N/A

Cu N/A
Cc N/A

Classification
Silty Sand (SM)

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

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Gradation Analysis
ASTM D 422

Project Name 8me Bellefield
Source Grab

Preparation Method ASTM D 1140 Method A
Particle Shape
Particle Hardness
Sample Dry Mass (g) 305.20
Moisture Content (%) 10.0

Project Number 185704636
Lab ID BTP13-2'
Date Received 09-28-2019
Preparation Date 10/1/19
Test Date 10-02-2019

Analysis based on total sample.

Sieve Size	Grams Retained	% Retained	% Passing
No. 8	2.20	0.7	99.3
No. 16	14.40	4.7	94.6
No. 30	39.50	12.9	81.6
No. 50	67.40	22.1	59.5
No. 100	64.00	21.0	38.6
No. 200	36.80	12.1	26.5
Pan	80.90	26.5	---

% Gravel 0.0
% Sand 73.5
% Fines 26.5
Fines Classification ML

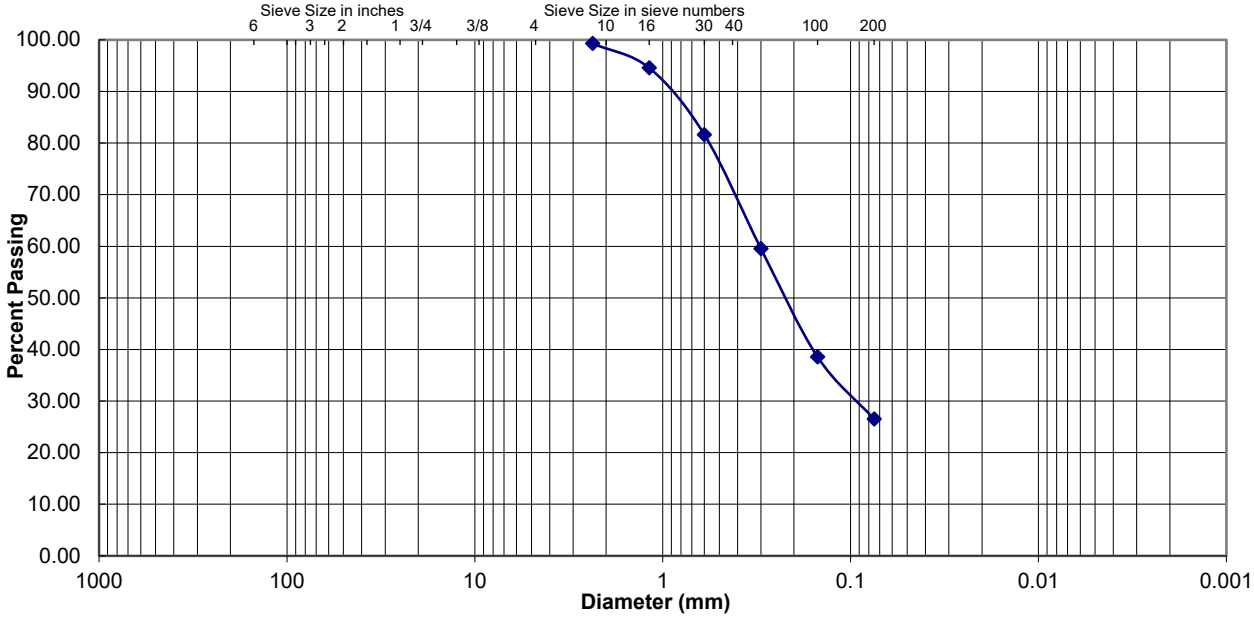
D_{10} (mm) N/A
D_{30} (mm) N/A
D_{60} (mm) N/A

Cu N/A
Cc N/A

Classification
Silty Sand (SM)

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By JF

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Gradation Analysis
ASTM D 422

Project Name 8me Bellefield
Source Grab

Preparation Method ASTM D 1140 Method A
Particle Shape
Particle Hardness
Sample Dry Mass (g) 399.20
Moisture Content (%) 1.0

Project Number 185704636
Lab ID BTP14-2'
Date Received 10-03-2019
Preparation Date 10-03-2019
Test Date 10-05-2019

Analysis based on total sample.

Sieve Size	Grams Retained	% Retained	% Passing
No. 8	1.70	0.4	99.6
No. 16	28.00	7.0	92.6
No. 30	41.80	10.5	82.1
No. 50	108.60	27.2	54.9
No. 100	115.20	28.9	26.0
No. 200	60.50	15.2	10.9
Pan	43.40	10.9	---

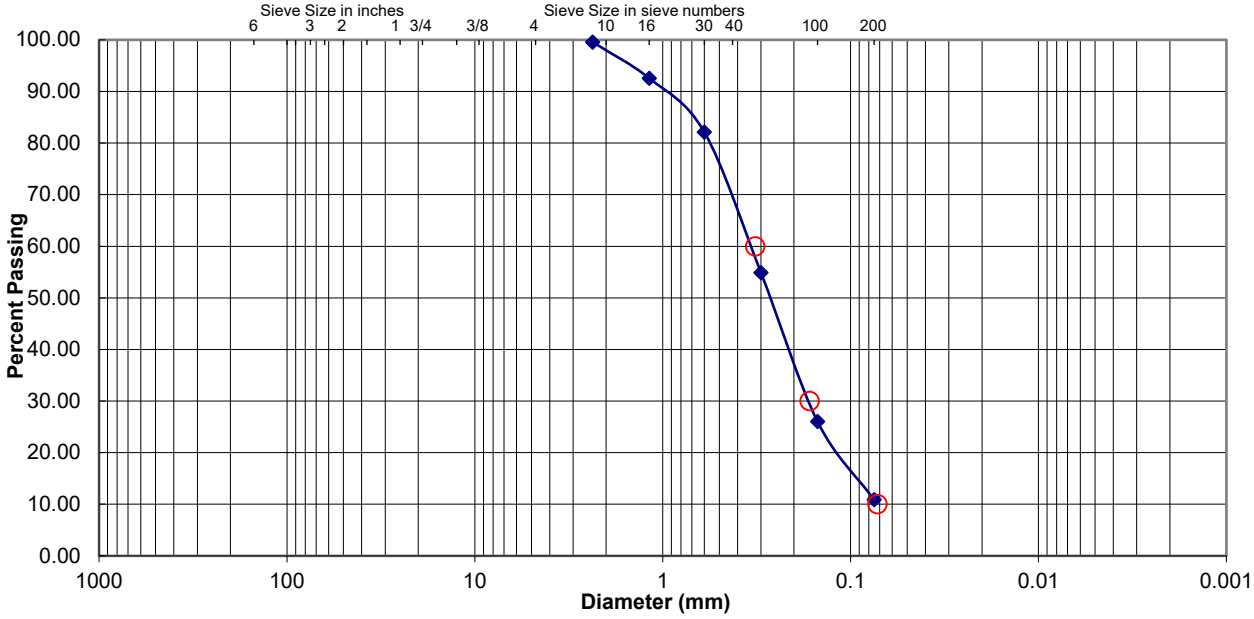
% Gravel	0.0
% Sand	89.1
% Fines	10.9
Fines Classification	ML
D_{10} (mm)	0.0721
D_{30} (mm)	0.1650
D_{60} (mm)	0.3218
Cu	4.46
Cc	1.17

Classification

Poorly Graded Sand (SP-SM) with Silt

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

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File: 8me_Bellefield_Sieve_BTP14-2.xlsm Sheet: Report
Preparation Date: 1-2008
Revision Date: 4-2008

Stantec Consulting Services Inc.

Laboratory Document
Prepared By: JW
Approved By: TLK

Stantec

Gradation Analysis
ASTM D 422

Project Name 8me Bellefield
Source Grab

Preparation Method ASTM D 1140 Method A
Particle Shape
Particle Hardness
Sample Dry Mass (g) 337.30
Moisture Content (%) 2.8

Project Number 185704636
Lab ID BTP15-2'
Date Received 09-28-2019
Preparation Date 09-29-2019
Test Date 09-30-2019

Analysis based on total sample.

Sieve Size	Grams Retained	% Retained	% Passing
No. 4	1.50	0.4	99.6
No. 8	7.90	2.3	97.2
No. 16	15.80	4.7	92.5
No. 30	40.50	12.0	80.5
No. 50	82.00	24.3	56.2
No. 100	73.50	21.8	34.4
No. 200	39.00	11.6	22.9
Pan	77.10	22.9	---

% Gravel 0.4
% Sand 76.7
% Fines 22.9
Fines Classification ML

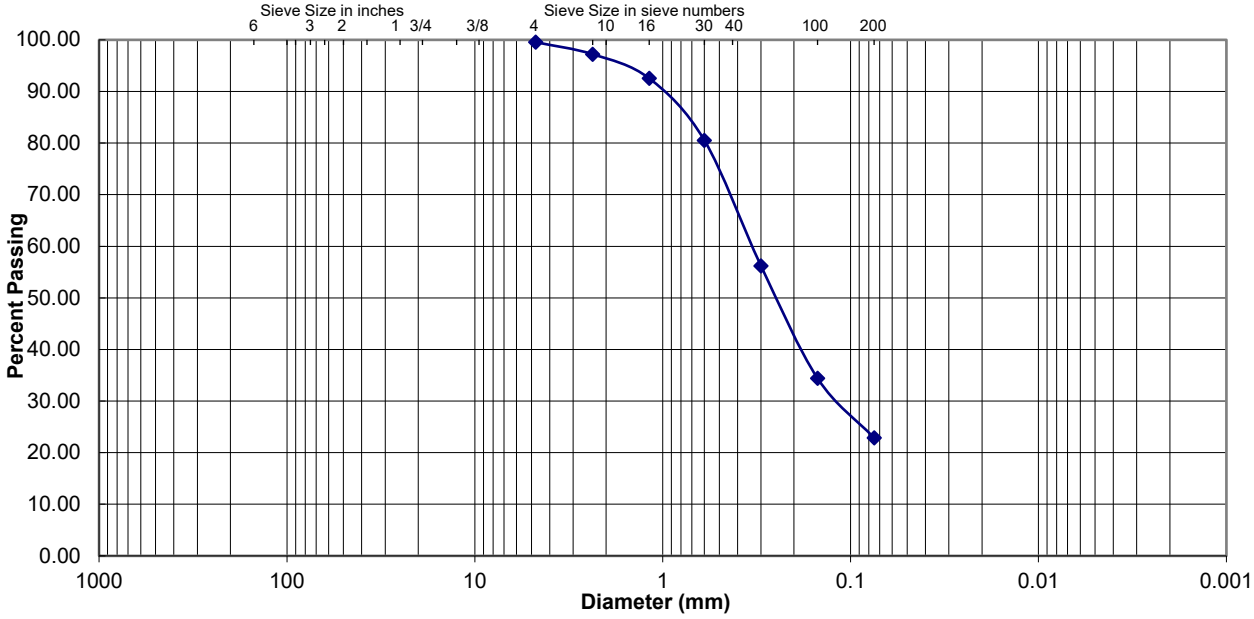
D_{10} (mm) N/A
D_{30} (mm) N/A
D_{60} (mm) N/A

Cu N/A
Cc N/A

Classification
Silty Sand (SM)

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By JF

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Gradation Analysis
ASTM D 422

Project Name 8me Bellefield
Source Grab

Preparation Method ASTM D 1140 Method A
Particle Shape
Particle Hardness
Sample Dry Mass (g) 394.10
Moisture Content (%) 1.2

Project Number 185704636
Lab ID BTP16-2'
Date Received 10-03-2019
Preparation Date 10-03-2019
Test Date 10-05-2019

Analysis based on total sample.

Sieve Size	Grams Retained	% Retained	% Passing
No. 16	12.60	3.2	96.8
No. 30	75.30	19.1	77.7
No. 50	122.90	31.2	46.5
No. 100	109.90	27.9	18.6
No. 200	48.10	12.2	6.4
Pan	25.30	6.4	---

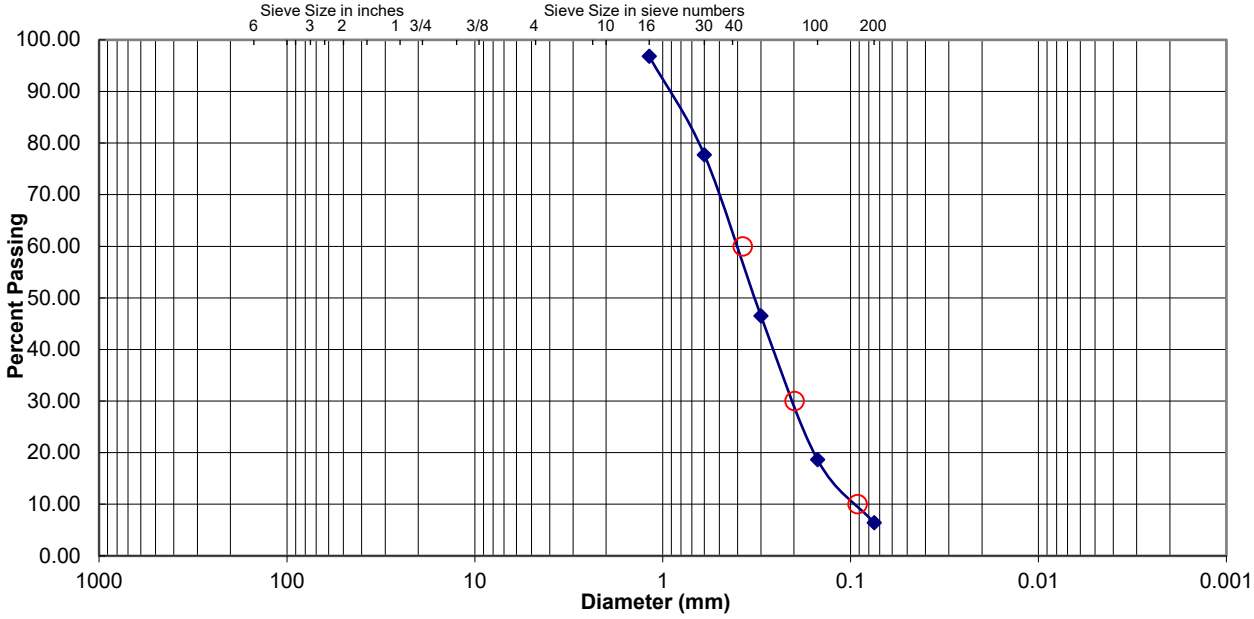
% Gravel	0.0
% Sand	93.6
% Fines	6.4
Fines Classification	ML
D_{10} (mm)	0.0919
D_{30} (mm)	0.1990
D_{60} (mm)	0.3749
Cu	4.08
Cc	1.15

Classification

Poorly Graded Sand (SP-SM) with Silt

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

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File: 8me_Bellefield_Sieve_BTP16-2.xlsm Sheet: Report
Preparation Date: 1-2008
Revision Date: 4-2008

Stantec Consulting Services Inc.

Laboratory Document
Prepared By: JW
Approved By: TLK

Stantec

Gradation Analysis
ASTM D 422

Project Name 8me Bellefield
Source Grab

Preparation Method ASTM D 1140 Method A
Particle Shape
Particle Hardness
Sample Dry Mass (g) 294.00
Moisture Content (%) 5.3

Project Number 185704636
Lab ID BTP17-2'
Date Received 09-28-2019
Preparation Date 10/1/19
Test Date 10-02-2019

Analysis based on total sample.

Sieve Size	Grams Retained	% Retained	% Passing
No. 4	1.60	0.5	99.5
No. 8	2.20	0.7	98.7
No. 16	10.20	3.5	95.2
No. 30	29.60	10.1	85.2
No. 50	52.90	18.0	67.2
No. 100	75.80	25.8	41.4
No. 200	47.60	16.2	25.2
Pan	74.10	25.2	---

% Gravel 0.5
% Sand 74.3
% Fines 25.2
Fines Classification ML

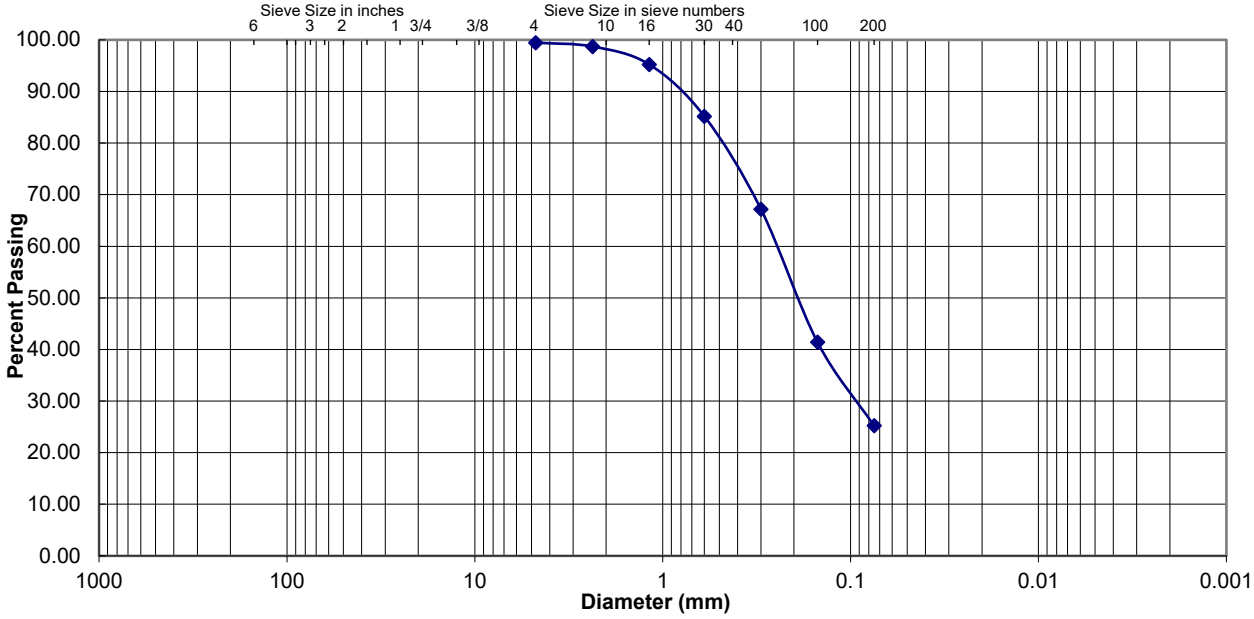
D_{10} (mm) N/A
D_{30} (mm) N/A
D_{60} (mm) N/A

Cu N/A
Cc N/A

Classification
Silty Sand (SM)

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By JF

Stantec

Gradation Analysis
ASTM D 422

Project Name 8me Bellefield
Source Grab

Preparation Method ASTM D 1140 Method A
Particle Shape
Particle Hardness
Sample Dry Mass (g) 344.00
Moisture Content (%) 1.1

Project Number 185704636
Lab ID BTP18-2'
Date Received 10-03-2019
Preparation Date 10-03-2019
Test Date 10-05-2019

Analysis based on total sample.

Sieve Size	Grams Retained	% Retained	% Passing
No. 8	1.10	0.3	99.7
No. 16	30.50	8.9	90.8
No. 30	59.20	17.2	73.6
No. 50	93.20	27.1	46.5
No. 100	85.10	24.7	21.8
No. 200	48.00	14.0	7.8
Pan	26.90	7.8	---

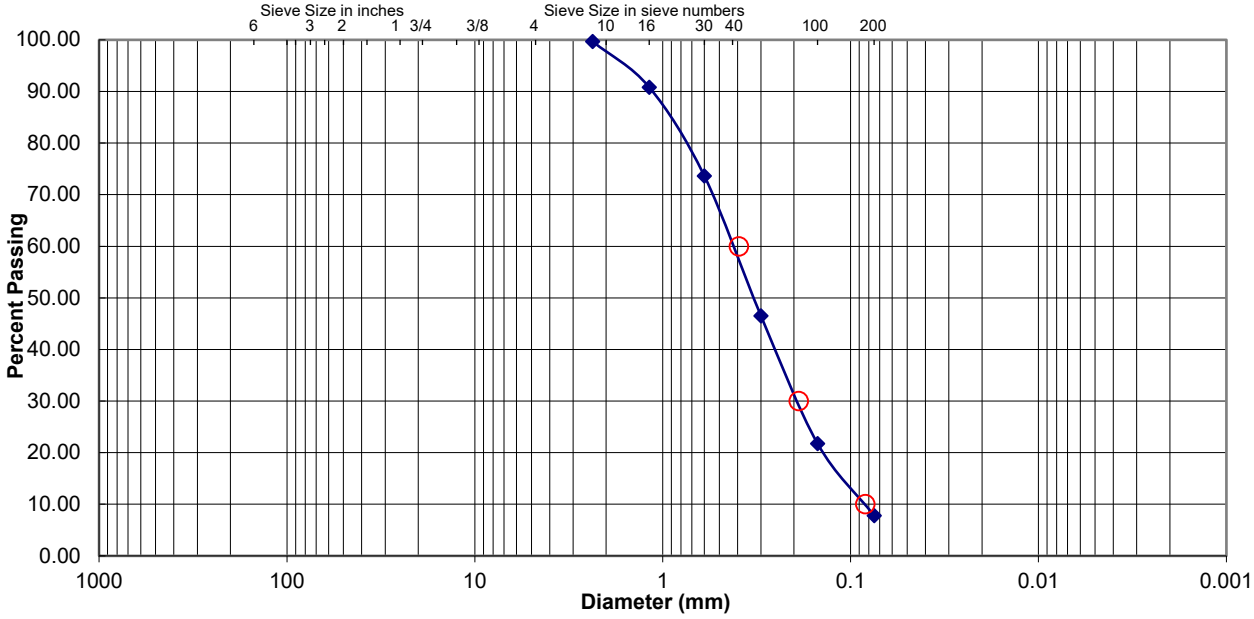
% Gravel	0.0
% Sand	92.2
% Fines	7.8
Fines Classification	ML
D_{10} (mm)	0.0836
D_{30} (mm)	0.1889
D_{60} (mm)	0.3936
Cu	4.71
Cc	1.08

Classification

Poorly Graded Sand (SP-SM) with Silt

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By

File: 8me_Bellefield_Sieve_BTP18-2.xlsm Sheet: Report
Preparation Date: 1-2008
Revision Date: 4-2008

Stantec Consulting Services Inc.

Laboratory Document
Prepared By: JW
Approved By: TLK

Stantec

Gradation Analysis
ASTM D 422

Project Name 8me Bellefield
Source Grab

Preparation Method ASTM D 1140 Method A
Particle Shape
Particle Hardness
Sample Dry Mass (g) 282.40
Moisture Content (%) 8.1

Project Number 185704636
Lab ID BTP19-2'
Date Received 09-28-2019
Preparation Date 10/1/19
Test Date 10-02-2019

Analysis based on total sample.

Sieve Size	Grams Retained	% Retained	% Passing
No. 4	13.90	4.9	95.1
No. 8	13.70	4.9	90.2
No. 16	13.50	4.8	85.4
No. 30	18.00	6.4	79.1
No. 50	44.30	15.7	63.4
No. 100	43.80	15.5	47.9
No. 200	25.20	8.9	39.0
Pan	110.00	39.0	---

% Gravel 4.9
% Sand 56.1
% Fines 39.0
Fines Classification ML

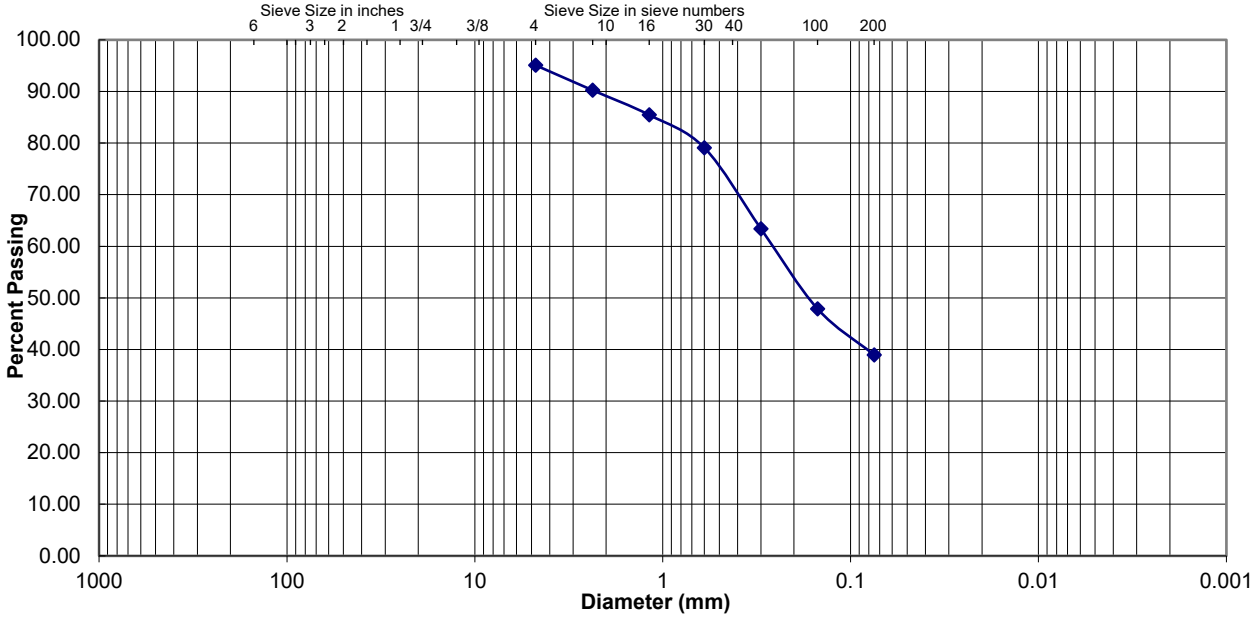
D_{10} (mm) N/A
D_{30} (mm) N/A
D_{60} (mm) N/A

Cu N/A
Cc N/A

Classification
Silty Sand (SM)

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By JF

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Gradation Analysis
ASTM D 422

Project Name 8me Bellefield
Source Grab

Preparation Method ASTM D 1140 Method A
Particle Shape
Particle Hardness
Sample Dry Mass (g) 340.80
Moisture Content (%) 4.2

Project Number 185704636
Lab ID BTP20-2'
Date Received 10-03-2019
Preparation Date 10-03-2019
Test Date 10-05-2019

Analysis based on total sample.

Sieve Size	Grams Retained	% Retained	% Passing
1"	37.20	10.9	89.1
3/4"	0.00	0.0	89.1
1/2"	0.00	0.0	89.1
3/8"	10.40	3.1	86.0
No. 4	93.50	27.4	58.6
No. 8	71.60	21.0	37.6
No. 16	56.80	16.7	20.9
No. 30	31.20	9.2	11.8
No. 50	18.90	5.5	6.2
No. 100	9.70	2.8	3.4
No. 200	3.40	1.0	2.4
Pan	8.10	2.4	---

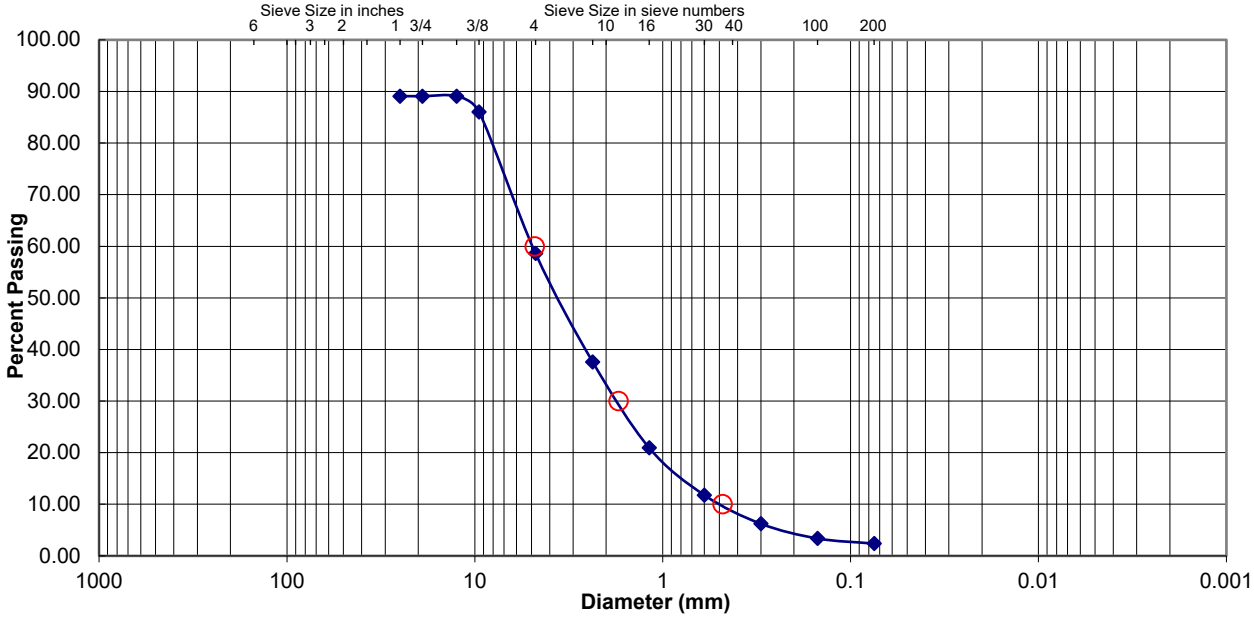
% Gravel	41.4
% Sand	56.2
% Fines	2.4
Fines Classification	ML
D_{10} (mm)	0.4811
D_{30} (mm)	1.7213
D_{60} (mm)	4.7913
Cu	9.96
Cc	1.29

Classification

Well Graded Sand (SW) with Gravel

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

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Stantec

Gradation Analysis
ASTM D 422

Project Name 8me Bellefield
Source Grab

Preparation Method ASTM D 1140 Method A
Particle Shape
Particle Hardness
Sample Dry Mass (g) 426.70
Moisture Content (%) 2.8

Project Number 185704636
Lab ID BTP20-5'
Date Received 09-28-2019
Preparation Date 09-29-2019
Test Date 09-30-2019

Analysis based on total sample.

Sieve Size	Grams Retained	% Retained	% Passing
1/2"	6.50	1.5	98.5
3/8"	9.70	2.3	96.2
No. 4	55.30	13.0	83.2
No. 8	73.00	17.1	66.1
No. 16	84.50	19.8	46.3
No. 30	81.80	19.2	27.2
No. 50	70.20	16.5	10.7
No. 100	24.80	5.8	4.9
No. 200	5.80	1.4	3.5
Pan	15.10	3.5	---

% Gravel 16.8
% Sand 79.7
% Fines 3.5
Fines Classification ML

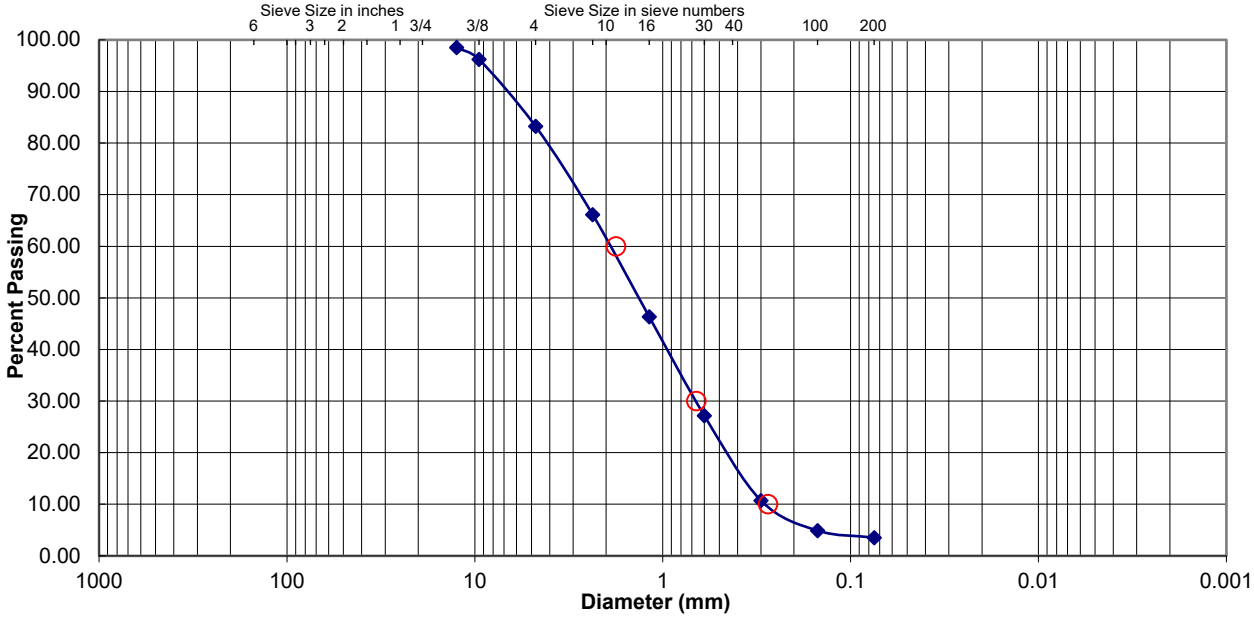
D_{10} (mm) 0.2756
D_{30} (mm) 0.6632
D_{60} (mm) 1.7739

Cu 6.44
Cc 0.90

Classification
Poorly Graded Sand (SP) with Gravel

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By JF

Stantec

Gradation Analysis
ASTM D 422

Project Name 8me Bellefield
Source Grab

Preparation Method ASTM D 1140 Method A
Particle Shape
Particle Hardness
Sample Dry Mass (g) 264.10
Moisture Content (%) 4.1

Project Number 185704636
Lab ID BTP21-2'
Date Received 10-03-2019
Preparation Date 10-03-2019
Test Date 10-05-2019

Analysis based on total sample.

Sieve Size	Grams Retained	% Retained	% Passing
3/8"	2.00	0.8	99.2
No. 4	7.30	2.8	96.5
No. 8	23.20	8.8	87.7
No. 16	35.90	13.6	74.1
No. 30	37.10	14.0	60.1
No. 50	41.00	15.5	44.5
No. 100	33.20	12.6	32.0
No. 200	28.30	10.7	21.2
Pan	56.10	21.2	---

% Gravel 3.5
% Sand 75.2
% Fines 21.2
Fines Classification ML

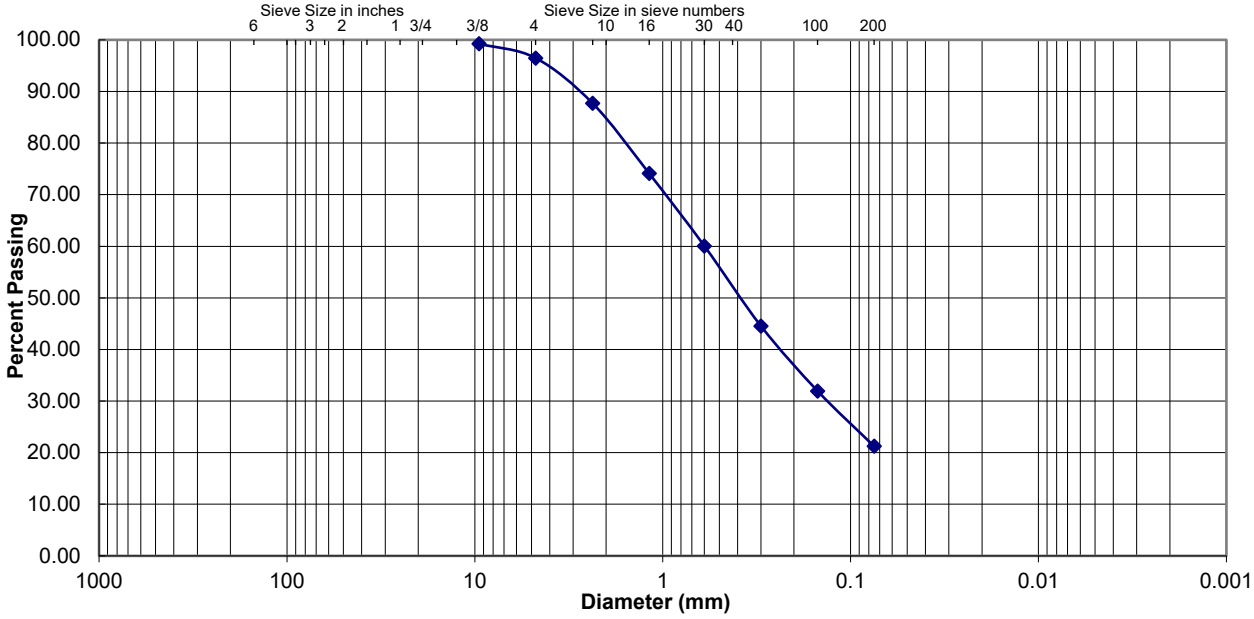
D_{10} (mm) N/A
D_{30} (mm) N/A
D_{60} (mm) N/A

Cu N/A
Cc N/A

Classification
Silty Sand (SM)

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By

Stantec

Gradation Analysis
ASTM D 422

Project Name 8me Bellefield
Source Grab

Preparation Method ASTM D 1140 Method A
Particle Shape
Particle Hardness
Sample Dry Mass (g) 372.60
Moisture Content (%) 2.8

Project Number 185704636
Lab ID BTP22-2'
Date Received 10-03-2019
Preparation Date 10-03-2019
Test Date 10-05-2019

Analysis based on total sample.

Sieve Size	Grams Retained	% Retained	% Passing
No. 4	10.60	2.8	97.2
No. 8	22.10	5.9	91.2
No. 16	32.10	8.6	82.6
No. 30	47.20	12.7	69.9
No. 50	66.40	17.8	52.1
No. 100	39.70	10.7	41.5
No. 200	53.50	14.4	27.1
Pan	101.00	27.1	---

% Gravel 2.8
% Sand 70.0
% Fines 27.1
Fines Classification ML

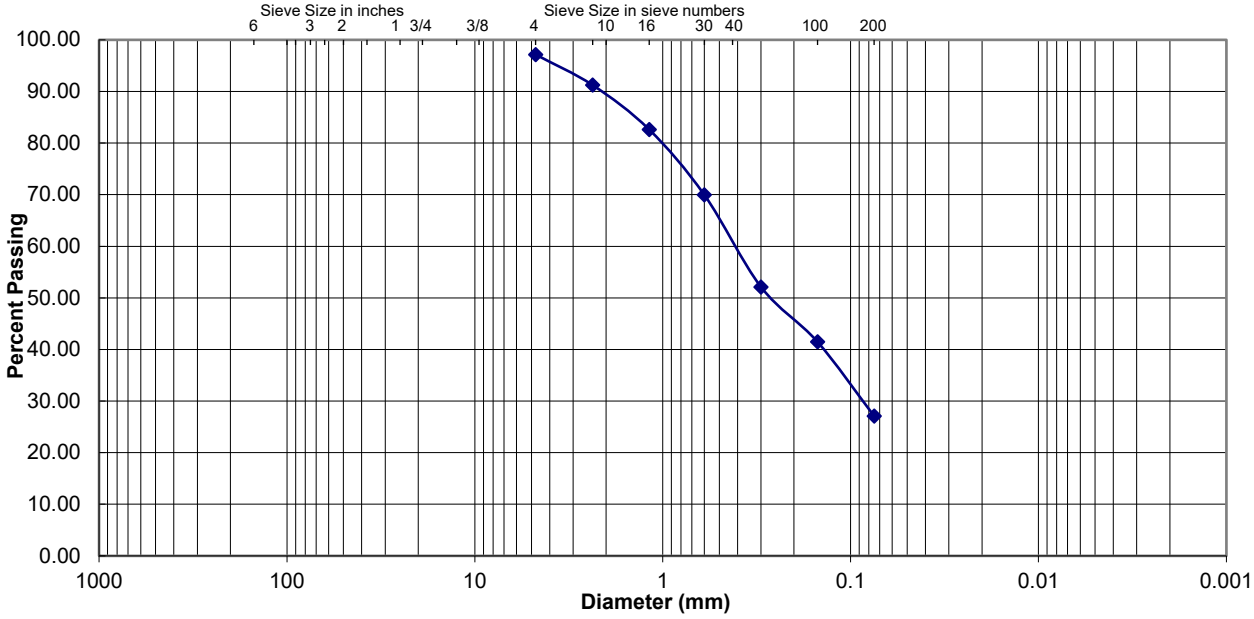
D_{10} (mm) N/A
D_{30} (mm) N/A
D_{60} (mm) N/A

Cu N/A
Cc N/A

Classification
Silty Sand (SM)

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By

Stantec

Gradation Analysis
ASTM D 422

Project Name 8me Bellefield
Source Grab

Preparation Method ASTM D 1140 Method A
Particle Shape
Particle Hardness
Sample Dry Mass (g) 294.20
Moisture Content (%) 2.4

Project Number 185704636
Lab ID BTP23-2'
Date Received 10-03-2019
Preparation Date 10-03-2019
Test Date 10-04-2019

Analysis based on total sample.

Sieve Size	Grams Retained	% Retained	% Passing
1 1/2"	63.00	21.4	78.6
1"	29.30	10.0	68.6
3/4"	0.00	0.0	68.6
1/2"	13.10	4.5	64.2
3/8"	6.70	2.3	61.9
No. 4	20.80	7.1	54.8
No. 8	63.10	21.4	33.4
No. 16	47.40	16.1	17.3
No. 30	24.30	8.3	9.0
No. 50	13.60	4.6	4.4
No. 100	5.70	1.9	2.4
No. 200	2.70	0.9	1.5
Pan	4.50	1.5	---

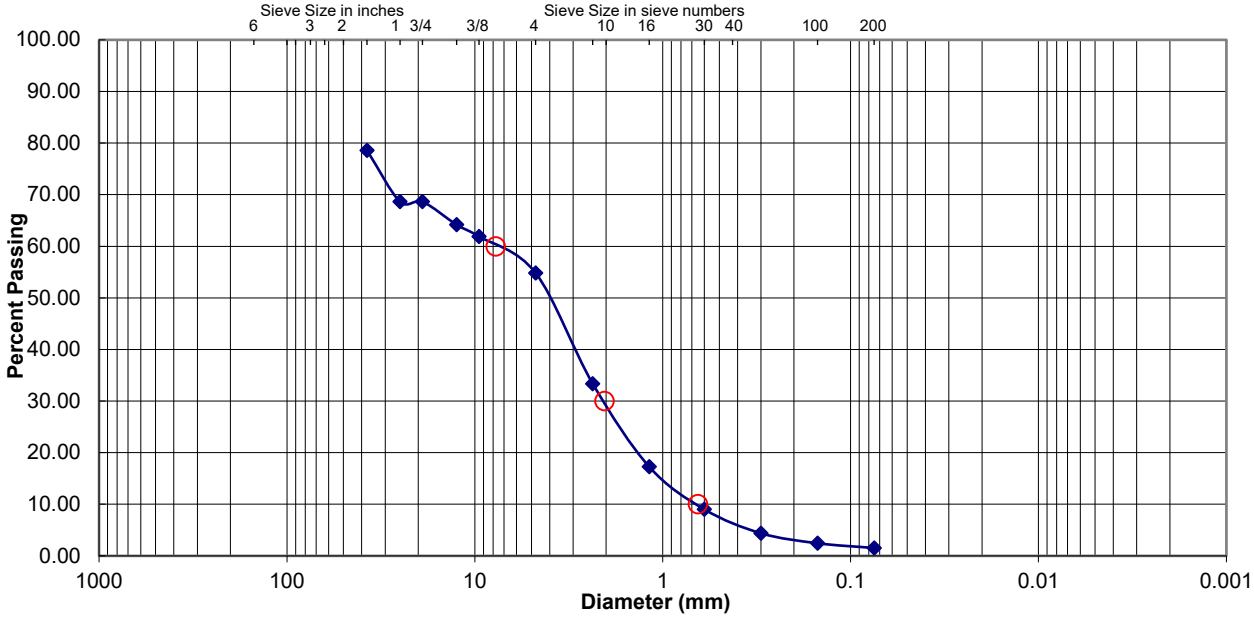
% Gravel	45.2
% Sand	53.3
% Fines	1.5
Fines Classification	ML
D_{10} (mm)	0.6508
D_{30} (mm)	2.0407
D_{60} (mm)	7.7580
Cu	11.92
Cc	0.82

Classification

Poorly Graded Sand (SP) with Gravel

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By

File: 8me_Bellefield_Sieve_BTP23-2.xlsm Sheet: Report
Preparation Date: 1-2008
Revision Date: 4-2008

Stantec Consulting Services Inc.

Laboratory Document
Prepared By: JW
Approved By: TLK

Stantec

Gradation Analysis
ASTM D 422

Project Name 8me Bellefield
Source Grab

Preparation Method ASTM D 1140 Method A
Particle Shape
Particle Hardness
Sample Dry Mass (g) 332.00
Moisture Content (%) 3.2

Project Number 185704636
Lab ID BTP24-2'
Date Received 10-03-2019
Preparation Date 10-03-2019
Test Date 10-05-2019

Analysis based on total sample.

Sieve Size	Grams Retained	% Retained	% Passing
No. 4	2.60	0.8	99.2
No. 8	15.30	4.6	94.6
No. 16	33.20	10.0	84.6
No. 30	43.70	13.2	71.4
No. 50	56.70	17.1	54.4
No. 100	56.70	17.1	37.3
No. 200	42.80	12.9	24.4
Pan	81.00	24.4	---

% Gravel 0.8
% Sand 74.8
% Fines 24.4
Fines Classification ML

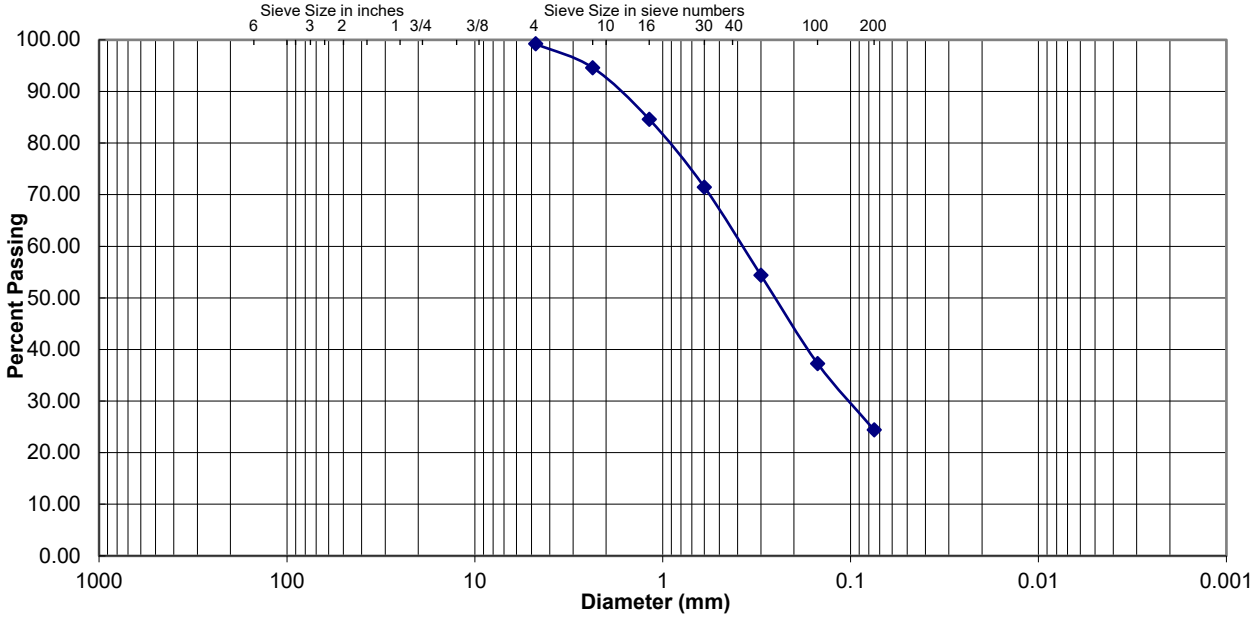
D_{10} (mm) N/A
D_{30} (mm) N/A
D_{60} (mm) N/A

Cu N/A
Cc N/A

Classification
Silty Sand (SM)

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By

File: 8me_Bellefield_Sieve_BTP24-2.xlsm Sheet: Report
Preparation Date: 1-2008
Revision Date: 4-2008

Stantec Consulting Services Inc.

Laboratory Document
Prepared By: JW
Approved By: TLK

Stantec

Gradation Analysis
ASTM D 422

Project Name	8me Bellefield	Project Number	185704636
Source	Grab	Lab ID	BTP25-2'
		Date Received	10-03-2019
Preparation Method	ASTM D 1140 Method A	Preparation Date	10-03-2019
Particle Shape		Test Date	10-05-2019
Particle Hardness			
Sample Dry Mass (g)	215.80	Analysis based on total sample.	
Moisture Content (%)	3.4		

Sieve Size	Grams Retained	% Retained	% Passing
1"	41.80	19.4	80.6
3/4"	0.00	0.0	80.6
1/2"	19.40	9.0	71.6
3/8"	0.00	0.0	71.6
No. 4	21.20	9.8	61.8
No. 8	37.70	17.5	44.3
No. 16	27.40	12.7	31.6
No. 30	15.20	7.0	24.6
No. 50	11.20	5.2	19.4
No. 100	10.40	4.8	14.6
No. 200	9.80	4.5	10.1
Pan	21.70	10.1	---

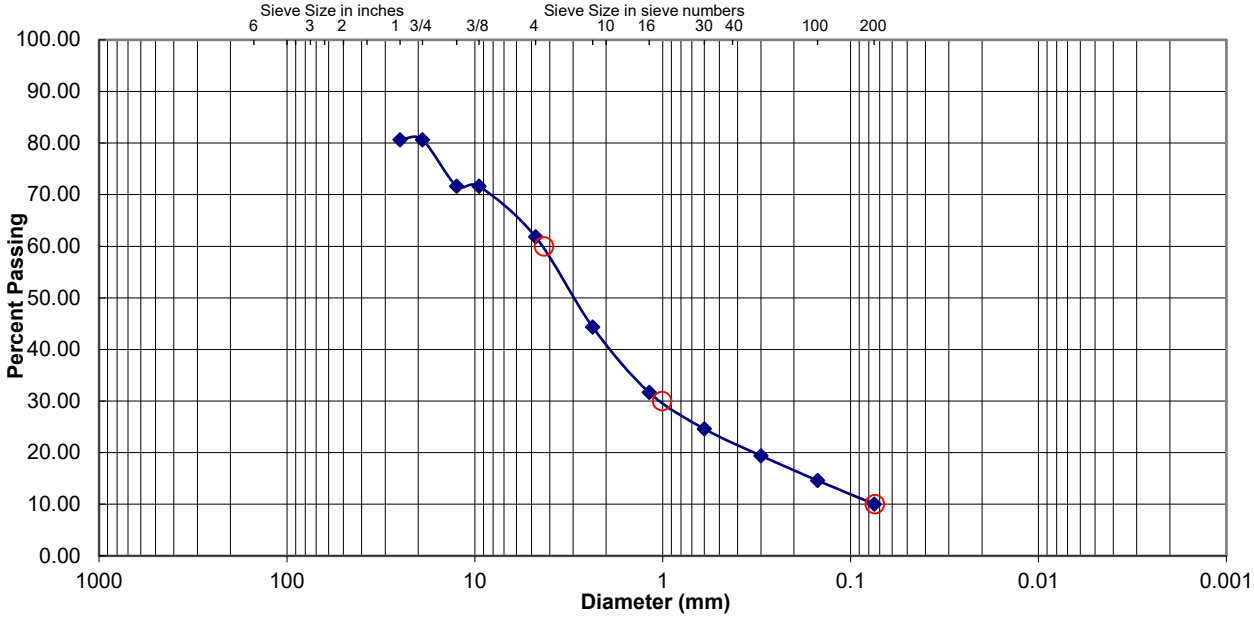
% Gravel	38.2
% Sand	51.8
% Fines	10.1
Fines Classification	ML
D_{10} (mm)	0.0744
D_{30} (mm)	1.0071
D_{60} (mm)	4.2868
Cu	57.64
Cc	3.18

Classification

Poorly Graded Sand (SP-SM) with Silt and Gravel

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By

File: 8me_Bellefield_Sieve_BTP25-2.xlsm Sheet: Report
Preparation Date: 1-2008
Revision Date: 4-2008

Stantec Consulting Services Inc.

Laboratory Document
Prepared By: JW
Approved By: TLK

Stantec

Gradation Analysis
ASTM D 422

Project Name 8me Bellefield
Source Grab

Preparation Method ASTM D 1140 Method A
Particle Shape
Particle Hardness
Sample Dry Mass (g) 301.00
Moisture Content (%) 3.6

Project Number 185704636
Lab ID BTP27-2'
Date Received 09-28-2019
Preparation Date 09-29-2019
Test Date 09-30-2019

Analysis based on total sample.

Sieve Size	Grams Retained	% Retained	% Passing
No. 4	6.50	2.2	97.8
No. 8	5.50	1.8	96.0
No. 16	14.50	4.8	91.2
No. 30	41.40	13.8	77.4
No. 50	79.60	26.4	51.0
No. 100	67.50	22.4	28.6
No. 200	38.00	12.6	15.9
Pan	48.00	15.9	---

% Gravel 2.2
% Sand 81.9
% Fines 15.9
Fines Classification ML

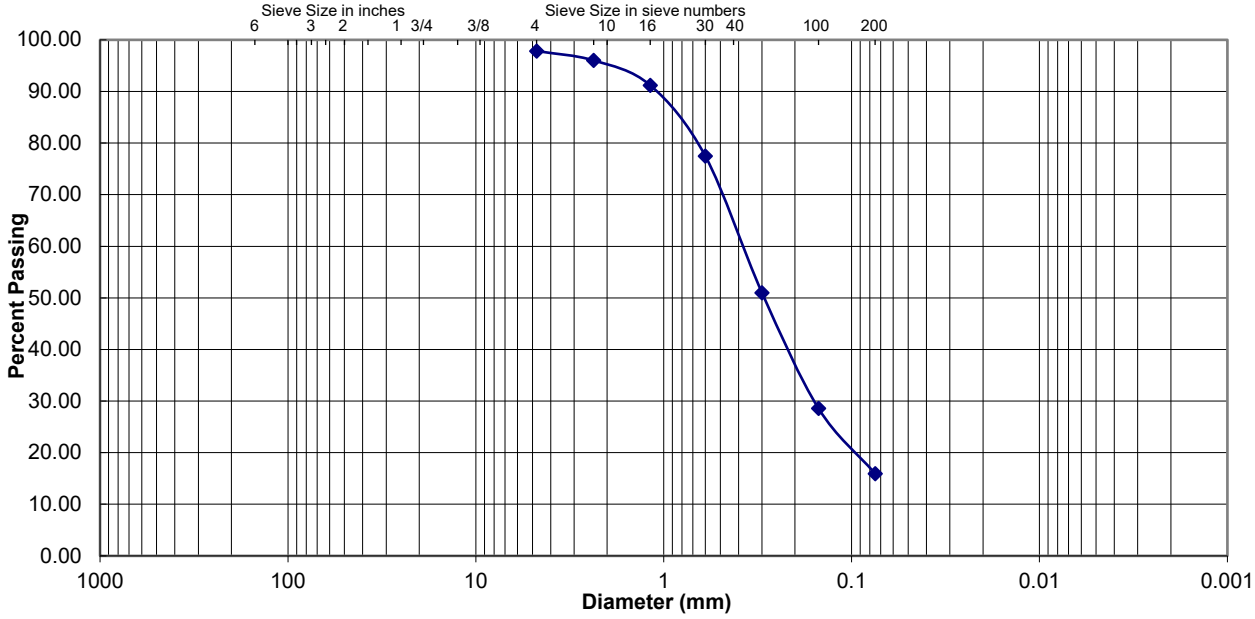
D_{10} (mm) N/A
D_{30} (mm) N/A
D_{60} (mm) N/A

Cu N/A
Cc N/A

Classification
Silty Sand (SM)

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By JF

Stantec

Gradation Analysis
ASTM D 422

Project Name	8me Bellefield	Project Number	185704636
Source	Grab	Lab ID	BTP29-2'
		Date Received	09-28-2019
Preparation Method	ASTM D 1140 Method A	Preparation Date	10/1/19
Particle Shape		Test Date	10-01-2019
Particle Hardness			
Sample Dry Mass (g)	342.80	Analysis based on total sample.	
Moisture Content (%)	2.7		

Sieve Size	Grams Retained	% Retained	% Passing
No. 4	6.70	2.0	98.0
No. 8	5.20	1.5	96.5
No. 16	8.70	2.5	94.0
No. 30	33.40	9.7	84.2
No. 50	57.60	16.8	67.4
No. 100	79.90	23.3	44.1
No. 200	56.60	16.5	27.6
Pan	94.70	27.6	---

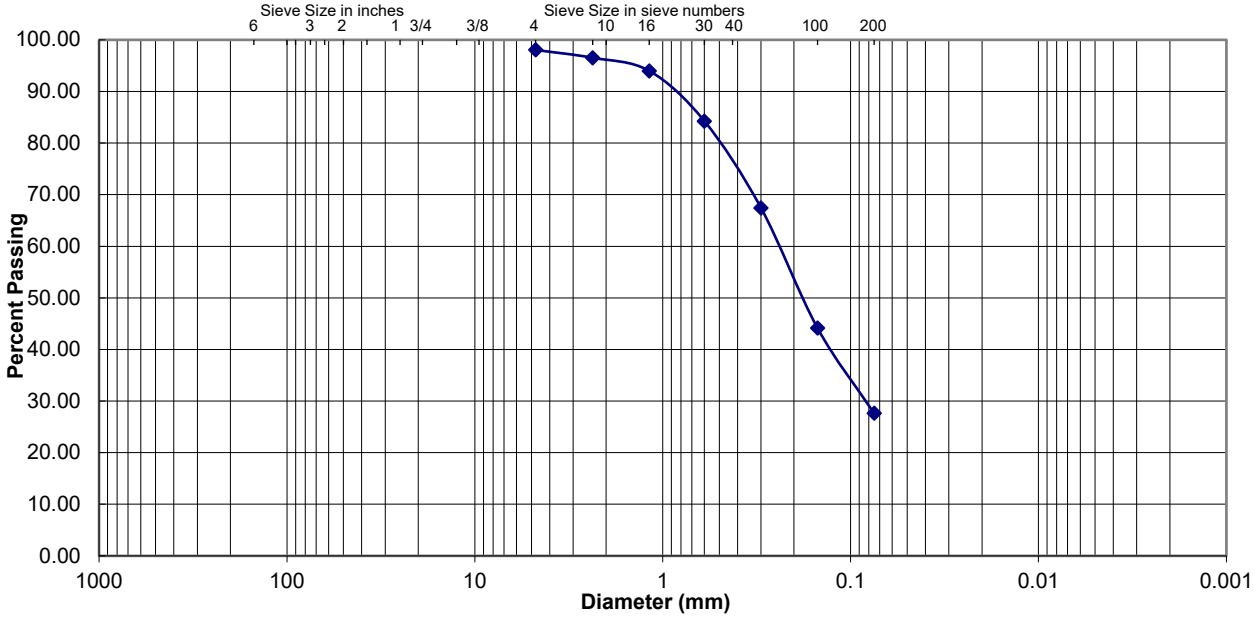
% Gravel	2.0
% Sand	70.4
% Fines	27.6
Fines Classification	ML
D_{10} (mm)	N/A
D_{30} (mm)	N/A
D_{60} (mm)	N/A
Cu	N/A
Cc	N/A

Classification

Silty Sand (SM)

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By JF

Stantec

Gradation Analysis
ASTM D 422

Project Name 8me Bellefield
Source Grab

Preparation Method ASTM D 1140 Method A
Particle Shape
Particle Hardness
Sample Dry Mass (g) 321.00
Moisture Content (%) 5.3

Project Number 185704636
Lab ID BTP31-2'
Date Received 10-03-2019
Preparation Date 10-03-2019
Test Date 10-04-2019

Analysis based on total sample.

Sieve Size	Grams Retained	% Retained	% Passing
No. 4	0.60	0.2	99.8
No. 8	0.00	0.0	99.8
No. 16	3.80	1.2	98.6
No. 30	16.40	5.1	93.5
No. 50	59.90	18.7	74.9
No. 100	113.70	35.4	39.4
No. 200	68.30	21.3	18.2
Pan	58.30	18.2	---

% Gravel 0.2
% Sand 81.7
% Fines 18.2
Fines Classification ML

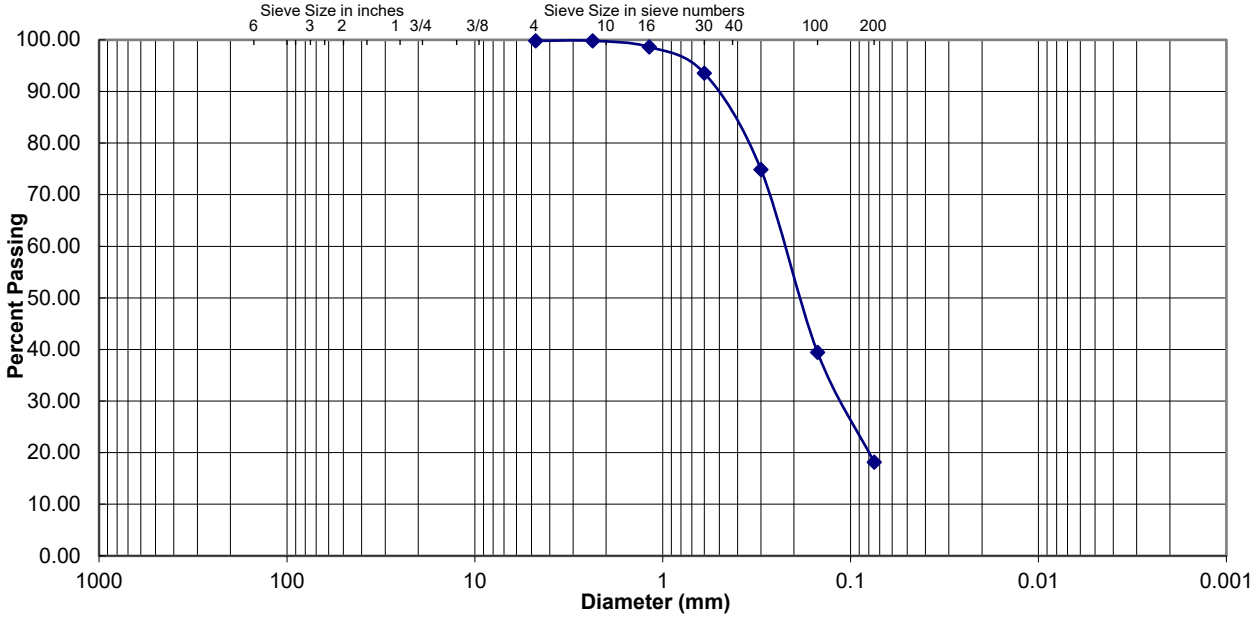
D_{10} (mm) N/A
D_{30} (mm) N/A
D_{60} (mm) N/A

Cu N/A
Cc N/A

Classification
Silty Sand (SM)

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By

File: 8me_Bellefield_Sieve_BTP31-2.xlsm Sheet: Report
Preparation Date: 1-2008
Revision Date: 4-2008

Stantec Consulting Services Inc.

Laboratory Document
Prepared By: JW
Approved By: TLK

Stantec

Gradation Analysis
ASTM D 422

Project Name 8me Bellefield
Source Grab

Preparation Method ASTM D 1140 Method A
Particle Shape
Particle Hardness
Sample Dry Mass (g) 324.10
Moisture Content (%) 5.3

Project Number 185704636
Lab ID BTP32-2'
Date Received 10-03-2019
Preparation Date 10-03-2019
Test Date 10-05-2019

Analysis based on total sample.

Sieve Size	Grams Retained	% Retained	% Passing
No. 4	1.40	0.4	99.6
No. 8	10.40	3.2	96.4
No. 16	18.80	5.8	90.6
No. 30	29.50	9.1	81.5
No. 50	73.90	22.8	58.7
No. 100	68.60	21.2	37.5
No. 200	43.30	13.4	24.1
Pan	78.20	24.1	---

% Gravel 0.4
% Sand 75.4
% Fines 24.1
Fines Classification ML

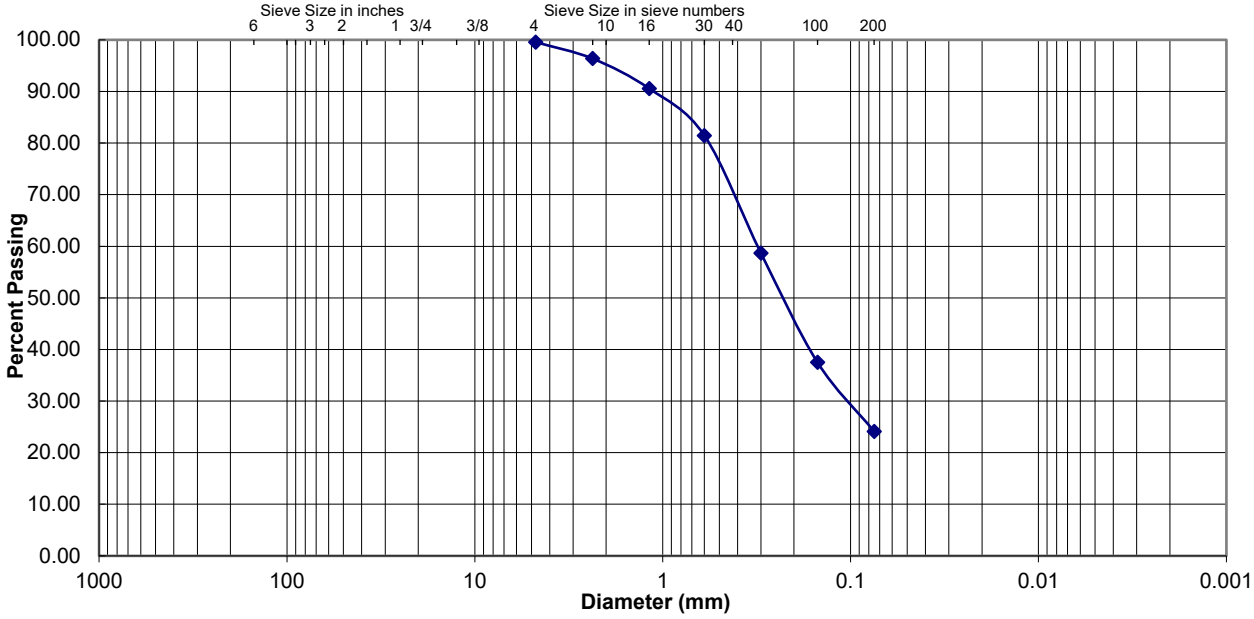
D_{10} (mm) N/A
D_{30} (mm) N/A
D_{60} (mm) N/A

Cu N/A
Cc N/A

Classification
Silty Sand (SM)

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By

File: 8me_Bellefield_Sieve_BTP32-2.xlsm Sheet: Report
Preparation Date: 1-2008
Revision Date: 4-2008

Stantec Consulting Services Inc.

Laboratory Document
Prepared By: JW
Approved By: TLK

Stantec

Gradation Analysis
ASTM D 422

Project Name 8me Bellefield
Source Grab

Preparation Method ASTM D 1140 Method A
Particle Shape
Particle Hardness
Sample Dry Mass (g) 386.10
Moisture Content (%) 3.4

Project Number 185704636
Lab ID BTP33-2'
Date Received 10-03-2019
Preparation Date 10-03-2019
Test Date 10-05-2019

Analysis based on total sample.

Sieve Size	Grams Retained	% Retained	% Passing
1/2"	14.70	3.8	96.2
3/8"	0.00	0.0	96.2
No. 4	13.20	3.4	92.8
No. 8	22.50	5.8	86.9
No. 16	22.60	5.9	81.1
No. 30	30.10	7.8	73.3
No. 50	104.40	27.0	46.3
No. 100	107.00	27.7	18.5
No. 200	45.20	11.7	6.8
Pan	26.40	6.8	---

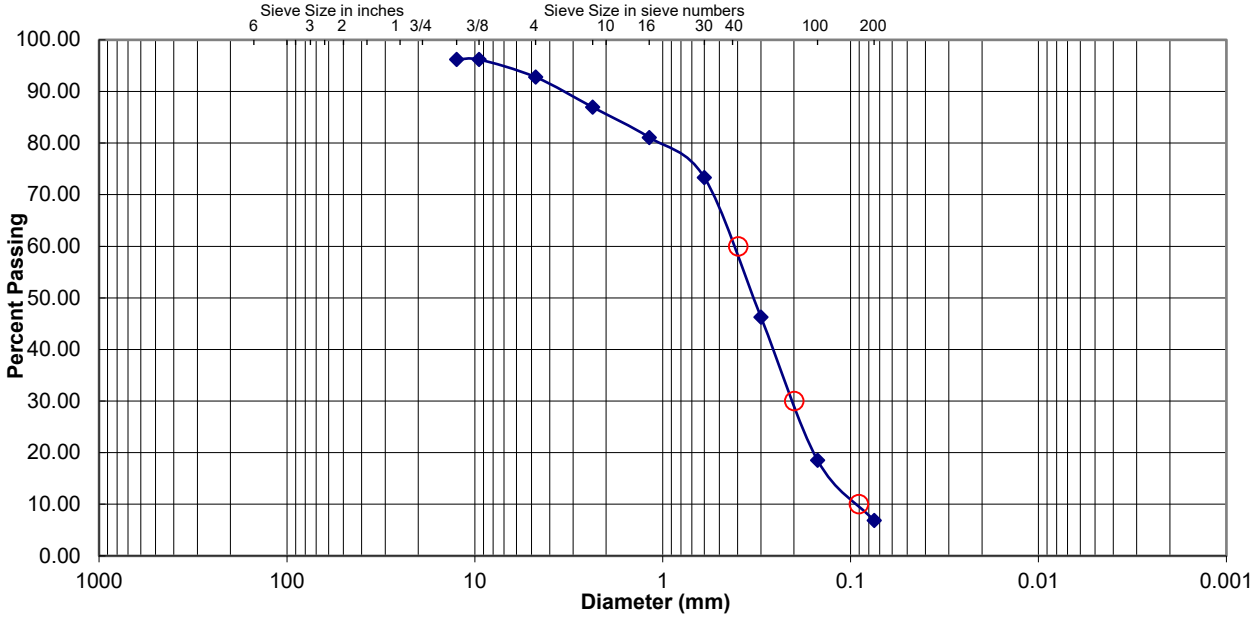
% Gravel	7.2
% Sand	85.9
% Fines	6.8
Fines Classification	ML
D_{10} (mm)	0.0904
D_{30} (mm)	0.1998
D_{60} (mm)	0.3967
Cu	4.39
Cc	1.11

Classification

Poorly Graded Sand (SP-SM) with Silt

Classification determined by ASTM D 2487. -200 material classification determined by visual assessment, ASTM D 2488.

Particle Size Distribution



Comments

Reviewed By

File: 8me_Bellefield_Sieve_BTP33-2.xlsm Sheet: Report
Preparation Date: 1-2008
Revision Date: 4-2008

Stantec Consulting Services Inc.

Laboratory Document
Prepared By: JW
Approved By: TLK

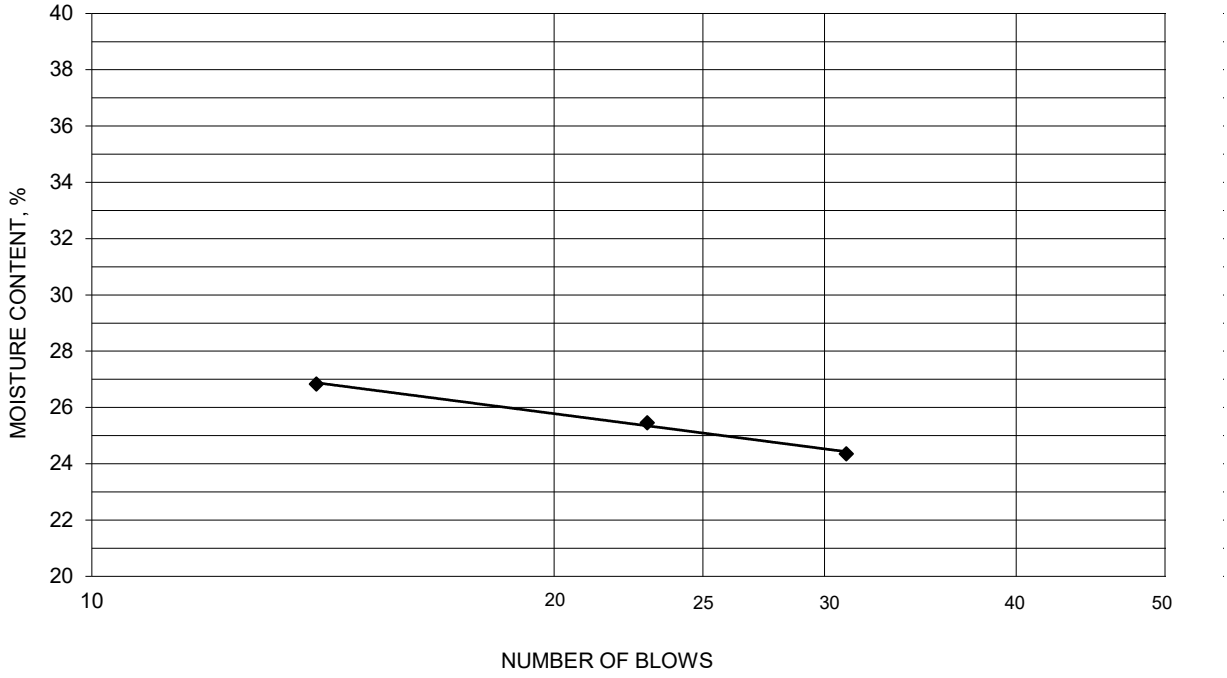
Stantec

ATTERBERG LIMITS

Project	8me Bellefield			Project No.	185704636
Source	BTP6-2'			Lab ID	Grab
Tested By	M.P.	Test Method	ASTM D 4318	% + No. 40	57
Test Date	10-05-2019	Prepared	Dry	Date Received	10-03-2019

Wet Soil and Tare Mass (g)	Dry Soil and Tare Mass (g)	Tare Mass (g)	Number of Blows	Water Content (%)	Liquid Limit
20.42	19.09	13.63	31	24.4	
20.42	19.04	13.62	23	25.5	
20.58	19.12	13.68	14	26.8	25

Liquid Limit



PLASTIC LIMIT AND PLASTICITY INDEX

Wet Soil and Tare Mass (g)	Dry Soil and Tare Mass (g)	Tare Mass (g)	Water Content (%)	Plastic Limit	Plasticity Index
21.39	20.20	13.65	18.2	18	7

Remarks: _____

Reviewed By _____

AP Engineering and Testing, Inc.
DBE|MBE|SBE
2607 Pomona Boulevard | Pomona, CA 91768
t. 909.869.6316 | f. 909.869.6318 | www.aplaboratory.com

CORROSION TEST RESULTS

Client Name: Stantec
Project Name: 8me Bellefield
Project No.: 185704636

AP Job No.: 19-0917
Date: 10/1/19

Boring No.	Sample Type	Depth (feet)	Soil Type	Minimum Resistivity (ohm-cm)	pH	Sulfate Content (ppm)	Chloride Content (ppm)
BTP1	Grab	2	SM	5531	7.8	42	31
BTP10	Grab	2	SM	6854	8.2	39	34
BTP20	Grab	2	SM	5085	9.1	46	40

NOTES:
Resistivity Test and pH: California Test Method 643
Sulfate Content : California Test Method 417
Chloride Content : California Test Method 422
ND = Not Detectable
NA = Not Sufficient Sample
NR = Not Requested

Appendix C CEQA GUIDELINES FORM – GEOLOGY AND SOILS

Appendix C CEQA Guidelines form – Geology and Soils

GEOLOGY AND SOILS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
Would the project:					
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to CDMG Special Publication 42)?			X		
ii) Strong Seismic ground shaking?		X			
iii) Seismic-related ground failure, including liquefaction?			X		
iv) Landslides?			X		
b) Result in substantial soil erosion or the loss of topsoil?		X			
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?			X		
d) Be located on expansive soil, as identified in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X		
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for disposal of waste water?			X		

Appendix H
Paleontological Resources Assessment

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Bellefield Solar Project

Paleontological Resources Assessment

prepared for

50LW 8me LLC
5455 Wilshire Boulevard, Suite 2010
Los Angeles, California 90036
Contact: Mr. Erec DeVost

prepared by

Rincon Consultants, Inc.
250 East 1st Street, Suite 1400
Los Angeles, California 90012

June 2020

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

Table of Contents

Tables

Figures

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Executive Summary

Rincon Consultants, Inc. (Rincon) was retained by 50LW 8me LLC to conduct a paleontological resource assessment for the Bellefield Solar Project (project) in the Antelope Valley of Kern County, California. This study has been prepared in conformance with the California Environmental Quality Act (CEQA) and includes a records search, literature review, and paleontological sensitivity assessment consistent with the professional standards of the Society of Vertebrate Paleontology (SVP) (2010). The purpose of the literature review and records search was to identify the geologic unit(s) underlying the project and to determine whether previously recorded paleontological localities occur either within the project boundaries or elsewhere in the same geologic unit. Using the results of the literature review and records search, the paleontological resource potential of the project area was determined in accordance with the 2010 SVP guidelines.

Results of Investigation

Published geologic mapping indicates that the project is underlain by five geologic units: Quaternary (Holocene) alluvium (Qa), Quaternary (Holocene) dune sand (Qs), Quaternary (Pleistocene) fanglomerate (Qf), Miocene Gem Formation (Tgf, Tgp), and Mesozoic intrusive igneous rocks (qm). A records search for paleontological locality data within the project area and the vicinity was obtained from the Natural History Museum of Los Angeles County and online records were reviewed at the University of California's Museum of Paleontology. According to the record searches, no vertebrate fossil localities have been previously recorded directly in the project boundary; however, multiple vertebrate fossil localities have been previously recorded nearby within Quaternary (Pleistocene) alluvial deposits These localities yielded scientifically significant fossilized specimens of large terrestrial mammals, rodents, and reptiles (McLeod 2019a, b). Based on this assessment, the surficial geology of the project area has a low paleontological sensitivity but increases with depth. Quaternary (Pleistocene) sediments may underlie the Quaternary (Holocene) sediments at depths as shallow as five feet below ground surface in the vicinity of the project. As currently proposed, ground disturbing activities associated with the proposed foundations for mounting structures can extend up to 10 feet below ground surface. Therefore, portions of the project area are determined to have a high potential for paleontological resources at depth, and there is a moderate potential for impacts to scientifically significant vertebrate fossils as a result of project construction.

Recommendations

Rincon recommends that a Qualified Paleontologist be retained to develop and implement measures to reduce impacts to paleontological resources to a less than significant level. These measures include paleontological training for construction staff (to be included with the project's Worker's Environmental Awareness Program), paleontological monitoring in areas of high paleontological sensitivity, including areas requiring excavations exceeding five feet below ground surface within intact (native) Pleistocene deposits, and preparation of a paleontological monitoring report, which should be submitted to the approved curation facility, accompanied by any significant fossils recovered during construction monitoring. These measures have been proven to be effective in reducing or eliminating adverse impacts to paleontological resources and would satisfy the requirements of the California Environmental Quality Act.

1 Introduction

Paleontological resources (i.e., fossils) are the remains or traces of prehistoric life. Fossils are typically preserved in layered sedimentary rocks and the distribution of fossils across the landscape is controlled by the distribution and exposure of the fossiliferous sedimentary rock units at and near the surface. Construction related impacts that typically affect or have the potential to affect paleontological resources include mass excavation operations, drilling/borehole excavations, trenching/tunneling, and grading.

This Paleontological Resources Assessment provides a description of the geologic units mapped at the surface within the project area, including types of fossils known to occur within the units (if any), the paleontological sensitivity for each unit, a review of relevant agency regulation, an assessment of potential impacts from project development, and recommended mitigation measures for the protection and recovery of significant fossils that may be impacted. This study has also been conducted in accordance with the requirements of the California Environmental Quality Act (CEQA). The County of Kern (County) is the CEQA Lead Agency for the project.

1.1 Project Location and Description

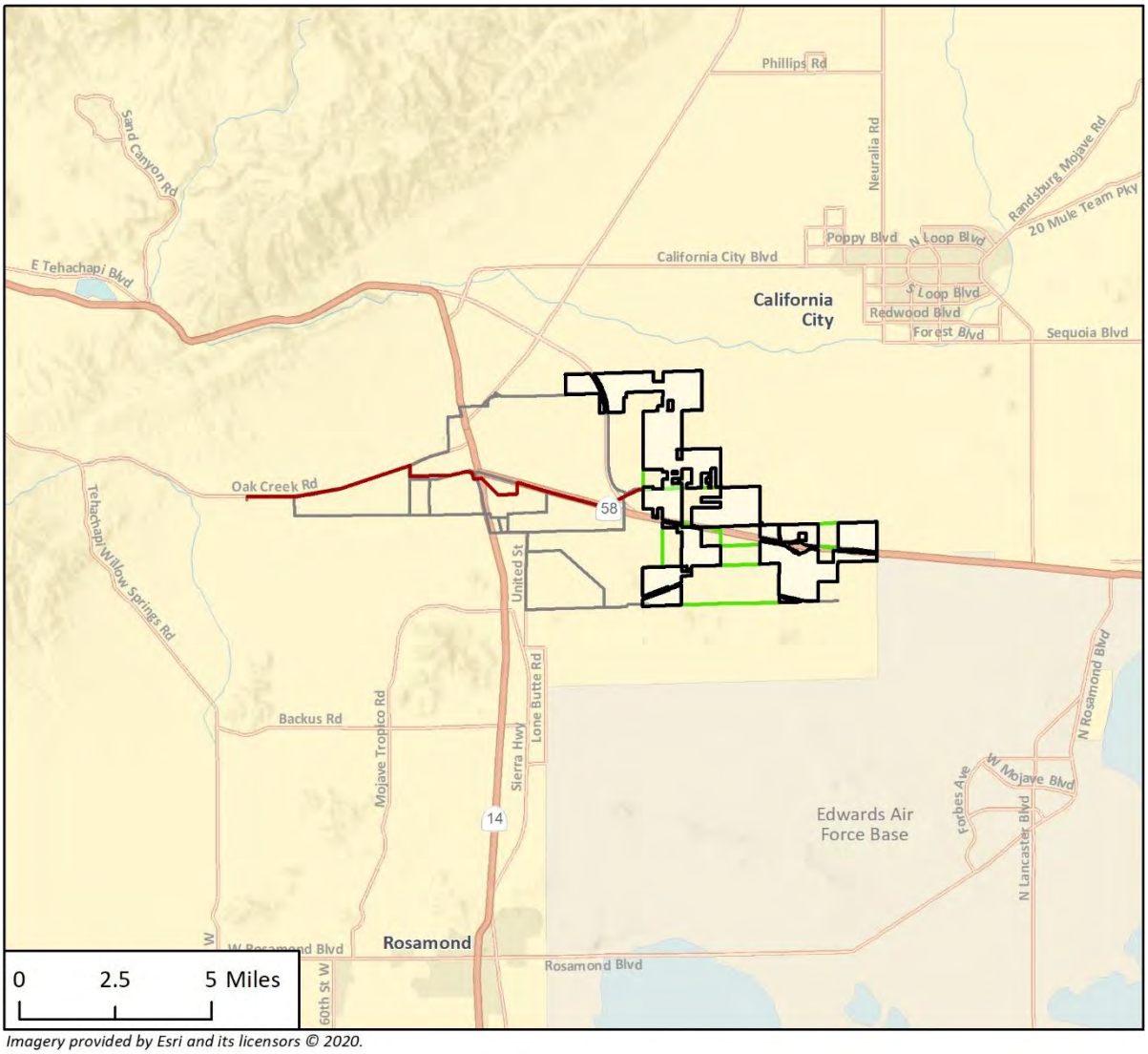
The Bellefield Solar Project ("Bellefield" or "project") is comprised of 90 assessor's parcels, including 80 parcels totaling 6,122 gross acres within unincorporated communities in Kern County and eight assessor's parcels totaling approximately 2,102 gross acres within California City, California. The 8,224-acre project area straddles State Route 58, east of Mojave and west and south of the Hyundai-Kia Proving Ground. 50LW 8me LLC (the Applicant) is seeking approval of Conditional Use Permits from Kern County and California City for the construction of an up to 1,500 megawatt (MW)alternating current (AC) utility-scale solar farm with an up to 750 MW-AC energy storage system known as Bellefield Solar Project. Power generated by Bellefield will be delivered from the project area via up to 230 kilovolt overhead and/or underground electrical transmission line(s), originating from one or more on-site substation(s)/switchyard(s), and terminating at the Southern California Edison Windhub substation. The Applicant proposes to construct, own, and operate Bellefield.

The project may include operations and maintenance (O&M) buildings, substations, energy storage systems (ESS), and/or transmission facilities, as necessary, or it may share such facilities with other nearby projects or with any future energy projects in the area, and/or it may be remotely operated. Alternatively, if shared facilities are used, those areas designated in the application materials for O&M building, substation, and/or transmission facility may be occupied solar panels. Any "unused" O&M building, substation, and/or transmission facility areas on-site may be covered by solar panels under such scenarios. O&M activity is not expected to result in ground disturbance activity that could impact paleontological resources.

Construction of the facility will include site preparation, grading and earthwork, concrete foundations, structural steel work, electrical/instrumentation work, collector line installation, architecture and landscaping. Ground disturbing activities are expected to be limited to the construction of the access roads, site grading, electrical trenching, foundation work for O&M building, foundation work for the substation and/or any ESSs, and any storm water protection or storage (detention) facilities. The foundations for the mounting structures can extend up to a depth

of 10 feet, depending on the structure, soil conditions, and wind loads, and may be encased in concrete or use small concrete footings. Electrical conduit trenching may extend to a depth of four feet. Final grading may include revegetation with low lying grass or applying earth-binding materials to disturbed areas. Figure 1, Regional Location, shows the location of the project area in the region and Figure 2, Project Location, depicts the site in its neighborhood context.

Figure 1 Regional Location



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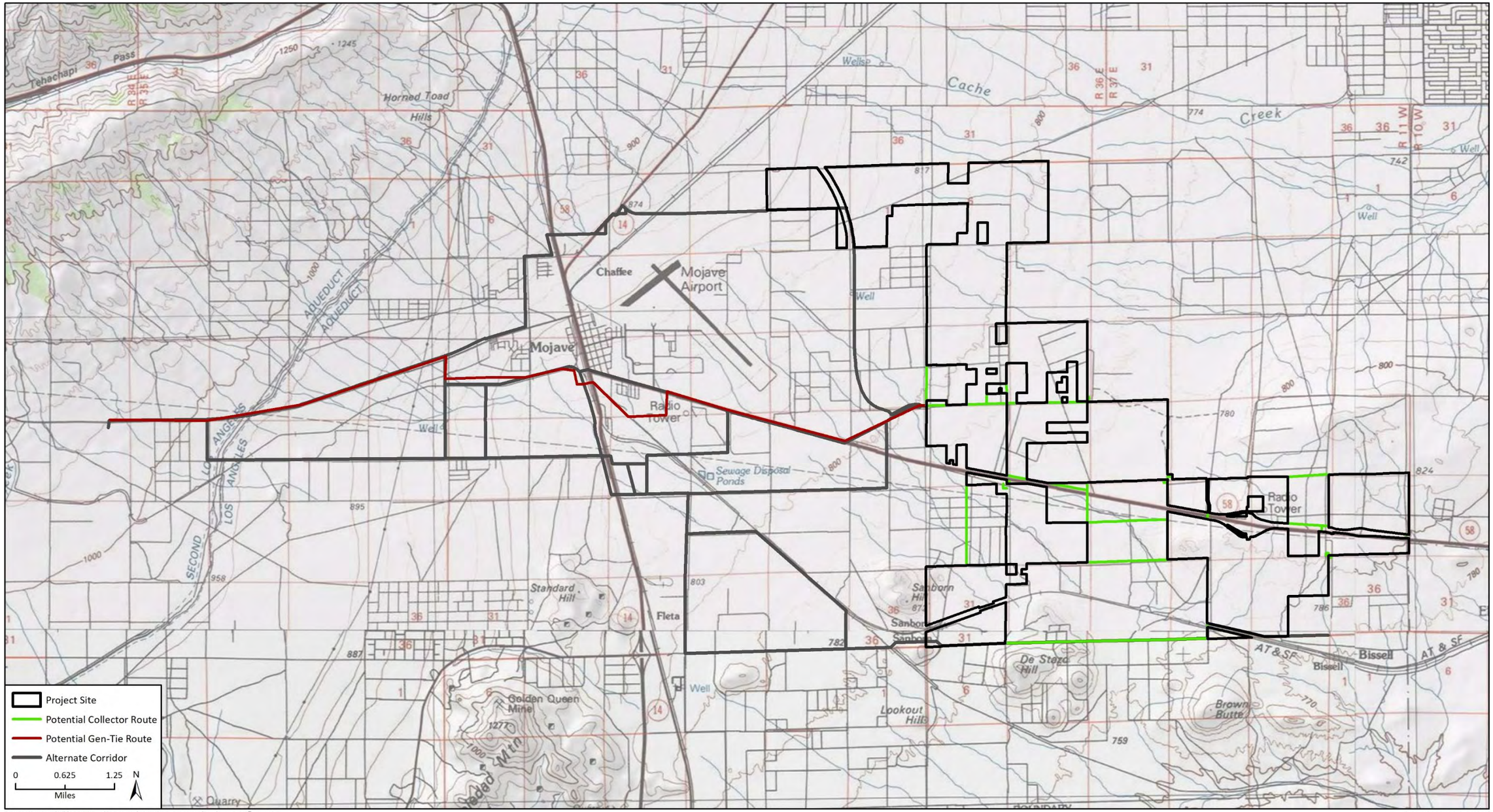
Project Location
Collector Route
Gen-Tie Route
Alternate Corridor

N

Figure 2 Project Location



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JDFig 3 Project Location TOPO

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2 Regulatory Setting

Paleontological resources are considered nonrenewable scientific resources because once destroyed, they cannot be replaced. As such, paleontological resources are afforded protection under various federal, state, and local laws, ordinances, regulations, and standards. Regulations applicable to potential paleontological resources on the project area are summarized below.

2.1 State

California Environmental Quality Act

CEQA requires public agencies and private interests to identify the potential environmental consequences of their proposed projects on any object or site considered to be a historical resource of California (California Public Resources Code [PRC], section 21084.1, California Code of Regulations Title 14, section 15064.5). Appendix G of the *State CEQA Guidelines* (California Code of Regulations Title 14, Chapter 3) provides an Environmental Checklist of questions including a single question related to paleontological resources (Section VII.f) as follows: "Would the project directly or indirectly destroy a unique paleontological resource or site…?"

CEQA does not define "a unique paleontological resource or site." However, the Society of Vertebrate Paleontology (SVP) has defined a "significant paleontological resource" in the context of environmental review. The SVP defines a Significant Paleontological Resource as:

> Fossils and fossiliferous deposits, here defined as consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 radiocarbon years) [p. 11] (SVP 2010).

The loss of significant paleontological resources would be a significant impact under CEQA. The CEQA lead agency is responsible for ensuring that paleontological resources are protected in compliance with CEQA and other applicable statutes.

2.2 Local

Kern County

Kern County addresses Paleontological Resources within the Kern County General Plan, Section 1.10.3 Archaeological, Paleontological, Cultural, and Historical Preservation. In areas of known paleontological resources, the County is to address the preservation of these resources when feasible.

California City

The City of California City does not specifically address paleontological resources in the California City General Plan.

3 Resource Assessment Guidelines

Paleontological resources are limited, nonrenewable resources of scientific, cultural, and educational value and are afforded protection under CEQA. This assessment satisfies CEQA (13 Public Resource Code [PRC], 2100 et seq.) and PRC Section 5097.5 (Stat. 1965, c 1136, p. 2792) requirements, and follows guidelines and significance criteria specified by the SVP *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources* (SVP 2010).

3.1 Paleontological Sensitivity

Paleontological sensitivity refers to the potential for a geologic unit to produce scientifically significant fossils. Direct impacts to paleontological resources occur when earthwork activities, such as grading or trenching, cut into geologic deposits (e.g., formations) within which fossils are buried, and result in physical damage to or destruction of the fossils. Because fossils are the remains of prehistoric animal and plant life, they are nonrenewable. Such impacts have the potential to be significant under CEQA guidelines and may require mitigation.

Significant paleontological resources are fossils or assemblages of fossils that are unique, unusual, rare, diagnostically important, or are common but have the potential to provide valuable scientific information for evaluating evolutionary patterns and processes, or which could improve our understanding of paleochronology, paleoecology, paleophylogeography, or depositional histories. New or unique specimens can provide new insights into evolutionary history; however, additional specimens of even well-represented lineages can be equally important for studying evolutionary pattern and process, evolutionary rates, and paleophylogeography. Even unidentifiable material can provide useful data for dating geologic units if radiocarbon dating is possible. As such, common fossils (especially vertebrates) may be scientifically important, and therefore considered significant.

Paleontological sensitivity is determined by rock type, history of the geologic unit in producing significant fossils, and previously recorded fossil localities from that unit. Paleontological sensitivity is derived from the known fossil data collected from the entire geologic unit, not just from any one specific survey. The SVP system outlined in the SVP *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources* is the generally accepted paleontological sensitivity classification scheme for projects on non-federal lands in California. Rincon has characterized the paleontological sensitivity for the proposed project according to the SVP procedures, as described below.

The SVP describes sedimentary rock units as having high, low, undetermined, or no potential for containing significant nonrenewable paleontological resources. This criterion is based on rock units within which vertebrate or significant invertebrate fossils have been determined by previous studies to be present or likely to be present. The SVP sensitivity categories are:

I. **High Potential.** Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered are considered to have a high potential for containing additional significant paleontological resources. Rocks units classified as having high potential for producing paleontological resources include, but are not limited to, sedimentary formations and some volcaniclastic formations (e. g., ashes or tephras), and some low-grade metamorphic rocks which contain significant paleontological resources

anywhere within their geographical extent, and sedimentary rock units temporally or lithologically suitable for the preservation of fossils (e. g., middle Holocene and older, fine-grained fluvial sandstones, argillaceous and carbonate-rich paleosols, cross-bedded point bar sandstones, fine-grained marine sandstones). Paleontological potential consists of both (a) the potential for yielding abundant or significant vertebrate fossils or for yielding a few significant fossils, large or small, vertebrate, invertebrate, plant, or trace fossils and (b) the importance of recovered evidence for new and significant taxonomic, phylogenetic, paleoecologic, taphonomic, biochronologic, or stratigraphic data. Rock units which contain potentially datable organic remains older than late Holocene, including deposits associated with animal nests or middens, and rock units which may contain new vertebrate deposits, traces, or trackways are also classified as having high potential.

II. **Undetermined Potential.** Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment are considered to have undetermined potential. Further study is necessary to determine if these rock units have high or low potential to contain significant paleontological resources. A field survey by a qualified professional paleontologist to specifically determine the paleontological resource potential of these rock units is required before a paleontological resource impact mitigation program can be developed. In cases where no subsurface data are available, paleontological potential can sometimes be determined by strategically located excavations into subsurface stratigraphy.

III. **Low Potential.** Reports in the paleontological literature or field surveys by a qualified professional paleontologist may allow determination that some rock units have low potential for yielding significant fossils. Such rock units will be poorly represented by fossil specimens in institutional collections, or based on general scientific consensus only preserve fossils in rare circumstances and the presence of fossils is the exception not the rule, e. g. basalt flows or Recent colluvium. Rock units with low potential typically will not require impact mitigation measures to protect fossils.

IV. **No Potential.** Some rock units have no potential to contain significant paleontological resources, for instance high-grade metamorphic rocks (such as gneisses and schists) and plutonic igneous rocks (such as granites and diorites). Rock units with no potential require no protection or impact mitigation measures relative to paleontological resources.

4 Methods

Paleontological resources are not found in “soil” but are contained within the geologic deposits or bedrock that underlies the soil layer. Therefore, to determine whether a given project area has the potential to contain significant fossil resources at the subsurface, it is necessary to review relevant scientific literature to determine the geology and stratigraphy of the area. For this assessment, published geologic maps, fossil locality data, and literature were reviewed to identify the geologic units present at and below the surface within the project boundary, assess the paleontological sensitivity of the geologic units identified, and to determine the potential impacts to non-renewable paleontological resources from project development.

Based on a review of aerial imagery, the project area is located on a flat (lacking any significant topographic relief), sandy alluvial plain with low to moderate density vegetation consisting primarily of creosote, saltbush, and Joshua trees. The project site is devoid of any bedrock exposures and has limited ground visibility; therefore, no paleontological field survey was conducted for this analysis. However, a 100% pedestrian survey was conducted for cultural resources over the entire project study area by qualified archeologists. Any potential paleontological resources would have been recorded by the field archeologists and brought to the attention of the project paleontologist to be evaluated and addressed in this report.

A formal paleontological locality search was requested at the Natural History Museum of Los Angeles County (NHMLAC) on August 16, 2019. In addition, Rincon reviewed the online paleontological collections database of the University of California Museum of Paleontology (UCMP) to identify known fossil localities in Kern County from geologic formations similar to those identified in the project area.

Following the paleontological inventory and assessment, the paleontological sensitivity ratings of the geological units were assigned based on the findings of the record search and literature review. Based on the paleontological sensitivity findings, the potential impact to nonrenewable paleontological resources from project development was determined in accordance with the professional standards of the SVP (2010).

5 Description of Resources

5.1 Regional Geology

California is divided into 11 geomorphic provinces that are “naturally defined geologic regions that display a distinct landscape or landform” (California Geologic Survey [CGS] 2002). The project area lies within the Antelope Valley region of the Mojave Desert province. The Mojave Desert province is a “broad interior region of isolated mountain ranges separated by expanses of desert plains” (CGS 2002) that is effectively wedged to the west between the Sierra Nevada Range (by the Garlock fault) and the Transverse Range (by the San Andreas fault). The western Mojave Desert acts as a sediment catch from three geomorphic provinces: Basin and Range, Sierra Nevada, and Transverse Ranges. By the early Miocene or late Oligocene an erosional surface rising eastward from the Garlock-San Andreas convergence (at the western end of the Mojave Desert) had developed, and depression of the region began. Depression resulted in the Mojave Desert province becoming an internal drainage area, with deposits of Miocene, Pliocene and Pleistocene sediments accumulating in local basins (Norris and Webb 1990). Miocene sedimentary units deposited during this time contain basalt, volcanic mud flows, and air-fall tuff. Repeated glacial advance and retreat during the Pleistocene created numerous lakes which provided conditions for the preservation of fossils. The area around the project area comprises a thick cover of Holocene to Pleistocene aged alluvium, composed of materials eroded from the surrounding mountains and accumulated during these periods of glacial advance and retreat.

Geology and Paleontology of the Project Area

The project area is mapped at a scale of 1:62,500 by Dibblee and Minch (2008a, b, c) and includes five geologic units mapped at ground surface (Figure 3): Quaternary (Holocene) alluvium (Qa); Quaternary (Holocene) dune sand (Qs); Quaternary (Pleistocene) fanglomerate (Qf); Miocene Gem Formation (Tgf, Tgp); and Mesozoic intrusive igneous rocks (qm). Figure 3, Geologic Units and Paleontological Sensitivity in the Project Area, depicts the surficial geologic units in the project area, as well as the corresponding paleontological sensitivity assigned to each of these units.

Quaternary (Holocene) Alluvium and Dune Sand

Quaternary (Holocene) alluvium, derived from the Tehachapi Mountains to the northwest, form an unconsolidated layer of alluvial sand, silt, and gravel across much of the project area and Antelope Valley. Mapped at the surface within the eastern portion of the project area, the Quaternary (Holocene) dune sand deposits consist of loose, well-sorted, fine-grained sand deposited as dunes or thin veneers on alluvium and clay (Dibblee and Minch 2008). Holocene-aged units are too young to contain scientifically significant paleontological resources and are considered to have low paleontological sensitivity. However, these younger deposits may grade downward into older Quaternary (i.e., Pleistocene) alluvial deposits, which may preserve fossil remains, at unknown depths within the project area. Consequently, unmapped Quaternary (Pleistocene) alluvial deposits are considered to have a high paleontological sensitivity. .

Quaternary (Pleistocene) Fanglomerate

Quaternary (Pleistocene) fanglomerate deposits are mapped within the south-central project area and are composed of weakly consolidated, unbedded, poorly-sorted, fanglomerate or boulder

gravel with clasts of quartz monzonite or volcanic rocks. Due to the coarse and volcanic nature of these deposits, Quaternary (Pleistocene) fanglomerate sediments are unlikely to contain paleontological resources in the uppermost layers and are also assigned a low paleontological sensitivity (McLeod 2019b). However, these deposits may also grade downward into more fine-grained sediments at depth, which would be considered to have high paleontological sensitivity and may preserve fossil remains.

Quaternary (Pleistocene) Alluvial Deposits

Quaternary (Pleistocene) alluvial deposits with high paleontological sensitivity are mapped at the margins of the Tehachapi Mountains approximately 5 to 12 miles west of the PV portions of the project site. These units are not mapped within the project site but are expected to underlie the project area at shallow or unknown depths. Quaternary (Pleistocene) alluvial deposits would be expected to occur at shallow depths (less than five feet) near the margins of the basin; however, the depth at which Quaternary (Pleistocene) alluvial deposits occurs may vary throughout a basin, ranging from shallow to more than 100 feet depending on the local topography. In the absence of geotechnical data, the depth to Quaternary (Pleistocene) alluvial deposits cannot be reliably estimated; however, sensitive older deposits are unlikely to occur at depths of less than five feet at the project site based on the project site being situated toward the center of the basin.

Quaternary (Pleistocene) alluvial deposits are composed of loose to weakly consolidated, massive to poorly-bedded, arkosic or granitic, fine to coarse-grained sand and silt with clasts of subrounded gravel and pebbles (Dibblee and Minch 2008). Quaternary (Pleistocene) alluvial deposits have proven to yield significant vertebrate fossil localities in Kern County and throughout southern California from the coastal areas to the inland valleys. Localities have produced fossil specimens of terrestrial mammals such as mammoth, horse, elephant, camel, bison, birds, rodents, and reptiles (Jefferson 1991; Springer et al. 2009; UCMP 2019; Paleobiology Database 2019).

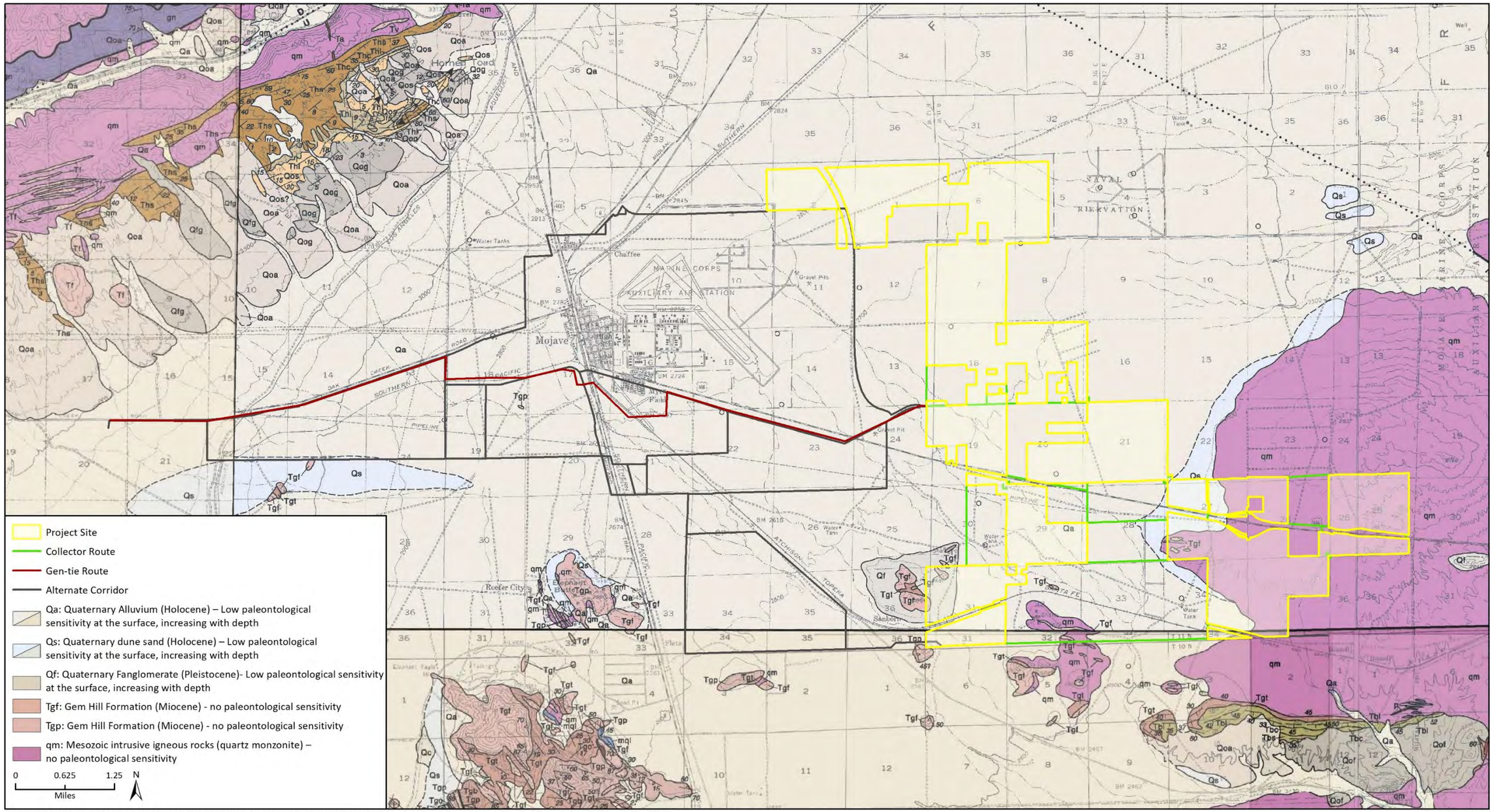
Miocene Gem Formation and Mesozoic Intrusive Igneous Rocks

The Miocene Gem Formation, mapped in the south-southeastern project area, includes massive to faintly flow laminated, unfossiliferous, light-colored volcanic rocks consisting of felsite, porphyritic felsite, and porphyry facies. Exposures of Mesozoic intrusive igneous rocks are also mapped in the south-southeastern project area and are composed of massive, medium- to coarse-grained, gray to white quartz monzonite with clasts of metamorphic rocks. Unlike sedimentary deposits, volcanic and intrusive igneous rocks typically do not contain paleontological resources as their formation is not conducive to fossil preservation. Therefore, the Gem Formation and Mesozoic intrusive igneous rocks mapped within the project area are considered to have no paleontological resource potential.

5.2 Locality Record Search Results

A search of the paleontological locality records at the NHMLAC resulted in no previously recorded fossil localities within the project boundary; however, at least four Pleistocene vertebrate localities (LACM 3722, 7853, 7884, 7891) were identified at depths less than five feet in the general vicinity of the project, but in areas where sensitive units would be expected to occur at shallow depths. The closest vertebrate locality, LACM 7891, produced a fossil specimen of camel (*Hemiauchenia*) south-southwest of the project near the California Aqueduct. LACM 3722 produced a specimen of fossil horse (*Equus*) less than 15 miles west-northwest of the proposed project area during excavations for a sewer line within the city of Tehachapi. LACM 7853, located less than 20 miles south of the project

Figure 3 Geologic Units and Paleontological Sensitivity in the Project Area



Imagery provided by "Geologic map of the Cummings Mountain & Techachapi 15 minute quadrangles, Kern County, California", "Geologic map of the Mojave & Castle Butte 15 minute quadrangles, Kern County, California" and "Geologic map of the Rosamond & Rogers Lake 15 minute quadrangles, Kern & Los Angeles Counties, California" by Dibblee and Minch, 2008.

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on the north side of Lancaster (near Avenue F and 10th Street), yielded a suite of fossil vertebrates at just three feet below ground surface including coachwhip (*Masticophis*), leaf-nosed snake (*Phyllorhynchus*), lyre snake (*Trimorphodon biscutatus*), desert iguana (*Dipsosaurus dorsalis*), whiptail lizard (*Aspidoscelis tigris*), alligator lizard (*Elgaria*), desert spiny lizard (*Sceloporus magister*), side-blotched lizard (*Uta stansburiana*), desert night lizard (*Xantusia vigilis*), skink (*Plestiodon*), cottontail rabbit (*Sylvilagus audubonii*), wood rat (*Neotoma*), deer mouse (*Peromyscus*), pocket gopher (*Thomomys bottae*), kangaroo rat (*Dipodomys*), pocket mouse (*Perognathus*), ground squirrel (*Ammospermophilus leucurus*), and camel (*Camelops*). Further south, near Avenue I east of Division Street in Lancaster, LACM 7884 produced a fossil specimen of camel (*Camelops hesternus*) from four feet below ground surface (McLeod 2019a, b).

A supplemental review of the museum records maintained in the UCMP online collections database did not yield records of any vertebrate fossil localities in the immediate vicinity of the project area. The closest UCMP vertebrate locality on record is UCMP 1041, which produced an elephant tibia and a camel fossil from Pleistocene sedimentary deposits in an unspecified location in Kern County (UCMP 2019). The results of the museum records search are summarized in Table 1.

Table 1 Museum Records Search Results

Locality No.	Geologic Unit	Age	Taxa
LACM 3722	Qoa	Pleistocene	Horse (*Equus)*
LACM 7853	Qoa	Pleistocene	Coachwhip (*Masticophis*), leaf-nosed snake (*Phyllorhynchus*), lyre snake (*Trimorphodon biscutatus*), desert iguana (*Dipsosaurus dorsalis*), whiptail lizard (*Aspidoscelis tigris*), alligator lizard (*Elgaria*), desert spiny lizard (*Sceloporus magister*), side-blotched lizard (*Uta stansburiana*), desert night lizard (*Xantusia vigilis*), skink (*Plestiodon*), cottontail rabbit (*Sylvilagus audubonii*), wood rat (*Neotoma*), deer mouse (*Peromyscus*), pocket gopher (*Thomomys bottae*), kangaroo rat (*Dipodomys*), pocket mouse (*Perognathus*), ground squirrel (*Ammospermophilus leucurus*), camel (*Camelops*)
LACM 7884	Qoa	Pleistocene	Camel (*Camelops hesternus*)
LACM 7891	Qoa	Pleistocene	Camel (*Hemiauchenia*)
UCMP 1041	Qoa	Pleistocene	Proboscidean (*Elephas*), camel (*Procamelus*)

Source: McLeod 2019a, b; UCMP 2019

6 Evaluation, Impacts, and Recommendations

6.1 Paleontological Sensitivity Evaluation

The paleontological sensitivity of the geologic units underlying the project was determined in accordance with criteria set forth by the SVP (2010) (Figure 3). Holocene sedimentary deposits, particularly those younger than 5,000 years old (younger than middle Holocene), are generally too young to contain fossilized material. Therefore, the Quaternary (Holocene) alluvium and dune sand deposits mapped in the project area have been assigned a low paleontological sensitivity. The coarseness and volcanic components of the Quaternary (Pleistocene) fanglomerate sediments generally preclude the preservation of significant paleontological resources and are assigned a low paleontological sensitivity, but sensitivity increases with depth. According to existing paleontological locality data, Quaternary (Pleistocene) alluvial deposits may underlie the Quaternary (Holocene) sediments at depths as shallow as five feet deep in the vicinity of the project (McLeod 2019a). Although paleontologically sensitive older units may be overlain by thick units of low sensitivity younger alluvium (potentially exceeding 100-feet in thickness), the depth at which geologic units transition from low sensitivity younger units to high sensitivity older units is highly variable. Accurately assessing the boundaries between younger and older units is generally not possible without some form of radiometric dating, or fossil analysis, so conservative estimates of the depth at which paleontologically sensitive units may occur ensures impact avoidance. The Quaternary (Pleistocene) alluvial deposits that are likely to occur at an unknown depth in the project area have a high paleontological sensitivity throughout California (McLeod 2019b).

Exposures of Miocene Gem Formation and Mesozoic intrusive igneous rocks in the south-southeast project area are also assigned no paleontological resource potential as their formation is not conducive to the preservation of paleontological resources.

6.2 Impacts

Paleontological resources are nonrenewable and are vulnerable to impacts from development related activities. Fossils provide important information for our understanding of past environments, the history of life, past species diversity, how species respond to climate change, and many other lines of scientific inquiry. Impacts to fossils and fossil localities, and loss of fossils from looting or other destructive activity at fossil sites results in the direct loss of scientific data and directly impacts the ability to conduct scientific research on evolutionary patterns and geological processes. Grading, trenching and other ground disturbing activities associated with development of this project that will or could impact previously undisturbed, paleontologically sensitive geologic deposits have the potential for the destruction of significant paleontological resources.

The surficial geology of the project area has a low paleontological sensitivity that increases with depth. Pleistocene sediments may underlie the Holocene sediments at unknown depths within the project site but are assumed to be approximately five feet below ground surface or deeper based on the distance to the surrounding hills and basin margins. Ground disturbing activities in previously undisturbed portions of the project area may result in significant impacts to paleontological resources under Appendix G of CEQA if Quaternary (Pleistocene) sediments are impacted at a

depth. Impacts would be significant if construction activities result in the destruction, damage, or loss of scientifically important paleontological resources and associated stratigraphic and paleontological data. Activities with the potential to impact paleontological resources include grading, excavation, trenching or other activity that disturbs geologic formations with a high paleontological sensitivity. As currently proposed, ground disturbing activities associated with the mounting structures can extend up to 10 feet below ground surface, and trenching for electrical conduits and other infrastructure would disturb sediments up to four feet.

According to the NHMLAC records search results, four vertebrate localities (LACM 3722, 7853, 7884, 7891) were reported near the project area from Quaternary (Pleistocene) alluvial deposits at depths less than five feet from the ground surface. The paleontologically-sensitive Quaternary (Pleistocene) alluvial deposits may underlie the Quaternary (Holocene) deposits within the project area at relatively shallow depths (McLeod 2019), but not likely at a depth shallower than 5 feet. Therefore, the project area is determined to have low potential for paleontological resources at the surface to five feet in depth, and a high paleontological sensitivity at depths exceeding five feet below ground surface.

6.3 Recommendations

The following recommended mitigation would address the potentially significant impacts relating to the potential discovery of paleontological resources during project implementation. These measures would only apply to project construction activities requiring excavations exceeding five feet in depth within intact Holocene and Pleistocene deposits (i.e., Qa, Qs, Qf). Implementation of the following recommended mitigation measures could reduce potential project impacts to paleontological resources to a less-than-significant level pursuant to the requirements of CEQA.

- **Paleontological Worker Environmental Awareness Program (WEAP).** Prior to the start of construction, the Qualified Paleontologist or his or her designee, shall conduct training for construction personnel regarding the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction staff. The WEAP shall be fulfilled at the time of a preconstruction meeting. In the event a fossil is discovered by construction personnel anywhere in the project area, all work in the immediate vicinity of the find shall cease and a qualified paleontologist shall be contacted to evaluate the find before re-starting work in the area. If it is determined that the fossil(s) is (are) scientifically significant, the qualified paleontologist shall complete the mitigation outlined below to mitigate impacts to significant fossil resources.
- **Paleontological Monitoring.** Initially, full-time monitoring shall be conducted during ground construction activities (i.e., grading, trenching, foundation work, and other excavations) where ground disturbance exceeds five feet in depth within intact Holocene and Pleistocene deposits (i.e., Qa, Qs, Qf). Monitoring shall be conducted by a qualified paleontological monitor, who is defined as an individual who meets the minimum qualifications per standards set forth by the SVP (2010), which includes a B.S. or B.A. degree in geology or paleontology with one year of monitoring experience and knowledge of collection and salvage of paleontological resources. The duration and timing of the monitoring shall be determined by the Qualified Paleontologist and the location and extent of proposed ground disturbance. If the Qualified Paleontologist determines that full-time monitoring is no longer warranted based on the specific geologic conditions at the surface or at depth, the Qualified Paleontologist, in consultation with the lead agency, may recommend that monitoring be reduced to periodic spot-checking or ceased

entirely. Bulk matrix sampling may be necessary to recover small vertebrates (i.e., microvertebrates) from paleontologically-sensitive deposits. The Qualified Paleontologist will determine when sampling would occur during construction excavation; however, the decision should be made in the context of reasonable expectations that sample collection will yield valuable results, including the potential to add to the scientific record of the aforementioned geologic units. Reasonable expectations of positive results may include evidence such as abundant macrofossil discoveries in the immediate vicinity, the presence of abundant fragmentary fossils, and lithology indicators of potentially fossiliferous units.

- **Fossil Discovery, Preparation, and Curation.** If a paleontological resource is discovered, the monitor shall have the authority to temporarily divert the construction equipment around the find until it is assessed for scientific significance and collected. Typically, fossils can be safely salvaged quickly by a single paleontologist and not disrupt construction activity. In some cases, larger fossils (such as complete skeletons or large mammals) require more extensive excavation and longer salvage periods. In this case, the paleontologist should have the authority to temporarily direct, divert or halt construction activity to ensure that the fossil(s) can be removed in a safe and timely manner.

  Once salvaged, significant fossils shall be identified to the lowest possible taxonomic level, prepared to a curation-ready condition and curated in a scientific institution with a permanent paleontological collection (such as the NHMLAC) along with all pertinent field notes, photos, data, and maps. The cost of curation is assessed by the repository and is the responsibility of the project owner.
- **Final Paleontological Mitigation Report.** At the conclusion of laboratory work and museum curation, a final report shall be prepared describing the results of the paleontological mitigation monitoring efforts associated with the project. The report shall include a summary of the field and laboratory methods, an overview of the project geology and paleontology, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. The final report shall be submitted to the County. If the monitoring efforts produced fossils, then a copy of the report shall also be submitted to the designated museum repository.

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Appendix I
Hazards

I.1 Phase I Environmental Site Assessment

I.2 Construction Support Plan

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I.1 Phase I Environmental Site Assessment

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Bellefield Solar Farm
Phase I Environmental Site Assessment

June 24, 2020

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All information, conclusions, and recommendations provided by Stantec in this document regarding the Phase I ESA have been prepared under the supervision of and reviewed by the professionals whose signatures appear below.

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in § 312.10 of 40 CFR 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Property. I have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared by _____
(signature)

Alicia Jansen, Associate Scientist

Reviewed by _____
(signature)

Dion Monge, Senior Scientist

Approved by _____
(signature)

Kyle Emerson, Principal Geologist

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Abbreviations

AAI	All Appropriate Inquiry
ACM	Asbestos-containing material
AST	Aboveground Storage Tank
ASTM	American Society for Testing and Materials
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulation
CGS	California Geological Survey
CHHSL	California Human Health Screening Levels
Client	8minenergy
CREC	Controlled Recognized Environmental Conditions
DOGGR	Division of Oil, Gas, and Geothermal Resources
DTSC	Department of Toxic Substances Control
EDR	Environmental Data Resources, Inc.
EP	Environmental Professional
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
FUDS	Formerly Used Defense Sites
gen-tie	generation tie
HAZWOPER	Hazardous Waste Operations and Emergency Response
HREC	Historical Recognized Environmental Conditions
kV	kilovolt
LBP	Lead-based paint
MD	munitions debris
MEC	munitions and explosives of concern
MGRC	former Mojave Gunnery Range “C”
MSA	Master Services Agreement
OSHA	Occupational Safety and Health Administration

pCi/L	PicoCuries per liter of air
Property	approximately 8,371 acres of undeveloped land located northeast of the intersection of the Barstow-Bakersfield Highway and Highway 58, City of Mojave, Unincorporated Kern County, California
REC	Recognized Environmental Conditions
RL	reporting limit
RWQCB	Regional Water Quality Control Board
Stantec	Stantec Consulting Services Inc.
USACE	United States Army Corps of Engineers
User	8minenergy
USGS	United States Geological Survey
UST	Underground Storage Tank
UXO	unexploded ordinance

1.0 SUMMARY

This assessment has revealed no evidence of recognized environmental conditions (RECs) in connection with the Property. No further investigation appears to be warranted at this time.

Stantec Consulting Services Inc. (Stantec) has completed a Phase I Environmental Site Assessment (ESA) report of approximately 8,371 gross acres of undeveloped land located northeast of the intersection of the Barstow-Bakersfield Highway and Highway 58, City of Mojave, Unincorporated Kern County, California (Property), on behalf of 50LW 8me LLC (Client). The work was performed according to Stantec's proposal and terms and conditions dated April 6, 2020. 50LW 8me LLC has also been designated as the User of this report.

The Phase I ESA was conducted in conformance with the requirements of American Society for Testing and Materials (ASTM) Designation E 1527-13, and All Appropriate Inquiry (AAI) as defined by the United States Environmental Protection Agency (EPA) in Title 40 of the Code of Federal Regulations (CFR), Part 312, except as may have been modified by the scope of work, and terms and conditions, requested by the Client. Any exceptions to, or deletions from, the ASTM or AAI practice are described in Section 2.3, Exceptions and Limiting Conditions.

The Property consists of 90 Parcels and is comprised of approximately 8,371 gross acres of undeveloped land in unincorporated Kern County and near California City. The Project includes 82 parcels totaling 6,269 gross acres within unincorporated Kern County and 8 assessor's parcels totaling approximately 2,102 gross acres within California City. Power generated by the project will be delivered via 230-kilovolt (kV) overhead and underground generation tie (gen-tie) within a 100-foot-wide corridor originating from a project substation and terminating at Southern California Edison's Windhub Substation. Railroad tracks intersect the southern Parcels 50 and 51. Gen-tie corridors shown on Figures 1 ad 2 with smaller off-shoots will be located within existing rights-of-way and easements within one of the identified corridors. Surrounding properties primarily consist of primarily of undeveloped land. The Barstow-Bakersfield Highway bisects the Property. The Hyundai-Kia Proving Ground (i.e., car track) is located to the northeast. A Property location map is provided as Figure 1. A Property map illustrating the main features of the Property and photograph locations is provided as Figure 2. Photographs taken during the site reconnaissance visit are provided in Appendix A.

Gen-Tie corridors are located west of the Property parcels, as shown on Figure 1. The Gen-Tie corridors run parallel to Highway 58 and Oak Creek Road to an electrical substation. The Los Angeles Department of Water and Power Mojave Headquarters and equipment laydown area are located adjacent to the northern portion of a Gen-Tie corridor. A high-pressure gas facility is located southeast of Camelot Blvd and SR-14, near the western end of the Gen-Tie corridors. A Gen-Tie corridor also runs parallel to Highway 58 and bisects the City of Mojave.

Stantec has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E1527 of approximately 8,371 acres of undeveloped land located at northeast of the intersection of the Barstow-Bakersfield Highway and Highway 58, City of Mojave, Unincorporated Kern County, California, and within the city limits of California City, herein defined as the Property. This assessment has revealed no evidence of recognized environmental conditions (RECs) in connection with the Property. No further investigation appears to be warranted at this time.

However, the following items of note were identified during this ESA:

- **Mojave Gunnery Range "C".** According to the United States Army Corps of Engineers (USACE) Formerly Used Defense Sites (FUDS) Portal online database, the northeastern portion of the Property (see Figure 2) are located within the boundary of a FUDS identified as Mojave Gunnery Range. The Mojave Gunnery Range "C" was used for practice bombing and strafing by units stationed at Marine Corps Air Station, Mojave.

  Based on past conversations with the DTSC and USACE on similar sites in the region, there is the potential for unexploded ordnance (UXO) and/or munitions and explosives of concern (MEC) to be present at the Property. Quantities and types of ordnance used at the site could not be determined from the available information. Stantec recommends the following with regard to the potential existence of UXO and MEC:

  - Consultation and guidance from a certified MEC/UXO professional to evaluate the appropriate course of action and associated costs related to assessment, remediation, and construction support. The UXO MEC/UXO should meet the should meet the minimum qualifications specified in the Department of Defense Explosives Safety Board (DDESB) Technical Paper 18;
  - Where ground disturbance work is involved, contractors should be Occupational Safety and Health Administration (OSHA) Hazardous Materials Operations and Emergency Response (HAZWOPER)-trained in accordance with standard 29 CFR 1910.120 and hold a current certification;
  - Where ground disturbance work is involved, contractors should be trained in identifying UXO/MEC;
  - If suspected munitions are encountered at any point by any onsite individual, the "3R's of Explosives Safety" should be followed. The "3R's" include:
    - Recognize: when something may be a munition and the dangers involved.
    - Retreat: do not touch the potential munition and carefully leave the area.
    - Report: immediately report the finding to local law enforcement.

- **Adjacent Gen-tie Corridor Features**. An abandoned truck stop and an active gas station (Fastrip) are located on a Gen-Tie corridor within the limits of the City of Mojave. Gen-Tie corridors also cross the railroad tracks at multiple locations west of the City of Mojave, adjacent to Highway 14. The Gen-Tie corridors near the central portion to southern portions of the project run adjacent to Niklor Chemical Co. with large storage tanks south of the City of Mojave. A disposal site is located adjacent to the south of a Gen-Tie corridor in the southern portion of the Property. These adjacent features would be a concern should the gen-tie corridors have an underground component.

  As mentioned, the Gen-Tie corridors would cross the railroad tracks. If subsurface work is proposed for the installation of gen-tie lines or poles in areas that are within 20 feet of the railroad tracks, Stantec would recommend evaluation of soil samples to determine whether metals concentrations in soil are above

California hazardous waste levels or regulatory thresholds that may pose a risk to future onsite construction workers.

- **Potential Water Wells**. No water wells were observed during the field reconnaissance. However, a well is depicted in the northeast corner of Parcel 7 in the EDR well report map but may no longer be present at the surface. Stantec recommends that any known and unknown (those encountered during proposed development activities) water wells be abandoned in accordance with applicable regulations unless the wells will be used by the proposed development.

The preceding summary is intended for informational purposes only. Reading of the full body of this report is recommended.

2.0 INTRODUCTION

The objective of this Phase I ESA was to perform AAI into the past ownership and uses of the Property consistent with good commercial or customary practice as outlined by the ASTM in "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process", Designation E1527-13. AAI is the process for evaluating a property's environmental conditions for the purpose of qualifying for landowner liability protections under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) following final rule of 40 CFR Part 312. The purpose of this Phase I ESA is to identify, to the extent feasible, adverse environmental conditions including RECs of the Property.

The ASTM E1527-13 standard indicates that the purpose of the Phase I ESA is to identify RECs, including historical recognized environmental conditions (HRECs), and controlled recognized environmental conditions (CRECs) that may exist at a property. The term "recognized environmental conditions" means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property:

1. Due to any release to the environment;
2. Under conditions indicative of a release to the environment; or
3. Under conditions that pose a material threat of a future release to the environment.

ASTM defines HREC as a REC that has occurred in connection with a property, but has been addressed to the satisfaction of the applicable regulatory authority, and meets current unrestricted use criteria established by a regulatory authority without subjecting the property to any required controls (e.g., property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a HREC, the environmental professional (EP) must determine whether the past release is a REC when the current Phase I ESA is conducted (e.g., if there has been a change in the regulations). If the EP considers the past release to be a REC at the time that the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a REC.

ASTM defines CREC as a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (e.g., as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), but with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (e.g., property use restrictions, activity and use limitations, institutional controls, or engineering controls).

As defined by ASTM, RECs can include hazardous substances or petroleum products present under conditions in compliance with laws if that presence represents a material threat of future release. The presence of hazardous substances or petroleum products is, however, not a REC if that presence is a de minimis condition. De minimis conditions are minor occurrences of contamination that generally do not present a material risk to human health and would not likely be subject to enforcement action if brought to the attention of governmental agencies.

This Phase I ESA was conducted in accordance with our proposal to 8minutenergy dated August 5, 2019. The scope of work conducted during this Phase I ESA consisted of a visual reconnaissance of the Property, interviews with key individuals, and review of reasonably ascertainable documents. The scope of work did not include an assessment for

environmental regulatory compliance of any facility ever operated at the Property (past or present), or sampling and analyzing of environmental media. Stantec was not contracted to perform an independent evaluation of the purchase or lease price of the Property and its relationship to current fair market value. The conclusions presented in this Phase I ESA report are professional opinions based on data described herein. The opinions are subject to the limitations described in Section 2.3.

ASTM E1527-13 notes that the availability of record information varies from source to source. The User or EP is not obligated to identify, obtain, or review every possible source that might exist with respect to a property. Instead, ASTM identifies record information that is reasonably ascertainable from standard sources. “Reasonably ascertainable” is defined as follows:

1. Information that is publicly available;
2. Information that is obtainable from its source within reasonable time and cost constraints; and
3. Information that is practicably reviewable.

2.1 PROPERTY DESCRIPTION

The Property consists of 90 Parcels and is comprised of approximately 8,371 gross acres of undeveloped land in unincorporated Kern County and near California City. The Project includes 82 parcels totaling 6,269 gross acres within unincorporated Kern County and 8 assessor's parcels totaling approximately 2,102 gross acres within California City (Table 1). Power generated by the project will be delivered via 230-kilovolt (kV) overhead and underground generation tie (gen-tie) within a 100-foot-wide corridor originating from a project substation and terminating at Southern California Edison’s Windhub Substation. Railroad tracks intersect the southern Parcels 50 and 51. Surrounding properties primarily consist of primarily of undeveloped land. The Barstow-Bakersfield Highway bisects the Property. The Hyundai-Kia Proving Ground (i.e. racetrack) is located to the northeast. A Property location map is provided as Figure 1. A Property map illustrating the main features of the Property is provided as Figure 2. Photographs taken during the site reconnaissance visit are provided in Appendix A.

Table 1: Bellefield Parcels

No.	Assessor’s Parcel Number (APN)	Acres
California City		
1	235-061-02	658.81
2	235-101-45	304.04
3	235-101-46	103.66
4	235-101-47	154.85
5	235-101-48	151.16
6	235-101-49	464.68
7	235-101-51	262.88
8	235-282-22	2.55
	California City Total	**2,102.63**
Unincorporated Kern County		

No.	Assessor's Parcel Number (APN)	Acres
9	235-022-01	657.12
10	235-024-01	123.44
11	235-024-14	82.19
12	235-024-15	79.93
13	235-024-17	63.64
14	235-024-40	10.57
15	235-024-41	654.99
16	235-024-42	40.98
17	235-024-43	41.45
18	235-064-01	332.71
19	235-064-12	41.38
20	235-064-25	41.40
21	235-064-26	41.39
22	235-064-27	41.39
23	235-064-28	41.36
24	235-064-29	77.86
25	235-065-04	15.49
26	235-065-05	0.98
27	235-065-07	1.49
28	235-065-17	33.48
29	235-065-18	442.64
30	235-081-03	10.19
31	235-081-04	10.20
32	235-081-05	10.20
33	235-081-07	10.19
34	235-081-09	61.18
35	235-081-10	20.43
36	235-081-11	10.18
37	235-081-12	10.17
38	235-082-01	5.10
39	235-082-06	25.52
40	235-082-07	5.11
41	235-082-12	1.27
42	235-082-15	20.47
43	235-082-16	40.99
44	235-082-17	5.11

No.	Assessor's Parcel Number (APN)	Acres
45	235-082-18	5.11
46	235-082-19	10.21
47	235-082-24	2.55
48	235-082-25	2.55
49	235-101-29	23.55
50	235-102-01	11.58
51	235-102-02	305.09
52	235-132-16	601.46
53	235-134-01	490.80
54	235-191-01	10.32
55	235-221-01	489.91
56	235-340-07	10.30
57	235-340-09	82.69
58	235-340-10	10.37
59	235-340-11	10.38
60	235-340-19	10.36
61	235-340-28	41.59
62	235-340-29	2.58
63	235-340-36	2.59
64	235-351-01	81.52
65	235-351-02	20.46
66	235-351-03	20.45
67	235-351-04	40.86
68	235-353-11	5.15
69	235-353-21	2.57
70	235-353-22	2.57
71	235-410-02	10.15
72	235-410-04	8.04
73	235-410-06	10.07
74	428-010-02	171.11
75	428-010-03	170.94
76	428-010-10	42.60
77	428-010-11	263.76
78	428-041-02	20.51
79	428-041-03	20.55
80	428-041-04	20.60

No.	Assessor's Parcel Number (APN)	Acres
81	428-041-05	5.21
82	428-041-38	15.68
83	428-042-02	20.43
84	428-042-03	20.48
85	428-042-04	20.53
86	428-042-35	7.35
87	428-052-15	4.31
88	428-052-17	7.20
89	428-053-16	10.19
90	428-053-18	9.35
	Unincorporated Kern County Total	**6,268.81**
	Total	**8,371.44**

2.2 SPECIAL TERMS, CONDITIONS, AND SIGNIFICANT ASSUMPTIONS

There were no special terms, conditions, associated with the Phase I ESA. However, there is an unknown condition, where it is unclear as of this date if certain features (pipeline and wells) are part of the property to be acquired.

2.3 EXCEPTIONS AND LIMITING CONDITIONS

This report documents work that was performed in accordance with generally accepted professional standards at the time and location in which the services were provided and given the schedule and budget constraints established by the Client. No other representations, warranties, or guarantees are made concerning the accuracy or completeness of the data or conclusions contained within this report, including no assurance that this work has uncovered all potential and actual liabilities and conditions associated with the Property.

This report provides an evaluation of selected environmental conditions associated with the Property that was assessed at the time that the work was conducted and is based on information obtained by and/or provided to Stantec at that time. There are no assurances regarding the accuracy and completeness of this information. All information received from the Client or third parties in the preparation of this report has been assumed by Stantec to be correct. Stantec assumes no responsibility for any deficiency or inaccuracy in information received from others.

Conclusions made within this report consist of Stantec's professional opinion as of the time of the writing of this report and are based solely on the scope of work described in the report, the limited data available, and the results of the work. They are not a certification of the Property's environmental condition.

The Client did not provide or contract Stantec to provide recorded title records or search results for environmental liens or activity and use limitations encumbering the Property or in connection with the Property. Stantec did not obtain historical records that document the Property history in 5-year intervals. Although this resulted in data gaps,

these data gaps are not considered significant. Based on the information obtained during this ESA and general knowledge of development at and near the Property, the absence of this information did not affect the ability of the EPs to identify RECs, HRECs, CRECs, or de minimis conditions.

This report relates solely to the project for which Stantec was retained and the stated purpose for which this report was prepared and shall not be used or relied upon by the Client for any variation or extension of this project, any other project, or any other purpose.

This report has been prepared for the exclusive use of the Client identified herein, and any use of or reliance on this report by any third party is prohibited except as may be consented to in writing by Stantec or as required by law. The provision of any such consent is at Stantec's sole and unfettered discretion and will only be authorized pursuant to the conditions of Stantec's standard form reliance letter. Stantec assumes no responsibility for losses, damages, liabilities, or claims, howsoever arising, from third party use of this report.

Project-specific limiting conditions are provided in Section 2.2, Special Terms, Conditions, and Significant Assumptions.

The locations of any utilities, buildings and structures, and Property boundaries illustrated in or described within this report, if any, including pole lines, conduits, water mains, sewers and other surface or sub-surface utilities and structures, are not guaranteed. Before starting site work, the exact location of all such utilities and structures must be confirmed by the Client and the party performing the work, and Stantec assumes no liability resulting from damage to such utilities and structures.

The conclusions are based on the conditions encountered at the Property by Stantec at the time the work was conducted.

As the purpose of this report is to identify Property conditions that may pose an environmental risk; the identification of non-environmental risks to structures or people on the Property is beyond the scope of this assessment.

The findings, observations, and conclusions expressed by Stantec in this report are not an opinion concerning the compliance of any past or present owner or operator of the Property that is the subject of this report with any federal, state, provincial, or local law or regulation.

This report presents professional opinions and findings of a scientific and technical nature. It does not and shall not be construed to offer a legal opinion or representations as to the requirements of or compliance with, environmental laws, rules, regulations or policies of federal, state, provincial, or local governmental agencies. It is recommended that issues raised by the report should be reviewed for the Client by its legal counsel.

Stantec specifically disclaims any responsibility to update the conclusions in this report if new or different information later becomes available or if the conditions or activities on the property subsequently change.

2.4 PERSONNEL QUALIFICATIONS

This Phase I ESA was conducted by or under the supervision of an individual that meets the ASTM definition of an EP. The credentials of the EP and other key Stantec personnel involved in conducting this Phase I ESA are provided in Appendix B.

3.0 USER-PROVIDED INFORMATION

ASTM E1527-13 describes responsibilities of the User to complete certain tasks in connection with the performance of AAI into the Property. The ASTM standard requires that the EP request information from the User on the results of those tasks because that information can assist in the identification of RECs, CRECs, HRECs, or de minimis conditions in connection with the Property. Towards that end, Stantec requested that the User provide the following documents and information:

Description of Information	Provided (Yes / No)	Description and/or Key Findings
User Questionnaire and/or Interview	No	A completed user questionnaire was not provided. Given the historical documents available for the Property, the lack of a completed user questionnaire is not considered a significant data gap.
Environmental Liens or Activity Use Limitations	No	Land title records and deeds were not provided by the User, and public records were not searched by Stantec.
Previous Environmental Permits or Reports Provided by User	Yes	Stantec prepared a previous Phase I ESA in 2019 for approximately 6,448.9 acres of the Property. The assessment revealed no evidences of RECs in connection with the Property and no further investigation appeared to be warranted.
Purpose of the Phase I ESA	Yes	Due diligence

4.0 RECORDS REVIEW

The objective of consulting historical sources of information is to develop the history of the Property and surrounding area and evaluate if past uses may have resulted in RECs. Physical setting records are evaluated to determine if the physical setting may have contributed to adverse environmental conditions in connection with the Property. During the review of historical records, Stantec attempted to identify uses of the Property from the present to the first developed use of the Property. Stantec's research included the reasonably ascertainable and useful records described in this section.

4.1 PHYSICAL SETTING

A summary of the physical setting of the Property is provided in the table below with additional details in the following subsections:

Topography:	Most of the Property is at an elevation of approximately 2,600 feet above mean sea level (amsl). The topography of the Property is relatively flat with a gradual slope to the southwest.
Soil/Bedrock Data:	The Property is underlain by Holocene or later Pleistocene sandy alluvium, which in turn overlies older, Plio-Pleistocene clayey alluvium.
Estimated Depth to Groundwater/ Estimated Direction of Gradient:	Due to the wide range in topography across the Property, the depth to groundwater is expected to vary. The Environmental Data Resources, Inc. (EDR) DataMap™ Well Search records indicated groundwater in the site vicinity is expected to be approximately 110 to 120 feet below the ground surface (EDR 2019). Location-specific groundwater direction and elevations are not known.

Note: Site-specific groundwater flow direction and depth can be determined only by site-specific testing, which Stantec has not conducted.

4.1.1 Property Topography and Surface Water Flow

The majority of the Property is at an elevation of approximately 2,600 feet above mean sea level. The topography of the Property is relatively flat with a gradual slope to the southwest (EDR 2019). Based on the topography, surface water on the Property infiltrates the ground surface or flows overland to the northeast.

4.1.2 Regional and Property Geology

The Property is in the Mojave Desert geomorphic province of California, which spans 25,000 square miles and is landlocked. The Mojave Desert is a wedge-shaped structural block that is enclosed to the southwest by the San Andreas Fault and the Traverse Ranges, while the north and northeast is enclosed by the Garlock Fault, the Tehachapi Mountains, and the Basin and Range. The Colorado River and the Nevada State Line form the eastern boundary of the province, and finally, the San Bernardino-Riverside County line forms the southern boundary. The desert itself is of Cenozoic nature and likely formed from the movements of the San Andreas and Garlock faults. The region is currently dominated by broad alluvial basins that are aggrading surfaces that receive nonmarine continental deposits from the

adjacent upland areas. The western portion of the province is riddled with north-west trending faults (San Andreas Fault being most predominant) and with east-west trending Garlock Fault.

The Property is underlain by Holocene or later Pleistocene sandy alluvium, which in turn overlies older, Plio-Pleistocene clayey alluvium.

4.1.3 Regional and Property Hydrogeology

The Property is located within the Fremont Valley Groundwater Basin, which underlies Fremont Valley in eastern Kern County and northwestern San Bernardino County. The basin is bounded on the northwest by the Garlock fault zone against impermeable crystalline rocks of the El Paso Mountains and the Sierra Nevada. This basin is bounded on the east by crystalline rocks of the Summit Range, Red Mountain, Lava Mountains, Rand Mountains, Castle Butte, Bissel Hills, and Rosamond Hills. The basin is bounded on the southwest by the Antelope Valley Groundwater Basin along a groundwater divide approximated by a line connecting the mouth of Oak Creek through Middle Butte to exposed basement rock near Gem Hill. Both Quaternary alluvium and lacustrine deposits are water-bearing; however, the alluvium is the most important water-bearing material in the basin (California Department of Water Rresources, 2004).

Due to the wide range in topography across the Property, the depth to groundwater is expected to vary. The EDR DataMap™ Well Search records indicated the depth to water in the vicinity of the Property was reported between 210.46 and 325.29 feet bgs in 2004. More specific groundwater direction and elevations are not known.

4.2 FEDERAL, STATE AND TRIBAL ENVIRONMENTAL RECORDS

An Area/Corridor Report regulatory agency database search report was obtained from Environmental Data Resources, Inc. (EDR), a third-party environmental database search firm. A complete copy of the database search report, including the date that the report was prepared, the date that the information was last updated, and the definition of databases searched, is provided in Appendix C.

Stantec evaluated the information listed within the database relative to potential impacts to the Property, assessing the potential for impacts based in part on the physical setting. As part of this process, inferences have been made regarding the likely groundwater flow direction at or near the Property. As described in Section 4.1.3, Regional and Property Hydrogeology, the inferred shallow groundwater flow direction is likely to be in the northeast. Observations about the Property and surrounding properties made during the Property reconnaissance are provided in more detail in Section 5, Site Reconnaissance.

4.2.1 Listings for Property

There was one listing for the Property parcels in the environmental database report.

Listed Facility Name/Address	Database Listing	Distance/Direction from Property	REC? (YES / NO)
Unnamed Quarry Mojave, CA 93501	MINES MRDS	Southwestern corner of Parcel 77	No
The southwestern corner of Parcel 77 was identified as having an “Unnamed Quarry” for sand and gravel #5l. The Operations was identified as surface with a past-producer development status. No additional information was			

Listed Facility Name/Address	Database Listing	Distance/Direction from Property	REC? (YES / NO)
provided by EDR or available online. The property appeared to be in operation as a construction equipment storage yard at the time of the field reconnaissance. Given there are no underground features and there is no indication of a release, this facility is not considered an environmental concern for the Property.			

4.2.2 Listings for Nearby Sites with Potential to Impact Property

Stantec assessed data presented in the environmental agency database search report to evaluate the potential for conditions on adjacent and nearby sites to pose a REC, CREC, or HREC for the Property. The evaluation included an opinion regarding the potential for contamination by hazardous substances or petroleum products to migrate to the Property from a nearby property, including by vapor migration or encroachment (i.e., potential for a vapor encroachment condition).

Based on this evaluation, the following individual facilities were identified as the most likely potential sources of impact to the Property. The basis for determining whether each of the following database listings creates a REC for the property is also provided.

Listed Facility Name/Address	Database Listing	Distance/Direction from Property	REC? (YES / NO)
Edwards Air Force Base 5 East Popson Avenue Bldg 2650 Edwards AFB, CA 93524	DOD; NPL; SEMS; CORRACTS; RCRA-TSDF; RCRA-LQG; US ENG CONTROLS; US INST CONTROLS; ENVIROSTOR; HIST Cal-Sites; DEED; ROD; RAATS; PRP; ICIS; US AIRS; DOCKET HWC; ICE; PFAS	Approximately 1 mile south of Parcel 46 and one mile east of the east end of a Proposed Gen-Tie Corridor in the southern portion of the project	No
Edwards Air Force Base (EAFB) occupies 301,000 acres south of the SR-58, between SR-14 and SR-395 junction. EAFB has been used by the military for practice bombing and as a gunnery range since the late 1920s when it was then called Muroc Army Airfield. The EDR report maps the entire boundary of the EAFB as a DOD site and the majority as a Superfund Site/NPL Site. Through the Department of Defense's Installation Restoration Program (IRP), EAFB has identified over 500 potential hazardous waste sites within the boundaries of the base. EAFB has designated these sites numerically (i.e. Site 1, Site 2, etc) and grouped them into Operable Units (OU) 1 through 11. OUs 1, 2, 5, 6, 8 and 10 are located in the main base and south base areas. OU 3 references base-wide water wells, OUs 4 and 9 are located in the eastern portion of EAFB and OUs 7 and 11 are base-wide miscellaneous sites. Aside from OU7, all other OUs are located at least 4 miles southwest of the Property, with OUs 1, 2, 5, 6, 8 and 10 located at the west edge of Rogers Dry Lake. It is unlikely that contaminants associated with the known extent of impact at these OUs would impact media at the Property and no further assessment is recommended regarding EAFB.			
LA Department of Water / Mojave Yard So. District / Dan Denning	FINDS; RCRA NonGen/NLR; FINDS;	Adjacent to proposed Gen-tie Corridor	No

Listed Facility Name/Address	Database Listing	Distance/Direction from Property	REC? (YES / NO)
17031 Sierra Highway Mojave, CA 93501	HIST UST; SWEEPS UST; CA FID UST; LUST; HIST CORTESE; CERS; NPDES; CIWQS; CERS; AST; UST; EMI; PEST LIC; FINDS; CERS HAZ WASTE; CERS TANKS; CERS; RGA LUST	(Focus Map 8)	
The facility received closure from Kern County on March 2, 1987 and February 11, 1992 for leaking underground storage tank (LUST) listing for a gasoline release to soil only discovered during a tank closure. Impacted soil was reportedly excavated and disposed of off-site. No additional information regarding the LUST listing was provided by EDR or available online. The facility has a pesticide regulation licenses listing under Dan Denning that expires on December 31, 2020 for either the application or sale of pesticides. Various minor violations were issued for missing plot plans/site maps and missing paperwork; however, all violations have been corrected and the facility returned to compliance. This adjacent facility would be a concern should the gen-tie corridors have an underground component given that potential that impacted soil may exist in the subsurface soil adjacent to this facility.			
Oasis Gas Station / E-Z Serve Inc 16900 State Highway/Hwy 14 Mojave, CA 93501	EDR Hist Auto; HWTS; HAZNET; SWEEPS UST	Adjacent to Gen-tie Corridor (Focus Map 8)	No
The facility was identified as various gasoline service stations between 1991 and 2014 with three underground storage tanks (USTs). There are no reported releases associated with this facility, therefore, this facility is considered unlikely to represent an environmental concern to the Property.			
Doomid Inc/ Speedway Travel Center/ Giant Truck Stop/ Archer Travel Center / 1X Calvert Co / Carder Truck & Repair 16600/16660 Sierra Highway/Hwy 14 Mojave, CA 93501	HWTS; EDR Hist Auto; FINDS; LUST; CERS HAZ WASTE; SWEEPS UST; HIST UST; UST; HWTS; RGA LUST; CHMIRS; CA FID UST; FINDS; UST; HAZNET	Adjacent to Gen-tie Corridor (Focus Map 8)	No
This facility provides general automotive repairs and was listed a various gasoline service stations between 1969 and 2014. The facility received closure from the Lahontan Regional Water Quality Control Board on April 21, 1997 for a release of gasoline to soil. Various minor violations were issued; however, all violations were corrected and the facility was returned to compliance. This adjacent facility would be a concern should the gen-tie line have an underground component given that potential that contaminated soil may exist in the subsurface soil adjacent to this facility.			
Unocal #4311 / Mojave 76 / Station #4311; Union Oil Service Station #431 16451 North Sierra Highway Mojave, CA 93501	RGA LUST; FINDS; HAZNET; HWTS; HIST UST; HAZNET; HWTS; EDR Hist Auto; SWEEPS UST; CA FID UST; LUST; HIST CORTESE; CERS	Adjacent to Gen-tie Corridor (Focus Map 8)	No
This facility is listed as various gasoline service stations between 1969 and 2008. The facility received closure from Kern County on November 7, 1996 for a gasoline release to soil. Impacted soil was reportedly excavated and disposed of off-site. There are no reported violations associated with hazardous materials at this facility. This			

Listed Facility Name/Address	Database Listing	Distance/Direction from Property	REC? (YES / NO)
adjacent facility would be a concern should the gen-tie corridor have an underground component given that potential that contaminated soil may exist in the subsurface soil adjacent to this facility.			
Desert Distributing 16441 K Street Mojave, CA 93501	SWEEPS UST; CA FID UST; HWTS; HIST UST; UST	Adjacent to Gen-tie Corridor (Focus Map 8)	No
This facility was listed as having two 1,200-gallon gasoline USTs and one 1,000-gallon gasoline UST. There are no reported releases or violations associated with this facility, therefore, this facility is considered unlikely to represent an environmental concern to the Property.			
Casa De Gasa 16355 Sierra Highway Mojave, CA 93501	CA FID UST; HAZNET; CERS; HWTS; LUST; SWEEPS UST; UST; LUST; FINDS; HWTS; HIST UST; RGA LUST; EDR Hist Auto	Adjacent to Gen-tie Corridor (Focus Map 8)	No
The facility is listed as various gasoline service stations between 1988 and 1997. The facility received closure on May 18, 2005 from Kern County for a release of gasoline to soil only. No additional information was provided by EDR or available online. There are no reported violations associated with hazardous materials at this facility. This adjacent facility would be a concern should the gen-tie corridor have an underground component given that potential that contaminated soil may exist in the subsurface soil adjacent to this facility.			
ARCO Facility #5674 / V&K Oil Company / B&K Oil Company / ARCO Product Company 16300 Sierra Highway Mojave, CA 93501	LUST; SWEEPS UST; CA FID UST; CERS; FINDS; EMI; ECHO; HWTS; UST; EDR Hist Auto; RCRA NonGen/NLR; RGA LUST; CERS HAZ WASTE; CERS TANKS; HAZNET	Adjacent to Gen-tie Corridor (Focus Map 8)	No
The facility is listed as various gasoline service stations between 1993 and 2014. The facility received closure from Kern County on May 13, 2004 for a release of gasoline to soil only. No additional information was provided by EDR or available online. Minor violations were reported by the Kern County Environmental Health Services Department for recording keeping issues and improper labeling. However, all violations were corrected and the facility was returned to compliance. This adjacent facility would be a concern should the gen-tie corridor have an underground component given that potential that contaminated soil may exist in the subsurface soil adjacent to this facility.			
ARCO #5096 / RP&LM Enterprises; Barneys Arco Service 16271 North Sierra Highway Mojave, CA 93501	RGA LUST; HIST UST; LUST; HIST CORTESE; CERS; EDR Hist Auto; FINDS; HIST UST; UST	Adjacent to Gen-tie Corridor (Focus Map 8)	No
The facility is identified as a gasoline service station between 1969 and 2012 with four gasoline USTs. The facility received closure for a gasoline release to soil only from Kern County on June 17, 1998. This adjacent facility would be a concern should the gen-tie corridor have an underground component given that potential that contaminated soil may exist in the subsurface soil adjacent to this facility.			
Mojave Department of Transportation / Caltrans Mojave / Mojave Maintenance Station	HAZNET; HWTS; RGA LUST; LUST; CERS HAZ WASTE; SWEEPS UST;	Adjacent to Gen-tie Corridor (Focus Map 8)	No

Listed Facility Name/Address	Database Listing	Distance/Direction from Property	REC? (YES / NO)
2211 Nadeau Street Mojave, CA 93501	CERS; UST; AST; FINDS; ECHO; RCRA NonGen/NLR		
The facility is listed as disposing of other organic solids, latex waste, unspecified oil-containing waste, and aqueous solutions with total organic residues less than 10 percent, and hydrocarbon solvents with no reported violations. The facility had an unknown release to soil that received closure on September 24, 1996 from Kern County. Given the only UST listed on the facility was a 3,000-gallon diesel fuel UST, the unknown release was likely diesel fuel. Multiple violations were reported for incomplete paperwork and submittals; however, the violations were all corrected. This adjacent facility would be a concern should the gen-tie corridor have an underground component given that potential that contaminated soil may exist in the subsurface soil adjacent to this facility.			
K C Road Department / Kern County Road / Mojave Road Yard 2200 Nadeau Street Mojave, CA 93501	FINDS; AST; HIST UST; EMI; HAZNET; HWTS; UST; RCRA NonGen/NLR; FINDS; ECHO; CERS HAZ WASTE; SWEEPS UST; HIST UST	Adjacent to Gen-tie Corridor (Focus Map 8)	No
The facility is listed as having a 1,000-gallon diesel UST and a 2,000-gallon gasoline UST with no reported releases. The facility is also listed as treating aqueous solutions with total organic residues less than 10 percent. Minor violations were noted for missing hazardous materials inventory forms and inadequate emergency response procedures. All violations have been corrected. There are no reported releases or violations associated with this facility, therefore, this facility is considered unlikely to represent an environmental concern to the Property.			
Willies Mobil Service / Steve's Rough Riders / Wibisono Property / Gunawan Wisbisono Property 16201 Sierra Highway Mojave, CA 93501	EDR Hist Auto; SWEEPS UST; CA FID UST; HAZNET; HWTS; LUST; HIST UST; CERS; RGA LUST; UST; FINDS	Adjacent to Gen-tie Corridor (Focus Map 8)	No
The facility is listed as various gasoline service stations between 1971 and 1991 with four USTs. The facility received closure from Kern County on January 3, 2001 for a release of diesel fuel to soil. This adjacent facility would be a concern should the gen-tie corridor have an underground component given that potential that contaminated soil may exist in the subsurface soil adjacent to this facility.			
Pepsi Cola Company / Kelley Fleet Service / KA Fleetone Inc. 2471 Nadeau Street Mojave, CA 93501	FINDS; ECHO; HAZNET; HWTS; RGA LUST; LUST; SWEEPS UST; HIST UST; CA FID UST; HWTS; UST; RCRA NonGen/NLR	Adjacent to Gen-tie Corridor (Focus Map 8)	No
The facility received closure on September 17, 1993 from Kern County for a diesel release to soil only that was discovered during tank removal in 1993. The facility disposed of oil/water separation sludge in 2006 with no reported violations. This adjacent facility would be a concern should the gen-tie corridor have an underground component given that potential that contaminated soil may exist in the subsurface soil adjacent to this facility.			
Pacific Bell / AT&T California 2100 Belshaw Street Mojave, CA 93501	EMI; FINDS; SWEEPS UST; HIST UST; CA FID UST; RCRA NonGen/NLR; CERS HAZ WASTE;	Adjacent to Gen-tie Corridor (Focus Map 8)	No

Listed Facility Name/Address	Database Listing	Distance/Direction from Property	REC? (YES / NO)
	HAZNET; CERS; HWTS		
The facility is listed as having one 275-gallon diesel fuel UST with no reported releases. The facility disposes of various hazardous materials off-site including other organic solids; off-specification, aged or surplus organics; and adhesives with no reported violations. There are no reported releases or violations associated with this facility, therefore, this facility is considered unlikely to represent an environmental concern to the Property.			
United Parcel Service / The Energy Enhancement / UPS Mojave 1522 Sabovich Street Mojave, CA 93501	SWEEPS UST; CA FID UST; UST; HAZNET; HWTS; FINDS; ECHO; AST; RCRA NonGen/NLR; NPDES; WDS; CIWQS; ECHO; RCRA-SQG; CERS HAZ WASTE; CERS; RCRA-LQG	Adjacent to Gen-tie Line Corridor (Focus Map 8)	No
The facility is listed as having a 4,000-gallon gasoline UST. The facility disposes of various hazardous materials off-site including other liquid with pH <=2 with metals; unspecified solvent mixture; alkaline solution without metals; and laboratory waste chemicals with no reported violations. Minor violations were reported for failure to maintain secondary containment or establish adequate safety training program. All violations were corrected. There are no reported releases associated with this facility, therefore, this facility is considered unlikely to represent an environmental concern to the Property.			
Whites Shell Station 16074 Sierra Highway Mojave, CA 93501	FINDS; HAZNET; HWTS; EDR Hist Auto; CA FIDS UST; LUST; SWEEPS UST; HIST UST; CERS; RGA LUST; HIST CORTESE	Adjacent to Gen-tie Corridor (Focus Map 8)	No
The facility is listed as various gasoline service stations between 1990 and 2001 with three gasoline USTs and one 1,000-gallon waste oil UST. The facility received closure on May 14, 1997 from Kern County for a release of gasoline to soil only. This adjacent facility would be a concern should the gen-tie corridor have an underground component given that potential that contaminated soil may exist in the subsurface soil adjacent to this facility.			
Transportation Department 1830 Inyo Street Mojave, CA 93501	HIST UST; SWEEPS UST; HIST UST; CA FID UST	Adjacent to Gen-tie Corridor (Focus Map 8)	No
The facility is listed has having three USTs. This adjacent facility would be a concern should the gen-tie corridor have an underground component given that potential that contaminated soil may exist in the subsurface soil adjacent to this facility. There are no reported releases associated with this facility, therefore, this facility is considered unlikely to represent an environmental concern to the Property.			
Mac Arthur Marianna 2326 Cerro Gordo Mojave, CA 93501	EDR Hist Cleaner	Adjacent to Gen-tie Corridor (Focus Map 8)	No
The facility is listed as a dry-cleaning plant in 1969 and 1970. This adjacent facility would be a concern should the gen-tie corridor have an underground component given that potential that contaminated soil may exist in the subsurface soil adjacent to this facility.			
Mojave Station / Southern Pacific 15887 Sierra Highway North	UST; RGA LUST; HAZNET; HWTS; FINDS; HIST UST;	Adjacent to Gen-tie Corridor (Focus Map 8)	No

Listed Facility Name/Address	Database Listing	Distance/Direction from Property	REC? (YES / NO)
Mojave, CA 93501	LUST; HIST CORTESE; CERS		
The facility is listed as having one 1,000-gallon gasoline UST. The facility received closure on January 2, 1991 from Kern County of a gasoline release to soil only. This adjacent facility would be a concern should the gen-tie corridor have an underground component given that potential that contaminated soil may exist in the subsurface soil adjacent to this facility.			
Bee B Coy JR / Mojave CS / Mojave Public Utility 15844 K Street Mojave, CA 93501	PEST LIC; CIWQS; FINDS; CERS HAZ WASTE; SWEEPS UST; CA FID UST; RCRA NonGen/NLR; FINDS; ECHO; HAZNET; HWTS; UST	Adjacent to Gen-tie Corridor (Focus Map 8)	No
The facility is listed as having one 550-gallon fuel UST with no reported releases. The facility is also listed as a chemical storage facility with multiple minor violations for improper use of oil and/or fuel filters, missing hazardous material inventory forms, inadequate training, and missing maps. All violations were corrected. There are no reported releases associated with this facility, therefore, this facility is considered unlikely to represent an environmental concern to the Property.			
Chevron #1095 / Ramos Strong / RSI Cardlock 15800 Sierra Highway Mojave, CA 93501	FINDS; RCRA NonGen/NLR; ECHO; UST; RGA LUST; EMI; SWEEPS UST; HIST UST; FINDS; HWTS; EDR Hist Auto; HAZNET; LUST; HIST CORTESE; CERS; CERS HAZ WASTE; CERS TANKS; CA FID UST	Adjacent to Gen-tie Corridor (Focus Map 8)	No
The facility is listed as various gasoline service stations between 1989 and 2014. The facility received closure on August 22, 1991 from Kern County for a release of gasoline. This adjacent facility would be a concern should the gen-tie corridor have an underground component given that potential that contaminated soil may exist in the subsurface soil adjacent to this facility.			
Sierra Drive Thru Mini Mart 2337 Shasta Avenue Mojave, CA 93501	HAZNET; HWTS; CA FIDS UST; UST; SWEEPS UST	Adjacent to Gen-tie Corridor (Focus Map 8)	No
The facility is listed as having two gasoline USTs with no reported releases. There are no reported releases associated with this facility, therefore, this facility is considered unlikely to represent an environmental concern to the Property.			
Texaco / Shan's Texaco / Mojave Texaco / Express Mart Service / Oasis Travel Station / Gorman Robert / Gorman Texaco 15700 Sierra Highway	SWEEPS UST; HIST UST; CA FID UST; CERS TANKS; HAZNET; HWTS; UST; FINDS; EDR Hist Auto; HIST UST; EMI	Adjacent to Gen-tie Corridor (Focus Map 8)	No
The facility is listing as various gasoline service stations between 1969 and 2012 with four USTs. Minor violations were reported for improper training, missing paperwork, and missing permits. All violations have been corrected.			

Listed Facility Name/Address	Database Listing	Distance/Direction from Property	REC? (YES / NO)
There are no reported releases associated with this facility, therefore, this facility is considered unlikely to represent an environmental concern to the Property.			
Circle K Store #735 15510 K Street Mojave, CA 93502	RCRA-SQG; LUST; SWEEPS UST; HIST UST; CA FIDS UST; ECHO; HIST CORTESE; CERS; HAZNET; HWTS; FINDS; RGA LUST; EDR Hist Auto	Adjacent to Gen-tie Corridor (Focus Map 8)	No
The facility is listed as a small quantity generator of hazardous wastes with no reported violations. The facility received closure on September 14, 1987 from Kern County of a gasoline release to soil only. This adjacent facility would be a concern should the gen-tie corridor have an underground component given that potential that contaminated soil may exist in the subsurface soil adjacent to this facility.			
Heartland Truck Stop / Price Saver Inc. / Rapid Lube and Truck 2001 Hwy 58 Mojave, CA 93501	LUST; CORTESE; HAZNET; CERS; HWTS; CHMIRS; RGA LUST; EDR Hist Auto; UST; HWTS	Adjacent to Gen-tie Corridor (Focus Map 8)	No
The facility has a non-compliant UST system to corrective action directives issued by Kern County. The RWQCB is initiating corrective action requirements for all past and present owners and operators of the tank system. The RWQCB issued a directive to provide a work plan to delineate the lateral and vertical extent of contamination. This adjacent facility would be a concern should the gen-tie corridor have an underground component given that potential that contaminated soil may exist in the subsurface soil adjacent to this facility.			
Vista Metals Inc / Calportland Company / Screening Plant B / Mojave Plant / Mojave Plant and Quarry 9350 Oak Creek Road Mojave, CA 93501	AST; CERS HAZ WASTE; CERS TANKS; HAZNET; UST; US MINES; WMUDS/SWAT; CHMIRS; EMI; ENF; WDS; CIWQS; AST; SEMS-ARCHIVE; RCRA-SQG; ABANDONED MINS	Adjacent to Gen-tie Corridor (Focus Map 13)	No
There are no underground structures or reported releases associated with this facility, therefore, this facility is considered unlikely to represent an environmental concern to the Property.			
Rising tree Wind / Voyager Wind I LLC / Tehachapi Energy 70th Street West and Oak Creek Road Mojave, CA 93501	FINDS; ECHO; NPDES; CIWQS; CERS	Adjacent to Gen-tie Corridor (Focus Map 14)	No
There are no underground structures or reported releases associated with this facility, therefore, this facility is considered unlikely to represent an environmental concern to the Property.			
Mitsubishi Heavy Industry / Sea West Tehachapi 6737 Oak Creek Road Mojave, CA 93501	RCRA NonGen/NLR; AST; CERS HAZ WASTE; CERS TANKS; HAZNET	Adjacent to Gen-tie Corridor (Focus Map 14)	No
There are no underground structures or reported releases associated with this facility, therefore, this facility is considered unlikely to represent an environmental concern to the Property.			

Listed Facility Name/Address	Database Listing	Distance/Direction from Property	REC? (YES / NO)
Vestas American Winds / Brookfield Renewable 6703 Oak Creek Road Mojave, CA 93501	RCRA NonGen/NLR; AST; CERS HAZ WASTE; CERS TANKS; HAZNET	Adjacent to Gen-tie Corridor (Focus Map 14)	No
There are no underground structures or reported releases associated with this facility, therefore, this facility is considered unlikely to represent an environmental concern to the Property.			
Caltrans Mojave Main / Leonard Construction HWY 14 Mojave, CA 93501	LUST; CERS	Adjacent to Gen-tie Corridor (Focus Map 16)	No
The facility received closure on August 31, 1987 from Kern County for a release of gasoline to soil. This adjacent facility would be a concern should the gen-tie corridor have an underground component given that potential that contaminated soil may exist in the subsurface soil adjacent to this facility.			
Mojave MO-Mart 15200 Sierra Hwy Mojave, CA 93501	RGA LUST; LUST; HIST CORTESE; CERS; FINDS; HIST UST; SWEEPS UST; HIST UST; CA FID UST	Adjacent to Gen-tie Corridor Corridor e (Focus Map 16)	No
The facility was listed as a gasoline service station with three USTs. The facility received closure from Kern County on August 5, 1992 of a release of gasoline to soil. This adjacent facility would be a concern should the gen-tie corridor have an underground component given that potential that contaminated soil may exist in the subsurface soil adjacent to this facility.			
Mojave Mobile 15190 Sierra Hwy Mojave, CA 93501	EDR Hist Auto; CERS HAZ WASTE; CERS TANKS; CERS; FINDS; UST; HAZNET; HWTS; EMI	Adjacent to Gen-tie Corridor (Focus Map 16)	No
The facility is listed as various gasoline service stations between 1969 and 2014. Minor violations were noted for improper training, improper overfill prevention equipment, failure to maintain under-dispenser containment, sump, and/or other secondary containment in good condition and/or free of debris/liquid. All violations were corrected. There are no reported releases associated with this facility, therefore, this facility is considered unlikely to represent an environmental concern to the Property.			
Western Growth Property / Steven Oliver Property / Revere Extruders 14501 Holt Street Mojave, CA 93501	LUST; FINDS; SWEEPS UST; HIST UST; CA FID UST; UST; HIST CORTESE; HAZNET; HWTS; RGA LUST	Corridor (Focus Map 16)	No
The facility received closure form Kern County on January 4, 2000 for a release of diesel to soil. The facility has five USTs. This adjacent facility would be a concern should the gen-tie corridor have an underground component given that potential that contaminated soil may exist in the subsurface soil adjacent to this facility.			
Trical Mojave / Terminal Storage Facility / Niklor Chemical Company / Arysta Lifescience / Great Lakes Solution / Mojave Asphalt Termi 1667 Purdy Avenue Mojave, CA 93501	SSTS; TRIS; CERS HAZ WASTE; CERS TANKS; CIWQS; CERS; EMI; RMP; RCRA-LQG; FINDS; ECHO; ICIS; RCRA-	Adjacent to Gen-tie Corridor (Focus Map 16)	No

Listed Facility Name/Address	Database Listing	Distance/Direction from Property	REC? (YES / NO)
	LQG; HAZNET; NPDES; CERS; HWTS; RMP		
The facility is listed as a larger quantity generator of hazardous wastes with off-site disposal and no reported violations. There was approximately 125 gallons of chloropicrin released with a steel cylinder ruptured. The liquid was contained and no further details were reported. There are no underground structures or reported releases associated with this facility, therefore, this facility is considered unlikely to represent an environmental concern to the Property.			
Paramount Petroleum 1873 Purdy Avenue Mojave, CA 93501	FINDS; EMI	Adjacent to Gen-tie Corridor (Focus Map 16)	No
There are no underground structures or reported releases associated with this facility, therefore, this facility is considered unlikely to represent an environmental concern to the Property.			
California Highway Patrol #830 Mojave (Old) 1365 State Highway 58 Mojave, CA 93501	HAZNET; HWTS; CERS TANKS; CERS; SWEEPS UST; CA FID UST; CIWQS; FINDS; ECHO; RCRA NonGen/NLR; UST; HIST UST	Adjacent to Gen-tie Corridor (Focus Map 17)	No
This adjacent facility would be a concern should the gen-tie corridor have an underground component given that potential that contaminated soil may exist in the subsurface soil adjacent to this facility.			
Angels Truck Stop 2001 HWY 58 Mojave, CA 93501	LUST; HIST CORTESE	Adjacent to Gen-tie Corridor (Focus Map 17)	No
The facility had a diesel fuel release caused by overfill on October 14, 1994. No known abatement actions were conducted. This adjacent facility would be a concern should the gen-tie line have an underground component given that potential that contaminated soil may exist in the subsurface soil adjacent to this facility.			
City Serv Onsite LDF / Columbian Chemical Company 12701 United Street Mojave, CA 93501	SEMS-ARCHIVE; ENVIROSTOR; SWF/LF; LDS; CERS	Adjacent to Gen-tie Corridor (Focus Map 23)	No
This facility is listed as having hydrocarbon solvent contaminated soil. However, after a site screening conducted by the EPA in June 1991 no further action was recommended. A land use restriction was issued for former surface impoundment area. This adjacent facility would be a concern should the gen-tie corridor have an underground component given that potential that contaminated soil may exist in the subsurface soil adjacent to this facility.			
Purdy Company / Mojave Plant 12901 United Road Mojave, CA 93501	HIST Cal-Sites; CERS; HIST UST; HAZNET; HWTS; UST; RESPONSE; ENVIORSTOR; DEED; CORTESE	Adjacent to Gen-tie Corridor (Focus Map 23)	No
The facility is listed as having ongoing remediation overseen by the Department of Toxic Substances Control for soil contaminated with heavy metals. This adjacent facility would be a concern should the gen-tie corridor have an underground component given that potential that contaminated soil may exist in the subsurface soil adjacent to this facility.			

Listed Facility Name/Address	Database Listing	Distance/Direction from Property	REC? (YES / NO)
United Metal Recovery 12403 United Street Mojave, CA 93501	RESPONSE; ENVIROSTOR; HIST; Cal-Sites; LIENS; DEED; CORTESE; HIST CORTESE; CERS	Adjacent to Gen-tie Corridor (Focus Map 23)	No
This facility is identified as a battery and metal reclamation site with contaminated soil. The soil potentially contains dioxins, lead, copper, and zinc. This adjacent facility would be a concern should the gen-tie corridor have an underground component given that potential that contaminated soil may exist in the subsurface soil adjacent to this facility.			

The remaining listings in the database search report provided in Appendix C do not constitute a potential REC for the Property.

4.3 LOCAL/REGIONAL ENVIRONMENTAL RECORDS

Stantec reviewed the following sources to obtain information pertaining to Property use and/or indications of RECs in connection with the Property:

4.3.1 Kern County Department of Environmental Health

Agency Name Contact Information	Finding
Kern County Environmental Health Department 1800 Mt. Vernon Avenue Bakersfield, CA 93306 (661) 321-3000 Contacted: May 6, 2020	Stantec submitted a request to the Kern County Department of Environmental Health to research whether any documents were on file for the Property. According to an email dated May 11, 2020, there were no records for the 90 APNs associated with the Property.

4.3.2 Regional Water Quality Control Board (RWQCB)

Agency Name Contact Information	Finding
Regional Water Quality Control Board (RWQCB) Lahontan RWQCB Region 6V 15095 Amargosa Road, Bldg. 2, Ste 210 Victorville, CA 92394 Researched: May 6, 2020	Stantec searched for available files for the Site and nearby properties on the RWQCB Geotracker website (https://geotracker.waterboards.ca.gov). According to the Geotracker website, no documents associated with the Property or adjoining properties are available. Geotracker records show a site designated as “China Lake Naval Air Weapons Station – MRP Site 2 Mojave Target 71” (Target 71), is located at the northeast corner of Neuralia Rd and La Vista Ave, approximately one mile north of Parcel 47. Due to a distance of one

Agency Name Contact Information	Finding
	mile from the Property at its closest point, Target 71 is considered unlikely to represent an environmental concern to the Property.

4.3.3 Department of Toxic Substances Control (DTSC)

Agency Name Contact Information	Finding
Department of Toxic Substances Control 8800 Cal Center Drive Sacramento, CA 95826 Online database: https://www.envirostor.dtsc.ca.gov/ Researched: May 6, 2020	Stantec searched for available files for the Property and nearby properties on the DTSC Envirostor website (https://envirostor.dtsc.ca.gov). According to the Envirostor website, no documents associated with the Property or adjoining properties are available.

4.3.4 Kern County Building Department

Agency Name Contact Information	Finding
Kern County Public Services Building 2700 “M” Street, Suite 150 Bakersfield, CA 93301 Contacted: May 6, 2020	Stantec contacted the Kern County Building Department to research whether any documents were on file for the Property. According to an email dated May 8, 2020 from Ms. Stephanie Wood, Office Services Assistant, there are no permits for any of the 90 APNs associated with the Property.

4.3.5 California Geologic Energy Management (CalGEM)

Agency Name Contact Information	Finding
California Geologic Energy Management (CalGEM) Division 5816 Corporate Avenue, Suite 200 Cypress, CA 90630 Online database: https://maps.conservation.ca.gov/doggr/wellfinder/#/-118.94276/37.12009/6 Date of contact: April 22, 2020	Stantec reviewed Well Finder online database to review potential oil wells at the Property or in the vicinity. There are no oil wells on the Property. There are two plugged oil wells (API 0402932571 and 0402932570) located on Arizona Avenue and Leticia Avenue approximately ½ mile to the northeast of Parcel 45 and one plugged oil well (API 0402932572) located approximately 900 feet to the west of Parcel 7. Given that none of the oil wells are located on or adjoining to the Property, the oil wells are not considered an environmental concern to the Property.

4.4 HISTORICAL RECORDS REVIEW

4.4.1 Land Title Records/Deeds

Land title records, deeds, environmental liens, and activity and use limitation documentation was not provided by the User, and public records were not searched by Stantec.

4.4.2 Aerial Photographs

Stantec reviewed historical aerial photographs provided by EDR. Copies of the aerial photographs are included in Appendix D. The general type of activity on a property and land use changes can often be discerned from the type and layout of structures visible in the photographs. However, specific elements of a facility's operation usually cannot be discerned from aerial photographs alone. The following table summarizes Stantec's observations of the reviewed historical aerial photographs.

Year	Observations, Property and Adjoining Properties
1952	The Property and surrounding area appear to be mostly vacant land. An airport and the City of Mojave appears to the west. A highway, railroad tracks, and Oak Creek Road appear west of the City of Mojave. The railroad tracks extend to the west and divide the southern Property parcels.
1963	The Property parcels were not depicted on the aerial photograph. The Bellefield Northern Route and surrounding area appear to be vacant land. Due to the scale of the photograph, it is too difficult to discern detail.
1972 1977	The Property and surrounding area appear to be mostly vacant land. A highway bisects the southern portion of the Property. Small structures appear in the southcentral portion of the Property north of the highway. Railroad tracks appear along the southern perimeter and bisect two of the Property parcels. Due to the scale of the photograph, it is too difficult to discern detail.
1994 2005 2009 2012 2016	The Property and surrounding area appear similar to the previous photographs. Additional development appears in the Gen-Tie Corridors in the southwest portion of the project. A racetrack appears adjacent to the northwest in the 2005 aerial photograph.

Former agricultural use was not identified at the Property. Additionally, no commercial use or other developed use was identified on the Property parcels that would be considered an environmental concern.

4.4.3 Historical Fire Insurance Maps

Fire insurance maps were developed for use by insurance companies to depict facilities, properties, and their uses for many locations throughout the United States. These maps provide information on the history of prior land use and are useful in assessing whether there may be potential environmental contamination on or near the Property. These maps, which have been periodically updated since the late 19th century, often provide valuable insight into historical Property uses.

Stantec requested fire insurance maps from EDR; however, no coverage exists for the Property. The Sanborn® Map Search Report indicating "no coverage" is presented in Appendix D.

4.4.4 Historical Topographic Maps

Stantec reviewed historical U.S. Geological Survey 7.5-minute topographic maps of the Mojave, California Quadrangle (scale 1:24,000) to help identify past Property usage and areas of potential environmental concern. Copies of the historical maps are provided in Appendix D. The following table summarizes the maps reviewed and our observations.

Year	Scale	Observations, Property and Adjoining Properties
1915	1:125,000	No Property details are depicted. No structures or indicators of potential RECs were depicted on the map. The City of Mojave and water wells appear to the east. A highway appears to the south. Railroad tracks appear to the north. Sanborn Hill appears to the southwest. The Los Angeles Aqueduct runs north-south and appears to the west.
1943	1:62,500	The northeastern portion of the Property appears to be occupied by the U.S. Naval Reservation. A highway appears to bisect the southern portion of the Property. Small tributaries appear to the east. Lucky Dog Mine appears adjacent to the southeast.
1947	1:24,000	No site details are depicted. No structures or indicators of potential RECs were depicted on the map. The abandoned Muroc Naval Air Station appears to the west.
1956	1:62,500	The northeastern corner of the Property appears to be a portion of the Naval Reservation. Dirt roads appear on the southern portion of the Property. A pipeline is depicted parallel to the south of the highway in the southern portion of the Property. A water tank and shaft are located between the highway and railroad tracks in the southern portion on the Property. The Lucky Dog Mine appears south of the Santa Fe Railroad to the southeast. The area to the east is identified as Marine Corps Auxiliary Air Station. Gravel pits also appear to the east.
1973 1980 1994 1995 2012	1:24,000	Dirt roads are depicted on the Property in the 1980 and 1994 topographic maps. A radio tower is depicted in the southcentral portion of the Property, and a radio facility is depicted in the southeastern portion of the Property in the 1980 and 1995 topographic maps. The area to the east is not identified as Mojave Airport. Two dry wells and an observation well appear to the east. Sewage treatment ponds appear to the southeast between the pipeline and railroad tracks.

Name of maps and source: EDR 2019

4.4.5 Other Historical Sources

According to the USACE FUDS Portal online database (https://geoportal-dmzu.usace.army.mil/s1portal/apps/webappviewer/index.html?id=a2abaed625ca443aa45b430128f1b7a3), the Property is located within the boundary of a FUDS identified as Mojave Gunnery Range.

According to the Remedial Investigation and Feasibility Study for the Former Mojave Gunnery Range “C” (MGRC), Kern County, California prepared by MARRS Services Inc. and dated December 2011, the Department of the Navy used 22,400 acres of land east of the City of Mojave to train air crews in aerial bombing, strafing, and air-to-ground rocketry. The area became known as the MGRC and was used in World War II as air-to-ground training area with six reported stationary ground targets and one reported mobile target. After the war, MGRC was used for testing and evaluation of pilot-less aircraft by both the Naval Air Station Mojave and the Army.

Between November 2001 and March 2002, site visual inspections were conducted by USACE to assess the presence or potential of MEC. Based on the site visual inspections, the FUDS boundary was developed and encompasses approximately 20,908 acres of land. The approximate area of the MGRC is depicted on Figure 2.

The remedial investigation included subsurface digital geophysical mapping and intrusive investigation to characterize the Property. Soil sampling results were compared to California Human Health Screening Levels (CHHSLs) supplemented with EPA Regional Screening Levels for residential soils when CHHSLs were not available.

The results of the intrusive investigation confirmed the munitions information obtained from the past historical use data, investigations and site visits for all the munitions response sites (MRSs) / areas of interest (AOIs) except MRS-03, AOI-01, and AOI-02. The results for these MRSs/AOIs did not match the previous historical data. Previous information on MRS-03 indicated that it was a potential strafing target; however, there was little evidence to support this. The munitions debris (MD) that was encountered in MRS-03 was mostly bomb casing fragmentation that could have come from bombs dropped in the nearby AOI-05 target area. AOIs-01 and -02 were identified through historical documentation as potential bombing targets. The field investigation did not support their use as targets of any kind because very little MD was found in these two areas. The few pieces of MD encountered in these two AOIs may have resulted from its close proximity to MRS-01.

The results in MRS-01, -02, -04, and -05, and AOI-03 and -05 indicated that these targets were used extensively. The total number of anomalies investigated was approximately two times more than the number of targets anticipated. The initial estimated number of anticipated anomalies was 5,600. In the end, 11,337 final anomalies were investigated. These areas are shown on Figure 3.

Soil sampling for munitions constituents (MCs) was performed at selected locations where visual and geophysical data indicated the presence of MEC. Additionally, pre- and post-Blow-In-Place soil sampling was implemented during the Remedial Investigation field data collection process at two locations where Blow-In-Place disposal of MEC was conducted. Soil samples were collected from 39 locations at 0 to 2 inches and 2 to 12 inches depth bgs. These were analyzed for metals using EPA SW- 846 Method 6020A and explosives utilizing EPA Test Method 8330. Historical metals background data from five background samples (Preliminary Endangerment Assessment Report, May 12, 2006, Mojave Unified School District, Mojave, CA 93501) were used to evaluate and determine whether the metals detected were constituents of potential concern at the former MGRC site or similar in concentration to background metal concentrations. Analytical test results for metals indicated that concentrations were above the laboratory Reporting Limits (RLs) but were below the soil screening CHHSLs or EPA Regional Screening Levels (where CHHSLs were not available) and were similar to the background concentrations noted in the Preliminary Endangerment Assessment Report conducted for the Mojave Unified School District in 2005. All explosives analytical results were non-detect at the laboratory RLs.

The Conceptual Site Model identified a potentially complete exposure pathway between human receptors and MEC. The soil sampling results for explosive constituents were all less than laboratory RLs. The soil sampling results for metals were in the same range of background concentrations, while a few samples slightly exceeded the background concentrations. However, all sample results were at least one order of magnitude less than the soil screening levels; therefore, only a hazard assessment utilizing the Ordnance and Explosives Risk Impact Assessment for MEC was conducted. No complete pathway was identified for ecological receptors. The potential hazard to human receptors posed by MEC was characterized qualitatively by evaluating three primary risk factors: (1) presence of an MEC

source; (2) site characteristics that affect the accessibility or pathway between the source and human receptors; and (3) human factors that define the receptors and the types of activities that may result in direct contact between a receptor and an MEC source.

The MECs presenting the most severe hazard to human receptors were the two MK 4 Mod 4 100-pound General Purpose High Explosive bombs encountered in MRS-02. The other MEC item posing a hazard to human receptors was the 3-pound practice bomb series, which contains a signal cartridge that was not designed to maim or kill, but to produce a puff of smoke to visually indicate where the munition landed. These were encountered in RS-01, -02, -04, -05, and AOI-03; however, the only areas containing the 3-pound practice bombs with unfired signal cartridges were MRS-01 (two each) and AOI-03 (19 each).

Based on past conversations with the DTSC and USACE on similar sites in the region, there is the potential for UXO and/or MEC to be present at the Property. Stantec recommends the following with regard to the potential existence of UXO and MEC:

- Consultation and guidance from a certified MEC/UXO professional to evaluate the appropriate course of action and associated costs related to assessment, remediation, and construction support;
- Where ground disturbance work is involved, contractors should be OSHA HAZWOPER-trained in accordance with standard 29 CFR 1910.120 and hold a current certification;
- Where ground disturbance work is involved, contractors should be trained in identifying UXO/MEC;
- If suspected munitions are encountered at any point by any onsite individual, the “3R’s of Explosives Safety” should be followed. The “3R’s” include:
    - Recognize: when something may be a munition and the dangers involved.
    - Retreat: do not touch the potential munition and carefully leave the area.
    - Report: immediately report the finding to local law enforcement.

5.0 SITE RECONNAISSANCE

A visit to the Property and its vicinity was Mr. Dion Monge, Stantec Senior Scientist on May 29, 2020 and June 1, 2020. Mr. Monge was unaccompanied during the Property visit. Access to the Property was coordinated through 50LW 8ME LLC. Figure 2 provides information about the Property and adjoining properties and the location of potential areas of environmental concern. Photographs collected during the Property visit are included in Appendix A.

5.1 SITE RECONNAISSANCE METHODOLOGY

The site reconnaissance focused on observation of current conditions and observable indications of past uses and conditions of the Property that may indicate the presence of RECs. The reconnaissance of the Property was conducted on foot, and Stantec used the following methodology to observe the Property:

- Traverse the outer Property boundary.
- Traverse transects across the Property.

Weather conditions during the visit to the Property were clear and sunny. There were no weather-related Property access restrictions encountered during the reconnaissance visit.

5.2 GENERAL DESCRIPTION

Property and Area Description:	The Property is located in both unincorporated Kern County and within the city limits of California City. Power generated by the project would be delivered via 230 kV overhead and underground gen-tie within a 100-foot-wide corridor originating from a project substation and terminating at Southern California Edison's Windhub Substation. Surrounding properties primarily consist of undeveloped land. The Barstow-Bakersfield Highway bisects the Property. The Hyundai-Kia Proving Ground (i.e., car track) is located to the northeast. The Gen-Tie corridors pass through the City of Mojave.
Property Operations.	Primarily vacant undeveloped land.
Structures, Roads, Other Improvements:	There are no structures, paved roads, or other improvements within the Property parcel limits. Various dirt roads were observed throughout the Property parcels. The Gen-Tie corridors are located west of the Property parcels and run parallel to Highway 58 and city streets. Improvements within close proximity to the proposed Gen-Tie Corridors are discussed in Section 5.5.
Property Size (acres):	Approximately 8,371 gross acres
Estimated % of Property Covered by Buildings and/or Pavement:	0%
Observed Current Property Use/Operations:	Undeveloped vacant land.
Observed Evidence of Past Property Use(s):	None observed.
Sewage Disposal Method (and age):	Not applicable.

Potable Water Source:	Not applicable.
Electric Utility:	Not applicable.

5.3 HAZARDOUS SUBSTANCES AND PETROLEUM PRODUCTS

The following table summarizes Stantec's observations during the Property reconnaissance.

Observations	Description/Location
Hazardous Substances and Petroleum Products as Defined by CERCLA 42 U.S. Code § 9601(14):	None observed.
Drums (≥ 5 gallons):	Two 55-gallon drums were associated with a parked recreational vehicle (RV) on Parcel 68 (see Appendix A, Photograph 31). The RV appeared to be inhabited and due to safety considerations, neither the RV nor drums were approached. Staining was not observed on the ground from the dirt road as Stantec passed by Parcel 68.
Strong, Pungent, or Noxious Odors:	None observed.
Pools of Liquid:	None observed.
Unidentified Substance Containers:	Several unlabeled 55-gallon drums were observed in the northern portions of the Property at the corners of certain dirt roads. The upper portions of these drums were spray painted a fluorescent orange and contained an unspecified liquid (likely rainwater) and some were filled with concrete. The drums appeared to be used for road markers and were in good condition without any evidence of leaking or staining. Stantec would recommend that these drums be removed from the Property prior to development.
Polychlorinated Biphenyl-Containing Equipment:	None observed.
Other Observed Evidence of Hazardous Substances or Petroleum Products:	The northern area of the Project was identified as a potential UXO area (see Figure 2). However, no visual evidence of previous military activities were observed during the field reconnaissance. A utility gas manhole and bollards were observed in the southeastern corner of the Property parallel to CA-58. Care should be taken to locate this gas line to avoid damage to the line during development. Given the line carries natural gas, it is not identified as a REC to the Property.

5.4 INTERIOR OBSERVATIONS

Given there were no structures on the Property, this section is not applicable.

Observations	Description
Heating/Cooling Method:	Not applicable.
Surface Stains or Corrosion:	Not applicable.
Floor Drains and Sumps:	Not applicable.

Observations	Description
Other Interior Observations:	Not applicable.

5.5 EXTERIOR OBSERVATIONS

Stantec made the following observations during the site reconnaissance of exterior areas of the Property and/or identified the following information during the interview or records review portions of the assessment:

Observations	Description
On-site Pits, Ponds, or Lagoons:	None observed.
Stained Soil or Pavement:	None observed.
Stressed Vegetation:	None observed.
Waste Streams and Waste Collection Areas:	None observed.
Solid Waste Disposal:	No areas indicative of solid waste disposal were observed other than a small amount of discarded construction debris (gypsum board and carpet) at the west end of Parcel 64.
Potential Areas of Fill Placement:	No mounds, piles, or depressions suggesting the placement of fill material were observed on the Property. Small piles of soil were observed in various locations but appeared to have been native given adjacent depressions in the soil where the piles appeared to have been sourced from.
Wastewater:	No exterior wastewater discharge was observed.
Stormwater:	None observed.
Wells:	No water wells were observed during the field reconnaissance. However, a well is depicted in the northeast corner of Parcel 7 in the EDR well report map but may no longer be present at the surface. Stantec recommends that all known and unknown (those encountered during proposed development activities) water wells be abandoned in accordance with applicable regulations unless the wells will be used by the proposed development.
Septic Systems:	No visible evidence of the existence of a septic system was observed.
Other Exterior Observations:	A concrete pad with an “X” label were observed in the vicinity of the southwest corner of Parcel 7. The concrete pad appeared in good condition without any indication of staining. It appears that they are survey markers. A target shooting area was observed in the northwest portion of Parcel 51. Shooting activities appeared to be minimal as it is not a designated shooting range with continuous use. Therefore, no further assessment is recommended. The proposed Gen-Tie corridors are located west of the Property parcels and join along Oak Creek Road and onward to the Oak Creek electrical substation. A Los Angeles Department of Water and Power Mojave Headquarters and equipment laydown area is located near the northwest portion of the project and adjacent to a Gen-Tie corridor, as

Observations	Description
	labeled on Figures 1 and 2. A high-pressure gas facility is located southeast of Camelot Blvd and SR-14, near the Gen-Tie corridors. An abandoned truck stop and an active gas station (Fastrip) are located on a Gen-Tie corridor within the limits of the City of Mojave. Gen-Tie corridors also cross the railroad tracks at multiple locations west of the City of Mojave, adjacent to Highway 14. The Gen-Tie corridors near the central portion to southern portions of the project run adjacent to Niklor Chemical Co. with large storage tanks south of the City of Mojave. A disposal site is located adjacent to the south of a Gen-Tie corridor in the southern portion of the Property. These adjacent features would be a concern should the gen-tie corridors have an underground component. As mentioned, the Gen-Tie corridors would cross the railroad tracks. If subsurface work is proposed for the installation of gen-tie lines or poles in areas that are within 20 feet of the railroad tracks, Stantec would recommend evaluation of soil samples to determine whether metals concentrations in soil are above California hazardous waste levels or regulatory thresholds that may pose a risk to future onsite construction workers.

5.6 UNDERGROUND STORAGE TANKS/STRUCTURES

Existing Underground Storage Tanks (USTs):	No visible evidence (fill pipes, vent pipes, dispensers, surface patches) that would indicate the presence of USTs was discovered during the site reconnaissance.
Former USTs:	No visible evidence (fill pipes, vent pipes, dispensers, surface patches), reports, or other evidence of the former presence of USTs was discovered during this Phase I ESA.
Other Underground Structures:	None observed.

5.7 ABOVEGROUND STORAGE TANKS

Existing Aboveground Storage Tanks (ASTs):	No visible evidence (fill pipes, vent pipes, dispensers, surface stains) that would indicate the presence of ASTs was discovered during the site reconnaissance. An approximate 10,000-gallon diesel AST was observed on the AT&T yard that is adjacent to Parcel 45. The AST was appeared to be in good condition, on asphalt, with secondary containment. No further assessment is recommended related to the offsite AST.
Former ASTs:	No visible evidence (fill pipes, vent pipes, dispensers, surface stains), reports, or other evidence of the former presence of ASTs was discovered during this Phase I ESA.

5.8 ADJOINING PROPERTIES

5.8.1 Current Uses of Adjoining Properties

As viewed from the Property and/or from public rights-of-way, adjoining properties mostly consist of undeveloped land. California City appears to the northeast and the City of Mojave appears west of the Property parcels. The proposed Gen-Tie corridors would cross railroad tracks west of the City of Mojave. The Hyundai-Kai Proving Ground (i.e. car track) is located east of the Property parcels. Infrastructure, including manhole covers and piping, was observed along the southern boundary that indicated the presence of Avery Water.

An abandoned truck stop and an active gas station (Fastrip) are located on a Gen-Tie corridor within the limits of the City of Mojave. Gen-Tie corridors also cross the railroad tracks at multiple locations west of the City of Mojave, adjacent to Highway 14. The Gen-Tie corridors near the central portion to southern portions of the project run adjacent to Niklor Chemical Co. with large storage tanks south of the City of Mojave. A disposal site is located adjacent to the south of a Gen-Tie corridor in the southern portion of the Property. These adjacent features would be a concern should the gen-tie corridors have an underground component.

As mentioned, the Gen-Tie corridors would cross the railroad tracks. If subsurface work is proposed for the installation of gen-tie lines or poles in areas that are within 20 feet of the railroad tracks, Stantec would recommend evaluation of soil samples to determine whether metals concentrations in soil are above California hazardous waste levels or regulatory thresholds that may pose a risk to future onsite construction workers.

5.8.2 Observed Evidence of Past Uses of Adjoining Properties

Observations of adjoining properties providing indications of past use and activities, if any, are described below.

NORTH	None observed.
EAST	None observed.
SOUTH	None observed.
WEST	None observed.

5.8.3 Pits, Ponds or Lagoons on Adjoining Properties

As viewed from the Property and/or from public rights-of-way, Stantec made the following observations about the presence of pits, ponds, and lagoons on adjoining properties:

NORTH	None observed.
EAST	None observed.
SOUTH	None observed.
WEST	None observed.

5.9 OBSERVED PHYSICAL SETTING

Topography of the Property and Surrounding Area:	The topography of the Property is relatively flat with a gradual slope to the southwest.

6.0 INTERVIEWS

The AAI final rule requires that a site interview be conducted with the property owner or site occupant that is most familiar with the site. The landowner representatives of the parcels associated with the Property were not available for interview. However, given that the Property consists of undeveloped vacant land, the lack of an interview is not considered a significant data gap.

7.0 EVALUATION

This section provides a summary overview of Stantec's findings, opinions, and conclusions.

7.1 FINDINGS AND OPINIONS

Information gathered from interviews, reviews of existing data, and a property inspection was evaluated to determine if RECs are present in connection with the Property. Based on this information, Stantec made the following findings and developed the following opinions.

- Although not observed during the field reconnaissance, water wells may be present within the Property boundaries. Stantec recommends that any known and unknown (those encountered during proposed development activities) irrigation/water wells be abandoned in accordance with applicable regulations unless the wells would be used by the proposed development.

- The Property consists of approximately 8,371 gross acres of undeveloped land in both unincorporated Kern County and California City. Power generated by the project would be delivered via 230-kV overhead and underground gen-tie within a 100-foot-wide corridor originating from a project substation and terminating at Southern California Edison's Windhub Substation. Surrounding properties primarily consist of undeveloped land.

  Based on review of historical resources, former agricultural use was not identified at the Property. No documentation of commercial onsite use of agricultural chemicals (e.g., pesticides, insecticides, fertilizers, or herbicides) was discovered during this ESA. Stantec did not identify apparent agricultural chemical processing areas, such as crop-dusting airfields, bulk mixing areas; or repacking, transfer, or agricultural chemical storage areas, in the aerial photographs that were reviewed during this ESA.

- An environmental records search was performed and identified sites within their respective ASTM E 1527-13 search radii of the Property that may represent RECs, HRECs, or de minimis conditions.

  Based on one or more of the following reasons: distance from the Property, position of sites with respect to assumed groundwater flow direction, the native soils, and regulatory status, none of the sites identified in the environmental records search report are expected to affect soil or groundwater quality at the Property. The environmental records search identified no RECs, HRECs, or de minimis conditions at or near the Property.

- According to USACE FUDS Portal online database, a portion of the Property is located within the boundary of a FUDS identified as Mojave Gunnery Range. MGRC was used for practice bombing and strafing by units stationed at Marine Corps Air Station, Mojave. Quantities and types or ordnance use at the site could not be determined from the available information.

  Based on past conversations with the DTSC and USACE on similar sites in the region, there is the potential for UXO and/or MEC to be present at the Property. Stantec recommends the following with regard to the potential existence of UXO and MEC:

- Consultation and guidance from a certified MEC/UXO professional to evaluate the appropriate course of action and associated costs related to assessment, remediation, and construction support;
- Where ground disturbance work is involved, contractors should be OSHA HAZWOPER-trained in accordance with standard 29 CFR 1910.120 and hold a current certification;
- Where ground disturbance work is involved, contractors should be trained in identifying UXO/MEC;
- If suspected munitions are encountered at any point by any onsite individual, the "3R's of Explosives Safety" should be followed. The "3R's" include:
  - Recognize: when something may be a munition and the dangers involved.
  - Retreat: do not touch the potential munition and carefully leave the area.
  - Report: immediately report the finding to local law enforcement.

- Five gen-tie corridors are located west of the Property parcels, as shown on Figure 1. The Gen-Tie corridors run parallel to Highway 58 and Oak Creek Road to an electrical substation. The Los Angeles Department of Water and Power Mojave Headquarters and equipment laydown area are located adjacent to the northern portion of a Gen-Tie corridor. A high-pressure gas facility is located southeast of Camelot Blvd and SR-14, near the western end of the Gen-Tie corridors. A Gen-Tie corridor also runs parallel to Highway 58 and bisects the City of Mojave. These adjacent features would be a concern should the gen-tie lines for Gen-Tie Middle Route and/or the Gen-Tie Southern Route have an underground component.

7.2 DATA GAPS

The federal AAI final rule [40 CFR 312.10(a)] and ASTM E1527-13 identify a "data gap" as the lack or inability to obtain information required by the standards and practices of the rule despite good faith efforts by the EP or the User.

Any data gaps resulting from the Phase I ESA described in this report are listed and discussed below.

Gap	Discussion
Deletions or Exceptions from Scope of Work Referenced in Section 1.4:	None
Weather-Related Restrictions to Site Reconnaissance:	None
Facility Access Restrictions to Site Reconnaissance:	It was not within our scope to walk the entire Property. Stantec drove through the Property and observed the vicinity from high elevations.
Other Site Reconnaissance Restrictions:	Two 55-gallon drums were associated with a parked recreational vehicle (RV) on Parcel 68 (see Appendix A, Photograph 31). The RV appeared to be inhabited and located within a remote area of the desert. Due to safety considerations, neither the RV nor drums were approached. Staining was not observed on the ground from the dirt road as Stantec passed by Parcel 68. This is considered a data gap. However, given that there were only two drums and no impacts were observable when passing by, any potential impacts would be considered to be de minimis.

Gap	Discussion
Data Gaps from Environmental Records Review:	None
Data Gaps from Historical Records Review:	None
Data Gaps from Interviews:	The landowner representatives of the parcels associated with the Property were not available for interview. However, given that the Property consists of undeveloped vacant land, the lack of an interview is not considered a significant data gap.
Other Data Gaps:	A completed user questionnaire was not provided. Given the historical documents available for the Property, the lack of a completed user questionnaire is not considered a significant data gap.

7.3 CONCLUSIONS

We have performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E1527 for the Property. Any exceptions to or deletions from this practice are described in Section 7.2, Data Gaps. This assessment has revealed no evidence of RECs in connection with the Property. No further investigation appears to be warranted at this time.

However, the following items of note were identified during this ESA:

- **Mojave Gunnery Range "C".** According to the United States Army Corps of Engineers (USACE) Formerly Used Defense Sites (FUDS) Portal online database, the northeastern portion of the Property (see Figure 2) are located within the boundary of a FUDS identified as Mojave Gunnery Range. The Mojave Gunnery Range "C" was used for practice bombing and strafing by units stationed at Marine Corps Air Station, Mojave.

  Based on past conversations with the DTSC and USACE on similar sites in the region, there is the potential for unexploded ordnance (UXO) and/or munitions and explosives of concern (MEC) to be present at the Property. Quantities and types of ordnance used at the site could not be determined from the available information. Stantec recommends the following with regard to the potential existence of UXO and MEC:

  - Consultation and guidance from a certified MEC/UXO professional to evaluate the appropriate course of action and associated costs related to assessment, remediation, and construction support. The UXO MEC/UXO should meet the should meet the minimum qualifications specified in the Department of Defense Explosives Safety Board (DDESB) Technical Paper 18;
  - Where ground disturbance work is involved, contractors should be Occupational Safety and Health Administration (OSHA) Hazardous Materials Operations and Emergency Response (HAZWOPER)-trained in accordance with standard 29 CFR 1910.120 and hold a current certification;
  - Where ground disturbance work is involved, contractors should be trained in identifying UXO/MEC;

- If suspected munitions are encountered at any point by any onsite individual, the "3R's of Explosives Safety" should be followed. The "3R's" include:
  - Recognize: when something may be a munition and the dangers involved.
  - Retreat: do not touch the potential munition and carefully leave the area.
  - Report: immediately report the finding to local law enforcement.

- **Adjacent Gen-tie Corridor Features**. An abandoned truck stop and an active gas station (Fastrip) are located on a Gen-Tie corridor within the limits of the City of Mojave. Gen-Tie corridors also cross the railroad tracks at multiple locations west of the City of Mojave, adjacent to Highway 14. The Gen-Tie corridors near the central portion to southern portions of the project run adjacent to Niklor Chemical Co. with large storage tanks south of the City of Mojave. A disposal site is located adjacent to the south of a Gen-Tie corridor in the southern portion of the Property. These adjacent features would be a concern should the gen-tie corridors have an underground component.

  As mentioned, the Gen-Tie corridors would cross the railroad tracks. If subsurface work is proposed for the installation of gen-tie lines or poles in areas that are within 20 feet of the railroad tracks, Stantec would recommend evaluation of soil samples to determine whether metals concentrations in soil are above California hazardous waste levels or regulatory thresholds that may pose a risk to future onsite construction workers.

- **Potential Water Wells**. No water wells were observed during the field reconnaissance. However, a well is depicted in the northeast corner of Parcel 7 in the EDR well report map but may no longer be present at the surface. Stantec recommends that any known and unknown (those encountered during proposed development activities) water wells be abandoned in accordance with applicable regulations unless the wells will be used by the proposed development.

8.0 NON-SCOPE CONSIDERATIONS

The following ASTM E1527-13 non-scope services were performed as part of this Phase I ESA:

8.1 LEAD-BASED PAINT

Concern for lead-based paint (LBP) is primarily related to residential structures. The EPA's Final Rule on Disclosure of Lead-Based Paint in Housing (40 CFR Part 745) defines LBP as paint or other surface coatings that contain lead equal to or in excess of 1.0 milligram per square centimeter or 0.5 percent by weight.

The risk of lead toxicity in LBP varies based upon the condition of the paint and the year of its application. The U.S. Department of Housing and Urban Development has identified the following risk factors:

- The age of the dwelling as follows: maximum risk is from paint applied before 1950.
- There is severe risk from paint applied before 1960.
- There is moderate risk from deteriorated paint applied before 1970.
- There is slight risk from the paint that is intact but applied before 1977.
- The condition of the painted surfaces.
- The presence of children and certain types of households in the building.
- Previously reported cases of lead poisoning in the building or area.

Given there are no structures on the Property, LBP is not considered an environmental concern to the Property.

8.2 ASBESTOS

Asbestos can be found in many applications, including sprayed-on or blanket-type insulation, pipe wraps, mastics, floor and ceiling tiles, wallboard, mortar, roofing materials, and a variety of other materials commonly used in construction. The greatest asbestos-related human health risks are associated with friable asbestos, which is an asbestos-containing material (ACM) that can be reduced to powder by hand pressure. Friable asbestos can become airborne and inhaled, which has been associated with specific types of respiratory disease. The manufacturing and use of asbestos in most building products was curtailed during the late 1970s.

Stantec makes no warranty as to the possible existence or absence of inaccessible materials or to their evaluation with respect to asbestos content. Samples of suspect ACM should be collected for laboratory analysis of asbestos prior to any renovation or building demolition to be compliant with, EPA National Emission Standard for Hazardous Air Pollutants regulations.

Given that there are no structures on the Property, ACMs are not considered an environmental concern to the Property.

8.3 RADON

Radon is a colorless, tasteless radioactive gas with an EPA-specified action level of 4.0 PicoCuries per liter of air (pCi/L) for residential properties. Radon gas has a very short half-life of 3.8 days. The health risk potential of radon is primarily associated with its rate of accumulation within confined areas near or in the ground, such as basements, where vapors can readily transfer to indoor air from the ground through foundation cracks or other pathways. Large, adequately ventilated rooms generally present limited risk for radon exposure. The radon concentrations in buildings and homes depend on many factors, including soil types, temperature, barometric pressure, and building construction (EPA, 2019).

Stantec reviewed regional data published by the EPA on average indoor radon concentrations in the vicinity of the Property (http://www.epa.gov/radon/zonemap.html).

EPA Radon Zones (w/Average Measured Indoor Radon concentrations)		
Zone 1 – High (>4.0 pCi/L)	Zone 2 – Moderate (2 to 4 pCi/L)	Zone 3 – Low (<2 pCi/L)
	X	

The Property is located in Zone 2 and is considered to have medium potential for radon. To determine Property-specific radon levels, a radon survey would have to be conducted. However, the average first floor living area of the 94 tests in Kern County, California was 1.422 pCi/L. Therefore, further investigation of indoor radon issues is not warranted.

9.0 REFERENCES

American Society for Testing and Materials. 2013. Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process, Designation: E 1527-13.

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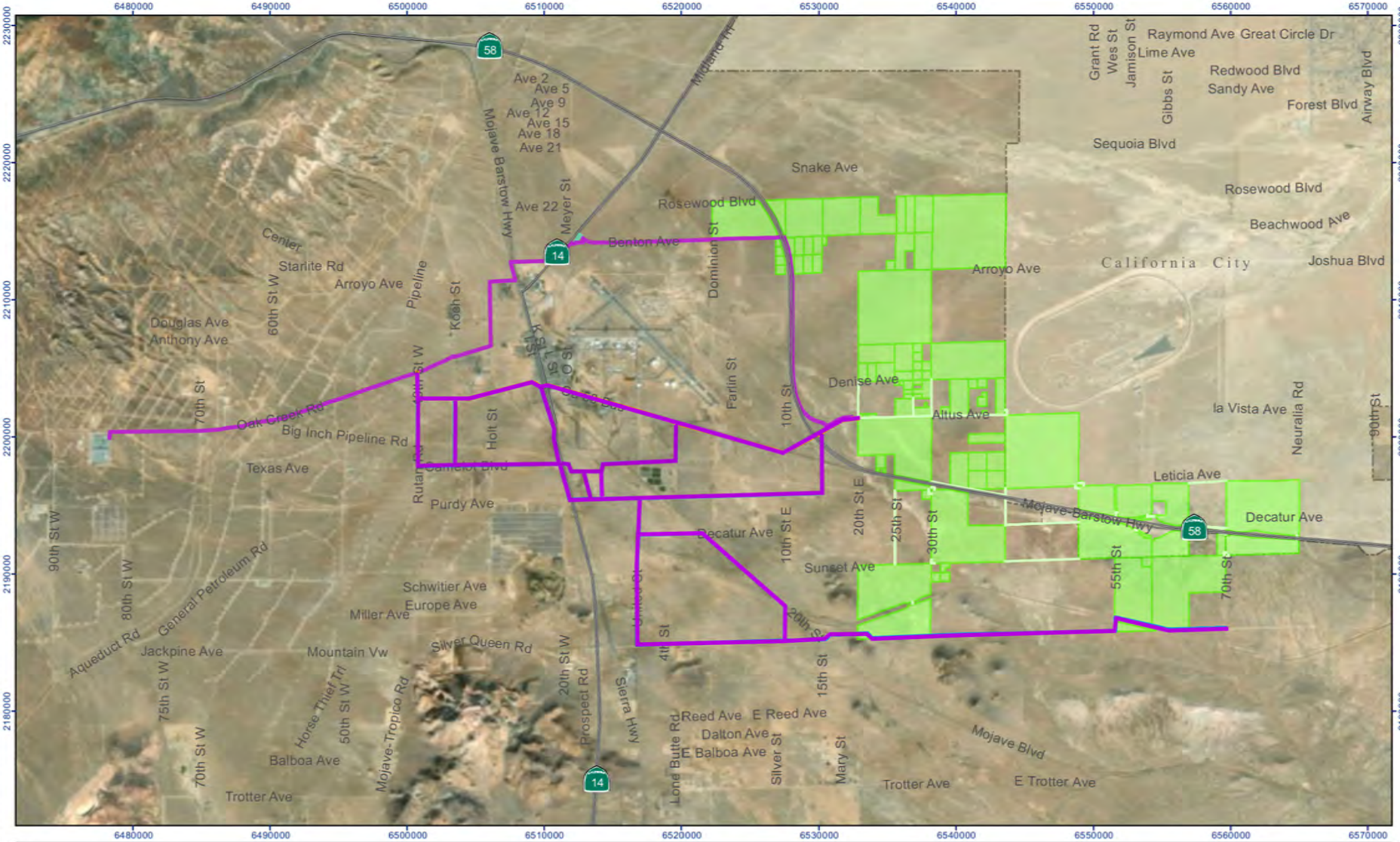
FIGURES



Gen-Tie Corridor

Bellefield Collector Corridor

Bellefield Survey

N

0 1 2 Miles

(At original document size of 8.5x11)
1:126,720

Notes

1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet

2. Data Sources: 8 Minute Solar Energy and Stantec

3. Basemap Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Stantec

8MINUTE SOLAR ENERGY

Project Location
SW of California City
Kern County, CA

Prepared by SET on 2020-05-11
TR by CB on 2020-05-11
IR by

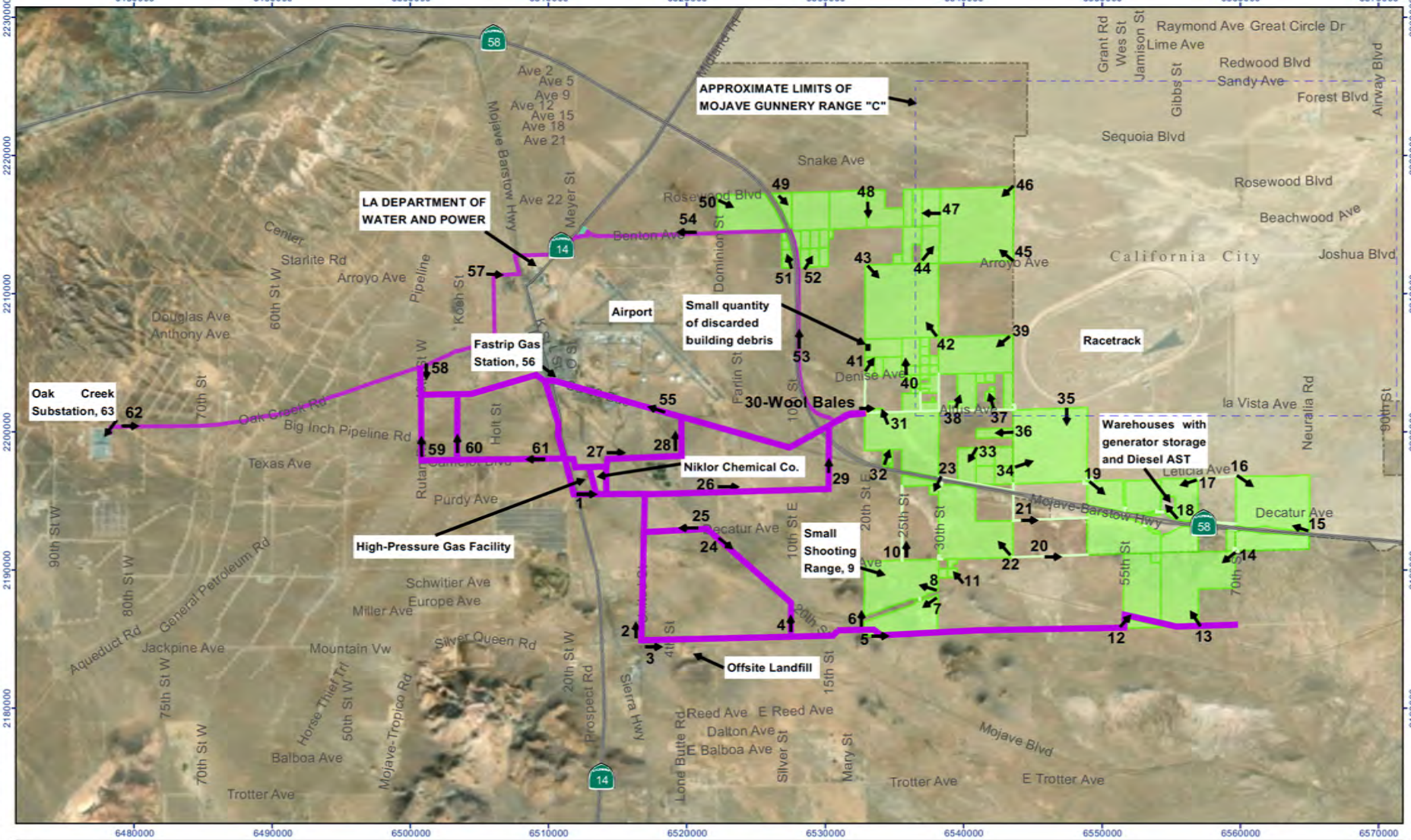
Client/Project
8 Minute Solar Energy
Bellefield Solar Project

185704636_001

Figure No.
1

Title
Bellefield Solar Project Location

V:\1857\Active\185704636_Kudu_Bellefield\03_data\gis_cad\gis\185704636_0001_BellefieldProjectLocation.mxd Revised: 2020-05-11 By: stroedson



Gen-Tie Corridor

Bellefield Collector Route

Bellefield Survey

1 → Stantec Photograph Location and Direction

N

0 1 2 Miles

(At original document size of 8.5x11)
1:126,720

Notes

1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Sources: 8 Minute Solar Energy and Stantec
3. Basemap Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Stantec

MINUTE SOLAR ENERGY

Project Location
SW of California City
Kern County, CA

Prepared by SET on 2020-05-11
TR by CB on 2020-05-11
IR by

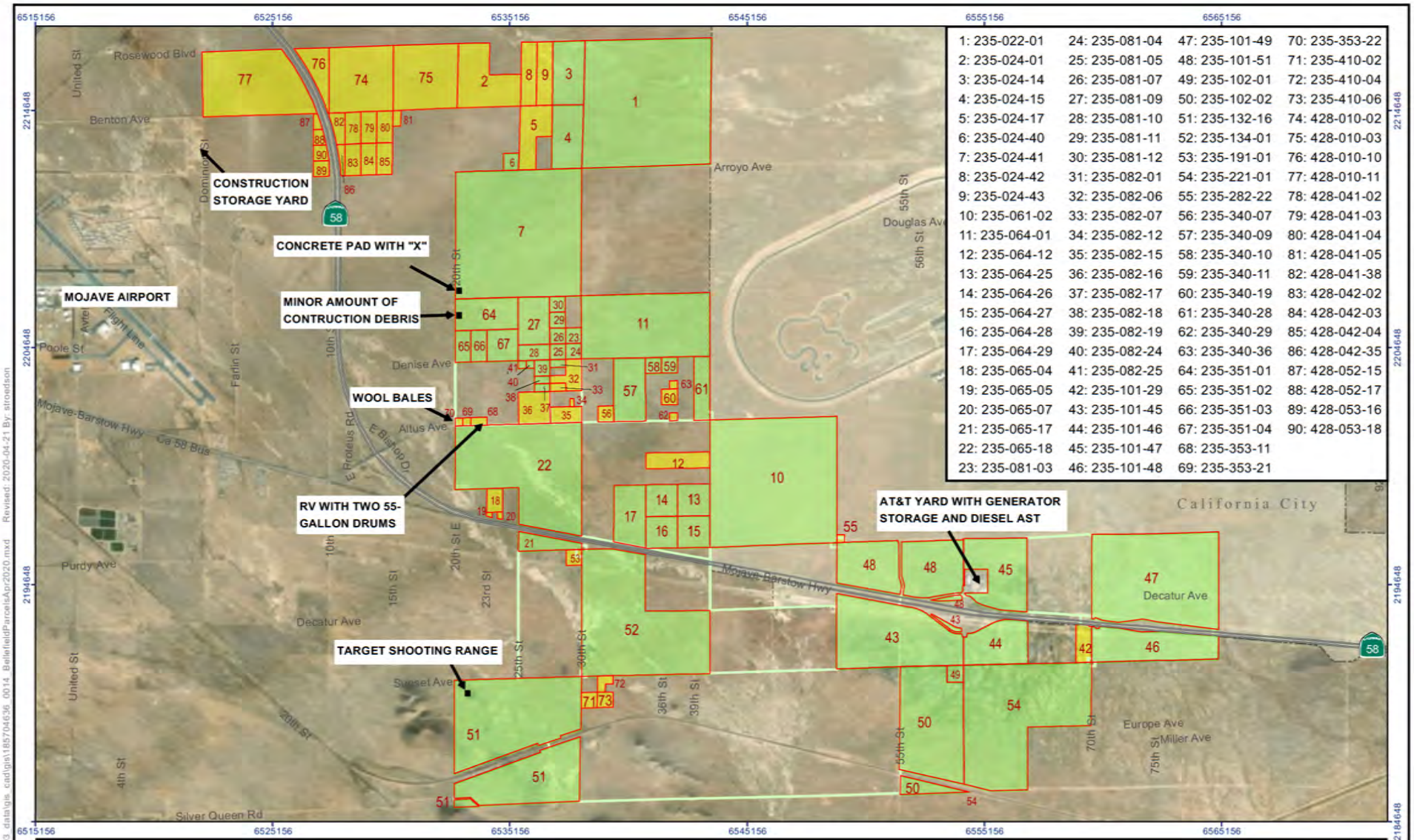
Client/Project
8 Minute Solar Energy
Bellefield Solar Project

185704636_001

Figure No.
2

Title
Bellefield Solar Project Photographs and Features

V:\1857\Active\185704635_Kudu_Bellefield\03_data\gis_cad\gis\185704636_0001_BellefieldProjectLocation.mxd Revised: 2020-05-11 By: stroedson



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3: 235-024-14	26: 235-081-07	49: 235-102-01	72: 235-410-04
4: 235-024-15	27: 235-081-09	50: 235-102-02	73: 235-410-06
5: 235-024-17	28: 235-081-10	51: 235-132-16	74: 428-010-02
6: 235-024-40	29: 235-081-11	52: 235-134-01	75: 428-010-03
7: 235-024-41	30: 235-081-12	53: 235-191-01	76: 428-010-10
8: 235-024-42	31: 235-082-01	54: 235-221-01	77: 428-010-11
9: 235-024-43	32: 235-082-06	55: 235-282-22	78: 428-041-02
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12: 235-064-12	35: 235-082-15	58: 235-340-10	81: 428-041-05
13: 235-064-25	36: 235-082-16	59: 235-340-11	82: 428-041-38
14: 235-064-26	37: 235-082-17	60: 235-340-19	83: 428-042-02
15: 235-064-27	38: 235-082-18	61: 235-340-28	84: 428-042-03
16: 235-064-28	39: 235-082-19	62: 235-340-29	85: 428-042-04
17: 235-064-29	40: 235-082-24	63: 235-340-36	86: 428-042-35
18: 235-065-04	41: 235-082-25	64: 235-351-01	87: 428-052-15
19: 235-065-05	42: 235-101-29	65: 235-351-02	88: 428-052-17
20: 235-065-07	43: 235-101-45	66: 235-351-03	89: 428-053-16
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Bellefield Collector Route
Bellefield Parcel
Bellefield Previous Survey Area
Bellefield New Survey Area

N

0 3,000 6,000 Feet
(At original document size of 8.5x11)
1:72,000

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Project Data Sources: 8 Minute Solar Energy and Stantec
3. Basemap Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Stantec

MINUTE

Project Location
Southwest of California City
Kern County, CA

Prepared by SET on 2020-04-21
TR by
IR by

Client/Project
185704636_0014

8 Minute Solar Energy
Bellefield Solar Project

Figure No.
3

Title
Bellefield Solar Project Parcel Indentification

V:\1857\Active\185704635_Kudu_Bellefield\03_data\gis_cad\gis\185704636_0014_BellefieldParcelsApr2020.mxd Revised: 2020-04-21 By: stroedson

APPENDICES

Appendix A Photographs of the Property and Vicinity

Photo #1 Gen-Tie Corridor: Facing east along Purdy Ave.

Photo #2 Gen-Tie Corridor: Facing north along United St.

Photo #3 Gen-Tie Corridor: Facing east along Silver Queen Rd.

Photo #4 Gen-Tie Corridor: Facing north along Silver Queen Rd.

Photo #5 Gen-Tie Corridor: Facing east along Silver Queen Rd.

Photo #6 Facing north from Silver Queen Rd toward vacant Property parcel bisected by a railroad easement.

Photo #7 Facing southwest near the railroad easement (refer to Figure 2).

Photo #8 Facing northwest, refer to Figure 2.

Photo #9 View of limited target shooting range. Refer to Figure 2.

Photo #10 Facing north along a proposed gen-tie corridor at 25th St.

Photo #11 Facing northwest at vacant Property parcel. Refer to Figure 2 for location.

Photo #12 Facing northeast at the intersection of Silver Queen Rd and 55th St.

Photo #13 Facing northeast from the southeast portion of the Property. Refer to Figure 2 for location.

Photo #14 Facing southwest in the southeast portion of the Property. Refer to Figure 2 for location.

Photo #15 Facing northeast from the eastern most Property parcel. Refer to Figure 2 for location.

Photo #16 Facing southeast across a vacant Property parcel in the eastern portion. Refer to Figure 2 for location.

Photo #17 Facing southwest across a vacant Property parcel in the eastern portion. Refer to Figure 2 for location.

Photo #18 View of diesel AST located on the offsite AT&T yard that is adjacent to Parcel 45.

Photo #19 Facing southeast across a vacant Property parcel. Refer to Figure 2 for location.

Photo #20 Facing east down a proposed Gen-Tie corridor location in the southern portion of the Property.

Photo #21 Facing east down a proposed Gen-Tie corridor location in the southern portion of the Property. Refer to Figure 2 for location.

Photo #22 Facing northwest across a vacant Property parcel. Refer to Figure 2 for location.

Photo #23 Facing southwest across vacant Property parcel. Refer to Figure 2.

Photo #24 Facing southeast along a proposed Gen-Tie corridor in the southern portion of the Property.

Photo #25 Facing southeast along a proposed Gen-Tie corridor in the southern portion of the Property.

Photo #26 Facing east along a proposed Gen-Tie corridor in the southern portion of the Property

Photo #27 Facing east down a Gen-Tie corridor. See Figure 2 for location.

Photo #28 Facing north along a proposed Gen-Tie corridor.

Photo #29 Facing north along a proposed Gen-Tie corridor.

Photo #30 Bales of wool observed on a Property parcel along Altus Ave

Photo #31 View of RV that oversees a nearby flock of sheep. Two 55-gallon drum were noted from a distance and no staining was noted upon driving by the location.

Photo #32 Facing northeast across a vacant Property parcel. Refer to Figure 2 for location.

Photo #33 Facing southwest across a vacant Property parcel. Refer to Figure 2 for location.

Photo #34 Facing northeast across a vacant Property parcel. Refer to Figure 2 for location.

Photo #35 Facing south across a vacant Property parcel. Refer to Figure 2 for location.

Photo #36 Facing west across a vacant Property parcel. Refer to Figure 2 for location.

Photo #37 Facing northwest across a vacant Property parcel. Refer to Figure 2 for location.

Photo #38 Facing northeast across a vacant Property parcel. Refer to Figure 2 for location.

Photo #39 Facing southwest across a vacant Property parcel. Refer to Figure 2 for location.

Photo #40 Facing north across a vacant Property parcel. Refer to Figure 2 for location.

Photo #41 Facing northeast across a vacant Property parcel. Refer to Figure 2 for location.

Photo #42 Facing northwest across a vacant Property parcel. Refer to Figure 2 for location.

Photo #43 Facing southeast across a vacant Property parcel. Refer to Figure 2 for location.

Photo #44 Facing northeast across a vacant Property parcel. Refer to Figure 2 for location.

Photo #45 Facing northwest across a vacant Property parcel. Refer to Figure 2 for location.

Photo #46 Facing southwest across a vacant Property parcel. Refer to Figure 2 for location.

Photo #47 Facing west across a vacant Property parcel. Refer to Figure 2 for location.

Photo #48 Facing south across a vacant Property parcel. Refer to Figure 2 for location.

Photo #49 Facing southeast across a vacant Property parcel. Refer to Figure 2 for location.

Photo #50 Facing southeast across a vacant Property parcel. Refer to Figure 2 for location.

Photo #51 Facing northwest across a vacant Property parcel. Refer to Figure 2 for location.

Photo #52 Facing north along SR 58. See Figure 2 for location reference.

Photo #53 Facing north along the Gen-Tie corridor that borders SR58.

Photo #54 Facing west along the Gen-Tie corridor in the northern portion of the project. Construction equipment yard at the left hand side of the photograph.

Photo #55 Facing west along the Gen-Tie corridor near the City of Mojave.

Photo #56 Facing southeast across a vacant Property parcel. Refer to Figure 2 for location.

Photo #57 Facing east along the Gen-Tie corridor in the northern portion of the project.

Photo #58 Facing south along the Gen-Tie Middle Route.

Photo #59 Facing north along a Gen-Tie corridor at the corner of Camelot Blvd and Rutan Rd.

Photo #60 Facing north along a Gen-Tie corridor route. See Figure 2 for location reference.

Photo #61 Facing west along the Gen-Tie corridor along Camelot Blvd.

Photo #62 Facing east along the Gen-Tie corridor near the Oak Creek Road substation.

Photo #63 View of substation along Oak Creek Road

Appendix B STANTEC RESUMES

Alicia R Jansen CAC, LRCIA

Environmental Scientist

Alicia is an Associate Scientist with over ten years of experience in Phase I and II Environmental Assessments, with strong emphasis in water quality and environmental research. She is experienced in California Environmental Quality Act (CEQA) compliance and the preparation of initial studies. Alicia has managed the preparation of environmental documents, training programs, and environmental compliance during large environmental monitoring projects. Alicia's environmental consulting experience includes performing asbestos and lead-based paint surveys, oversight of contractors during asbestos abatement, hazardous materials surveys, and Phase I Environmental Site Assessments in accordance with the practices identified in the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM Designation E 1527-13.

EDUCATION

BA, Environmental Studies, San Jose State University, San Jose, California, 2004

CERTIFICATIONS & TRAINING

Residential Measurement Provider, 108212, National Radon Proficiency Program, Anaheim, California, 2015

REGISTRATIONS

Certified Asbestos Consultant #CAC #15-5379, State of California Division of Occupational Safety and Health

Lead Related Construction Inspector Assessor #19526, California Department of Public Health

MEMBERSHIPS

Member, Groundwater Resources Association of California

PROJECT EXPERIENCE

Health, Safety & Industrial Hygiene

Confidential Health Care Company, Asbestos, Lead-Based Paint, and Hazardous Materials Survey, Northern California (Staff)

Alicia assisted with site inspections for asbestos, lead-based paint, and hazardous materials at multiple occupied hospitals and office spaces. The scope of work involved sample collection for asbestos and lead-based paint in addition to the quantification of universal wastes (PCBs, mercury containing equipment, refrigerants, etc.) that would require special handling and disposal. She assisted with the preparation of reports summarizing findings.

State of California General Services, Asbestos, Lead-Based Paint, and Hazardous Materials Survey, Northern California (Project Lead)

Alicia assisted with site inspections for asbestos, lead-based paint, and hazardous materials at multiple communication towers in remote areas. The scope of work involved sample collection for asbestos and lead-based paint in addition to the quantification of universal wastes (PCBs, mercury containing equipment, refrigerants, etc.) that would require special handling and disposal. She assisted with the preparation of reports summarizing findings.

** denotes projects completed with other firms*

Alicia R Jansen CAC, LRCST

Environmental Scientist

Indoor Air Quality Assessments*, San Jose, California (Staff)
Alicia performed site inspections, interviews, and collected air samples to be analyzed for various air pollutants and molds including formaldehyde, penicillium, aspergillus, cladosporium, and stachybotry. She prepared reports summarizing findings and made recommendations.

Veteran's Administration of Puget Sound, Asbestos and Lead-Based Paint Survey, Seattle, Washington (Project Scientist)
Alicia served as the Project Scientist responsible for hazardous building material assessments, specifically asbestos and lead-based paint. These services were required as part of the pre-design tasks for this project. Over 300 samples were collected over the span of four days culminating in a final hazardous building materials report to be incorporated into the facility design as well as demolition activities once the construction phase of the project commences.

Interim Remedial Action, Indoor Air Sampling, and Sub-Slab Soil Gas Sampling, Sunnyvale, California (Staff)
Alicia conducted an indoor air sampling survey using air sampling pumps, dosimeter badges, and flame ionization detector (FID) during a sump excavation. She performs semi-annual sub-slab soil vapor sampling and indoor air quality surveys using summa canisters. She assists with the preparation and submittal of reports summarizing the findings and provides recommendations to the RWQCB.

Lead Dust Assessment and Abatement Oversight, Fremont, California (Project Scientist)
Alicia assisted with the evaluation of lead dust in an industrial facility. A total of 307 dust wipe samples were collected in order to evaluate the potential presence of lead dust throughout the two-story, 500,000 square foot manufacturing building.

Former Tesoro Coke Facility, Asbestos, Lead-Based Paint Survey, Pittsburg, California (Project Scientist)
Alicia assisted with an asbestos and lead paint survey of 20 structures at the facility ultimately scheduled for demolition. More than 200 samples were collected over the span of two days. A report was prepared that will stand up to regulatory scrutiny for demolition while providing the information needed for worker safety during demolition activities at the facility

Permitting, Compliance, Auditing

Tesoro Refinery, Initial Study*, Benicia, California (Staff)
Alicia assisted with the background research and preparation of applicant-prepared initial study for the upgrade of a refinery.

Transmission Line Upgrade*, San Mateo to San Francisco, California (Staff)
Alicia supported the environmental compliance program for the construction of a 27-mile 230 kV underground and overhead transmission line. She assisted with the preparation and submittal of variance requests, extra work space requests, and daily and weekly reports for submittal to the California Public Utilities Commission. She also conducted research and assisted with training and report preparation.

** denotes projects completed with other firms*

Alicia R Jansen CAC, LRCST

Environmental Scientist

Remedial Investigations & Assessments

Multiple Confidential Clients, Phase I Environmental Site Assessments (ESA), Multiple Sites, California (Project Lead)

Alicia performs Phase I ESA in accordance with the practices identified in the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM Designation E 1527-13 to achieve compliance with requirements of the "All Appropriate Inquiries" rule required to obtain protection from liability under the federal Comprehensive Environmental Response, Cleanup and Liability Act (CERCLA). Previous sites include large industrial warehouses, multi-tenant commercial buildings, and residential properties. She reviews topographic maps, Sanborn Fire Insurance Maps, and files at local regulatory agencies. She interviews present and former property owners and performed site and adjacent property reconnaissance. She prepares reports summarizing the findings and provides recommendations for further assessment if applicable.

California Department of Transportation Portfolio, Multiple Sites, Northern California (Project Lead)

Alicia prepared quarterly groundwater monitoring reports, subsurface investigation reports, sensitive receptor surveys, and preferential pathway studies for various California Department of Transportation locations throughout northern California. She assisted with the utility locating, work plan preparation, field coordination, archived data onto the State Water Resource Control Board's (RWQCB) Geotracker electronic filing system.

Homebuilder, Soil Gas Sampling and Human Health Risk Assessment, San Jose, California (Project Lead)

Alicia performed a soil vapor survey in conformance with the DTSC, Advisory Active Soil Gas Investigations, using a low-dead volume soil vapor sampling device and a mobile laboratory for onsite chemical analysis. She also assisted with the report preparation summarizing the findings and providing recommendations for further assessment, if applicable.

Goodyear Portfolio, Northern California and Hawaii (Project Lead)

Alicia performed Phase I ESAs and Phase II Site Assessments for various Goodyear Tire & Rubber Company locations throughout California and Hawaii. She assisted with the installation of monitoring wells and exploratory borings; underground storage tank removals; site restoration; product removal with passive recovery system; archived data onto the State Water Resource Control Board's Geotracker electronic filing system; and assisted with the preparation of quarterly groundwater monitoring reports, sensitive receptor surveys, site conceptual models, and subsurface investigation reports.

** denotes projects completed with other firms*

Dion Monge

Project Scientist

Dion has extensive knowledge of underground storage tank investigations, Phase I and II environmental site assessment, groundwater monitoring and reporting, soil, soil vapor, and groundwater quality assessments, and testing for asbestos and lead based paint. His project experience is extensive and wide ranging and includes many types of soil, soil vapor, and groundwater assessment and monitoring for planned, existing, and former sites. Dion also has experience in testing fill soils placed on grading sites.

He has experience on redevelopment of former oil field sites that include submittal of construction site review plans, oil well mitigation (venting and casing alterations), abandonment of oil wells, and remedial investigations and remediation involving soil contamination.

Dion also has experience working with 1166 AQMD air monitoring on projects ranging from limited access dry cleaner excavations, solvent excavations, and petroleum excavations related to underground storage tank releases. Included in this type of monitoring is the assessment of a safe work environment for the contractors involved with this type of work.

He has considerable knowledge in asbestos and lead based paint sampling as a building inspector and lead sampling technician. Asbestos and lead based paint surveys have ranged from large office buildings to sampling highway bridges.

EDUCATION

BS, Soil Science, California Polytechnic University, Pomona, Pomona, California, 2004

Health & Safety Certification (29 CFR 1910.120),, 40-Hour OSHA Health & Safety Certification, Redlands, California, 2005

Health & Safety Annual Update Certification, 8-Hour OSHA, Redlands, California, 2009

First Aid/CPR, American Red Cross, Redlands, California, 2009

Certified Building Inspector, AHERA 8-Hour Refresher, Redlands, California, 2009

PROJECT EXPERIENCE

Asbestos, Lead Based Paint, and Hazardous Material Management
Haller Wash Bridge No. 54-0891R&L, San Bernardino County, California (Asbestos and Lead-Based Paint Sampling Assistant)

Dion conducted asbestos and lead based paint survey on highway bridge. He assisted with planning field operations, measuring bridge dimensions, and collecting samples. Tasks included sample collection, bridge measurements, and documentation.

Project Management Oversight
Magnolia Plaza, Fountain Valley, California

Dion is providing project management of soil, soil vapor, and quarterly groundwater sampling related to a solvent release at a former dry cleaning facility. Tasks include preparation of work plans for approval by the Regional Water Quality Control Board and oversight of field sampling, including lithologic logging, for soil and soil vapor investigations performed within a multi-tenant strip center. Additional tasks include preparation of investigative reports and quarterly groundwater monitoring reports. The site remains an open case and preparation of a work plan to use electrical resistive heating ("ERH") will be prepared in the coming weeks.

** denotes projects completed with other firms*

Dion Monge

Project Scientist

Former Superb Dry Cleaners, Anaheim, California

Dion performed field oversight, direction, and confirmation soil sampling of a limited access excavation within a former dry cleaner unit. Post excavation field activities included application of a barrier type floor sealant along with post excavation indoor air sampling. Remedial work led to regulatory closure being granted from the local agency.

Site Assessment

I-15/I-215 Interchange Improvements, San Bernardino County, California (Sampling Technician)

Dion helped conduct site investigations and surveys for potentially hazardous materials. His efforts supported Caltrans' plans to improve and widen the existing freeway lanes, entrance and exit ramps, and vehicle and railroad bridges along a 6-mile stretch of the I-15 and I-215 freeways in the Devore area of San Bernardino County. Dion's efforts included Environmental Evaluation of Recognized Environmental Concerns identified in ISAs

Highway 138 Environmental Investigations, San Bernardino County, California (Field Assessment and Reporting)

Dion helped complete hazardous material site investigations on five bridges along State Highway 138 along a 20-mile segment through portions of Los Angeles and San Bernardino Counties, California. The investigation was conducted in accordance with Caltrans protocols and was compliant with EPA's all appropriate inquiries guidance and ASTM Standard Practice E1527. He performed site reconnaissance, conducted regulatory and agency field reviews, and reviewed environmental databases and historical fire insurance, telephone directories, aerial photographs, topographic maps, and other environmental records for properties within one half mile of the proposed 20-mile segment of Highway 138. Dion compiled an report summarizing findings and identifying recognized environmental conditions.

Proposed Friends Christian High School, Yorba Linda, California

Dion prepared preliminary site assessment (PSA) report for future private school site to identify recognized environmental conditions ("RECs") related to past property usage as an oil field with 21 oil wells abandoned prior to 1990. Completion of the PSA led to his management of the project through site closure. Field investigations and reporting by Dion included Phase II investigations, methane survey, oil well leak testing and venting, backfill and compaction (including soils testing), DOGGR Construction Site Review, and excavation and onsite management of more than 5,000 cubic yards of petroleum impacted soils.

SR-58 Widening, San Bernardino County, California

Dion performed Initial Site Assessment (ISA) for Caltran at Kramer Junction for the proposed widening of State Route 58. The ISA was performed in accordance with guidelines promulgated by the American Society for Testing and Materials (ASTM) and included historical research and coordination of permit/file reviews with local building/planning departments and environmental agencies. Dion's role included the field visit, observation documentation, agency reviews, and reporting.

Soil Sampling

Caltrans I-15, Task Order 28, Hesperia, California

Dion conducted a soil investigation for metals analysis alongside I-15 for disposal recommendations during construction of mortar-lined channels at several locations. He assisted with planning field operations and collected soil samples. Tasks included sample collection, preservation, and documentation.

** denotes projects completed with other firms*

Kyle D. Emerson PG, CEG

Managing Principal Geologist

Kyle has more than 28 years of professional experience—17 of those years with Stantec—providing geotechnical and environmental consulting. During the course of his experience, he has been involved with a wide variety of geological and engineering projects. He has been in direct charge of quality control/quality assurance (QA/QC) work for Stantec and previous firms for geological, engineering geological, and environmental services primarily in California. Additionally, Kyle has been a primary contact for Stantec with many different clients (including multi-party actions) and regulatory bodies involving contracting, workplan approvals, site assessments and closures, permitting, remedial action, and litigation support. With regard to litigation services, Kyle has extensive experience providing expert witness testimony, second-party review, and litigation support and analysis.

Kyle's extensive experience includes assessment and remediation of property-specific and regional issues involving soil and groundwater contaminated with petroleum hydrocarbons, chlorinated solvents, heavy metals, pesticides, and PCBs.

He currently serves as the managing principal geologist in Stantec's Redlands, California office.

EDUCATION

Engineering Geology/Hydrogeology, California State University, Los Angeles, California, 1984

AS, General Science, Crafton Hills College, Yucaipa, California, 1975

BS, Geological Sciences, California State University, Long Beach, California, 1982

REGISTRATIONS

Certified Engineering Geologist #1271, State of California Issued 1985, Expires 2011

Professional Geologist #4066, State of California Issued 1985, Expires 2011

PROJECT EXPERIENCE

Bioremediation

Excavation and Treatment of Petroleum-Contaminated Soil

Kyle designed the excavation and treatment of 45,000 cubic yards of petroleum-contaminated soil. Soil treatment included utilizing vapor extraction, combined with bioremediation.

** denotes projects completed with other firms*

Kyle D. Emerson PG, CEG

Managing Principal Geologist

Chemicals & Polymers

Two Former Chemical Plants, Environmental Site Assessments and Remediation, Vernon, California

Mr. Emerson was part of the team for conducting Phase I and Phase II Environmental Site Assessments (ESA) and developing remedial action plans for two former chemical plant sites with 80-year industrial histories. Phase I ESAs used historical files, maps, aerial photographs, available documents, and data from public agencies and historical directories for identifying recognized environmental concerns. Extensive Phase II ESA survey activities aided in identifying below-grade structures such as vaults/USTs, as well as assessing the extent of influence and nature of the contamination. These investigations confirmed the presence of heavy metals, petroleum hydrocarbons, volatile organic compounds, polychlorinated biphenyls, radioactive materials, semi-volatile organic compounds, and polycyclic aromatic compounds in the soils for these sites. Specific areas of concern included former settling ponds, a bone yard, maintenance areas, transformer and substations, wastewater treatment facilities, and above-ground storage tank farms. A conceptual mode was developed for use in a health risk assessment and developed risk-based corrective actions to address potential health and environmental concerns. He assisted with the development and implementation of a remedial action plan, combined administrative controls, engineering controls, and active remediation; this resulted in the cost-effective return of one site to active use, and is reducing health risks to occupants and the public at the second site.

CONFIDENTIAL: Aerospace Adhesives and Coatings Plant, Glendale, California

Mr. Emerson was part of the team that conducted feasibility studies to evaluate remedial alternatives for remediation of chlorinated VOCs, 1,4 dioxane, and hexavalent chromium (CrVI) in soil, soil vapor, and groundwater. Feasibility studies included groundwater pump testing, benchscale column testing to evaluate in situ alternatives for reducing CrVI to the less mobile CrIII valence state, soil vapor extraction, capping, and excavation. Field pilot studies were performed to evaluate the efficiency of various CrVI reductants including the use of ferrous sulfate, calcium polysulfide, emulsified oil, and fructose. Extensive multi-depth soil vapor testing was conducted to evaluate the distribution of VOCs in the subsurface and to support vapor intrusion risk assessment. Feasibility studies were completed in 2008. Remedial actions are expected to be completed in 2011.

Condition Assessments

Assessment and Mitigation of Manufacturing Facility

Kyle managed the assessment and mitigation of an ammunition manufacturing facility covering 1,100 acres in a complex geologic environment. The contaminates involved red and white phosphorous, TNT, chlorinated solvents, solid wastes, and live ordinance.

Soil Contamination Assessment Supervision and Management

Kyle managed and supervised soil contamination assessment and in-situ remediation of heavy metals involving chromium, cadmium, nickel and zinc by chemical fixation to depths in excess of 40 feet below ground surface beneath existing structures within several manufacturing facilities.

** denotes projects completed with other firms*

Kyle D. Emerson PG, CEG

Managing Principal Geologist

Litigation Support and Expert Testimony
Kyle provided litigation support and expert testimony on more than 20 separate projects involving service stations, chlorinated solvent cases, heavy metal, and semi-volatile releases.

Corporate / Office
Commercial Developer - Environmental Remediation of Former Dry Cleaners, El Centro, California
Mr. Emerson was responsible for assessments and remediation at this former dry cleaners which released the dry cleaning chemical tetrachloroethene (PCE) to the ground and underlying groundwater. The work included initial site assessment, agency interaction and negotiations with the California Regional Water Quality Control Board (CRWQCB), and Colorado Basin Region human health risk assessment (HHRA), design and implementation of remedial investigations, feasibility studies, remedial action plans, and implementation of remediation in mitigating chlorinated solvent contamination in vadose and saturated zones at concentrations indicative of DNAPL. The results of the completed remediation, as well as continued confirmation sampling and monitoring, allowed the CRWQCB to issue site closure in 2008. The site has since been redeveloped into a new commercial development.

Environmental Assessments
Siting Studies
Kyle performed initial siting studies for potential Class I, II, and III landfills. The project included detailed geologic mapping, hydrogeological studies, and permeability studies of caps and liners.

Environmental Site Remediation
Assessment and Remedial Design, California (Project Supervisor)
Kyle supervised the assessment and remedial design of a system to eliminate salt brine contamination in shallow perched water horizons in the Yucaipa, San Bernardino, and Riverside areas of southern California.

Design and Installation of Recovery Systems*
Kyle designed and installed numerous free-product recovery systems that successfully recovered product. One of the sites contained product up to 11-feet thick covering more than three city blocks. The dissolved phase had affected a multi-aquifer system and a public drinking water system.

Geophysical Characterizations*
Kyle performed and supervised numerous geophysical characterizations to determine the extent of old landfills. He provided classification studies, landfill gas monitoring, removal verification during grading, methane collection and mitigation plans, permitting, and closure plans.

Domestic Landfill Development*
Kyle designed and supervised the dynamic consolidation of a domestic landfill for development. He used this process to minimize expected settlement to overlying structures. Kyle designed commercial developments on closed landfills that involved complex methane collection and monitoring systems and building settlement controls.

** denotes projects completed with other firms*

Kyle D. Emerson PG, CEG

Managing Principal Geologist

Clay Borrow Site Studies
Kyle performed more than 10 separate clay borrow site studies for determining sources of material to cap landfills; ranged from a 20-acre dry lakebed to a 450-acre parcel in complex folded marine sediments.

Assessment, Clean Up, and Regulatory Support Management, Santa, Monica (Project Manager)
Kyle managed the assessment, clean up, and complex regulatory support of a PRP site in an MTBE case (Charnock subbasin). His work involved more than 20 environmental professionals working full time for two years to complete the assessment and clean up mandated by the regulatory agencies.

Hazardous Waste

San Gabriel Valley Superfund Site, Remediation & Closure of Multiple Source Areas, Industry, California
Mr. Emerson performed feasibility studies to evaluate appropriate and relevant remedial alternatives to mitigate constituents of concern in five AOCs contaminated with chlorinated hydrocarbons, heavy metals, petroleum fuel, and cutting oils. Ultimately, a combination of remedial alternatives was implemented that included large-diameter auger excavation to 45 feet to minimize impacts on facility operations, vapor extraction, vapor intrusion risk assessment, deed restriction, and monitored natural attenuation. At the completion of remedial actions, confirmation soil, soil vapor, and groundwater sampling were conducted and followed with risk assessment to demonstrate that remedial objectives had been achieved. No further action was recently granted by the US EPA and Los Angeles Regional Water Quality Control Board.

Mixed-Use

Port of San Diego Rohr Facility, Chula Vista, California
Mr. Emerson assisted in a detailed subsurface assessment of the Rohr facility. The intent of the assessment was to evaluate the 40-acre former aircraft part manufacturing facility for acquisition by the Port of San Diego for redevelopment into a business park and entertainment complex. The assessment identified the presence of soil, soil vapor, and groundwater impacts by petroleum hydrocarbons, VOCs, heavy metals, PCBs, and semi-volatile organic compounds. He utilized many sampling techniques to assess the limits and concentrations of contaminants in the subsurface. Ultimately, the team was able to develop a cost estimate for potential remedial action cost associated to corrective action to allow redevelopment.

Master Planned Commercial/Residential Redevelopment Project, Whittier, California (Project Manager)
Kyle oversaw the assessment of 26 contiguous properties that are part of a 21-acre master planned commercial/residential redevelopment project. The properties included industrial facilities, platting lines, fuel USTs, and metal processing plants, among others. The estimated cleanup costs are approximately $2 million.

** denotes projects completed with other firms*

Kyle D. Emerson PG, CEG

Managing Principal Geologist

Multi-Unit / Family Residential

Residential Development Assessment, Ventura, California (Project Director)

Kyle directed an assessment of a 40-acre former agricultural property proposed for residential development. Pesticides were identified above hazardous waste levels and preliminary remediation goals established by the U.S. Environmental Protection Agency. Through corrective grading methods and onsite placement of the pesticide impacted soils, all material were re-used on site without offsite disposal. The over all cost savings for the client was more than $1 million. Total cost was less than $250,000 for all necessary activities.

Oil & Gas

Oil Field Site Assessments*

Kyle performed site assessments at oil field leases involving refineries, bulk storage areas, piping systems and wellhead, and drilling mud pit contamination.

Environmental Protection Agency Superfund Action, Culver City, California (Project Manager)

Kyle served as the project manager representing a major oil company in the assessment, remedial action, and litigation support in a multi-party contamination case affecting a City water supply. The assessment involved more than 250 continuous core borings up to 100 feet, as well as extensive remedial actions. The total cost for all related activities was $22 million. The case is settled and the closure of the site is pending.

Project Management

Liability and Property Management Consulting Services

Kyle is providing liability and property management consulting services to more than 10 medium to large property development firms in the US. His work involves property transaction assessments, contract review, acquisition guideline development, liability management evaluation, insurance acquisition, and strategic planning.

Residential Development

Environmental Development Management and Review (Project Manager)

Kyle manages and reviews environmental development issues for a large residential developer specializing in development of contaminated industrial properties by providing innovative solutions in developing contaminated properties for residential use through risk assessment, engineering, and administrative and property development controls.

Site Management and Remediation

Design and Implementation of Biodegradation Programs*, California

Kyle designed and implemented one of the first in-situ biodegradation programs in California; it involved 50,000 cubic yards of diesel-contaminated soils, and groundwater to depths of 70 feet below ground surface.

** denotes projects completed with other firms*

Kyle D. Emerson PG, CEG

Managing Principal Geologist

Soil and Groundwater Remediation Systems

Soil and Groundwater Contamination Assessments and Mitigation*, California (Project Manager)

Kyle managed numerous chlorinated solvent soil and groundwater contamination assessments and mitigation programs in southern California. The projects involved releases that impacted soil and groundwater to depth of groundwater more than 700 feet in multi-aquifer systems. One case involved with plume dimensions more than 1 mile from the source affecting residential properties.

Soil and Groundwater Assessment and Remediation Programs*

Implemented hundreds of soil and groundwater assessment and remediation programs at various service station facilities in Southern and Northern California, and Nevada. Work involved assessment, remedial design, installation, maintenance and monitoring. Closure has been received on a majority of these sites.

Assessment and Remediation Management*

Kyle managed the assessment and remediation of soil and groundwater manufacturing at dry cleaning facilities contaminated with chlorinated solvents.

Warehouse / Light Industrial

Glendale Redevelopment Project, Glendale, California (Project Manager)

Kyle managed the assessment and remedial actions during the redevelopment of and industrial property. The project involved the demolition of a historic manufacturing facility and a commercial dry cleaner. Each of these facilities were associated with releases of solvents and petroleum hydrocarbons. Remedial actions involved excavation by pattern drilling and off site disposal along with removal of former USTs. The total cost of remediation and assessment was $450,000.00.

Compton Redevelopment Project, Compton, California (Project Manager)

Kyle is serving as project manager for the assessment and remedial actions for a large redevelopment project. The project involves the redevelopment of a historic manufacturing facility and a former dry cleaner. Each of these facilities were associated with releases of solvents and petroleum hydrocarbons. The industrial facility was also associated with significant volumes of buried waste that required removal and disposal. These wastes also included the chemical referenced above, as well as PCBs and heavy metals. Remediation has included excavation, vapor extraction, and chemical fixation. The total cost of this project has been $2.8 million to date.

** denotes projects completed with other firms*

Kyle D. Emerson PG, CEG

Managing Principal Geologist

PUBLICATIONS

In-Situ Bioremediation of an Underground Diesel Fuel Spill: A Case Study. Environmental Management, 1989.

Appendix C ENVIRONMENTAL AGENCY DATABASE SEARCH REPORT

Bellefield
Bellefield
Mojave, CA 93501

Inquiry Number: 6051837.2s
April 30, 2020

EDR Area / Corridor Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

SUBJECT PROPERTY INFORMATION

ADDRESS

BELLEFIELD
MOJAVE, CA 93501

TARGET PROPERTY SEARCH RESULTS

The Target Property was identified in the following databases.

Page Numbers and Map Identifcations refer to the EDR Area/Corridor Report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

STANDARD ENVIRONMENTAL RECORDS

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

A review of the SEMS-ARCHIVE list, as provided by EDR, and dated 01/30/2020 has revealed that there are 2 SEMS-ARCHIVE sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
VICTORY MILLSITE (A Site ID: 0905022 EPA Id: CA0000307801	***SILVER QUEEN ROAD***	***617 / 8***	***2509***
MOJAVE BURN DUMP Site ID: 0904881 EPA Id: CAD983672346	2M S OF HWY 58/2M E	CK680 / 16	2687

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

A review of the RCRA-LQG list, as provided by EDR, and dated 12/16/2019 has revealed that there are 6 RCRA-LQG sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
THE ENERGY ENHANCEME	1522 SABOVICH AVE	AT394 / 8	1806

EPA ID:: CAP000222869			
NORTHROP GRUMMAN MOJ EPA ID:: CAR000171801	***16880 FLIGHT SYSTEMS***	***BD450 / 9***	***1995***
INCOTEC CORPORATION EPA ID:: CAR000065748	1347 POOLE ST.	BR563 / 9	2260
TRICAL INC. EPA ID:: CAL000339810	***1667 PURDY RD***	***CV769 / 17***	***2953***
TRICAL,INC. EPA ID:: CAP000268573	***1667 PURDY AVE***	***CW776 / 16***	***3043***
ARYSTA LIFESCIENCE N EPA ID:: CAR000200717	1667 PURDY AVE.	CW778 / 16	3045

RCRA-SQG: RCRA - Small Quantity Generators

A review of the RCRA-SQG list, as provided by EDR, and dated 12/16/2019 has revealed that there are 16 RCRA-SQG sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
TELEDYNE RYAN AERONA EPA ID:: CAD983586272	***17012 ROPER ST***	***P108 / 8***	***857***
FLIGHT RESEARCH INC EPA ID:: CA0000069849	MOJAVE AIRPORT HANGA	194 / 8	1127
OK AIRLINE SUPPORT I EPA ID:: CAD983586330	***1314 FLIGHTLINE BLDG***	***AE230 / 9***	***1266***
NORTHROP GRUMMAN (MO EPA ID:: CAR000237834	1260 FLIGHT LINE, BL	AF232 / 9	1268
BAE SYSTEMS FLIGHT S EPA ID:: CAD981412653	***1434 FLIGHT LINE BLD***	***AJ275 / 8***	***1408***
SCALED COMPOSITES LL EPA ID:: CAD057731812	1624 FLIGHT LINE BLD	AN327 / 8	1546
WESTERN COUPLING EPA ID:: CAD983672312	***1711 SABOVICH ST MOJ***	***AS345 / 8***	***1611***
TSC LLC EPA ID:: CAL000367375	1223A SABOVICH ST BL	AU357 / 9	1700
THE ENERGY ENHANCEME EPA ID:: CAR000247502	1522 SABOVICH AVE	AT392 / 8	1801
AVTEL SERVICES INC. EPA ID:: CAR000007138	16880 AVTEL DR	BD452 / 9	2000
NORTHROP GRUMMAN COR EPA ID:: CAD983648304	***1031 MOBLEY ST HANGA***	***BH466 / 9***	***2059***
PROGRESS RAIL SERVIC EPA ID:: CAR000077339	***1695 KINNICUTT ROAD***	***BR588 / 9***	***2463***
STRATOLAUNCH SYSTEMS EPA ID:: CAR000289124	553 RICCOMINI AVE	CB634 / 9	2554
BAE SYSTEMS EPA ID:: CAR000171884	16921 AIRPORT BLVD B	CC639 / 8	2574
CIRCLE K STORE #735	***15510 K ST***	***CE643 / 8***	***2581***

EPA ID:: CAD981679632			
TOSCO MOJAVE TERMINA	***1873 PURDY ROAD***	***CU764 / 17***	***2880***
EPA ID:: CAR000015800			

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

A review of the RCRA-VSQG list, as provided by EDR, and dated 12/16/2019 has revealed that there is 1 RCRA-VSQG site within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
MOJAVE ASPHALT TERMI EPA ID:: CAR000286500	1873 PURDY ROAD	CU753 / 17	2867

Federal ERNS list

ERNS: Emergency Response Notification System

A review of the ERNS list, as provided by EDR, and dated 12/16/2019 has revealed that there are 11 ERNS sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
Not reported NRC Report #: 148860 Incident Date Time: 1992-12-11 22:30:00	18700 HIGHWAY 14	A21 / 2	598
Not reported NRC Report #: 709369 Incident Date Time: 2003-12-29 01:30:00	18700 HWY 14 NORTH	A22 / 2	598
Not reported NRC Report #: 720654 Incident Date Time: 2004-05-03 19:45:00	18700 HWY 14 NORTH	F50 / 8	644
Not reported NRC Report #: 317031 Incident Date Time: 1995-12-13 09:00:00	18700 HWY 14 NORTH	F51 / 8	645
Not reported NRC Report #: 837989 Incident Date Time: 2007-06-03 12:30:00	1434 FLIGHT LINE STR	AJ277 / 8	1414
Not reported NRC Report #: 1238160 Incident Date Time: 2/20/2019 13:43	15772 SOUTH I ST	BO530 / 8	2153
Not reported NRC Report #: 1225912 Incident Date Time: 2018-09-25 15:00:00	1347 POOLE ST	BR561 / 9	2226
Not reported NRC Report #: 1226679 Incident Date Time: 2018-10-04 10:00:00	1347 POOLE ST	BR565 / 9	2268
Not reported	1873 PURDY RD	CU759 / 17	2878

NRC Report #: 366373 Incident Date Time: 1996-11-01 13:50:00			
Not reported NRC Report #: 365264 Incident Date Time: 1996-10-22 15:00:00	1873 PURDY RD	CU760 / 17	2878
Not reported NRC Report #: 377708 Incident Date Time: 1997-02-22 12:00:00	1873 PURDY ROAD	CU762 / 17	2879

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

A review of the RESPONSE list, as provided by EDR, has revealed that there is 1 RESPONSE site within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
MARINE CORPS AIR STA Database: RESPONSE, Date of Government Version: 01/27/2020 Status: Inactive - Action Required Facility Id: 80001025	***1434 FLIGHTLINE***	***AJ284 / 8***	***1419***

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

A review of the ENVIROSTOR list, as provided by EDR, and dated 01/27/2020 has revealed that there are 6 ENVIROSTOR sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
MARINE CORPS AIR STA Facility Id: 80000551 Status: Inactive - Action Required	PORTION OF THE AREA	Y150 / 9	1037
EAST KERN AIRPORT Facility Id: 80000550 Status: Inactive - Needs Evaluation		Y152 / 9	1038
MCAB MOJAVE(DUP) Facility Id: 80000887 Status: Inactive - Needs Evaluation		Y153 / 9	1039
MARINE CORPS AIR STA Facility Id: 80001025 Status: Inactive - Action Required	***1434 FLIGHTLINE***	***AJ284 / 8***	***1419***
EDWARDS AFB PROJ R-U Facility Id: 80000239 Status: Inactive - Needs Evaluation		BU594 / 8	2479
PRIMARY GOLD COMPANY Facility Id: 15330012	1/2 MI N OF SILVER Q	788 / 23	3101

Status: Inactive - Needs Evaluation

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Information System

A review of the SWF/LF list, as provided by EDR, has revealed that there are 2 SWF/LF sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
MOJAVE #1 BD	***S/2,SE/4,SE/4, SEC 1***	***BU618 / 8***	***2510***
Database: SWF/LF (SWIS), Date of Government Version: 02/10/2020 Facility ID: 15-CR-0044 Operational Status: Closed Regulation Status: Pre-regulations			
MOJAVE #2 BD	***NE/4,NE/4,NW/4, SEC2***	***729 / 17***	***2807***
Database: SWF/LF (SWIS), Date of Government Version: 02/10/2020 Facility ID: 15-CR-0020 Operational Status: Closed Regulation Status: Pre-regulations			

State and tribal leaking storage tank lists

LUST: Geotracker's Leaking Underground Fuel Tank Report

A review of the LUST list, as provided by EDR, has revealed that there are 30 LUST sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
LADWP MOJAVE YARD SO	17031 SIERRA HWY	E37 / 8	614
Database: LUST REG 6V, Date of Government Version: 06/07/2005 Close Date: 2/11/1992 Status: Case Closed			
LADWP MOJAVE	***17031 SIERRA HWY***	***E38 / 8***	***615***
Database: LUST REG 6V, Date of Government Version: 06/07/2005 Database: LUST, Date of Government Version: 12/09/2019 Status: Completed - Case Closed Global Id: T0602900815 Global Id: T0602900871 Close Date: 3/2/1987 Status: Case Closed			
AT&T	***PO BOX 970***	***87 / 8***	***812***
Database: LUST, Date of Government Version: 12/09/2019 Status: Completed - Case Closed Global Id: T0602900818			
GIANT TRUCK STOP	***16600 SIERRA HWY***	***N93 / 8***	***816***
Database: LUST REG 6V, Date of Government Version: 06/07/2005 Database: LUST, Date of Government Version: 12/09/2019			

Status: Completed - Case Closed
Global Id: T0602900861
Close Date: 4/21/1997
Status: Case Closed

UNOCAL #4311 ***16451 SIERRA HWY N*** ***R121 / 8*** ***875***
Database: LUST REG 6V, Date of Government Version: 06/07/2005
Database: LUST, Date of Government Version: 12/09/2019
Status: Completed - Case Closed
Global Id: T0602900820
Close Date: 11/7/1996
Status: Case Closed

FORMER MARINE CORPS ***MOJAVE AIRPORT*** ***145 / 9*** ***1030***
Database: LUST, Date of Government Version: 12/09/2019
Status: Completed - Case Closed
Global Id: T0602938829

CASA DE GASA ***16355 SIERRA HWY*** ***W157 / 8*** ***1043***
Database: LUST REG 6V, Date of Government Version: 06/07/2005
Close Date: 5/18/2005
Status: Case Closed

CASA DE GASA 16355 SIERRA HWY W160 / 8 1046
Database: LUST, Date of Government Version: 12/09/2019
Status: Completed - Case Closed
Global Id: T0602915169

ARCO FAC #5674 ***16300 SIERRA HWY*** ***Z177 / 8*** ***1089***
Database: LUST, Date of Government Version: 12/09/2019
Status: Completed - Case Closed
Global Id: T0602939959

ARCO FACILITY NO. 05 ***16300 SIERRA HWY*** ***Z178 / 8*** ***1092***
Database: LUST REG 6V, Date of Government Version: 06/07/2005
Close Date: 5/13/2004
Status: Case Closed

ARCO #5096 ***16271 SIERRA HWY N*** ***AA197 / 8*** ***1131***
Database: LUST REG 6V, Date of Government Version: 06/07/2005
Database: LUST, Date of Government Version: 12/09/2019
Status: Completed - Case Closed
Global Id: T0602900846
Close Date: 6/17/1998
Status: Case Closed

CALTRANS MOJAVE ***2211 NADEAU ST*** ***AB205 / 8*** ***1228***
Database: LUST REG 6V, Date of Government Version: 06/07/2005
Database: LUST, Date of Government Version: 12/09/2019
Status: Completed - Case Closed
Global Id: T0602900954
Close Date: 9/24/1996
Status: Case Closed

STEVES ROUGH RIDERS ***16201 SIERRA HWY*** ***AD250 / 8*** ***1343***
Database: LUST, Date of Government Version: 12/09/2019
Status: Completed - Case Closed
Global Id: T0602999267

WIBISONO PROPERTY 16201 SIERRA HWY AD255 / 8 1348
Database: LUST REG 6V, Date of Government Version: 06/07/2005

Close Date: 1/3/2001
Status: Case Closed

PEPSI COLA BOTTLING ***2471 NADEAU*** ***AL311 / 8*** ***1482***
Database: LUST REG 6V, Date of Government Version: 06/07/2005
Close Date: 9/17/1993
Status: Case Closed

PEPSI COLA COMPANY 2471 NADEAU ST AL313 / 8 1489
Database: LUST, Date of Government Version: 12/09/2019
Status: Completed - Case Closed
Global Id: T0602900915

WHITE'S SHELL STATIO ***16074 SIERRA HWY*** ***AZ409 / 8*** ***1830***
Database: LUST REG 5, Date of Government Version: 07/01/2008
Status: Case Closed

WHITE'S SHELL ***16074 SIERRA*** ***AZ412 / 8*** ***1837***
Database: LUST, Date of Government Version: 12/09/2019
Status: Completed - Case Closed
Global Id: T0602900798

SOUTHERN PACIFIC - M ***15887 SIERRA HWY N*** ***BL496 / 8*** ***2105***
Database: LUST REG 6V, Date of Government Version: 06/07/2005
Database: LUST, Date of Government Version: 12/09/2019
Status: Completed - Case Closed
Global Id: T0602900822
Close Date: 1/2/1991
Status: Case Closed

CHEVRON #1095 ***15800 SIERRA HWY*** ***BQ528 / 8*** ***2148***
Database: LUST REG 6V, Date of Government Version: 06/07/2005
Database: LUST, Date of Government Version: 12/09/2019
Status: Completed - Case Closed
Global Id: T0602900860
Close Date: 8/22/1991
Status: Case Closed

UNOCAL #1247 ***15764 SIERRA HWY*** ***BQ542 / 8*** ***2184***
Database: LUST REG 6V, Date of Government Version: 06/07/2005
Database: LUST, Date of Government Version: 12/09/2019
Status: Completed - Case Closed
Global Id: T0602900980
Close Date: 1/4/1999
Status: Case Closed

CIRCLE K STORE #735 ***15510 K ST*** ***CE643 / 8*** ***2581***
Database: LUST REG 6V, Date of Government Version: 06/07/2005
Database: LUST, Date of Government Version: 12/09/2019
Status: Completed - Case Closed
Global Id: T0602900817
Global Id: T0602900997
Close Date: 9/14/1987
Status: Leak being confirmed
Status: Case Closed

FORMER CIRCLE K STOR 15510 K STREET CE652 / 8 2597
Database: LUST REG 6V, Date of Government Version: 06/07/2005
Close Date: 8/17/1998
Status: Case Closed

HEARTLAND TRUCK STOP ***2001 HWY 58*** ***CH664 / 8*** ***2642***
Database: LUST, Date of Government Version: 12/09/2019

Status: Open - Site Assessment
Global Id: T0602900811

CALTRANS MOJAVE MAIN ***HWY 14*** ***CP703 / 16*** ***2749***
Database: LUST, Date of Government Version: 12/09/2019
Status: Completed - Case Closed
Global Id: T0602900833

LEONARD CONSTRUCTION ***HWY 14*** ***CP704 / 16*** ***2750***
Database: LUST, Date of Government Version: 12/09/2019
Status: Completed - Case Closed
Global Id: T0602900816

MOJAVE MO-MART ***15200 SIERRA HWY*** ***CP706 / 16*** ***2753***
Database: LUST REG 6V, Date of Government Version: 06/07/2005
Database: LUST, Date of Government Version: 12/09/2019
Status: Completed - Case Closed
Global Id: T0602900854
Close Date: 8/5/1992
Status: Case Closed

ANGELS TRUCK STOP ***2001 58*** ***720 / 17*** ***2778***
Database: LUST REG 6V, Date of Government Version: 06/07/2005
Status: Leak being confirmed

WESTERN GROWTH PROPE 14501 HOLT ST CT734 / 16 2815
Database: LUST REG 6V, Date of Government Version: 06/07/2005
Close Date: 1/4/2000
Status: Case Closed

REVERE EXTRUDERS, IN ***14501 HOLT ST*** ***CT736 / 16*** ***2816***
Database: LUST, Date of Government Version: 12/09/2019
Status: Completed - Case Closed
Global Id: T0602901010

State and tribal registered storage tank lists

UST: Active UST Facilities

A review of the UST list, as provided by EDR, has revealed that there are 46 UST sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
LA DEPT OF WATER - M	17031 HIGHWAY 14	F41 / 8	628
Database: KERN CO. UST, Date of Government Version: 01/31/2020			
Facility ID: FA0000951			
MOJAVE YARD	17031 HIGHWAY 14	F43 / 8	629
Database: UST, Date of Government Version: 12/09/2019			
Facility Id: FA0000951			
LA DEPT OF WATER & P	17031 SIERRA HWY (HW	E48 / 8	642
Database: UST, Date of Government Version: 12/09/2019			
Facility Id: FA0000951			
OASIS CENTER	16825 HWY 14	J75 / 8	682
Database: UST, Date of Government Version: 12/09/2019			
Database: KERN CO. UST, Date of Government Version: 01/31/2020			

Facility Id: FA0000013

US HENDY OIL, INC 16825 HIGHWAY 14 J76 / 8 683
Database: UST, Date of Government Version: 12/09/2019
Database: KERN CO. UST, Date of Government Version: 01/31/2020
Facility Id: FA0000013
Facility ID: FA0000013

ARCHER TRAVEL CENTER 16660 SIERRA HWY N94 / 8 834
Database: UST, Date of Government Version: 12/09/2019
Database: KERN CO. UST, Date of Government Version: 01/31/2020
Facility ID: FA0003186

GIANT TRUCK STOP OF 16600 HWY 14 O100 / 8 842
Database: UST, Date of Government Version: 12/09/2019
Facility Id: FA0003186

UNION OIL STATION # 16451 N SIERRA HWY R120 / 8 874
Database: KERN CO. UST, Date of Government Version: 01/31/2020

DESERT DISTRIBUTING 16441 "K" ST S126 / 8 881
Database: KERN CO. UST, Date of Government Version: 01/31/2020

KIEFFE & SONS FORD 16400 SIERRA HWY V138 / 8 916
Database: KERN CO. UST, Date of Government Version: 01/31/2020

CASA DE GASA 16355 SIERRA HWY (HW W158 / 8 1045
Database: KERN CO. UST, Date of Government Version: 01/31/2020
Facility ID: FA0000492

CASA DE GASA 16355 SIERRA HWY W159 / 8 1046
Database: KERN CO. UST, Date of Government Version: 01/31/2020

AM PM MINI MART #567 16300 SIERRA HWY (HW Z185 / 8 1096
Database: UST, Date of Government Version: 12/09/2019
Facility Id: FA0003018

ARCO 82752 16300 SIERRA HWY Z186 / 8 1097
Database: UST, Date of Government Version: 12/09/2019
Database: KERN CO. UST, Date of Government Version: 01/31/2020
Facility Id: FA0003018
Facility ID: FA0003018

ARCO SS #5096 16271 N SIERRA HWY AA201 / 8 1135
Database: KERN CO. UST, Date of Government Version: 01/31/2020

MOJAVE MAINT. STA./A 2211 NADEAU ST AB208 / 8 1241
Database: KERN CO. UST, Date of Government Version: 01/31/2020

ELK'S LODGE #2059 16200 K ST AC217 / 8 1248
Database: KERN CO. UST, Date of Government Version: 01/31/2020
Facility ID: FA0003768

MOJAVE ROAD YARD 2200 NADEAU AB224 / 8 1253
Database: KERN CO. UST, Date of Government Version: 01/31/2020

GUNAWAN WIBISONO PRO 16201 SIERRA HWY AD252 / 8 1346
Database: KERN CO. UST, Date of Government Version: 01/31/2020
Facility ID: FA0003547

PEPSI-COLA BOTTLING 2471 NADEAU ST AL314 / 8 1490
Database: KERN CO. UST, Date of Government Version: 01/31/2020

UNITED PARCEL SERVIC 1522 SABOVICH BLDG 1 AT383 / 8 1786
Database: UST, Date of Government Version: 12/09/2019
Facility Id: FA0002093

UNITED PARCEL SERVIC 1522 SABOVICH BLDG 1 AT384 / 8 1786
Database: KERN CO. UST, Date of Government Version: 01/31/2020

EXECUTIVE SUMMARY

Site	Address	Map ID / Focus Map(s)	Page
UPS - MOJAVE Database: UST, Date of Government Version: 12/09/2019 Database: KERN CO. UST, Date of Government Version: 01/31/2020 Facility Id: FA0002093 Facility ID: FA0002093	1522 SABOVICH BLDG 1	AT395 / 8	1808
MORRIS PROPERTY Database: KERN CO. UST, Date of Government Version: 01/31/2020 Facility ID: FA0003679	15925 Q ST	BA417 / 8	1842
MOJAVE SHELL Database: UST, Date of Government Version: 12/09/2019 Database: KERN CO. UST, Date of Government Version: 01/31/2020 Facility ID: FA0000179	16048 SIERRA HWY (HW	AZ421 / 8	1843
STICKEL MORTUARY Database: KERN CO. UST, Date of Government Version: 01/31/2020	2201 INYO ST	BG473 / 8	2068
MOJAVE STATION Database: KERN CO. UST, Date of Government Version: 01/31/2020	15887 N SIERRA HWY	BL491 / 8	2101
MOJAVE PUBLIC UTILIT Database: KERN CO. UST, Date of Government Version: 01/31/2020	15844 "K" ST	BN504 / 8	2117
MOJAVE CHEVRON #9109 Database: UST, Date of Government Version: 12/09/2019 Facility Id: FA0000861	15800 SIERRA HWY (HW	BQ518 / 8	2139
RSI CARDLOCK Database: UST, Date of Government Version: 12/09/2019 Database: KERN CO. UST, Date of Government Version: 01/31/2020 Facility ID: FA0000861	15800 HIGHWAY 14 (SI	BQ533 / 8	2171
SIERRA 76 #1247 Database: UST, Date of Government Version: 12/09/2019 Database: KERN CO. UST, Date of Government Version: 01/31/2020 Facility Id: FA0000761 Facility ID: FA0000761	15764 SIERRA HWY	BQ541 / 8	2181
MOJAVE TIRE SMOG AND Database: KERN CO. UST, Date of Government Version: 01/31/2020 Facility ID: FA0003750	15736 SIERRA HWY	BS574 / 8	2376
SIERRA DRIVE THRU MI Database: KERN CO. UST, Date of Government Version: 01/31/2020 Facility ID: FA0003548	2337 SHASTA ST	BS602 / 8	2485
MOJAVE TEXACO Database: UST, Date of Government Version: 12/09/2019 Facility Id: FA0003187	15700 SIERRA HWY	BS606 / 8	2498
MOJAVE TEXACO Database: KERN CO. UST, Date of Government Version: 01/31/2020	15700 SIERRA HWY	BS607 / 8	2498
OASIS TRAVEL STATION Database: UST, Date of Government Version: 12/09/2019 Database: KERN CO. UST, Date of Government Version: 01/31/2020 Facility ID: FA0003187	15700 SIERRA HWY	BS609 / 8	2500
PRICE SAVERS TRUCK S Database: UST, Date of Government Version: 12/09/2019 Facility Id: FA0003194	2001 HWY 58	632 / 8	2553
CIRCLE K 735 Database: KERN CO. UST, Date of Government Version: 01/31/2020	15510 K ST	CE647 / 8	2594

Facility ID: FA0001568			
CIRCLE K #735	15510 "K" ST	CE657 / 8	2622
Database: KERN CO. UST, Date of Government Version: 01/31/2020			
FASTRIP #38	2350 HWY 58	CG660 / 8	2631
Database: UST, Date of Government Version: 12/09/2019 Database: KERN CO. UST, Date of Government Version: 01/31/2020 Facility Id: FA0000919			
#7704 FASTRIP #38	2350 HIGHWAY 58	CG661 / 8	2632
Database: UST, Date of Government Version: 12/09/2019 Database: KERN CO. UST, Date of Government Version: 01/31/2020 Facility ID: FA0000919			
RAPID LUBE AND TRUCK	2001 HIGHWAY 58	CH668 / 8	2677
Database: UST, Date of Government Version: 12/09/2019 Database: KERN CO. UST, Date of Government Version: 01/31/2020 Facility ID: FA0003194			
CALIF HWY PATROL - M	1365 STATE HIGHWAY 5	CL689 / 17	2716
Database: KERN CO. UST, Date of Government Version: 01/31/2020 Facility ID: FA0003084			
MOJAVE MOBIL	15190 SIERRA HWY	CQ714 / 16	2770
Database: UST, Date of Government Version: 12/09/2019 Database: KERN CO. UST, Date of Government Version: 01/31/2020 Facility Id: FA0002547 Facility ID: FA0002547			
STEVEN OLIVER PROPER	14501 HOLT ST	CT737 / 16	2821
Database: KERN CO. UST, Date of Government Version: 01/31/2020 Facility ID: FA0002666			
AT AND T (CAO580)	HWY 58 9 MI E OF MOJ	786 / 20	3099
Database: UST, Date of Government Version: 12/09/2019 Facility Id: FA0002991			

AST: Aboveground Petroleum Storage Tank Facilities

A review of the AST list, as provided by EDR, has revealed that there are 21 AST sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
KEMIRA WATER SOLUTIO	18700 N HIGHWAY 14	A6 / 2	428
Database: AST, Date of Government Version: 07/06/2016			
KEMIRA WATER SOLUTIO	18700 N HWY 14	A7 / 2	429
Database: AST, Date of Government Version: 07/06/2016			
LA DEPT OF WATER AND	17031 HIGHWAY 14	F42 / 8	629
Database: AST, Date of Government Version: 07/06/2016			
RAMOS/STRONG INC	2481 E DEAVER LN	X168 / 8	1052
Database: AST, Date of Government Version: 07/06/2016			
RAMOS/STRONG INC	2481 E DEAVER	X173 / 8	1062
Database: AST, Date of Government Version: 07/06/2016			
CALTRANS - MOJAVE	2211 NADEAU	AB211 / 8	1243
Database: AST, Date of Government Version: 07/06/2016			
CALTRANS-MOJAVE	2211 NADEAU ST	AB215 / 8	1246
Database: AST, Date of Government Version: 07/06/2016			

EXECUTIVE SUMMARY

Site	Address	Map ID / Focus Map(s)	Page
K C ROAD DEPT - MOJA Database: AST, Date of Government Version: 07/06/2016	2200 NADEAU ST	AB219 / 8	1249
K C ROAD DEPT - MOJA Database: AST, Date of Government Version: 07/06/2016	2200 NADEAU	AB221 / 8	1250
EAST KERN AIRPORT DI Database: AST, Date of Government Version: 07/06/2016	1434 FLIGHTLINE (BLD	AJ280 / 8	1416
MOJAVE AIR AND SPACE Database: AST, Date of Government Version: 07/06/2016	1434 FLIGHTLINE (BLD	AJ283 / 8	1418
TSC, LLC Database: AST, Date of Government Version: 07/06/2016	1223-A SABOVICH ST	AR338 / 9	1576
ALPHA DYNO NOBEL Database: AST, Date of Government Version: 07/06/2016	1682 SABOVICH	AS371 / 8	1765
ALPHA DYNO NOBEL Database: AST, Date of Government Version: 07/06/2016	1682 SABOVICH ST 30	AS373 / 8	1767
UNITED PARCEL SERVIC Database: AST, Date of Government Version: 07/06/2016	1522 SABOVICH BLDG 1	AT387 / 8	1790
MOJAVE UNIFIED SCHOO Database: AST, Date of Government Version: 07/06/2016	1834 INYO ST	BB432 / 8	1890
MOJAVE UNIFIED SCHOO Database: AST, Date of Government Version: 07/06/2016	1834 INYO	BB433 / 8	1891
BAE SYSTEMS BLDG. 21 Database: AST, Date of Government Version: 07/06/2016	16880 FLIGHT SYSTEMS	BD455 / 9	2011
PROGRESS RAIL SERVIC Database: AST, Date of Government Version: 07/06/2016	1695 KINNICUTT RD	BR587 / 9	2462
DEPARTMENT OF CALIFO Database: AST, Date of Government Version: 07/06/2016	1313 STATE HIGHWAY 5	CM692 / 17	2717
PARAMOUNT PETROLEUM Database: AST, Date of Government Version: 07/06/2016	1873 PURDY RD	CU761 / 17	2879

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Recycler Database

A review of the SWRCY list, as provided by EDR, and dated 12/09/2019 has revealed that there is 1 SWRCY site within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
EARTH RENEWAL RECYCL Cert Id: RC245455.001	16866 HWY 14	67 / 8	662

EXECUTIVE SUMMARY

HAULERS: Registered Waste Tire Haulers Listing

A review of the HAULERS list, as provided by EDR, and dated 11/15/2019 has revealed that there are 2 HAULERS sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
FREEWAY SMOG & AUTO Facility ID: 1945948	16158 K STREET	AC292 / 8	1438
RANDALL A. KELLEY Facility ID: 1386429	16852 ROPER ST	BK477 / 8	2076

Local Lists of Hazardous waste / Contaminated Sites

CDL: Clandestine Drug Labs

A review of the CDL list, as provided by EDR, and dated 12/31/2018 has revealed that there are 2 CDL sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
Not reported Facility Id: 2000-07-074	2860 OAKCREEK RD, #3	297 / 8	1441
Not reported Facility Id: 2002-05-121	1779 RICHARD AVENUE	683 / 16	2692

CERS HAZ WASTE: CERS HAZ WASTE

A review of the CERS HAZ WASTE list, as provided by EDR, and dated 01/21/2020 has revealed that there are 45 CERS HAZ WASTE sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
KEMIRA WATER SOLUTIO	***18700 N HIGHWAY 14***	***A8 / 2***	***429***
VIRGIN ORBIT, LLC	***1223-A SABOVICH ST***	***31 / 9***	***605***
MOJAVE YARD	***17031 HIGHWAY 14***	***F47 / 8***	***631***
STATER BROS. MARKETS	***16920 HIGHWAY 14***	***I66 / 8***	***657***
US HENDY OIL, INC	***16825 HIGHWAY 14***	***J68 / 8***	***662***
COMMERCIAL AIRCRAFT	***MOJAVE AIRPORT BONEY***	***84 / 9***	***805***
GIANT TRUCK STOP	***16600 SIERRA HWY***	***N93 / 8***	***816***
VESTAS AMERICAN WIND	***16409 K ST***	***S133 / 8***	***887***
MOJAVE MOTORS DBA KI	***16400 SIERRA HWY***	***V139 / 8***	***916***
RAMOS/STRONG INC	***2481 E DEAVER LN***	***X170 / 8***	***1054***
ARCO 82752	***16300 SIERRA HWY***	***Z192 / 8***	***1104***
CALTRANS MOJAVE	***2211 NADEAU ST***	***AB205 / 8***	***1228***
MOJAVE ROAD YARD	***2200 NADEAU ST***	***AB226 / 8***	***1256***
MERCY AIR SERVICE, I	***1220 FLIGHTLINE DR***	***AF246 / 9***	***1334***
WHITTINGHILL AEROSPA	***1434 FLIGHT LINE TES***	***AJ267 / 8***	***1380***
MOJAVE AIR AND SPACE	***1434 FLIGHTLINE (BLD***	***286 / 8***	***1425***
ORBITAL SCIENCES COR	***17143 FLIGHT SYSTEMS***	***AO328 / 9***	***1549***
FLIGHT RESEARCH INC	***1062 FLIGHTLINE ST H***	***337 / 9***	***1569***
TSC, LLC	***1223-A SABOVICH ST***	***AR339 / 9***	***1577***
PACIFIC BELL TELEPHO	***2100 BELSHAW ST***	***AP343 / 8***	***1585***
BAE SYSTEMS - BLDG 6	***1501 SABOVICH ST BLD***	***AT354 / 8***	***1692***
ALPHA DYNO NOBEL	***1682 SABOVICH ST 30***	***AS374 / 8***	***1767***

EXECUTIVE SUMMARY

Site	Address	Map ID / Focus Map(s)	Page
MASTEN SPACE SYSTEMS	*1570 SABOVICH ST*	*AW380 / 8*	*1777*
UPS - MOJAVE	*1522 SABOVICH BLDG 1*	*AT393 / 8*	*1802*
ASB AVIONICS	*1032 SABOVICH 101*	*AV398 / 9*	*1815*
KCWMD - SPECIAL WAST	*17035 FINNIN ST BLDG*	*AX402 / 9*	*1820*
NORTHROP GRUMMAN SYS	*1260 FLIGHTLINE HANG*	*AZ427 / 8*	*1863*
MOJAVE UNIFIED SCHOO	*1834 INYO ST*	*BB430 / 8*	*1867*
NORTHROP GRUMMAN SYS	*16880 FLIGHT SYSTEMS*	*BD444 / 9*	*1909*
NORTHROP GRUMMAN SYS	*1031 MOBLEY ST HANGA*	*BH463 / 9*	*2025*
RANDALL KELLEY	*16852 ROPER ST BLDG*	*BK476 / 8*	*2074*
MOJAVE PUBLIC UTILIT	*15844 K ST*	*BN500 / 8*	*2109*
RSI CARDLOCK	*15800 HIGHWAY 14 (SI*	*BQ531 / 8*	*2153*
UNOCAL SERVICE STATI	*15764 SIERRA HIGHWAY*	*BQ549 / 8*	*2194*
INNOVATIVE COATINGS	*1347 POOLE ST BLDG 1*	*BR567 / 9*	*2270*
PROGRESS RAIL SERVIC	*1695 KINNICUTT RD*	*BR583 / 9*	*2387*
SALMEX AUTO	*15652 SIERRA HIGHWAY*	*CA624 / 8*	*2515*
SCALED COMPOSITES LL	*555 RICCOMINI ST*	*628 / 9*	*2522*
FAMILY DOLLAR #10107	*2343 HIGHWAY 58*	*CD641 / 8*	*2578*
#7704 FASTRIP #38	*2350 HIGHWAY 58*	*CG662 / 8*	*2634*
DEPARTMENT OF CALIFO	*1313 STATE HIGHWAY 5*	*CM693 / 17*	*2718*
DESERT TRUCK SERVICE	*1426 HIGHWAY 58*	*CO697 / 16*	*2724*
MOJAVE MOBIL	*15190 SIERRA HWY*	*CQ712 / 16*	*2762*
MOJAVE TERMINAL	*1873 PURDY ROAD*	*CU756 / 17*	*2871*
TERMINAL STORAGE FAC	*1667 PURDY AVE*	*CW773 / 16*	*3024*

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 26 SWEEPS UST sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
LA DEPT OF WATER AND Status: A Tank Status: A Comp Number: 64857	*17031 SIERRA HWY*	*E36 / 8*	*612*
OASIS Status: A Tank Status: A Comp Number: 590026	16900 HIGHWAY 14	G59 / 8	650
GIANT TRUCK STOP Status: A Tank Status: A Comp Number: 8392	*16600 SIERRA HWY*	*N93 / 8*	*816*
UNION OIL SERVICE ST Status: A Tank Status: A Comp Number: 19963	*16451 N SIERRA HWY*	*R119 / 8*	*871*
DESERT DISTRIBUTING Status: A	*16441 K ST*	*S123 / 8*	*879*

Tank Status: A Comp Number: 5874			
CASA DE GASA Status: A Tank Status: A Comp Number: 6630	***16355 SIERRA HWY***	***W157 / 8***	***1043***
ARCO FAC #5674 Status: A Tank Status: A Comp Number: 590038	***16300 SIERRA HWY***	***Z177 / 8***	***1089***
CALTRANS MOJAVE Status: A Tank Status: A Comp Number: 590005	***2211 NADEAU ST***	***AB205 / 8***	***1228***
MOJAVE ROAD YARD Comp Number: 17934	***2200 NADEAU ST***	***AB226 / 8***	***1256***
STEVE'S ROUGH RIDERS Status: A Tank Status: A Comp Number: 42302	***16201 SIERRA HWY***	***AD248 / 8***	***1340***
PEPSI COLA BOTTLING Comp Number: 55134	***2471 NADEAU***	***AL311 / 8***	***1482***
PACIFIC BELL TELEPHO Status: A Tank Status: A Comp Number: 57481	***2100 BELSHAW***	***AP342 / 8***	***1581***
UNITED PARCEL SERVIC Status: A Tank Status: A Comp Number: 590033	***1522 SABOVITCH ST***	***AW364 / 8***	***1733***
WHITE'S SHELL STATIO Status: A Tank Status: A Comp Number: 60015	***16074 SIERRA HWY***	***AZ409 / 8***	***1830***
TRANSPORTATION DEPAR Comp Number: 30254	***1830 INYO ST***	***BB439 / 8***	***1897***
MOJAVE PUBLIC UTILIT Comp Number: 40838	***15844 K ST***	***BN500 / 8***	***2109***
91095 Comp Number: 61987	***15800 SIERRA HWY***	***BQ522 / 8***	***2143***
CHEVRON #1095 Status: A Tank Status: A Comp Number: 61987	***15800 SIERRA HWY***	***BQ528 / 8***	***2148***
91095 Status: A Tank Status: A Comp Number: 590012	***15800 SIERRA HWY***	***BQ535 / 8***	***2174***
UNION OIL SERVICE ST	***15764 SIERRA HWY***	***BQ544 / 8***	***2187***

Status: A Tank Status: A Comp Number: 17846			
SIERRA MINI MART Status: A Tank Status: A Comp Number: 590019	2337 SHASTA AVE	BS603 / 8	2486
TEXACO Status: A Tank Status: A Comp Number: 16181	***15700 SIERRA HWY***	***BS604 / 8***	***2487***
CIRCLE K STORE #735 Status: A Tank Status: A Comp Number: 13768	***15510 K ST***	***CE643 / 8***	***2581***
CALIFORNIA HIGHWAY P Status: A Tank Status: A Comp Number: 18021	***1365 HIGHWAY 58***	***CL686 / 17***	***2713***
MO MART MOBIL Status: A Tank Status: A Comp Number: 35601	***15200 SIERRA HWY***	***CP709 / 16***	***2758***
REVERE EXTRUDERS, IN Status: A Tank Status: A Comp Number: 17762	***14501 HOLT ST***	***CT736 / 16***	***2816***

HIST UST: Hazardous Substance Storage Container Database

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 35 HIST UST sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
MOJAVE YARD SO. DIST Facility Id: 00000064857	17031 SIERRA HWY.	E34 / 8	611
MOJAVE YARD SO- DIST	17031 SIERRA HWA	E35 / 8	612
GIANT TRUCK STOP Facility Id: 00000008392	***16600 SIERRA HWY***	***N93 / 8***	***816***
GIANT TRUCK STOPS MO	***16600 SIERRA HIGHWAY***	***O101 / 8***	***842***
UNION OIL SERVICE ST Facility Id: 00000019963	16451 SIERRA HWY	R116 / 8	869
STATION #4311 Facility Id: 00000043706	16451 SIERRA HWY	R118 / 8	871
UNION OIL SERVICE ST	***16451 N SIERRA HWY***	***R119 / 8***	***871***
DESERT DISTRIBUTING Facility Id: 00000005874	16441 K STREET	S125 / 8	880
CASA DE GASA Facility Id: 00000006630	16355 SIERRA HWY	W164 / 8	1049
RP&LM ENTERPRISES IN	16271 SIERRA HWY	AA196 / 8	1130

Facility Id: 00000026785			
NONE	16271 N SIERRA HWY	AA200 / 8	1135
MOJAVE ROAD YARD	2200 NADEAU ST	AB220 / 8	1250
Facility Id: 00000017934			
MOJAVE ROAD YARD	***2200 NADEAU ST***	***AB226 / 8***	***1256***
STEVES ROUGH RIDERS	***16201 SIERRA HWY***	***AD250 / 8***	***1343***
Facility Id: 00000042302			
PEPSI COLA BOTTLING	***2471 NADEAU***	***AL311 / 8***	***1482***
Facility Id: 00000055134			
PACIFIC BELL TELEPHO	***2100 BELSHAW***	***AP342 / 8***	***1581***
Facility Id: 00000057481			
WHITE'S SHELL STATIO	***16074 SIERRA HWY***	***AZ409 / 8***	***1830***
Facility Id: 00000060015			
TRANSPORTATION DEPAR	1830 INYO ST	BB438 / 8	1896
Facility Id: 00000030254			
TRANSPORTATION DEPAR	***1830 INYO ST***	***BB439 / 8***	***1897***
MOJAVE STATION	15887 SIERRA HWY	BL495 / 8	2104
Facility Id: 00000040185			
MOJAVE STATION	15867 N SIERRA HY	505 / 8	2118
MOJAVE HIGH SCHOOL	***15732 O STREET***	***BP512 / 8***	***2129***
91095	***15800 SIERRA HWY***	***BQ522 / 8***	***2143***
Facility Id: 00000061987			
UNOCAL SERVICE STATI	***15764 SIERRA HIGHWAY***	***BQ549 / 8***	***2194***
STATION #1247	15764 SIERRA HWY	BQ552 / 8	2214
Facility Id: 00000040577			
UNION OIL SERVICE ST	15764 SIERRA HWY	BQ554 / 8	2215
Facility Id: 00000017846			
TEXACO	***15700 SIERRA HWY***	***BS604 / 8***	***2487***
GORMAN TEXACO	15700 SIERRA HWY	BS612 / 8	2503
Facility Id: 00000051146			
CIRCLE K STORE #735	***15510 K ST***	***CE643 / 8***	***2581***
Facility Id: 00000013768			
FIRE STATION #14	1953 STATE HIGHWAY 5	674 / 8	2682
Facility Id: 00000018400			
CALIFORNIA HIGHWAY P	1365 STATE HIGHWAY 5	CL690 / 17	2716
Facility Id: 00000035451			
Facility Id: 00000018021			
MO MART MOBIL	15200 SIERRA HWY	CP708 / 16	2757
Facility Id: 00000035601			
MO MART MOBIL	***15200 SIERRA HWY***	***CP709 / 16***	***2758***
REVERE EXTRUDERS, IN	***14501 HOLT ST***	***CT736 / 16***	***2816***
Facility Id: 00000017762			
NONE	14301 HOLT STREET	765 / 16	2890

EXECUTIVE SUMMARY

CERS TANKS: California Environmental Reporting System (CERS) Tanks

A review of the CERS TANKS list, as provided by EDR, and dated 01/21/2020 has revealed that there are 25 CERS TANKS sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
KEMIRA WATER SOLUTIO	***18700 N HIGHWAY 14***	***A8 / 2***	***429***
VIRGIN ORBIT, LLC	***1223-A SABOVICH ST***	***31 / 9***	***605***
MOJAVE YARD	***17031 HIGHWAY 14***	***F47 / 8***	***631***
US HENDY OIL, INC	***16825 HIGHWAY 14***	***J68 / 8***	***662***
GIANT TRUCK STOP	***16600 SIERRA HWY***	***N93 / 8***	***816***
RAMOS/STRONG INC	***2481 E DEAVER LN***	***X170 / 8***	***1054***
ARCO 82752	***16300 SIERRA HWY***	***Z192 / 8***	***1104***
CALTRANS MOJAVE	***2211 NADEAU ST***	***AB205 / 8***	***1228***
MOJAVE ROAD YARD	***2200 NADEAU ST***	***AB226 / 8***	***1256***
MOJAVE AIR AND SPACE	***1434 FLIGHTLINE (BLD***	***286 / 8***	***1425***
ALPHA DYNO NOBEL	***1682 SABOVICH ST 30***	***AS374 / 8***	***1767***
MOJAVE SHELL	***16048 SIERRA HWY (HW***	***AZ424 / 8***	***1847***
MOJAVE UNIFIED SCHOO	***1834 INYO ST***	***BB430 / 8***	***1867***
RSI CARDLOCK	***15800 HIGHWAY 14 (SI***	***BQ531 / 8***	***2153***
UNOCAL SERVICE STATI	***15764 SIERRA HIGHWAY***	***BQ549 / 8***	***2194***
PROGRESS RAIL SERVIC	***1695 KINNICUTT RD***	***BR583 / 9***	***2387***
TEXACO	***15700 SIERRA HWY***	***BS604 / 8***	***2487***
SCALED COMPOSITES LL	***555 RICCOMINI ST***	***628 / 9***	***2522***
RAPID LUBE AND TRUCK	***2001 HIGHWAY 58***	***658 / 8***	***2623***
#7704 FASTRIP #38	***2350 HIGHWAY 58***	***CG662 / 8***	***2634***
DEPARTMENT OF CALIFO	***1365 STATE HIGHWAY 5***	***CL685 / 17***	***2710***
DEPARTMENT OF CALIFO	***1313 STATE HIGHWAY 5***	***CM693 / 17***	***2718***
MOJAVE MOBIL	***15190 SIERRA HWY***	***CQ712 / 16***	***2762***
MOJAVE TERMINAL	***1873 PURDY ROAD***	***CU756 / 17***	***2871***
TERMINAL STORAGE FAC	***1667 PURDY AVE***	***CW773 / 16***	***3024***

CA FID UST: Facility Inventory Database

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 23 CA FID UST sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
LA DEPT OF WATER AND Facility Id: 15000478 Status: A	***17031 SIERRA HWY***	***E36 / 8***	***612***
GIANT TRUCK STOP Facility Id: 15000467 Status: A	16600 SIERRA HWY	O98 / 8	841
UNION OIL SERVICE ST Facility Id: 15003231 Status: A	***16451 N SIERRA HWY***	***R119 / 8***	***871***
DESERT DISTRIBUTING Facility Id: 15004662 Status: A	***16441 K ST***	***S123 / 8***	***879***
CASA DE GASA Facility Id: 15000592 Status: A	16355 SIERRA HWY	W155 / 8	1041
ARCO FAC #5674	***16300 SIERRA HWY***	***Z177 / 8***	***1089***

Facility Id: 15003095 Status: A			
CALTRANS MOJAVE Facility Id: 15002534 Status: A	***2211 NADEAU ST***	***AB205 / 8***	***1228***
MOJAVE ROAD YARD Facility Id: 15002757 Status: A	***2200 NADEAU ST***	***AB226 / 8***	***1256***
STEVE'S ROUGH RIDERS Facility Id: 15004996 Status: A	***16201 SIERRA HWY***	***AD248 / 8***	***1340***
PEPSI COLA BOTTLING Facility Id: 15002628 Status: A	***2471 NADEAU***	***AL311 / 8***	***1482***
PACIFIC BELL TELEPHO Facility Id: 15004043 Status: A	***2100 BELSHAW***	***AP342 / 8***	***1581***
UNITED PARCEL SERVIC Facility Id: 15005270 Status: A	***1522 SABOVITCH ST***	***AW364 / 8***	***1733***
WHITE'S SHELL STATIO Facility Id: 15000464 Status: A	16074 SIERRA HWY	AZ408 / 8	1830
TRANSPORTATION DEPAR Facility Id: 15004863 Status: A	***1830 INYO ST***	***BB439 / 8***	***1897***
MOJAVE PUBLIC UTILIT Facility Id: 15001591 Status: I	***15844 K ST***	***BN500 / 8***	***2109***
91095 Facility Id: 15000311 Status: A	***15800 SIERRA HWY***	***BQ535 / 8***	***2174***
UNION OIL SERVICE ST Facility Id: 15001832 Status: A	***15764 SIERRA HWY***	***BQ544 / 8***	***2187***
SIERRA MINI MART Facility Id: 15005266 Status: A	2337 SHASTA AVE	BS601 / 8	2485
TEXACO Facility Id: 15004714 Status: A	***15700 SIERRA HWY***	***BS604 / 8***	***2487***
CIRCLE K STORE #735 Facility Id: 15004502 Status: A	***15510 K ST***	***CE643 / 8***	***2581***
CALIFORNIA HIGHWAY P Facility Id: 15003342 Status: A	***1365 HIGHWAY 58***	***CL686 / 17***	***2713***
MO MART MOBIL Facility Id: 15000463	***15200 SIERRA HWY***	***CP709 / 16***	***2758***

Status: A

REVERE EXTRUDERS, IN	***14501 HOLT ST***	***CT736 / 16***	***2816***

Facility Id: 15002430
Status: A

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

A review of the HMIRS list, as provided by EDR, and dated 12/05/2019 has revealed that there are 4 HMIRS sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
Not reported	18700 N HWY 14	A4 / 2	428
Not reported	18700 N HWY 14	A5 / 2	428
Not reported	15664 K STREET	BY619 / 8	2512
Not reported	15664 K STREET	BY620 / 8	2512

CHMIRS: California Hazardous Material Incident Report System

A review of the CHMIRS list, as provided by EDR, and dated 12/24/2019 has revealed that there are 33 CHMIRS sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
Not reported OES Incident Number: 120653 OES Incident Number: 101144 OES Incident Number: 120961 OES Incident Number: 120416 OES Incident Number: 100223 **Additional key fields are available in the Map Findings section* Date Completed: 26-NOV-91 Date Completed: 27-DEC-91 Date Completed: 17-DEC-91 Date Completed: 12-NOV-91 Date Completed: 16-MAR-91 **Additional key fields are available in the Map Findings section*	18700 HIGHWAY 14	A1 / 2	416
Not reported OES Incident Number: 3-6735	18700 HWY 14 NORTH	A2 / 2	425
Not reported OES Incident Number: 115208 Date Completed: 26-JAN-91	18700 HIGHWAY 14 6 M	A3 / 2	426
Not reported OES Incident Number: 0819	18700 HIGHWAY 14 (IM	A12 / 2	517
Not reported OES Incident Number: 7-4055 OES Incident Number: 3-6686 OES Incident Number: 6788	18700 HWY 14	A13 / 2	519
Not reported	18700 HWY 14	A14 / 2	523

OES Incident Number: 4-2351			
Not reported OES Incident Number: 6801	IMPERIAL WEST CHEMIC	B26 / 2	600
Not reported OES Incident Number: 6766	IMPERIAL WEST CHEMIC	B27 / 2	601
Not reported OES Incident Number: 11305	18700 HIWAY 14 NORTH	F52 / 8	645
Not reported OES Incident Number: 012590 Date Completed: 24-AUG-90	16600 N. HWY 14	O97 / 8	840
Not reported OES Incident Number: 6-6206	2001 BELSHAW	T127 / 8	882
Not reported OES Incident Number: 120138 Date Completed: 01-NOV-91	SR-14 S/B I MILE N/O	141 / 8	1025
Not reported OES Incident Number: 07114	OAK CREEK & SIERRA H	W142 / 8	1026
Not reported OES Incident Number: 7-1983	OAK CREEK RD @ HWY 1	W143 / 8	1027
Not reported OES Incident Number: 4-4210	OAK CREEK ROAD AND S	W144 / 8	1029
Not reported OES Incident Number: 08-6615	2481 DEAVER LANE	X172 / 8	1061
MARINE CORPS AIR STA OES Incident Number: 4-7248	***1434 FLIGHTLINE***	***AJ284 / 8***	***1419***
Not reported OES Incident Number: 7-3477	1434 FLIGHT LINE ST	AJ285 / 8	1424
Not reported OES Incident Number: 15-6094	16880 FLIGHT SYSTEMS	BD443 / 9	1908
Not reported OES Incident Number: 19-3581	15772 SOUTH I. STREE	BO529 / 8	2152
Not reported OES Incident Number: 2-6562	15760 I ST.	BO534 / 8	2173
Not reported OES Incident Number: 17-2846	3950 OAK CREEK ROAD	556 / 7	2217
Not reported OES Incident Number: 18-6551	1347 POOLE ST, INCOT	BR566 / 9	2269
Not reported OES Incident Number: 16-1684	1347 POOLE ST.	BR568 / 9	2283
INNOVATIVE COATINGS OES Incident Number: 18-6769	***1347 POOLE STREET***	***BR572 / 9***	***2365***
Not reported OES Incident Number: 990204 Date Completed: 19-SEP-88	SR 58 E/O SR 14	CF663 / 8	2641
Not reported OES Incident Number: 099364 Date Completed: 19-JUL-90	2001 HWY 58 AND PARK	665 / 8	2674
Not reported	15314 MEYER ROAD	CN702 / 16	2747

OES Incident Number: 3-4471			
Not reported OES Incident Number: 120589 Date Completed: 27-NOV-91	MOJAVE RAILROAD DEPO	CQ710 / 16	2760
Not reported OES Incident Number: 3-2786	MEYER RD AND HWY 14	CQ718 / 16	2776
Not reported OES Incident Number: 16313	1873 PURDY RD, A TRA	CU757 / 17	2875
TOSCO MOJAVE TERMINA OES Incident Number: 7-0775	***1873 PURDY ROAD***	***CU764 / 17***	***2880***
NIKLOR CHEMICAL CO I OES Incident Number: 10-1398	***1667 PURDY RD***	***CV770 / 17***	***2957***

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 12/16/2019 has revealed that there are 42 RCRA NonGen / NLR sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
LA DEPARTMENT WATER EPA ID:: CAD983613340	***17031 SIERRA HWY***	***E33 / 8***	***609***
STATER BROS MARKETS EPA ID:: CAL000340465	16920 HIGHWAY 14	I63 / 8	653
USHENDY OIL IMPERIAL EPA ID:: CAL000391508	16825 STATE HIGHWAY	J73 / 8	680
THE STAKE MILL EPA ID:: CAL000324615	2555 DOUGLAS AVE	Q109 / 8	862
VESTAS AMERICAN WIND EPA ID:: CAL000376831	16409 K ST	S132 / 8	886
MOJAVE MOTORS DBA KI EPA ID:: CAD983586793	***16400 SIERRA HWY***	***V139 / 8***	***916***
CHEVRON USA INC MOJA EPA ID:: CAT000614826	***2481 OAK CREEK RD***	***X146 / 8***	***1032***
RAMOS/STRONG INC EPA ID:: CAL000176369	2481 DEAVER LN	X171 / 8	1060
ARCO AM/PM - V&K OIL EPA ID:: CAL000240654	16300 SIERRA HWY	Z189 / 8	1099
MOJAVE DEPARTMENT OF EPA ID:: CAD982040842	***2211 NADEAU ST***	***AB214 / 8***	***1244***
KERN COUNTY RDS DEPT EPA ID:: CAD983652173	***2200 NADEAU ST***	***AB225 / 8***	***1254***
AIR METHODS CORP DBA EPA ID:: CAL000348692	1220 FLIGHT LINE	AF244 / 9	1332
B A E SYSTEMS FLIGHT	1434 FLIGHT LINE BLD	AJ268 / 8	1383

EPA ID:: CAR000074724			
COMMERCIAL AIRCRAFT EPA ID:: CAL000371728	1434 FLIGHT LINE	AJ271 / 8	1401
NORTHROP GRUMMIN COR EPA ID:: CAL000278601	1434 FLIGHT LINE	AJ278 / 8	1414
FREEWAY SMOG TEST & EPA ID:: CAL000442654	16158 K ST	AC287 / 8	1431
NORTHROP GRUMMAN MOJ EPA ID:: CAR000171868	1506 FLIGHT LINE	AK305 / 8	1454
PEPSI COLA BOTTLING EPA ID:: CAD982469900	***2471 NADEAU***	***AL311 / 8***	***1482***
KA FLEETONE INC EPA ID:: CAL000370458	2471 NADEAU ST	AL318 / 8	1520
PACIFIC BELL TELEPHO EPA ID:: CAT080020472	***2100 BELSHAW***	***AP342 / 8***	***1581***
BAE SYSTEMS MOJAVE O EPA ID:: CAR000171876	1501 SABOVICH STREET	AT350 / 8	1632
ALPHA EXPLOSIVES EPA ID:: CAL000222305	1682 SABOVICH ST	AS370 / 8	1764
MASTEN SPACE SYSTEMS EPA ID:: CAL000357237	1570 SABOVICH ST BLD	AW378 / 8	1775
UNITED PARCEL SERVIC EPA ID:: CAL000024046	1522 SABOVICH ST	AT388 / 8	1790
MOJAVE USD EPA ID:: CAL000214378	1834 INYO ST	BB428 / 8	1866
WHALING, KIM EPA ID:: CAC002992937	15974 JEAN DR	BI470 / 8	2065
RANDALL A KELLEY EPA ID:: CAL000274066	16852 ROPER RD	BK478 / 8	2077
MOJAVE PUBLIC UTILIT EPA ID:: CAL000250407	15844 K ST	BN501 / 8	2114
CHEVRON STATION NO 9 EPA ID:: CAR000117127	***15800 SIERRA HWY***	***BQ517 / 8***	***2137***
Not reported EPA ID:: CAL000428055	15800 SIERRA HWY	BQ519 / 8	2140
RAMOS/STRONG INC DBA EPA ID:: CAL000352052	15764 SIERRA HWY	BQ547 / 8	2191
Not reported EPA ID:: CAL000450046	15736 SIERRA HWY	BS578 / 8	2383
PROGRESS RAIL SERVIC EPA ID:: CAL000172032	1695 KINNICUTT RD	BR582 / 9	2386
FIBERSET, INC EPA ID:: CAL000324351	1046 POOLE ST	BT592 / 9	2477
MOJAVE MAKERS, A PUB EPA ID:: CAC002965996	16722 ROPER STREET	BW598 / 8	2481
SALMEX AUTO REPAIR	15651 SIERRA HWY STE	CA630 / 8	2552

EPA ID:: CAL000366037			
SCALED COMPOSITES LL EPA ID:: CAR000225714	555 RICCOMINI ST	CB636 / 9	2557
FAMILY DOLLAR INC # EPA ID:: CAL000390072	2343 STATE HIGHWAY 5	CD655 / 8	2601
CALIFORNIA HIGHWAY P EPA ID:: CAL000060706	1365 STATE HIGHWAY 5	CL688 / 17	2714
DESERT TRUCK SERVICE EPA ID:: CAL000167690	1426 STATE HIGHWAY 5	CO700 / 16	2746
ALON ASPHALT COMPANY EPA ID:: CAL000428981	1873 PURDY RD	CU745 / 17	2862
Not reported EPA ID:: CAL000450481	1673 PURDY RD	CV767 / 17	2952

FUDS: Formerly Used Defense Sites

A review of the FUDS list, as provided by EDR, and dated 11/12/2019 has revealed that there are 2 FUDS sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
MARINE CORPS AIRSTAT		Y149 / 9	1035
EDWARDS AFB PROJ ROU		BU593 / 8	2479

TSCA: Toxic Substances Control Act

A review of the TSCA list, as provided by EDR, and dated 12/31/2016 has revealed that there are 2 TSCA sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
KEMIRA WATER SOLUTIO	***18700 HWY 14 SOUTH***	***A16 / 2***	***551***
KEMIRON PACIFIC INCO	18700 HIGHWAY 14 NOR	A17 / 2	552

TRIS: Toxic Chemical Release Inventory System

A review of the TRIS list, as provided by EDR, and dated 12/31/2018 has revealed that there are 3 TRIS sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
KEMIRA WATER SOLUTIO TRIS ID: 93501MPRLW18700	18700 HWY 14 N	A15 / 2	524
INNOVATIVE COATINGS TRIS ID: 93501NNVTV1347P	***1347 POOLE STREET***	***BR562 / 9***	***2226***
TRICAL MOJAVE TRIS ID: 93501NKLRC1667P	1667 PURDY AVE	CW772 / 16	2998

EXECUTIVE SUMMARY

SSTS: Section 7 Tracking Systems

A review of the SSTS list, as provided by EDR, and dated 05/01/2019 has revealed that there are 2 SSTS sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
TRICAL, INC. Registration Number:: 011220-CA-008 Registration Number:: 011220CA008	1667 PURDY AVE	766 / 16	2890
NIKLOR CHEMICAL COMP Registration Number:: 007747CA001	1667 PURDY AVE	CW782 / 16	3062

RMP: Risk Management Plans

A review of the RMP list, as provided by EDR, and dated 11/05/2019 has revealed that there are 5 RMP sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
KEMIRA WATER SOLUTIO	18700 HIGHWAY 14 NOR	A18 / 2	552
KEMIRON PACIFIC, INC	18700 HIGHWAY 14 NOR	A19 / 2	576
KEMIRON PACIFIC, INC	18700 HIGHWAY 14 NOR	A20 / 2	587
NIKLOR CHEMICAL COMP	1667 PURDY AVENUE	CW775 / 16	3037
TRICAL INC.	1667 PURDY AVENUE	CW780 / 16	3056

ICIS: Integrated Compliance Information System

A review of the ICIS list, as provided by EDR, and dated 11/18/2016 has revealed that there are 2 ICIS sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
BAE SYSTEMS IESI FRS ID:: 110024543350	***1501 SABOVICH ST***	***AT349 / 8***	***1630***
NIKLOR CHEMICAL COMP FRS ID:: 110046524249	1667 PURDY AVENUE	CW777 / 16	3045

LEAD SMELTERS: Lead Smelter Sites

A review of the LEAD SMELTERS list, as provided by EDR, has revealed that there is 1 LEAD SMELTERS site within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
VICTORY MILLSITE (A Database: LEAD SMELTER 1, Date of Government Version: 01/30/2020 Site ID:: 905022 EPAID:: CA0000307801	***SILVER QUEEN ROAD***	***617 / 8***	***2509***

EXECUTIVE SUMMARY

FINDS: Facility Index System/Facility Registry System

A review of the FINDS list, as provided by EDR, and dated 11/22/2019 has revealed that there are 141 FINDS sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
KEMIRA WATER SOLUTIO Registry ID:: 110000729800	***18700 HWY 14 SOUTH***	***A16 / 2***	***551***
KEMIRA WATER SOLUTIO Registry ID:: 110066737151	18700 N HIGHWAY 14	A23 / 2	598
LA DEPARTMENT WATER Registry ID:: 110019000917	17031 SIERRA HWY	D32 / 8	608
LA DEPARTMENT WATER Registry ID:: 110006482662 Registry ID:: 110070323743	***17031 SIERRA HWY***	***E33 / 8***	***609***
LADWP MOJAVE YARD SO Registry ID:: 110065213520	17031 SIERRA HWY	D39 / 8	620
LA DEPT OF WATER AND Registry ID:: 110070521306 Registry ID:: 110065781032	17031 HIGHWAY 14	F46 / 8	630
LADWP MOJAVE Registry ID:: 110066282944	17031 SIERRA HWY	55 / 8	647
STATER BROS MARKETS Registry ID:: 110065725040	***16920 HIGHWAY 14***	***I64 / 8***	***654***
US HENDY OILNA INC Registry ID:: 110066090802	16825 HIGHWAY 14	J71 / 8	679
U.S. HENDY OIL Registry ID:: 110070412983 Registry ID:: 110070521250	***16825 STATE HIGHWAY***	***J74 / 8***	***681***
MONITORING STATION Registry ID:: 110020820762	AIRPORT-BLDG 58	L79 / 9	688
THE STAKE MILL Registry ID:: 110070521220	16552 CHRISTINE STRE	M88 / 8	814
SPEEDWAY TRAVEL CENT Registry ID:: 110066675574	16660 SIERRA HWY	N92 / 8	816
GIANT TRUCK STOP Registry ID:: 110066320608	16600 SIERRA HWY	O99 / 8	842
CAPSED Registry ID:: 110066027891	17012 ROPER ST	P107 / 8	856
TELEDYNE RYAN AERONA Registry ID:: 110002847028	***17012 ROPER ST***	***P108 / 8***	***857***
THE STAKE MILL Registry ID:: 110070470241	***2555 DOUGLAS AVE***	***Q111 / 8***	***864***
UNOCAL #4311 Registry ID:: 110066529331	16451 SIERRA HWY N	R114 / 8	866
MOJAVE Registry ID:: 110037992688	UNKNOWN	U131 / 9	885
VESTAS AMERICAN WIND	***16409 K ST***	***S135 / 8***	***913***

Registry ID:: 110070321328			
MOJAVE MOTORS DBA KI Registry ID:: 110002847322	***16400 SIERRA HWY***	***V139 / 8***	***916***
CHEVRON USA INC MOJA Registry ID:: 110002943405	***2481 OAK CREEK RD***	***X146 / 8***	***1032***
CASA DE GASA Registry ID:: 110065836625	16355 SIERRA HWY	W161 / 8	1048
RAMOS STRONG Registry ID:: 110066205298	2481 E DEAVER LN	X169 / 8	1053
V&K OIL COMPANY Registry ID:: 110070521392	16300 SIERRA HIGHWAY	Z179 / 8	1094
ARCO 82752 Registry ID:: 110064967102	16300 SIERRA HWY	Z181 / 8	1095
ARCO AM/PM - V&K OIL Registry ID:: 110070451137	***16300 SIERRA HWY***	***Z182 / 8***	***1095***
ARCO FACILITY NO. 05 Registry ID:: 110065981478	16300 SIERRA HWY	Z183 / 8	1096
ARCO #5096 Registry ID:: 110066272009	16271 SIERRA HWY N	AA199 / 8	1134
CALTRANS MOJAVE Registry ID:: 110066156297	2211 NADEAU ST	AB212 / 8	1244
MOJAVE DEPARTMENT OF Registry ID:: 110002785629	***2211 NADEAU ST***	***AB214 / 8***	***1244***
K C ROAD DEPT - MOJA Registry ID:: 110065268034	2200 NADEAU ST	AB218 / 8	1249
KERN COUNTY RDS DEPT Registry ID:: 110002887172	***2200 NADEAU ST***	***AB225 / 8***	***1254***
XCOR AEROSPACE, INC. Registry ID:: 110033192747	1314 FLIGHTLINE	AE229 / 9	1265
OK AIRLINE SUPPORT I Registry ID:: 110002847037	***1314 FLIGHTLINE BLDG***	***AE230 / 9***	***1266***
NORTHROP GRUMMAN (MO Registry ID:: 110055439119	***1260 FLIGHT LINE, BL***	***AF231 / 9***	***1267***
FIRESTAR ENGINEERING Registry ID:: 110065139344	1122 FLIGHT LINE 76	AG236 / 9	1276
FLIGHT RESEARCH INC Registry ID:: 110066305359	1062 FLIGHTLINE ST H	AH238 / 9	1277
FLIGHT TEST AEROSPAC Registry ID:: 110066305386	1224 FLIGHT LINE HAN	AF240 / 9	1322
MERCY AIR SERVICES I Registry ID:: 110066399105	1220 FLIGHTLINE 60	AF242 / 9	1323
AIR METHODS CORP DBA Registry ID:: 110070470917	***1220 FLIGHT LINE***	***AF245 / 9***	***1334***
WIBISONO PROPERTY Registry ID:: 110065488984	16201 SIERRA HWY	AD253 / 8	1347
HALL AMBULANCE SERVI	1901B BELSHAW ST	AI257 / 8	1353

Registry ID:: 110065554689			
EAST KERN AIRPORT DI Registry ID:: 110066589187	1434 FLIGHTLINE (BLD	AJ261 / 8	1376
MOJAVE AIR AND SPACE Registry ID:: 110070089107	***1434 FLIGHT LINE***	***AJ263 / 8***	***1377***
PINYON PINES WIND IN Registry ID:: 110070521218 Registry ID:: 110065843403	1434 FLIGHTLINE RD S	AJ265 / 8	1378
COMMERCIAL AIRCRAFT Registry ID:: 110070480942	***1434 FLIGHT LINE***	***AJ273 / 8***	***1405***
BAE SYSTEMS FLIGHT S Registry ID:: 110002698073	***1434 FLIGHT LINE BLD***	***AJ275 / 8***	***1408***
FREEWAY SMOG TEST & Registry ID:: 110065804008 Registry ID:: 110070538929	16158 K ST	AC295 / 8	1440
NORTHROP GRUMMAN MOJ	1506 FLIGHT LINE ON	AK303 / 8	1453
KA FLEETONE INC Registry ID:: 110070479564	***2471 NADEAU ST***	***AL307 / 8***	***1477***
PEPSI COLA BOTTLING Registry ID:: 110002819415	***2471 NADEAU***	***AL311 / 8***	***1482***
PEPSI BEVERAGES COMP Registry ID:: 110065174037	2471 NADEAU ST	AL315 / 8	1491
THE SPACESHIP COMPAN Registry ID:: 110070525870	1570 FLIGHT LINE	AM319 / 8	1521
SCALED COMPOSITES, L Registry ID:: 110070307117	1624 FLIGHT LINE RD.	AN322 / 8	1523
SCALED COMPOSITES IN Registry ID:: 110002651345	***1624 FLIGHT LINE, HA***	***AN323 / 8***	***1523***
ORBITAL SCIENCES COR Registry ID:: 110065030077	17143 FLIGHT SYSTEMS	AO329 / 9	1552
SOUTHERN CALIFORNIA Registry ID:: 110065182117	OAK CREEK ROAD AND H	AQ332 / 8	1560
AT&T CALIFORNIA - SA Registry ID:: 110066811178	2100 BELSHAW ST	AP341 / 8	1581
PACIFIC BELL TELEPHO Registry ID:: 110002949310	***2100 BELSHAW***	***AP342 / 8***	***1581***
WESTERN COUPLING Registry ID:: 110002902208	***1711 SABOVICH ST MOJ***	***AS345 / 8***	***1611***
ALPHA EXPLOSIVES Registry ID:: 110070521167	1683 SABOVICH STREET	AS346 / 8	1629
BAE SYSTEMS IESI Registry ID:: 110024543350	***1501 SABOVICH ST***	***AT349 / 8***	***1630***
BAE SYSTEMS Registry ID:: 110065046051	1501 SABOVICH ST BLD	AT352 / 8	1684
TSC LLC Registry ID:: 110070479529	***1223A SABOVICH ST BL***	***AU356 / 9***	***1700***
THE SPACESHIP COMPAN	1223A SABOVICH STREE	AU360 / 9	1722

Registry ID:: 110070521195			
TSCNA LLC Registry ID:: 110066273856	1223-A SABOVICH ST	AU365 / 9	1733
ALPHA EXPLOSIVES Registry ID:: 110070451068	***1682 SABOVICH ST***	***AS375 / 8***	***1774***
ALPHA DYNO NOBEL MOJ Registry ID:: 110063142843	1682 SABOVICH STREET	AS376 / 8	1774
MASTEN SPACE SYSTEMS Registry ID:: 110066044015	***1570 SABOVICH ST***	***AW381 / 8***	***1782***
UNITED PARCEL SERVIC Registry ID:: 110065821560	***1522 SABOVICH BLDG 1***	***AT386 / 8***	***1789***
THE ENERGY ENHANCEME Registry ID:: 110060284954	***1522 SABOVICH AVE***	***AT391 / 8***	***1800***
ASB AVIONICS Registry ID:: 110066762417	1032 SABOVICH 101	AV397 / 9	1814
INTERORBITAL Registry ID:: 110066044783	1394 BARNES	AY404 / 8	1828
WHITE'S SHELL STATIO Registry ID:: 110065094347	16074 SIERRA HWY	AZ405 / 8	1828
KCWMD - SPECIAL WAST Registry ID:: 110065757318	17035 FINNIN ST BLDG	AX414 / 9	1840
KERN COUNTY SPECIAL Registry ID:: 110020663628	17035 FINNIN STREET	AX415 / 9	1840
MOJAVE SHELL Registry ID:: 110066710250	16048 SIERRA HWY (HW	AZ418 / 8	1842
INYO CRUDE INC. Registry ID:: 110070521379	16048 SIERRA HIGHWAY	AZ420 / 8	1843
11873 RB6T Registry ID:: 110043349588	HWY 14 & SALTDALE RD	AZ425 / 8	1861
MOJAVE UNIFIED SCHOO Registry ID:: 110066593779	1834 INYO ST	BB436 / 8	1895
MOJAVE USD Registry ID:: 110070453911	***1834 INYO ST***	***BB437 / 8***	***1895***
SOUTHERN CALIFORNIA Registry ID:: 110065128481	1700 INYO ST	BC441 / 8	1901
NORTHROP GRUMMAN MOJ Registry ID:: 110024543305	16880 FLIGHT SYSTEMS	BD451 / 9	1999
AVTEL SERVICES INC. Registry ID:: 110002909096	***16880 AVTEL DRIVE***	***BD453 / 9***	***2003***
BAE SYSTEMSNA BLDG. Registry ID:: 110066172661	16880 FLIGHT SYSTEMS	BD456 / 9	2011
NORTHROP GRUMMAN COR Registry ID:: 110002884594	***1031 MOBLEY ST HANGA***	***BH466 / 9***	***2059***
WHALING, KIM Registry ID:: 110070512215	***15974 JEAN DR***	***BI469 / 8***	***2064***
RANDALL A KELLEY	***16852 ROPER RD***	***BK475 / 8***	***2073***

Registry ID:: 110070454930			
RANDALL KELLEY Registry ID:: 110065448581	16852 ROPER ST BLDG	BK480 / 8	2081
CARL'S JR #176 Registry ID:: 110070521232	15900 SIERRA HIGHWAY	BL483 / 8	2083
SOUTHERN PACIFIC - M Registry ID:: 110066674717	15887 SIERRA HWY N	BL494 / 8	2104
MOJAVE CS Registry ID:: 110066560947	15844 K	BN499 / 8	2109
MOJAVE PUD Registry ID:: 110016618542 Registry ID:: 110058262339	***15844 K ST***	***BN502 / 8***	***2116***
MOJAVE HIGH SCHOOL M Registry ID:: 110065626718	15732 O ST	BP508 / 8	2121
RAMOS STRONG Registry ID:: 110070521378	15800 SIERRA HIGHWAY	BQ516 / 8	2137
CHEVRON STATION NO 9 Registry ID:: 110012545451	***15800 SIERRA HWY***	***BQ517 / 8***	***2137***
CHEVRON #1095 Registry ID:: 110065141867	15800 SIERRA HWY	BQ524 / 8	2145
RSI CARDLOCK Registry ID:: 110066790253	15800 HIGHWAY 14 (S	BQ532 / 8	2170
RAMOS STRONG Registry ID:: 110070477592	15764 SIERRA HWY	BQ543 / 8	2187
UNOCAL #1247 Registry ID:: 110066649844	15764 SIERRA HWY	BQ550 / 8	2213
MOJAVE CHEVRON Registry ID:: 110066710152	15764 SIERRA HWY	BQ555 / 8	2217
DIFWIND FARMS LTD VI Registry ID:: 110028013094	OAK CREK ROAD	557 / 8	2219
INNOVATIVE COATINGS Registry ID:: 110002932738 Registry ID:: 110070328943 Registry ID:: 110070071515	***1347 POOLE STREET***	***BR562 / 9***	***2226***
PROGRESS RAIL SERVIC Registry ID:: 110070449176	***1695 KINNICUTT RD***	***BR585 / 9***	***2457***
PROGRESS RAIL SERVIC Registry ID:: 110002939893	***1695 KINNICUTT ROAD***	***BR588 / 9***	***2463***
FIBERSET, INC Registry ID:: 110065756863	***1046 POOLE ST***	***BT590 / 9***	***2476***
LOCATED 0.33 MILE NO Registry ID:: 110020822065	923 POOLE STREET	BV595 / 9	2480
MOJAVE MAKERS, A PUB Registry ID:: 110070459112	***16722 ROPER STREET***	***BW597 / 8***	***2481***
OASIS TRAVEL STOP Registry ID:: 110066215125	15700 SIERRA HWY	BS610 / 8	2502
SALMEX AUTO	15652 SIERRA HIGHWAY	CA623 / 8	2515

Registry ID:: 110065773354			
SALMEX AUTO REPAIR Registry ID:: 110070478586	***15651 SIERRA HWY STE***	***CA631 / 8***	***2553***
SCALED COMPOSITES, L Registry ID:: 110070295636	553 RICCOMINI ST.	CB635 / 9	2557
STRATOLAUNCH SYSTEMS Registry ID:: 110070430931	***553 RICCOMINI AVE***	***CB637 / 9***	***2560***
BAE SYSTEMS Registry ID:: 110024543369	***16921 AIRPORT BLVD***	***CC640 / 8***	***2577***
SCALED COMPOSITES LL Registry ID:: 110046230048	***555 RICCOMINI ST***	***642 / 9***	***2580***
CIRCLE K STORE #735 Registry ID:: 110006473663	***15510 K ST***	***CE643 / 8***	***2581***
FORMER CIRCLE K STOR Registry ID:: 110065666390	15510 K STREET	CE645 / 8	2592
FAMILY DOLLAR INC # Registry ID:: 110070412677	***2343 STATE HIGHWAY 5***	***CD654 / 8***	***2601***
MONITORING STATION Registry ID:: 110020820753	KERN CO FIRE DEPT.,	CI672 / 8	2681
RIO GRANDE SOLAR Registry ID:: 110057113724	13012 MEYER ROAD	CH675 / 8	2682
TEHACHAPI SPINDLE Registry ID:: 110057112351		676 / 8	2683
CALIFORNIA HIGHWAY P Registry ID:: 110070443594	***1365 STATE HIGHWAY 5***	***CL687 / 17***	***2714***
CALIF HWY PATROL-MOJ Registry ID:: 110066418683	1313 STATE HIGHWAY 5	CM691 / 17	2717
VERIZON WIRELESS MOJ Registry ID:: 110065984803	1426 STATE HIGHWAY 5	CO699 / 16	2745
DESERT TRUCK SERVICE Registry ID:: 110070448674	***1426 STATE HIGHWAY 5***	***CO701 / 16***	***2747***
MOJAVE MO-MART Registry ID:: 110065899781	15200 SIERRA HWY	CP707 / 16	2756
MOJAVE MOBIL Registry ID:: 110065378647	15190 SIERRA HWY	CQ713 / 16	2770
RISING TREE II WIND Registry ID:: 110070093717	***70TH STREET & OAK CR***	***CR721 / 14***	***2779***
RISING TREE I WIND F Registry ID:: 110070093659	***70TH STREET & OAK CR***	***CR722 / 14***	***2780***
WESTERN GROWTH PROPE Registry ID:: 110065638901	14501 HOLT ST	CT735 / 16	2816
MOJAVE ASPHALT TERMI Registry ID:: 110070430704	1873 PURDY ROAD	CU746 / 17	2864
MOJAVE TERMINAL Registry ID:: 110070504032	***1873 PURDY ROAD***	***CU747 / 17***	***2864***
ALON ASPHALT MOJAVE	***1873 PURDY ROAD***	***CU748 / 17***	***2865***

Registry ID:: 110070094541			
ALON ASPHALT COMPANY Registry ID:: 110069499386	1873 PURDY RD	CU749 / 17	2865
ALON ASPHALT COMPANY Registry ID:: 110070428400	***1873 PURDY RD***	***CU752 / 17***	***2866***
PARAMOUNT PETROLEUM Registry ID:: 110066467932	1873 PURDY RD	CU763 / 17	2880
TOSCO MOJAVE TERMINA Registry ID:: 110002914534	***1873 PURDY ROAD***	***CU764 / 17***	***2880***
TRICAL INC. Registry ID:: 110046524249	***1667 PURDY RD***	***CV769 / 17***	***2953***
TRICAL,INC. Registry ID:: 110070119094 Registry ID:: 110070270607	***1667 PURDY AVE***	***CW776 / 16***	***3043***
PARAMOUNT PETROLEUM Registry ID:: 110070521219	1873 PURDY AVENUE	CX784 / 16	3099

UXO: Unexploded Ordnance Sites

A review of the UXO list, as provided by EDR, and dated 12/31/2017 has revealed that there is 1 UXO site within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
FIELD CARRIER ROCKET		Y151 / 9	1038

ECHO: Enforcement & Compliance History Information

A review of the ECHO list, as provided by EDR, and dated 01/05/2020 has revealed that there are 67 ECHO sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
KEMIRA WATER SOLUTIO Registry ID: 110000729800	***18700 HWY 14 SOUTH***	***A16 / 2***	***551***
STATER BROS MARKETS Registry ID: 110065725040	***16920 HIGHWAY 14***	***I64 / 8***	***654***
U.S. HENDY OIL Registry ID: 110070412983	***16825 STATE HIGHWAY***	***J74 / 8***	***681***
TELEDYNE RYAN AERONA Registry ID: 110002847028	***17012 ROPER ST***	***P108 / 8***	***857***
THE STAKE MILL Registry ID: 110070470241	***2555 DOUGLAS AVE***	***Q111 / 8***	***864***
VESTAS AMERICAN WIND Registry ID: 110070321328	***16409 K ST***	***S135 / 8***	***913***
MOJAVE MOTORS DBA KI Registry ID: 110002847322	16400 SIERRA HWY	V140 / 8	1025
CHEVRON USA INC MOJA	***2481 OAK CREEK RD***	***X146 / 8***	***1032***

Registry ID: 110002943405			
RAMOS/STRONG INC Registry ID: 110066205298	2481 E DEAVER LN	X174 / 8	1063
ARCO AM/PM - V&K OIL Registry ID: 110070451137	***16300 SIERRA HWY***	***Z182 / 8***	***1095***
MOJAVE DEPARTMENT OF Registry ID: 110002785629	2211 NADEAU ST	AB213 / 8	1244
KERN COUNTY RDS DEPT Registry ID: 110002887172	***2200 NADEAU ST***	***AB225 / 8***	***1254***
OK AIRLINE SUPPORT I Registry ID: 110002847037	***1314 FLIGHTLINE BLDG***	***AE230 / 9***	***1266***
NORTHROP GRUMMAN (MO Registry ID: 110055439119	***1260 FLIGHT LINE, BL***	***AF231 / 9***	***1267***
LA DEPARTMENT WATER Registry ID: 110006482662	17031 SIERRA HWY	AD234 / 8	1275
AIR METHODS CORP DBA Registry ID: 110070470917	***1220 FLIGHT LINE***	***AF245 / 9***	***1334***
MOJAVE AIR AND SPACE Registry ID: 110070089107	***1434 FLIGHT LINE***	***AJ263 / 8***	***1377***
COMMERCIAL AIRCRAFT Registry ID: 110070480942	***1434 FLIGHT LINE***	***AJ273 / 8***	***1405***
BAE SYSTEMS FLIGHT S Registry ID: 110002698073	***1434 FLIGHT LINE BLD***	***AJ275 / 8***	***1408***
NORTHROP GRUMMIN COR Registry ID: 110070663409	1434 FLIGHT LINE	AJ279 / 8	1416
FREEWAY SMOG TEST & Registry ID: 110070538929	16158 K ST	AC290 / 8	1435
NORTHROP GRUMMAN MOJ Registry ID: 110045964408	1506 FLIGHT LINE ON	AK304 / 8	1453
KA FLEETONE INC Registry ID: 110070479564	***2471 NADEAU ST***	***AL307 / 8***	***1477***
PEPSI COLA BOTTLING Registry ID: 110002819415	***2471 NADEAU***	***AL311 / 8***	***1482***
SCALED COMPOSITES IN Registry ID: 110002651345	***1624 FLIGHT LINE, HA***	***AN323 / 8***	***1523***
PACIFIC BELL TELEPHO Registry ID: 110002949310	***2100 BELSHAW***	***AP342 / 8***	***1581***
WESTERN COUPLING Registry ID: 110002902208	***1711 SABOVICH ST MOJ***	***AS345 / 8***	***1611***
BAE SYSTEMS IESI Registry ID: 110024543350	***1501 SABOVICH ST***	***AT349 / 8***	***1630***
TSC LLC Registry ID: 110070479529	***1223A SABOVICH ST BL***	***AU356 / 9***	***1700***
ALPHA EXPLOSIVES Registry ID: 110070451068	***1682 SABOVICH ST***	***AS375 / 8***	***1774***
MASTEN SPACE SYSTEMS	***1570 SABOVICH ST***	***AW381 / 8***	***1782***

Registry ID: 110066044015			
UNITED PARCEL SERVIC Registry ID: 110065821560	***1522 SABOVICH BLDG 1***	***AT386 / 8***	***1789***
THE ENERGY ENHANCEME Registry ID: 110060284954	***1522 SABOVICH AVE***	***AT391 / 8***	***1800***
MOJAVE USD Registry ID: 110070453911	***1834 INYO ST***	***BB437 / 8***	***1895***
NORTHROP GRUMMAN MOJ Registry ID: 110024543305	***16880 FLIGHT SYSTEMS***	***BD450 / 9***	***1995***
AVTEL SERVICES INC. Registry ID: 110002909096	***16880 AVTEL DRIVE***	***BD453 / 9***	***2003***
NORTHROP GRUMMAN COR Registry ID: 110002884594	***1031 MOBLEY ST HANGA***	***BH466 / 9***	***2059***
WHALING, KIM Registry ID: 110070512215	***15974 JEAN DR***	***BI469 / 8***	***2064***
RANDALL A KELLEY Registry ID: 110070454930	***16852 ROPER RD***	***BK475 / 8***	***2073***
MOJAVE PUD Registry ID: 110058262339 Registry ID: 110016618542	***15844 K ST***	***BN502 / 8***	***2116***
CHEVRON STATION NO 9 Registry ID: 110012545451	***15800 SIERRA HWY***	***BQ517 / 8***	***2137***
MOJAVE CFN Registry ID: 110070590729	15800 SIERRA HWY	BQ523 / 8	2145
RAMOS/STRONG INC DBA Registry ID: 110070477592	15764 SIERRA HWY	BQ545 / 8	2190
INNOVATIVE COATINGS Registry ID: 110002932738	1347 POOLE STREET	BR558 / 9	2219
TONY'S WHEELS & TIRE Registry ID: 110070633382	15736 SIERRA HWY	BS576 / 8	2378
PROGRESS RAIL SERVIC Registry ID: 110070449176	***1695 KINNICUTT RD***	***BR585 / 9***	***2457***
PROGRESS RAIL SERVIC Registry ID: 110002939893	***1695 KINNICUTT ROAD***	***BR588 / 9***	***2463***
FIBERSET, INC Registry ID: 110065756863	***1046 POOLE ST***	***BT590 / 9***	***2476***
MOJAVE MAKERS, A PUB Registry ID: 110070459112	***16722 ROPER STREET***	***BW597 / 8***	***2481***
SALMEX AUTO REPAIR Registry ID: 110070478586	***15651 SIERRA HWY STE***	***CA631 / 8***	***2553***
STRATOLAUNCH SYSTEMS Registry ID: 110070430931	***553 RICCOMINI AVE***	***CB637 / 9***	***2560***
BAE SYSTEMS Registry ID: 110024543369	***16921 AIRPORT BLVD***	***CC640 / 8***	***2577***
SCALED COMPOSITES LL Registry ID: 110046230048	***555 RICCOMINI ST***	***642 / 9***	***2580***
CIRCLE K STORE #735	***15510 K ST***	***CE643 / 8***	***2581***

Registry ID: 110006473663			
FAMILY DOLLAR INC # Registry ID: 110070412677	***2343 STATE HIGHWAY 5***	***CD654 / 8***	***2601***
CALIFORNIA HIGHWAY P Registry ID: 110070443594	***1365 STATE HIGHWAY 5***	***CL687 / 17***	***2714***
DESERT TRUCK SERVICE Registry ID: 110070448674	***1426 STATE HIGHWAY 5***	***CO701 / 16***	***2747***
RISING TREE II WIND Registry ID: 110070093717	***70TH STREET & OAK CR***	***CR721 / 14***	***2779***
RISING TREE I WIND F Registry ID: 110070093659	***70TH STREET & OAK CR***	***CR722 / 14***	***2780***
MOJAVE TERMINAL Registry ID: 110070504032	***1873 PURDY ROAD***	***CU747 / 17***	***2864***
ALON ASPHALT MOJAVE Registry ID: 110070094541	***1873 PURDY ROAD***	***CU748 / 17***	***2865***
MOJAVE ASPHALT TERMI Registry ID: 110070430704	1873 PURDY ROAD	CU750 / 17	2865
ALON ASPHALT COMPANY Registry ID: 110070428400	***1873 PURDY RD***	***CU752 / 17***	***2866***
TOSCO MOJAVE TERMINA Registry ID: 110002914534	***1873 PURDY ROAD***	***CU764 / 17***	***2880***
WESTERN EMULSIONS IN	1673 PURDY RD	CV768 / 17	2953
TRICAL INC. Registry ID: 110046524249	***1667 PURDY RD***	***CV769 / 17***	***2953***
TRICAL,INC. Registry ID: 110070119094	***1667 PURDY AVE***	***CW776 / 16***	***3043***

Cortese: "Cortese" Hazardous Waste & Substances Sites List

A review of the Cortese list, as provided by EDR, and dated 12/18/2019 has revealed that there is 1 Cortese site within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
HEARTLAND TRUCK STOP Cleanup Status: OPEN - SITE ASSESSMENT	***2001 HWY 58***	***CH664 / 8***	***2642***

EMI: Emissions Inventory Data

A review of the EMI list, as provided by EDR, and dated 12/31/2017 has revealed that there are 26 EMI sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
LOS ANGELES DEPARTME Facility Id: 1047004	17031 HIGHWAY 14	F44 / 8	630
U.S. HENDY OIL Facility Id: 8097001	16825 STATE HIGHWAY	J70 / 8	679
THE STAKE MILL	16552 CHRISTINE STRE	M89 / 8	814

Facility Id: 393			
RAMOS STRONG Facility Id: 8736301	2481 DEAVER LANE	X175 / 8	1063
V&K OIL COMPANY Facility Id: 8085001	16300 SIERRA HIGHWAY	Z180 / 8	1094
KERN COUNTY ROADS Facility Id: 124008	2200 NADEAU STREET	AB222 / 8	1251
THE SPACESHIP COMPAN Facility Id: 459002	1570 FLIGHT LINE	AM320 / 8	1521
SCALED COMPOSITES Facility Id: 206	1624 FLIGHT LINE BUI	AN326 / 8	1545
PACIFIC BELL Facility Id: 281005	2100 BELSHAW AVENUE	AP340 / 8	1580
ALPHA EXPLOSIVES Facility Id: 6051005	1683 SABOVICH STREET	AS347 / 8	1629
BAE SYSTEMS Facility Id: 31	1501 SABOVICH STREET	AT348 / 8	1630
THE SPACESHIP COMPAN Facility Id: 459001	1223A SABOVICH STREE	AU358 / 9	1703
INYO CRUDE INC. Facility Id: 8649004	16048 SIERRA HIGHWAY	AZ422 / 8	1846
NORTHROP GRUMMAN SYS Facility Id: 125	16880 FLIGHT SYSTEMS	BD448 / 9	1955
CARL'S JR #176 Facility Id: 507	15900 SIERRA HIGHWAY	BL484 / 8	2083
RAMOS STRONG Facility Id: 8736304	15800 SIERRA HIGHWAY	BQ521 / 8	2143
RAMOS STRONG Facility Id: 8736010	15764 SIERRA HIGHWAY	BQ546 / 8	2190
INNOVATIVE COATINGS Facility Id: 225	1347 POOLE STREET	BR559 / 9	2219
INNOVATIVE COATINGS Facility Id: 225	1347 POOLE STREET	BR564 / 9	2268
PROGRESS RAIL SERVIC Facility Id: 36	1695 KINNICUTT STREE	BR584 / 9	2456
OASIS TRAVEL STOP Facility Id: 8975001	15700 SIERRA HIGHWAY	BS613 / 8	2504
MOJAVE MOBIL Facility Id: 8986001	15190 SIERRA HIGHWAY	CQ717 / 16	2775
PG&E PIPELINE Facility Id: 4002	HOLT STREET & BIG IN	730 / 16	2808
PINYON PINES WIND I Facility Id: 478	5001 CAMELOT BLVD.	743 / 15	2829
TRICAL, INC Facility Id: 601	1667 PURDY AVENUE	CW774 / 16	3034
PARAMOUNT PETROLEUM	1873 PURDY AVENUE	CX785 / 16	3099

EXECUTIVE SUMMARY

Facility Id: 4003

ENF: Enforcement Action Listing

A review of the ENF list, as provided by EDR, and dated 04/03/2020 has revealed that there is 1 ENF site within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
MOJAVE STP Status: Historical Status: Active Facility Id: 241188	***SE OF MOJAVE***	***744 / 17***	***2830***

HAZNET: Facility and Manifest Data

A review of the HAZNET list, as provided by EDR, and dated 12/31/2017 has revealed that there are 135 HAZNET sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
KEMIRA WATER SOLUTIO GEPAID: CAD982447088	***18700 HIGHWAY 14***	***A11 / 2***	***440***
RYDER TRANSPORTATION GEPAID: CAL000181705	***18700 HWY 14 NORTH***	***F49 / 8***	***642***
OASIS GAS STATION GEPAID: CAC001274768	***16900 HWY 14***	***G58 / 8***	***648***
STATER BROS MARKETS GEPAID: CAL000340465	***16920 HIGHWAY 14***	***I65 / 8***	***655***
LA DEPARTMENT WATER GEPAID: CAD983613340	***17031 SIERRA HWY***	***K81 / 8***	***688***
BUDGET MOTEL GEPAID: CAC002846690	***16698 SIERRA HWY***	***85 / 8***	***811***
GIANT TRUCK STOPS MO GEPAID: CAD982327256	***16600 SIERRA HIGHWAY***	***O101 / 8***	***842***
1X CALVERT CO GEPAID: CAC000048017	***16600 SIERRA HWY***	***O102 / 8***	***853***
TELEDYNE RYAN AERONA GEPAID: CAD983586272	***17012 ROPER ST***	***P108 / 8***	***857***
UNOCAL SERVICE STATI GEPAID: CAL000046395	***16451 SIERRA HIGHWAY***	***R115 / 8***	***867***
GRANITE CONSTRUCTION GEPAID: CAL000308579	***2001 BELSHAW ST***	***T128 / 8***	***883***
VESTAS AMERICAN WIND GEPAID: CAL000376831	***16409 K ST***	***S134 / 8***	***889***
MEILYS TIRE & ALIGNM GEPAID: CAL000010226	***16396 K ST***	***136 / 8***	***913***
MOJAVE MOTORS DBA KI	***16400 SIERRA HWY***	***V139 / 8***	***916***

GEPAID: CAD983586793			
CASA DE GASA GEPAID: CAC002551122	***16355 SIERRA HWY***	***W156 / 8***	***1042***
1X CASA DE GASA GEPAID: CAC000044651	***16355 SIERRA HWY***	***W163 / 8***	***1048***
RAMOS/STRONG INC GEPAID: CAL000176369	***2481 DEAVER LN***	***X176 / 8***	***1064***
ARCO PRODUCTS COMPAN GEPAID: CAL000039508	***16300 SIERRA HWY***	***Z191 / 8***	***1101***
ARCO 82752 GEPAID: CAL000244347	***16300 SIERRA HWY***	***Z192 / 8***	***1104***
MOJAVE DEPARTMENT OF GEPAID: CAD982040842	***2211 NADEAU ST***	***AB203 / 8***	***1136***
MOJAVE ELKS LODGE GEPAID: CAC001315144	***16200 K ST***	***AC216 / 8***	***1246***
KERN COUNTY RDS DEPT GEPAID: CAD983652173	***2200 NADEAU ST***	***AB223 / 8***	***1251***
1X ALL SHINE INC GEPAID: CAC000546208	***16200 SIERRA HWY***	***AD227 / 8***	***1262***
XCOR AEROSPACE INCOR GEPAID: CAL000366026	***1314 FLIGHT LINE***	***AE228 / 9***	***1263***
NORTHROP GRUMMAN MOJ GEPAID: CAR000237834	***1260 FLIGHT LINE BLD***	***AF233 / 9***	***1271***
FLIGHT RESEARCH INC GEPAID: CA0000069849	***1062 FLIGHT LINE HAN***	***AH239 / 9***	***1277***
AIR METHODS CORP DBA GEPAID: CAL000348692	***1220 FLIGHT LINE***	***AF243 / 9***	***1323***
A GUNAWAN WAIDISONG GEPAID: CAC002206513	***16201 SIERRA HWY***	***AD249 / 8***	***1341***
AVIATION WAREHOUSE I GEPAID: CAC002623427	***1434 FLIGHT LINE***	***AJ258 / 8***	***1353***
THE UNITED STATES AR GEPAID: CAC002640895	***1434 FLIGHT LINE***	***AJ259 / 8***	***1354***
AUTEL SERVICES INC GEPAID: CAL000038424	***1434 FLIGHT LINE***	***AJ260 / 8***	***1356***
MOJAVE AIR AND SPACE GEPAID: CAL000278601	***1434 FLIGHT LINE***	***AJ269 / 8***	***1384***
EAST KERN AIRPORT DI GEPAID: CAL000270451	***1434 FLIGHTLINE BLDG***	***AJ270 / 8***	***1396***
GENERAL RAILWAY SERV GEPAID: CAP601252386	***1434 FLIGHT LINE BLD***	***AJ272 / 8***	***1402***
EAST KERN AIRPORT DI GEPAID: CAC000877784	***1434 FLIGHT LINE***	***AJ276 / 8***	***1411***
MOJAVE AUTO REPAIR & GEPAID: CAL000334398	***16158 K ST***	***AC288 / 8***	***1432***
DON'S OIL CHANGERS	***16158 K ST***	***AC289 / 8***	***1434***

GEPAID: CAL000231353			
DONS OIL CHANGERS GEPAID: CAL000146748	***16158 K ST***	***AC291 / 8***	***1436***
ANTELOPE VALLEY GENE GEPAID: CAL000310054	***1504 FLIGHT LINE BLD***	***AK298 / 8***	***1441***
BAE SYSTEMS-IESI GEPAID: CAL000304391	***1506 FLIGHT LINE BLD***	***AK301 / 8***	***1444***
CALSPAN BICYCLE WORK GEPAID: CAL000339314	***1506 FLIGHT LINE BLD***	***AK302 / 8***	***1451***
NORTHRUP GRUMMAN MOJ GEPAID: CAR000171868	***1506 FLIGHT LINE ON***	***AK306 / 8***	***1457***
KELLEY FLEET SERVICE GEPAID: CAL000259789	***2471 NADEAU ST***	***AL308 / 8***	***1477***
PEPSI COLA BOTTLING GEPAID: CAD982469900	***2471 NADEAU ST***	***AL316 / 8***	***1491***
NEWBERN TRANSPORTATI GEPAID: CAL000209325	***2471 NADEAU***	***AL317 / 8***	***1518***
SCALED COMPOSITES LL GEPAID: CAD057731812	1624 FLIGHT LINE BLD	AN324 / 8	1524
SCALED COMPOSITES, L GEPAID: CAD057731812	***1624 FLIGHTLINE***	***AN325 / 8***	***1530***
UNITED STATES POSTAL GEPAID: CAC002621579	***2053 BELSHAW ST***	***AP330 / 8***	***1553***
US POSTAL SERVICE/MO GEPAID: CAC002556333	***2053 BELSHAW ST***	***AP331 / 8***	***1559***
SOUTHERN CALIFORNIA GEPAID: CAC002831616	***CORNER OF HOLT ST. A***	***AQ333 / 8***	***1561***
SOUTHERN CALIFORNIA GEPAID: CAC002801508	***CORNER OF HOLT ST. A***	***AQ335 / 8***	***1565***
PACIFIC BELL TELEPHO GEPAID: CAT080020472	***2100 BELSHAW ST***	***AP343 / 8***	***1585***
MOJAVE HOTEL INVESTM GEPAID: CAC002603940	***16100 SIERRA HWY***	***344 / 8***	***1609***
WESTERN COUPLING GEPAID: CAD983672312	***1711 SABOVICH ST MOJ***	***AS345 / 8***	***1611***
BAE SYSTEMS MOJAVE O GEPAID: CAR000171876	***1501 SABOVICH ST BLD***	***AT351 / 8***	***1637***
BAE SYSTEMS-IESI GEPAID: CAL000304393	***1501 SABOVICH ST BLD***	***AT353 / 8***	***1685***
TSC LLC GEPAID: CAC002672860	***1223A SABOVICH ST BL***	***AU359 / 9***	***1704***
TSC LLC GEPAID: CAL000367375	***1223A SABOVICH ST BL***	***AU361 / 9***	***1722***
RENEWABLE MANAGEMENT GEPAID: CAC002578736	***1011 SABOVICH ST***	***AV363 / 9***	***1731***
ALPHA DYNO NOBEL	***1824 SABOVICH ST, ST***	***367 / 8***	***1734***

GEPAID: CAL000153155			
BAE SYSTEMS INC GEPAID: CAC002621369	***1718 SABOVICH ST***	***AS368 / 8***	***1738***
ALPHA EXPLOSIVES GEPAID: CAL000222305	***1682 SABOVICH ST***	***AS369 / 8***	***1740***
THE BOEING CO. GEPAID: CAC002845453	***1682 SABOVICH ST***	***AS372 / 8***	***1766***
THE ENERGY ENHANCEME GEPAID: CAP000222869	***1522 SABOVICH ST***	***AT382 / 8***	***1782***
UNITED PARCEL SERVIC GEPAID: CAL000024046	***1522 SABOVICH ST***	***AT385 / 8***	***1787***
THE ENERGY ENCHANCEM GEPAID: CAR000247502	***1522 SABOVICH ST***	***AT389 / 8***	***1792***
DERRINGER AIRCRAFT C GEPAID: CAC001406664	***1246 SABOVICH***	***AR396 / 9***	***1809***
1X WHITE, JOHN GEPAID: CAC000519448	***16074 SIERRA HWY***	***AZ406 / 8***	***1828***
1X WHITES SHELL STAT GEPAID: CAC000945560	***16074 SIERRA HWY***	***AZ413 / 8***	***1838***
CHARLES MORRIS GEPAID: CAC001375336	***15925 Q ST***	***BA416 / 8***	***1840***
MOJAVE UNIFIED SCHOO GEPAID: CAC001167368	***1834 INYO ST***	***BB430 / 8***	***1867***
MOJAVE USD GEPAID: CAL000214378	***1834 INYO ST***	***BB431 / 8***	***1874***
MOJAVE UNIFIED SCHOO GEPAID: CAC000962856	***1834 INYO ST***	***BB434 / 8***	***1891***
1X MOJAVE U.S.D. GEPAID: CAC000107797	***1834 INYO***	***BB435 / 8***	***1894***
SOUTHERN CALIFORNIA GEPAID: CAL000175095	***1900 INYO ST***	***442 / 8***	***1901***
AVTEL SVCS INC GEPAID: CAR000007138	***16880 AVTEL DR HANGA***	***BD445 / 9***	***1912***
SOUTHERN CALIFORNIA GEPAID: CAC002833917	***16880 FLIGHT SYSTEMS***	***BD446 / 9***	***1953***
NORTHROP GRUMMAN MOJ GEPAID: CAR000171801	***16880 FLIGHT SYSTEMS***	***BD449 / 9***	***1956***
BAE SYSTEMS-IESI GEPAID: CAL000304390	***16880 FLIGHT SYSTEMS***	***BD454 / 9***	***2003***
ROBERT & JUDY SAUNDE GEPAID: CAC002758108	***3175 JEAN DR***	***459 / 8***	***2019***
FLIGHT TEST ASSOCIAT GEPAID: CAL000276313	***1031 MOBLEY HANGAR 1***	***BH464 / 9***	***2027***
NORTHROP GRUMMAN COR GEPAID: CAD983648304	***1031 MOBLEY ST, HANG***	***BH465 / 9***	***2046***
KERN COUNTY REGIONAL	***15926 SOUTH K ST***	***BJ471 / 8***	***2066***

GEPAID: CAC001266000			
KTM OF MOJAVE GEPAID: CAL000267238	***15938 SIERRA HWY***	***BF474 / 8***	***2069***
RANDALL A KELLEY GEPAID: CAL000274066	***16852 ROPER RD***	***BK479 / 8***	***2078***
DONNA LOPEZ GEPAID: CAC002765844	***15938 REXROTH ST***	***482 / 8***	***2082***
MOJAVE USD GEPAID: CAC002606469	***15800 O ST***	***BM488 / 8***	***2096***
MOJAVE USD - MOJAVE GEPAID: CAC002642552	***15800 O ST***	***BM489 / 8***	***2097***
1X SOUTHERN PACIFIC GEPAID: CAC000067773	***15887 NO SIERRA HWY***	***BL493 / 8***	***2103***
1X MOJAVE PUBLIC UTI GEPAID: CAC000667488	***15844 K ST***	***BN503 / 8***	***2116***
UNION PACIFIC RAILRO GEPAID: CAC002715417	***15780 I ST.***	***BO506 / 8***	***2118***
MAJAVE HIGH SCHOOL GEPAID: CAC000935608	***15732 O ST.***	***BP510 / 8***	***2125***
MOJAVE UNIFIED SCHOO GEPAID: CAC002642836	***15732 O ST***	***BP511 / 8***	***2127***
MOJAVE HIGH SCHOOL GEPAID: CAC001050320	***15732 O STREET***	***BP512 / 8***	***2129***
MOJAVE UNIFIED SCHOO GEPAID: CAC002618714	***15732 O ST***	***BP513 / 8***	***2131***
CHEVRON 91095 GEPAID: CAL000049828	***15800 SIERRA WAYOUNT***	***BQ514 / 8***	***2133***
CHEVRON STATION #910 GEPAID: CAR000117127	***15800 SIERRA HWY***	***BQ515 / 8***	***2135***
1X CHEVERON CORP GEPAID: CAC000589312	***15800 SIERRA HWY***	***BQ527 / 8***	***2147***
BANK OF AMERICA GEPAID: CAC001246256	***15773 K ST***	***536 / 8***	***2176***
CONOCO PHILLIPS #251 GEPAID: CAL000278207	***15764 SIERRA HWY***	***BQ537 / 8***	***2178***
TOSCO CORPORATION ST GEPAID: CAL000176086	***15764 SIERRA HWY***	***BQ548 / 8***	***2192***
UNOCAL SERVICE STATI GEPAID: CAL000046386	***15764 SIERRA HIGHWAY***	***BQ549 / 8***	***2194***
INCOTEC GEPAID: CAC002275217	***1347 POOLE STREET***	***BR560 / 9***	***2222***
INCOTEC CORPORATION GEPAID: CAR000065748	***1347 POOLE STREET***	***BR569 / 9***	***2284***
INCOTEC GEPAID: CAL000060559	***1347 POOLE ST BLDG 1***	***BR573 / 9***	***2368***
CENTURY PREMIUM CAR	***15736 SIERRA HWY***	***BS577 / 8***	***2378***

GEPAID: CAL000181325			
PROGRESS RAIL SERVIC GEPAID: CAL000172032	***1695 KINNICUTT RD***	***BR583 / 9***	***2387***
RAILX WEST GEPAID: CAL000129766	***1695 KINNICUTT ROAD***	***BR586 / 9***	***2457***
PROGRESS RAIL SVCS * GEPAID: CAR000077339	***1695 KINNICUTT RD***	***BR589 / 9***	***2465***
SHAHRIAR NAZARI GEPAID: CAC001178040	***2337 SHASTA ST***	***BS600 / 8***	***2483***
SHAN'S TEXACO GEPAID: CAC001368648	***15700 SERRIA HWY***	***BS605 / 8***	***2496***
EXPRESS MART SERVICE GEPAID: CAL000271807	***15700 SIERRA HWY***	***BS608 / 8***	***2499***
SHAN TEXACO GEPAID: CAL000194537	***15700 SIERRA HWY***	***BS614 / 8***	***2505***
MSD = JOHNSON MIDDLE GEPAID: CAC001134552	***3200 PAT AVE***	***BX615 / 8***	***2506***
MSD/ JOHNSON MIDDLE GEPAID: CAC001167376	***3200 PAT AVE***	***BX616 / 8***	***2508***
HIGH DESERT FABRICAT GEPAID: CAC002597576	***1646 KINNICUTT ST BL***	***BZ622 / 8***	***2513***
ANDERSON AUTO REPAIR GEPAID: CAL000148855	***15652 SIERRA HWY***	***CA625 / 8***	***2520***
SCALED COMPOSITES LL GEPAID: CAR000225714	***555 RICCOMINI ST***	***628 / 9***	***2522***
BAE SYSTEMS MOJAVE O GEPAID: CAR000171884	***16927 AIRPORT BLVD B***	***CC638 / 8***	***2560***
CIRCLE K STORES INC. GEPAID: CAD981679632	***15510 K ST***	***CE644 / 8***	***2590***
FAMILY DOLLAR INC # GEPAID: CAL000390072	***2343 STATE HIGHWAY 5***	***CD656 / 8***	***2603***
HEARTLAND TRUCK STOP GEPAID: CAC002138801	***2001 HWY 58***	***CH664 / 8***	***2642***
MOJAVE MAIN COURT, J GEPAID: CAC002864217	***1773 STATE HIGHWAY 5***	***CJ679 / 16***	***2686***
BOB GRAY'S AUTOWRECK GEPAID: CAL000212498	***1634 STATE HIGHWAY 5***	***CK682 / 16***	***2691***
CALIFORNIA HIGHWAY P GEPAID: CAL000060706	***1365 STATE HIGHWAY 5***	***CL684 / 17***	***2692***
DESERT TRUCK SERVICE GEPAID: CAL000167690	***1426 STATE HIGHWAY 5***	***CO698 / 16***	***2728***
MOJAVE MOBIL GEPAID: CAC002924682	***15190 SIERRA HWY.***	***CQ715 / 16***	***2772***
MOJAVE MOBIL GEPAID: CAC002723473	***15190 SIERRA HWY***	***CQ716 / 16***	***2774***
PG&E	***14675 HOLT STREET***	***CS731 / 16***	***2809***

GEPAID: CAC002924802			
REVERE EXTRUDERS, IN GEPAID: CAD056430945	***14501 HOLT ST***	***CT739 / 16***	***2823***
GRANITE CONSTRUCTION GEPAID: CAC002735035	***HOLT AND CAMELOT***	***CT742 / 16***	***2826***
ALON ASPHALT COMPANY GEPAID: CAC002874743	***1873 PURDY RD***	***CU755 / 17***	***2869***
TOSCO MOJAVE TERMINA GEPAID: CAR000015800	***1873 PURDY RD***	***CU758 / 17***	***2877***
TRICAL INC GEPAID: CAL000339810	***1667 PURDY RD***	***CV771 / 17***	***2966***
ARYSTA LIFESCIENCE N GEPAID: CAR000200717	***1667 PURDY AVE***	***CW779 / 16***	***3047***

HIST CORTESE: Hazardous Waste & Substance Site List

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 14 HIST CORTESE sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
LADWP MOJAVE Reg Id: 6B1500075T Reg Id: 6B1500326T	***17031 SIERRA HWY***	***E38 / 8***	***615***
GIANT TRUCK STOP Reg Id: 6B1500307T	***16600 SIERRA HWY***	***N93 / 8***	***816***
UNOCAL #4311 Reg Id: 6B1500100T	***16451 SIERRA HWY N***	***R121 / 8***	***875***
ARCO #5096 Reg Id: 6B1500238T	***16271 SIERRA HWY N***	***AA197 / 8***	***1131***
CALTRANS MOJAVE Reg Id: 6B1500621T	***2211 NADEAU ST***	***AB205 / 8***	***1228***
PEPSI COLA BOTTLING Reg Id: 6B1500512T	***2471 NADEAU***	***AL311 / 8***	***1482***
WHITE'S SHELL Reg Id: 6B1500262T Reg Id: 5T15000845	***16074 SIERRA***	***AZ412 / 8***	***1837***
SOUTHERN PACIFIC - M Reg Id: 6B1500122T	***15887 SIERRA HWY N***	***BL496 / 8***	***2105***
CHEVRON #1095 Reg Id: 5T15000422 Reg Id: 6B1500300T	***15800 SIERRA HWY***	***BQ528 / 8***	***2148***
UNOCAL #1247 Reg Id: 6B1500793T Reg Id: 5T15000799	***15764 SIERRA HWY***	***BQ542 / 8***	***2184***
CIRCLE K STORE #735 Reg Id: 6B1500077T Reg Id: 6B1500885T	***15510 K ST***	***CE643 / 8***	***2581***

Reg Id: 6B1500875T			
MOJAVE MO-MART Reg Id: 6B1500261T	***15200 SIERRA HWY***	***CP706 / 16***	***2753***
ANGELS TRUCK STOP Reg Id: 6B1500024T	***2001 58***	***720 / 17***	***2778***
UNKNOWN Reg Id: 6B1500966T	14501 HOLT ST	CT738 / 16	2823

MINES: Mines Site Location Listing

A review of the MINES list, as provided by EDR, and dated 12/09/2019 has revealed that there are 3 MINES sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
MOJAVE PIT		C29 / 9	604
MOJAVE AGGREGATE PIT	P.O. BOX 31089	86 / 9	812
MOJAVE PIT		104 / 9	854

NPDES: NPDES Permits Listing

A review of the NPDES list, as provided by EDR, and dated 02/10/2020 has revealed that there are 24 NPDES sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
MOJAVE YARD EMERGENC Facility Status: Active	***17031 HIGHWAY 14***	***F40 / 8***	***620***
PEDESTRIAN PATH IMPR Facility Status: Terminated	***STATE ROUTE 14***	***83 / 8***	***800***
18156 MOJAVE TRANSIT Facility Status: Active	16320 K STREET	167 / 8	1051
MOJAVE AIR AND SPACE Facility Status: Active	***1434 FLIGHT LINE***	***AJ269 / 8***	***1384***
MOJAVE AIR AND SPACE Facility Status: Active	***1434 FLIGHT LINE ROA***	***AJ274 / 8***	***1405***
TEST SITE 19 LEASE A	1624 FLIGHT LINE ROA	AN321 / 8	1522
UPS	***1522 SABOVICH ST***	***AT390 / 8***	***1795***
K STREET INTERSECTIO Facility Status: Terminated	***15999 K STREET***	***BE457 / 8***	***2012***
PARK PALACE 2 APARTM	***16197 H ST***	***462 / 8***	***2021***
17018 PED PATH IMPRO Facility Status: Terminated	***VARIOUS STREETS***	***485 / 8***	***2084***
STREET LIGHT IMPROVE Facility Status: Terminated	***K STREET***	***486 / 8***	***2088***
INCOTEC CORPORATION Facility Status: Active	***1347 POOLE STREET***	***BR569 / 9***	***2284***
STRATOLAUNCH	RICCOMINI AVE & LOME	CB633 / 9	2554
BOB GRAY S AUTO&TRUC	***1634 STATE HIGHWAY 5***	***CK681 / 16***	***2688***
RISING TREE II WIND	***70TH STREET & OAK CR***	***CR723 / 14***	***2780***

Facility Status: Active			
RISING TREE III WIND	***70TH STREET & OAK CR***	***CR724 / 14***	***2788***
Facility Status: Active			
VOYAGER WIND I LLC	***OAK CREEK ROAD AND 7***	***CR725 / 14***	***2795***
Facility Status: Active			
TEHACHAPI ENERGY STO	***OAK CREEK ROAD AND 7***	***CR726 / 14***	***2797***
Facility Status: Active			
RISING TREE I WIND F	***70TH STREET & OAK CR***	***CR727 / 14***	***2799***
Facility Status: Active			
MOJAVE TERMINAL	***1873 PURDY ROAD***	***CU756 / 17***	***2871***
Facility Status: Active			
TOSCO MOJAVE TERMINA	***1873 PURDY ROAD***	***CU764 / 17***	***2880***
Facility Status: Terminated			
NIKLOR CHEMICAL CO I	***1667 PURDY RD***	***CV770 / 17***	***2957***
ARYSTA LIFESCIENCE N	***1667 PURDY AVE***	***CW779 / 16***	***3047***
Facility Status: Active			
MOJAVE ASPHALT TERMI	***1673 PURDY AVE***	***CW783 / 16***	***3097***
Facility Status: Active			

PEST LIC: Pesticide Regulation Licenses Listing

A review of the PEST LIC list, as provided by EDR, and dated 12/03/2019 has revealed that there are 2 PEST LIC sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
DAN DENNING	17031 HWY 14	F45 / 8	630
BEE B COY JR	15844 K ST	BN497 / 8	2108

WDS: Waste Discharge System

A review of the WDS list, as provided by EDR, and dated 06/19/2007 has revealed that there are 4 WDS sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
MARINE CORPS AIR STA	***1434 FLIGHTLINE***	***AJ284 / 8***	***1419***
Facility Status: A			
Facility Id: 6B15I002831			
UPS	***1522 SABOVICH ST***	***AT390 / 8***	***1795***
Facility Status: A			
Facility Id: 6B15I002093			
MOJAVE STP	***SE OF MOJAVE***	***744 / 17***	***2830***
Facility Status: A			
Facility Id: 6B150111001			
NIKLOR CHEMICAL CO I	***1667 PURDY RD***	***CV770 / 17***	***2957***
Facility Status: A			
Facility Id: 6B15I019131			

EXECUTIVE SUMMARY

WDR: Waste Discharge Requirements Listing

A review of the WDR list, as provided by EDR, and dated 12/09/2019 has revealed that there is 1 WDR site within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
MOJAVE STP	***SE OF MOJAVE***	***744 / 17***	***2830***

CIWQS: California Integrated Water Quality System

A review of the CIWQS list, as provided by EDR, and dated 12/03/2019 has revealed that there are 32 CIWQS sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
MOJAVE YARD EMERGENC	***17031 HIGHWAY 14***	***F40 / 8***	***620***
PEDESTRIAN PATH IMPR	***STATE ROUTE 14***	***83 / 8***	***800***
MOJAVE DRAINAGE IMPR	NUMEROUS LOCATIONS	129 / 8	885
MOJAVE AIR AND SPACE	***1434 FLIGHT LINE***	***AJ269 / 8***	***1384***
MOJAVE AIR AND SPACE	***1434 FLIGHT LINE ROA***	***AJ274 / 8***	***1405***
UPS	***1522 SABOVICH ST***	***AT390 / 8***	***1795***
TSC FAITH HANGAR	16555 SPACESHIP LAND	AV401 / 9	1819
K STREET INTERSECTIO	***15999 K STREET***	***BE457 / 8***	***2012***
PARK PALACE 2 APARTM	***16197 H ST***	***462 / 8***	***2021***
17018 PED PATH IMPRO	***VARIOUS STREETS***	***485 / 8***	***2084***
STREET LIGHT IMPROVE	***K STREET***	***486 / 8***	***2088***
MOJAVE CS	15844 K STREET	BN498 / 8	2108
INCOTEC CORPORATION	1347 POOLE STREET	BR570 / 9	2363
SCALED COMPOSITES LL	***555 RICCOMINI ST***	***628 / 9***	***2522***
BOB GRAY S AUTO&TRUC	***1634 STATE HIGHWAY 5***	***CK681 / 16***	***2688***
CALIFORNIA HIGHWAY P	***1365 HIGHWAY 58***	***CL686 / 17***	***2713***
MOJAVE RETENTION BAS	MYERS ST AND VICTOR	CN694 / 16	2722
RE CLEARWATER LLC	15200 HOLT STREET	696 / 16	2724
RE YAKIMA LLC	15074 HOLT STREET	719 / 16	2777
RISING TREE II WIND	***70TH STREET & OAK CR***	***CR723 / 14***	***2780***
RISING TREE III WIND	***70TH STREET & OAK CR***	***CR724 / 14***	***2788***
VOYAGER WIND I LLC	***OAK CREEK ROAD AND 7***	***CR725 / 14***	***2795***
TEHACHAPI ENERGY STO	***OAK CREEK ROAD AND 7***	***CR726 / 14***	***2797***
RISING TREE I WIND F	***70TH STREET & OAK CR***	***CR727 / 14***	***2799***
SCE EKWRA WORK PACKA	LUP	728 / 13	2806
MOJAVE STP	***SE OF MOJAVE***	***744 / 17***	***2830***
MOJAVE TERMINAL	1873 PURDY ROAD	CU754 / 17	2868
TOSCO MOJAVE TERMINA	***1873 PURDY ROAD***	***CU764 / 17***	***2880***
NIKLOR CHEMICAL CO I	***1667 PURDY RD***	***CV770 / 17***	***2957***
TERMINAL STORAGE FAC	***1667 PURDY AVE***	***CW773 / 16***	***3024***
ARYSTA LIFESCIENCE N	***1667 PURDY AVE***	***CW779 / 16***	***3047***
MOJAVE ASPHALT TERMI	***1673 PURDY AVE***	***CW783 / 16***	***3097***

CERS: CERS

A review of the CERS list, as provided by EDR, and dated 01/21/2020 has revealed that there are 103 CERS sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
KEMIRA WATER SOLUTIO	***18700 N HIGHWAY 14***	***A8 / 2***	***429***
KEMIRA WATER SOLUTIO	18700 HWY 14 N	A9 / 2	438

EXECUTIVE SUMMARY

Site	Address	Map ID / Focus Map(s)	Page
KEMIRON PACIFIC INC	18700 HIGHWAY 14 NOR	A10 / 2	439
VIRGIN ORBIT, LLC	***1223-A SABOVICH ST***	***31 / 9***	***605***
LADWP MOJAVE	***17031 SIERRA HWY***	***E38 / 8***	***615***
MOJAVE YARD EMERGENC	***17031 HIGHWAY 14***	***F40 / 8***	***620***
MOJAVE YARD	***17031 HIGHWAY 14***	***F47 / 8***	***631***
STATER BROS. MARKETS	***16920 HIGHWAY 14***	***I66 / 8***	***657***
US HENDY OIL, INC	***16825 HIGHWAY 14***	***J68 / 8***	***662***
MONITORING STATION	AIRPORT-BLDG 58	L80 / 9	688
COMMERCIAL AIRCRAFT	***MOJAVE AIRPORT BONEY***	***84 / 9***	***805***
AT&T	***PO BOX 970***	***87 / 8***	***812***
GIANT TRUCK STOP	***16600 SIERRA HWY***	***N93 / 8***	***816***
UNOCAL #4311	***16451 SIERRA HWY N***	***R121 / 8***	***875***
MOJAVE	UNKNOWN	U130 / 9	885
VESTAS AMERICAN WIND	***16409 K ST***	***S133 / 8***	***887***
MOJAVE MOTORS DBA KI	***16400 SIERRA HWY***	***V139 / 8***	***916***
FORMER MARINE CORPS	***MOJAVE AIRPORT***	***145 / 9***	***1030***
CASA DE GASA	***16355 SIERRA HWY***	***W156 / 8***	***1042***
RAMOS/STRONG INC	***2481 E DEAVER LN***	***X170 / 8***	***1054***
ARCO FACILITY NO. 05	***16300 SIERRA HWY***	***Z178 / 8***	***1092***
ARCO 82752	***16300 SIERRA HWY***	***Z192 / 8***	***1104***
ARCO #5096	***16271 SIERRA HWY N***	***AA197 / 8***	***1131***
MARINE CORPS AIR STA	1434 FLIGHTLINE	202 / 9	1136
CALTRANS MOJAVE	***2211 NADEAU ST***	***AB205 / 8***	***1228***
MOJAVE ROAD YARD	***2200 NADEAU ST***	***AB226 / 8***	***1256***
MERCY AIR SERVICE, I	***1220 FLIGHTLINE DR***	***AF246 / 9***	***1334***
STEVES ROUGH RIDERS	***16201 SIERRA HWY***	***AD250 / 8***	***1343***
HALL AMBULANCE SERVI	1901B BELSHAW ST	AI256 / 8	1349
WHITTINGHILL AEROSPA	***1434 FLIGHT LINE TES***	***AJ267 / 8***	***1380***
MOJAVE AIR AND SPACE	***1434 FLIGHT LINE***	***AJ269 / 8***	***1384***
MOJAVE AIR AND SPACE	***1434 FLIGHT LINE ROA***	***AJ274 / 8***	***1405***
MOJAVE AIR AND SPACE	***1434 FLIGHTLINE (BLD***	***286 / 8***	***1425***
PEPSI COLA BOTTLING	***2471 NADEAU***	***AL311 / 8***	***1482***
ORBITAL SCIENCES COR	***17143 FLIGHT SYSTEMS***	***AO328 / 9***	***1549***
SCE GOLDTOWN SUBSTAT	OAK CREEK ROAD AND H	AQ334 / 8	1563
FLIGHT RESEARCH INC	***1062 FLIGHTLINE ST H***	***337 / 9***	***1569***
TSC, LLC	***1223-A SABOVICH ST***	***AR339 / 9***	***1577***
PACIFIC BELL TELEPHO	***2100 BELSHAW ST***	***AP343 / 8***	***1585***
BAE SYSTEMS - BLDG 6	***1501 SABOVICH ST BLD***	***AT354 / 8***	***1692***
BAE SYSTEMS IESI INC	1501 SABOVICH STREET	AT355 / 8	1699
ALPHA DYNO NOBEL	***1682 SABOVICH ST 30***	***AS374 / 8***	***1767***
MASTEN SPACE SYSTEMS	***1570 SABOVICH ST***	***AW380 / 8***	***1777***
UPS - MOJAVE	***1522 SABOVICH BLDG 1***	***AT393 / 8***	***1802***
ASB AVIONICS	***1032 SABOVICH 101***	***AV398 / 9***	***1815***
KCWMD - SPECIAL WAST	***17035 FINNIN ST BLDG***	***AX402 / 9***	***1820***
INTERORBITAL	1394 BARNES	AY403 / 8	1823
WHITE'S SHELL STATIO	***16074 SIERRA HWY***	***AZ409 / 8***	***1830***
MOJAVE SHELL	***16048 SIERRA HWY (HW***	***AZ424 / 8***	***1847***
FAA-FREEMONT VALLEY	OFF PHILIPS RANCH RO	AZ426 / 8	1861
NORTHROP GRUMMAN SYS	***1260 FLIGHTLINE HANG***	***AZ427 / 8***	***1863***
MOJAVE UNIFIED SCHOO	***1834 INYO ST***	***BB430 / 8***	***1867***
SOUTHERN CALIFORNIA	1700 INYO ST	BC440 / 8	1899
NORTHROP GRUMMAN SYS	***16880 FLIGHT SYSTEMS***	***BD444 / 9***	***1909***
NORTHROP GRUMMAN SYS	***1031 MOBLEY ST HANGA***	***BH463 / 9***	***2025***
INNOVATIVE ENGINEERI	TEST SITE 20	467 / 8	2062
RANDALL KELLEY	***16852 ROPER ST BLDG***	***BK476 / 8***	***2074***
SOUTHERN PACIFIC - M	***15887 SIERRA HWY N***	***BL496 / 8***	***2105***

EXECUTIVE SUMMARY

Site	Address	Map ID / Focus Map(s)	Page
MOJAVE PUBLIC UTILIT	***15844 K ST***	***BN500 / 8***	***2109***
MOJAVE HIGH SCHOOL M	15732 O ST	BP509 / 8	2121
CHEVRON #1095	***15800 SIERRA HWY***	***BQ528 / 8***	***2148***
RSI CARDLOCK	***15800 HIGHWAY 14 (SI***	***BQ531 / 8***	***2153***
UNOCAL #1247	***15764 SIERRA HWY***	***BQ542 / 8***	***2184***
UNOCAL SERVICE STATI	***15764 SIERRA HIGHWAY***	***BQ549 / 8***	***2194***
INNOVATIVE COATINGS	***1347 POOLE ST BLDG 1***	***BR567 / 9***	***2270***
INCOTEC CORPORATION	***1347 POOLE STREET***	***BR569 / 9***	***2284***
INNOVATIVE COATING T	1347 POOLE ST	BR571 / 9	2364
INNOVATIVE COATINGS	***1347 POOLE STREET***	***BR572 / 9***	***2365***
PROGRESS RAIL SERVIC	***1695 KINNICUTT RD***	***BR583 / 9***	***2387***
LOCATED 0.33 MILE NO	923 POOLE STREET	BV596 / 9	2481
TEXACO	***15700 SIERRA HWY***	***BS604 / 8***	***2487***
MOJAVE #1 BD	***S/2,SE/4,SE/4, SEC 1***	***BU618 / 8***	***2510***
SALMEX AUTO	***15652 SIERRA HIGHWAY***	***CA624 / 8***	***2515***
SCALED COMPOSITES LL	***555 RICCOMINI ST***	***628 / 9***	***2522***
FAMILY DOLLAR #10107	***2343 HIGHWAY 58***	***CD641 / 8***	***2578***
CIRCLE K STORE #735	***15510 K ST***	***CE643 / 8***	***2581***
FIRE STATION 14	1953 HIGHWAY 58	653 / 8	2598
RAPID LUBE AND TRUCK	***2001 HIGHWAY 58***	***658 / 8***	***2623***
#7704 FASTRIP #38	***2350 HIGHWAY 58***	***CG662 / 8***	***2634***
HEARTLAND TRUCK STOP	***2001 HWY 58***	***CH664 / 8***	***2642***
MONITORING STATION	KERN CO FIRE DEPT.,	CI673 / 8	2681
KCGS - MOJAVE MICROW	1775 HIGHWAY 58	677 / 8	2683
DEPARTMENT OF CALIFO	***1365 STATE HIGHWAY 5***	***CL685 / 17***	***2710***
DEPARTMENT OF CALIFO	***1313 STATE HIGHWAY 5***	***CM693 / 17***	***2718***
ROAD MACHINEY - MOJA	1265 HIGHWAY 58 BUSI	695 / 17	2722
DESERT TRUCK SERVICE	***1426 HIGHWAY 58***	***CO697 / 16***	***2724***
DESERT TRUCK SERVICE	***1426 STATE HIGHWAY 5***	***CO698 / 16***	***2728***
CALTRANS MOJAVE MAIN	***HWY 14***	***CP703 / 16***	***2749***
LEONARD CONSTRUCTION	***HWY 14***	***CP704 / 16***	***2750***
MOJAVE MO-MART	***15200 SIERRA HWY***	***CP706 / 16***	***2753***
MOJAVE MOBIL	***15190 SIERRA HWY***	***CQ712 / 16***	***2762***
RISING TREE II WIND	***70TH STREET & OAK CR***	***CR723 / 14***	***2780***
RISING TREE III WIND	***70TH STREET & OAK CR***	***CR724 / 14***	***2788***
VOYAGER WIND I LLC	***OAK CREEK ROAD AND 7***	***CR725 / 14***	***2795***
TEHACHAPI ENERGY STO	***OAK CREEK ROAD AND 7***	***CR726 / 14***	***2797***
RISING TREE I WIND F	***70TH STREET & OAK CR***	***CR727 / 14***	***2799***
MOJAVE #2 BD	***NE/4,NE/4,NW/4, SEC2***	***729 / 17***	***2807***
REVERE EXTRUDERS, IN	***14501 HOLT ST***	***CT736 / 16***	***2816***
MOJAVE STP	***SE OF MOJAVE***	***744 / 17***	***2830***
MOJAVE TERMINAL	***1873 PURDY ROAD***	***CU756 / 17***	***2871***
NIKLOR CHEMICAL CO I	***1667 PURDY RD***	***CV770 / 17***	***2957***
TERMINAL STORAGE FAC	***1667 PURDY AVE***	***CW773 / 16***	***3024***
ARYSTA LIFESCIENCE N	***1667 PURDY AVE***	***CW779 / 16***	***3047***

HWTS: Hazardous Waste Tracking System

A review of the HWTS list, as provided by EDR, and dated 10/15/2019 has revealed that there are 207 HWTS sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
KEMIRA WATER SOLUTIO	***18700 HIGHWAY 14***	***A11 / 2***	***440***
RYDER TRANSPORTATION	***18700 HWY 14 NORTH***	***F49 / 8***	***642***

EXECUTIVE SUMMARY

Site	Address	Map ID / Focus Map(s)	Page
MOJAVE CHIROPARACTIC	16940 HIGHWAY 14 STE	G54 / 8	646
E-Z SERVE INC #1245	16900 HWY 14	G57 / 8	648
OASIS GAS STATION	***16900 HWY 14***	***G58 / 8***	***648***
MOJAVE CHIROPRACTIC	16916 HWY 14	H60 / 8	651
BRYCE L WHITE	16914 HWY 14	H61 / 8	652
KMART #9403	16890 STATE HWY 14	H62 / 8	652
STATER BROS MARKETS	***16920 HIGHWAY 14***	***I65 / 8***	***655***
OASIS CLUB INC	16825 STATE ROUTE 14	J69 / 8	678
USHENDY OIL IMPERIAL	16825 STATE HIGHWAY	J72 / 8	679
LA DEPARTMENT WATER	***17031 SIERRA HWY***	***K81 / 8***	***688***
BUDGET MOTEL	***16698 SIERRA HWY***	***85 / 8***	***811***
SPEEDWAY TRAVEL CENT	16660 SIERRA HWY	N90 / 8	815
GRANT TRUCK STOPS-MO	16600 SIERRA HWY	O95 / 8	838
GIANT TRUCK STOPS MO	***16600 SIERRA HIGHWAY***	***O101 / 8***	***842***
1X CALVERT CO	***16600 SIERRA HWY***	***O102 / 8***	***853***
CARDER TRUCK & REPAI	16500 SIERRA HWY	105 / 8	855
CAPSED	17012 ROPER ST	P106 / 8	856
TELEDYNE RYAN AERONA	***17012 ROPER ST***	***P108 / 8***	***857***
THE STAKE MILL	2555 DOUGLAS AVE	Q110 / 8	863
UNOCAL SERVICE STATI	***16451 SIERRA HIGHWAY***	***R115 / 8***	***867***
DESERT DISTRIBUTING	16441 K ST	S124 / 8	880
GRANITE CONSTRUCTION	***2001 BELSHAW ST***	***T128 / 8***	***883***
VESTAS AMERICAN WIND	***16409 K ST***	***S134 / 8***	***889***
MEILYS TIRE & ALIGNM	***16396 K ST***	***136 / 8***	***913***
KIEFFE & SONS FORD	16400 SIERRA HWY	V137 / 8	915
MOJAVE MOTORS DBA KI	***16400 SIERRA HWY***	***V139 / 8***	***916***
RAYMOS/ STRONG INC.	2481 OAK CREEK ROAD	X147 / 8	1034
CHEVRON USA INC MOJA	2481 OAK CREEK ROAD	X148 / 8	1034
JAGUR TRACTOR CO	2500 OAK CREEK	X154 / 8	1041
CASA DE GASA	***16355 SIERRA HWY***	***W156 / 8***	***1042***
1X CACA DE GASA	16355 SIERRA HWY	W162 / 8	1048
1X CASA DE GASA	***16355 SIERRA HWY***	***W163 / 8***	***1048***
RAMOS/STRONG INC	***2481 DEAVER LN***	***X176 / 8***	***1064***
ARCO PRODUCTS COMPAN	16300 NORTH SIERRA H	Z184 / 8	1096
ARCO AM/PM - V&K OIL	16300 SIERRA HWY	Z187 / 8	1098
ARCO PRODUCTS COMPAN	***16300 SIERRA HWY***	***Z191 / 8***	***1101***
ARCO 82752	***16300 SIERRA HWY***	***Z192 / 8***	***1104***
DAVID DOMINGUEZ	2456 OAK CREEK RD.	193 / 8	1127
MOJAVE DEPARTMENT OF	***2211 NADEAU ST***	***AB203 / 8***	***1136***
MOJAVE ELKS LODGE	***16200 K ST***	***AC216 / 8***	***1246***
KERN COUNTY RDS DEPT	***2200 NADEAU ST***	***AB223 / 8***	***1251***
1X ALL SHINE INC	***16200 SIERRA HWY***	***AD227 / 8***	***1262***
XCOR AEROSPACE INCOR	***1314 FLIGHT LINE***	***AE228 / 9***	***1263***
NORTHROP GRUMMAN MOJ	***1260 FLIGHT LINE BLD***	***AF233 / 9***	***1271***
ANTELOPE VALLEY GENE	1122 FLIGHT LINE (BL	AG235 / 9	1275
FIRESTAR ENGINEERING	1122 FLIGHTLINE ST	AG237 / 9	1276
FLIGHT RESEARCH INC	***1062 FLIGHT LINE HAN***	***AH239 / 9***	***1277***
AVTEL SERVICES INC	1224 FLIGHT LINE	AF241 / 9	1322
AIR METHODS CORP DBA	***1220 FLIGHT LINE***	***AF243 / 9***	***1323***
A GUNAWAN WAIDISONG	***16201 SIERRA HWY***	***AD249 / 8***	***1341***
AVIATION WAREHOUSE I	***1434 FLIGHT LINE***	***AJ258 / 8***	***1353***
THE UNITED STATES AR	***1434 FLIGHT LINE***	***AJ259 / 8***	***1354***
AUTEL SERVICES INC	***1434 FLIGHT LINE***	***AJ260 / 8***	***1356***
B A E SYSTEMS FLIGHT	1434 FLIGHT LINE BLD	AJ262 / 8	1377
COMMERCIAL AIRCRAFT	1434 FLIGHT LINE	AJ264 / 8	1378
NORTHROP GRUMMAN SYS	1434 FLIGHT LINE	AJ266 / 8	1379

EXECUTIVE SUMMARY

Site	Address	Map ID / Focus Map(s)	Page
MOJAVE AIR AND SPACE	***1434 FLIGHT LINE***	***AJ269 / 8***	***1384***
EAST KERN AIRPORT DI	***1434 FLIGHTLINE BLDG***	***AJ270 / 8***	***1396***
GENERAL RAILWAY SERV	***1434 FLIGHT LINE BLD***	***AJ272 / 8***	***1402***
EAST KERN AIRPORT DI	***1434 FLIGHT LINE***	***AJ276 / 8***	***1411***
US ARMY CORP OF ENGI	1434 FLIGHT LINE	AJ281 / 8	1417
P & M AIRCRAFT INC	1434 FLIGHT LINE	AJ282 / 8	1417
MOJAVE AUTO REPAIR &	***16158 K ST***	***AC288 / 8***	***1432***
DON'S OIL CHANGERS	***16158 K ST***	***AC289 / 8***	***1434***
DONS OIL CHANGERS	***16158 K ST***	***AC291 / 8***	***1436***
BEST AUTO REPAIR	16158 K ST	AC293 / 8	1438
FREEWAY SMOG TEST &	16158 K ST	AC294 / 8	1439
DON'S LUBE & OIL	16158 K ST	AC296 / 8	1440
ANTELOPE VALLEY GENE	***1504 FLIGHT LINE BLD***	***AK298 / 8***	***1441***
VIKING AVIATION INC	1504 FLIGHT LINE STE	AK299 / 8	1443
VIKING AVIATION	1504 FLIGHT LINE HNG	AK300 / 8	1444
BAE SYSTEMS-IESI	***1506 FLIGHT LINE BLD***	***AK301 / 8***	***1444***
CALSPAN BICYCLE WORK	***1506 FLIGHT LINE BLD***	***AK302 / 8***	***1451***
NORTHRUP GRUMMAN MOJ	***1506 FLIGHT LINE ON***	***AK306 / 8***	***1457***
KELLEY FLEET SERVICE	***2471 NADEAU ST***	***AL308 / 8***	***1477***
KA FLEETONE INC	2471 NADEAU ST	AL312 / 8	1488
PEPSI COLA BOTTLING	***2471 NADEAU ST***	***AL316 / 8***	***1491***
NEWBERN TRANSPORTATI	***2471 NADEAU***	***AL317 / 8***	***1518***
SCALED COMPOSITES, L	***1624 FLIGHTLINE***	***AN325 / 8***	***1530***
UNITED STATES POSTAL	***2053 BELSHAW ST***	***AP330 / 8***	***1553***
US POSTAL SERVICE/MO	***2053 BELSHAW ST***	***AP331 / 8***	***1559***
SOUTHERN CALIFORNIA	***CORNER OF HOLT ST. A***	***AQ333 / 8***	***1561***
SOUTHERN CALIFORNIA	***CORNER OF HOLT ST. A***	***AQ335 / 8***	***1565***
EAST KERM CEMETERY D	2040 BELSHAW ST	AP336 / 8	1568
PACIFIC BELL TELEPHO	***2100 BELSHAW ST***	***AP343 / 8***	***1585***
MOJAVE HOTEL INVESTM	***16100 SIERRA HWY***	***344 / 8***	***1609***
WESTERN COUPLING	***1711 SABOVICH ST MOJ***	***AS345 / 8***	***1611***
BAE SYSTEMS MOJAVE O	***1501 SABOVICH ST BLD***	***AT351 / 8***	***1637***
BAE SYSTEMS-IESI	***1501 SABOVICH ST BLD***	***AT353 / 8***	***1685***
TSC LLC	***1223A SABOVICH ST BL***	***AU359 / 9***	***1704***
TSC LLC	***1223A SABOVICH ST BL***	***AU361 / 9***	***1722***
MITSUBISHI POWER SYS	1223 SABOVICH ST STE	AU362 / 9	1730
RENEWABLE MANAGEMENT	***1011 SABOVICH ST***	***AV363 / 9***	***1731***
ALPHA DYNO NOBEL	***1824 SABOVICH ST, ST***	***367 / 8***	***1734***
BAE SYSTEMS INC	***1718 SABOVICH ST***	***AS368 / 8***	***1738***
ALPHA EXPLOSIVES	***1682 SABOVICH ST***	***AS369 / 8***	***1740***
THE BOEING CO.	***1682 SABOVICH ST***	***AS372 / 8***	***1766***
STINGER ENGINES INC	1620 SABOVICH ST UNI	AW377 / 8	1774
MASTEN SPACE SYSTEMS	1570 SABOVICH ST BLD	AW379 / 8	1776
THE ENERGY ENHANCEME	***1522 SABOVICH ST***	***AT382 / 8***	***1782***
UNITED PARCEL SERVIC	***1522 SABOVICH ST***	***AT385 / 8***	***1787***
THE ENERGY ENCHANCEM	***1522 SABOVICH ST***	***AT389 / 8***	***1792***
DERRINGER AIRCRAFT C	***1246 SABOVICH***	***AR396 / 9***	***1809***
ASB AVIONICS LLC	1032 SABOVICH ST	AV399 / 9	1818
GLORIA VAUGHN	15946 P STREET	400 / 8	1819
1X WHITE, JOHN	***16074 SIERRA HWY***	***AZ406 / 8***	***1828***
1X WHITES SHELL STAT	***16074 SIERRA HWY***	***AZ413 / 8***	***1838***
CHARLES MORRIS	***15925 Q ST***	***BA416 / 8***	***1840***
MOJAVE SHELL	16048 SIERRA HWY	AZ423 / 8	1846
1X MOJAVE SCHOOL DIS	1834 INYO STREET	BB429 / 8	1867
MOJAVE UNIFIED SCHOO	***1834 INYO ST***	***BB430 / 8***	***1867***
MOJAVE USD	***1834 INYO ST***	***BB431 / 8***	***1874***

EXECUTIVE SUMMARY

Site	Address	Map ID / Focus Map(s)	Page
MOJAVE UNIFIED SCHOO	***1834 INYO ST***	***BB434 / 8***	***1891***
1X MOJAVE U.S.D.	***1834 INYO***	***BB435 / 8***	***1894***
SOUTHERN CALIFORNIA	***1900 INYO ST***	***442 / 8***	***1901***
AVTEL SVCS INC	***16880 AVTEL DR HANGA***	***BD445 / 9***	***1912***
SOUTHERN CALIFORNIA	***16880 FLIGHT SYSTEMS***	***BD446 / 9***	***1953***
KING KONA PRODUCTION	16880 LAIDLAW	BD447 / 9	1955
NORTHROP GRUMMAN MOJ	***16880 FLIGHT SYSTEMS***	***BD449 / 9***	***1956***
BAE SYSTEMS-IESI	***16880 FLIGHT SYSTEMS***	***BD454 / 9***	***2003***
ROBERT & JUDY SAUNDE	***3175 JEAN DR***	***459 / 8***	***2019***
HELENE SMITH & SONS	15931 L ST	BG461 / 8	2021
FLIGHT TEST ASSOCIAT	***1031 MOBLEY HANGAR 1***	***BH464 / 9***	***2027***
NORTHROP GRUMMAN COR	***1031 MOBLEY ST, HANG***	***BH465 / 9***	***2046***
WHALING, KIM	15974 JEAN DR	BI468 / 8	2064
KERN COUNTY REGIONAL	***15926 SOUTH K ST***	***BJ471 / 8***	***2066***
1X KERN COUNTY REGIO	15926 SOUTH K STREET	BJ472 / 8	2068
KTM OF MOJAVE	***15938 SIERRA HWY***	***BF474 / 8***	***2069***
RANDALL A KELLEY	***16852 ROPER RD***	***BK479 / 8***	***2078***
JOHNSONS AUTO REPAIR	16853 ROPER ST BLDG	BK481 / 8	2081
DONNA LOPEZ	***15938 REXROTH ST***	***482 / 8***	***2082***
1X MUSD MOJAVE ELEM	15800 O ST .	BM487 / 8	2095
MOJAVE USD	***15800 O ST***	***BM488 / 8***	***2096***
MOJAVE USD - MOJAVE	***15800 O ST***	***BM489 / 8***	***2097***
MOJAVE ELEMENTARY SC	15800 O STREET	BM490 / 8	2101
1X SOUTHERN PACIFIC	***15887 NO SIERRA HWY***	***BL493 / 8***	***2103***
MOJAVE PUBLIC UTILIT	***15844 K ST***	***BN500 / 8***	***2109***
1X MOJAVE PUBLIC UTI	***15844 K ST***	***BN503 / 8***	***2116***
UNION PACIFIC RAILRO	***15780 I ST.***	***BO506 / 8***	***2118***
UNION PACIFIC RAILRO	15780 SOUTH I ST	BO507 / 8	2120
MAJAVE HIGH SCHOOL	***15732 O ST.***	***BP510 / 8***	***2125***
MOJAVE UNIFIED SCHOO	***15732 O ST***	***BP511 / 8***	***2127***
MOJAVE HIGH SCHOOL	***15732 O STREET***	***BP512 / 8***	***2129***
MOJAVE UNIFIED SCHOO	***15732 O ST***	***BP513 / 8***	***2131***
CHEVRON 91095	***15800 SIERRA WAYOUNT***	***BQ514 / 8***	***2133***
CHEVRON STATION #910	***15800 SIERRA HWY***	***BQ515 / 8***	***2135***
MOJAVE CFN	15800 SIERRA HWY	BQ525 / 8	2145
1X CHEVERON CORP	***15800 SIERRA HWY***	***BQ527 / 8***	***2147***
BANK OF AMERICA	***15773 K ST***	***536 / 8***	***2176***
CONOCO PHILLIPS #251	***15764 SIERRA HWY***	***BQ537 / 8***	***2178***
RAMOS/STRONG INC DBA	15764 SIERRA HWY	BQ540 / 8	2180
TOSCO CORPORATION ST	***15764 SIERRA HWY***	***BQ548 / 8***	***2192***
UNOCAL SERVICE STATI	***15764 SIERRA HIGHWAY***	***BQ549 / 8***	***2194***
1X UNOCAL STN #1247	15764 SIERRA HWY	BQ553 / 8	2215
INCOTEC	***1347 POOLE STREET***	***BR560 / 9***	***2222***
INCOTEC CORPORATION	***1347 POOLE STREET***	***BR569 / 9***	***2284***
INCOTEC	***1347 POOLE ST BLDG 1***	***BR573 / 9***	***2368***
CENTURY PREMIUM CAR	***15736 SIERRA HWY***	***BS577 / 8***	***2378***
MOJAVE TIRE SMOG & A	15736 SIERRA HWY	BS579 / 8	2384
MOJAVE TIRES SMOG &	15736 SIERRA HWY	BS580 / 8	2385
JIMS TEXACO & GARAGE	15736 SIERRA HWY	BS581 / 8	2385
PROGRESS RAIL SERVIC	***1695 KINNICUTT RD***	***BR583 / 9***	***2387***
RAILX WEST	***1695 KINNICUTT ROAD***	***BR586 / 9***	***2457***
PROGRESS RAIL SVCS *	***1695 KINNICUTT RD***	***BR589 / 9***	***2465***
FIBERSET, INC	1046 POOLE ST	BT591 / 9	2477
MOJAVE MAKERS, A PUB	16722 ROPER STREET	BW599 / 8	2483
SHAHRIAR NAZARI	***2337 SHASTA ST***	***BS600 / 8***	***2483***
SHAN'S TEXACO	***15700 SERRIA HWY***	***BS605 / 8***	***2496***

EXECUTIVE SUMMARY

Site	Address	Map ID / Focus Map(s)	Page
EXPRESS MART SERVICE	***15700 SIERRA HWY***	***BS608 / 8***	***2499***
SHAN TEXACO	***15700 SIERRA HWY***	***BS614 / 8***	***2505***
MSD = JOHNSON MIDDLE	***3200 PAT AVE***	***BX615 / 8***	***2506***
MSD/ JOHNSON MIDDLE	***3200 PAT AVE***	***BX616 / 8***	***2508***
HIGH DESERT FABRICAT	1646 KINNICUTT ST	BZ621 / 8	2512
HIGH DESERT FABRICAT	***1646 KINNICUTT ST BL***	***BZ622 / 8***	***2513***
ANDERSON AUTO REPAIR	***15652 SIERRA HWY***	***CA625 / 8***	***2520***
CLC AUTO REPAIR	15652 SIERRA HWY BUI	CA626 / 8	2521
PHILLIP RICCOMINI	15652 SIERRA HWY	CA627 / 8	2522
SCALED COMPOSITES LL	***555 RICCOMINI ST***	***628 / 9***	***2522***
SALMEX AUTO REPAIR	15651 SIERRA HWY STE	CA629 / 8	2551
BAE SYSTEMS MOJAVE O	***16927 AIRPORT BLVD B***	***CC638 / 8***	***2560***
CIRCLE K STORES INC.	***15510 K ST***	***CE644 / 8***	***2590***
FAMILY DOLLAR INC #	***2343 STATE HIGHWAY 5***	***CD656 / 8***	***2603***
MOJAVE HOSPITALITY L	2201 STATE HIGHWAY 5	CF659 / 8	2630
HEARTLAND TRUCK STOP	***2001 HWY 58***	***CH664 / 8***	***2642***
PRICE SAVER RAPID LU	2001 STATE HIGHWAY 5	CH669 / 8	2679
KELLY NAZARI	2005 STATE HIGHWAY 5	CH670 / 8	2680
RAPID LUBE	2005 STATE HIGHWAY 5	CH671 / 8	2680
MOJAVE MAIN COURT	1773 STATE HIGHWAY 5	CJ678 / 16	2685
MOJAVE MAIN COURT, J	***1773 STATE HIGHWAY 5***	***CJ679 / 16***	***2686***
BOB GRAY'S AUTOWRECK	***1634 STATE HIGHWAY 5***	***CK682 / 16***	***2691***
CALIFORNIA HIGHWAY P	***1365 STATE HIGHWAY 5***	***CL684 / 17***	***2692***
DESERT TRUCK SERVICE	***1426 STATE HIGHWAY 5***	***CO698 / 16***	***2728***
MOJAVE MOBIL	***15190 SIERRA HWY.***	***CQ715 / 16***	***2772***
MOJAVE MOBIL	***15190 SIERRA HWY***	***CQ716 / 16***	***2774***
PG&E	***14675 HOLT STREET***	***CS731 / 16***	***2809***
T-1230 LOCATION A	14675 HOLT STREET	CS732 / 16	2813
REVERE EXTRUDERS, IN	***14501 HOLT ST***	***CT739 / 16***	***2823***
GRANITE CONSTRUCTION	***HOLT AND CAMELOT***	***CT742 / 16***	***2826***
MOJAVE ASPHALT TERMI	1873 PURDY ROAD	CU751 / 17	2866
ALON ASPHALT COMPANY	***1873 PURDY RD***	***CU755 / 17***	***2869***
TOSCO MOJAVE TERMINA	***1873 PURDY RD***	***CU758 / 17***	***2877***
NIKLOR CHEMICAL CO I	***1667 PURDY RD***	***CV770 / 17***	***2957***
TRICAL INC	***1667 PURDY RD***	***CV771 / 17***	***2966***
ARYSTA LIFESCIENCE N	***1667 PURDY AVE***	***CW779 / 16***	***3047***
GREAT LAKES SOLUTION	1667 PURDY AVE	CW781 / 16	3062

MINES MRDS: Mineral Resources Data System

A review of the MINES MRDS list, as provided by EDR, and dated 04/06/2018 has revealed that there are 7 MINES MRDS sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
TEHACHAPI CLAY		24 / 2	598
BORROW PIT		25 / 2	599
UNNAMED QUARRY		28 / 2	603
MOJAVE PIT		C30 / 9	604
MILLER PIT		122 / 9	878
UNNAMED QUARRY		733 / 18	2814
CALTRANS #251		787 / 23	3100

EXECUTIVE SUMMARY

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR Exclusive Historical Auto Stations

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 19 EDR Hist Auto sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
OASIS GAS AMERICA	16900 STATE HIGHWAY	G56 / 8	647
DOOMID INC	16660 SIERRA HWY	N91 / 8	815
CALVER CO*	16600 SIERRA HWY	O103 / 8	854
MOJAVE 76	16451 SIERRA HWY	R117 / 8	870
CASA DE GASA	16355 SIERRA HWY	W166 / 8	1051
B AND K OIL COMPANY	16300 SIERRA HWY	Z188 / 8	1099
BARNEYS ARCO SERVICE	16271 N SIERRA	AA198 / 8	1134
WILLIES MOBIL SERVIC	16201 SIERRA HWY	AD247 / 8	1339
SHAWNS TRUCK STOP	16137 I ST	366 / 8	1734
WHITES SHELL STATION	16074 SIERRA HWY	AZ407 / 8	1829
INYO CRUDE INC	16048 SIERRA HWY	AZ419 / 8	1843
BLANCHARD FLOYD E	15974 SIERRA HWY	BF460 / 8	2020
APSI CHEVRON 1401	15800 SIERRA HWY	BQ526 / 8	2146
GASOLINE RETAIL	15764 SIERRA HWY	BQ538 / 8	2179
BUDS GARAGE	15736 SIERRA HWY	BS575 / 8	2377
GORMAN ROBERT	15700 SIERRA HWY	BS611 / 8	2502
CIRCLE K CORPORATION	15510 K ST	CE651 / 8	2597
PRICE SAVER INC	2001 STATE HIGHWAY 5	CH667 / 8	2676
MOJAVE MOBIL	15190 SIERRA HWY	CQ711 / 16	2761

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there is 1 EDR Hist Cleaner site within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
MAC ARTHUR MARIANNA	2326 CERRO GORDO	BE458 / 8	2019

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

A review of the RGA LUST list, as provided by EDR, has revealed that there are 33 RGA LUST sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
LA DWP MOJAVE	17031 SIERRA HIGHWAY	53 / 8	646
LADWP MOJAVE YARD SO	17031 SIERRA HWY	J77 / 8	686
LA DWP MOJAVE YARD S	17031 SIERRA HWY	K78 / 8	687

EXECUTIVE SUMMARY

Site	Address	Map ID / Focus Map(s)	Page
LADWP MOJAVE	17031 SIERRA HWY	K82 / 8	799
GIANT TRUCK STOP	16600 SIERRA HWY	O96 / 8	838
UNOCAL #4311	16451 NORTH SIERRA H	R112 / 8	864
UNOCAL #4311	16451 SIERRA HWY N	R113 / 8	865
CASA DE GASA	16355 SIERRA HWY	W165 / 8	1050
ARCO FACILITY NO. 05	16300 SIERRA HWY	Z190 / 8	1100
ARCO #5096	16271 SIERRA HWY N	AA195 / 8	1128
CALTRANS MOJAVE MAIN	2211 NADEAU ST	AB204 / 8	1228
CAL TRANS MOJAVE MAI	2211 NADEAU ST	AB206 / 8	1240
CAL TRANS MOJAVE	2211 NADEAU ST	AB207 / 8	1240
CALTRANS MOJAVE	2211 NADEAU ST	AB209 / 8	1241
CALTRANS - MOJAVE MA	2211 NADEAU ST	AB210 / 8	1243
WIBISONO PROPERTY	16201 SIERRA HWY	AD251 / 8	1345
UNKNOWN	16201 SIERRA HWY	AD254 / 8	1348
PEPSI COLA COMPANY	2471 NADEAU	AL309 / 8	1481
PEPSI COLA COMPANY	2471 NADEAU ST	AL310 / 8	1481
WHITE'S SHELL	16074 SIERRA HWY	AZ410 / 8	1834
WHITE'S SHELL STATIO	16074 SIERRA HWY	AZ411 / 8	1835
SOUTHERN PACIFIC - M	15887 SIERRA HWY N	BL492 / 8	2102
CHEVRON #1095	15800 SIERRA HWY	BQ520 / 8	2141
SIERRA HWY UNOCAL #1	15764 SIERRA HWY	BQ539 / 8	2180
UNOCAL #1247	15764 SIERRA HWY	BQ551 / 8	2213
CIRCLE K #735	15510 K ST	CE646 / 8	2592
FORMER CIRCLE K STOR	15510 K ST	CE648 / 8	2595
FORMER CIRCLE K STOR	15510 K STREET	CE649 / 8	2595
CIRCLE K #735	15510 K STREET	CE650 / 8	2596
ANGELS TRUCK STOP	2001 HWY 58	CH666 / 8	2675
MOJAVE MO-MART	15200 SIERRA HWY	CP705 / 16	2752
WESTERN GROWTH PROPE	14501 HOLT ST	CT740 / 16	2824
UNKNOWN	14501 HOLT ST	CT741 / 16	2825

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Page Numbers and Map Identifcations refer to the EDR Area/Corridor Report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

A review of the NPL list, as provided by EDR, and dated 01/30/2020 has revealed that there is 1 NPL

site within approximately1 mile of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
EDWARDS AIR FORCE BA Cerclis ID:: 902725 EPA Id: CA1570024504	***5 EAST POPSON AVE BL***	***E 1/8 - 1/4 (0.129 mi.)***	***Region / 21,27***	***98***

Federal CERCLIS list

SEMS: Superfund Enterprise Management System

A review of the SEMS list, as provided by EDR, and dated 01/30/2020 has revealed that there is 1 SEMS site within approximately 0.5 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
EDWARDS AIR FORCE BA Site ID: 0902725 EPA Id: CA1570024504	***5 EAST POPSON AVE BL***	***E 1/8 - 1/4 (0.129 mi.)***	***Region / 21,27***	***98***

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

A review of the SEMS-ARCHIVE list, as provided by EDR, and dated 01/30/2020 has revealed that there are 4 SEMS-ARCHIVE sites within approximately 0.5 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
CITY SERV ONSITE LDF Site ID: 0901561 EPA Id: CAD072265184	12701 UNITED ST	W 0 - 1/8 (0.020 mi.)	DD807 / 23	3160
CALIFORNIA PORTLAND Site ID: 0904614 EPA Id: CAD008256315	***9350 OAK CREEK RD.***	***W 0 - 1/8 (0.044 mi.)***	***DH827 / 13***	***3286***
COMMODITY REFINING E Site ID: 0904967 EPA Id: CAD981402522	***11847 UNITED ST.***	***S 1/8 - 1/4 (0.163 mi.)***	***DI840 / 23***	***3372***
PRODUCTS RESEARCH CH Site ID: 0901341 EPA Id: CAD042238956	11601 UNITED	S 1/4 - 1/2 (0.412 mi.)	DJ843 / 23	3384

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

A review of the CORRACTS list, as provided by EDR, and dated 12/16/2019 has revealed that there is 1 CORRACTS site within approximately1 mile of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
EDWARDS AIR FORCE BA EPA ID:: CA1570024504	***5 EAST POPSON AVE BL***	***E 1/8 - 1/4 (0.129 mi.)***	***Region / 21,27***	***98***

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

A review of the RCRA-TSDF list, as provided by EDR, and dated 12/16/2019 has revealed that there is 1 RCRA-TSDF site within approximately 0.5 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
EDWARDS AIR FORCE BA EPA ID:: CA1570024504	***5 EAST POPSON AVE BL***	***E 1/8 - 1/4 (0.129 mi.)***	***Region / 21,27***	***98***

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

A review of the RCRA-LQG list, as provided by EDR, and dated 12/16/2019 has revealed that there is 1 RCRA-LQG site within approximately 0.25 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
EDWARDS AIR FORCE BA EPA ID:: CA1570024504	***5 EAST POPSON AVE BL***	***E 1/8 - 1/4 (0.129 mi.)***	***Region / 21,27***	***98***

RCRA-SQG: RCRA - Small Quantity Generators

A review of the RCRA-SQG list, as provided by EDR, and dated 12/16/2019 has revealed that there are 3 RCRA-SQG sites within approximately 0.25 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
MITSUBISHI HEAVY IND EPA ID:: CAD983669300	***6737 OAK CREEK RD UN***	***N 0 - 1/8 (0.014 mi.)***	***CY789 / 14***	***3102***
SEA WEST TEHACHAPI EPA ID:: CAD983618810	***6737 OAK CREEK RD***	***N 0 - 1/8 (0.014 mi.)***	***CY790 / 14***	***3104***
CALIFORNIA PORTLAND EPA ID:: CAD008256315	***9350 OAK CREEK RD.***	***W 0 - 1/8 (0.044 mi.)***	***DH827 / 13***	***3286***

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A review of the US ENG CONTROLS list, as provided by EDR, and dated 11/22/2019 has revealed that

there is 1 US ENG CONTROLS site within approximately 0.5 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
EDWARDS AIR FORCE BA	***5 EAST POPSON AVE BL***	***E 1/8 - 1/4 (0.129 mi.)***	***Region / 21,27***	***98***
EPA ID:: CA1570024504				
EPA ID:: CA1570024504				

US INST CONTROLS: Institutional Controls Sites List

A review of the US INST CONTROLS list, as provided by EDR, and dated 11/22/2019 has revealed that there is 1 US INST CONTROLS site within approximately 0.5 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
EDWARDS AIR FORCE BA	***5 EAST POPSON AVE BL***	***E 1/8 - 1/4 (0.129 mi.)***	***Region / 21,27***	***98***
EPA ID:: CA1570024504				

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

A review of the RESPONSE list, as provided by EDR, has revealed that there are 5 RESPONSE sites within approximately1 mile of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
PURDY COMPANY	***12901 UNITED***	***W 0 - 1/8 (0.022 mi.)***	***DE813 / 23***	***3177***
Database: RESPONSE, Date of Government Version: 01/27/2020				
Status: Certified / Operation & Maintenance				
Facility Id: 15330010				
UNITED METAL RECOVER	***12403 UNITED STREET***	***W 0 - 1/8 (0.024 mi.)***	***817 / 23***	***3193***
Database: RESPONSE, Date of Government Version: 01/27/2020				
Status: Certified / Operation & Maintenance				
Facility Id: 15330007				
SILVER QUEEN JUNKYAR	***BACK LOT AT 11847 UN***	***WSW 1/8 - 1/4 (0.160 mi.)***	***836 / 23***	***3325***
Database: RESPONSE, Date of Government Version: 01/27/2020				
AWP Facility Id: 15500002				
Status: Certified / Operation & Maintenance				
Facility Id: 15500002				
COMMODITY RESOURCE &	***11847 UNITED ST***	***S 1/8 - 1/4 (0.163 mi.)***	***DI839 / 23***	***3349***
Database: RESPONSE, Date of Government Version: 01/27/2020				
Status: Certified / Operation & Maintenance				
Facility Id: 15330008				
MOBILE SMELTING	***UNITED STREET & REED***	***S 1/2 - 1 (0.997 mi.)***	***DK845 / 23***	***3404***
Database: RESPONSE, Date of Government Version: 01/27/2020				
AWP Facility Id: 15330011				
Status: Active				
Facility Id: 15330011				

EXECUTIVE SUMMARY

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

A review of the ENVIROSTOR list, as provided by EDR, and dated 01/27/2020 has revealed that there are 9 ENVIROSTOR sites within approximately1 mile of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
EDWARDS AIR FORCE BA Facility Id: 15970001 Status: Active	***5 EAST POPSON AVE BL***	***E 1/8 - 1/4 (0.129 mi.)***	***Region / 21,27***	***98***
COLUMBIAN CHEMICAL C Facility Id: 15280063 Status: Refer: RWQCB	***12701 UNITED STREET***	***W 0 - 1/8 (0.020 mi.)***	***DD808 / 23***	***3162***
PURDY COMPANY Facility Id: 15330010 Status: Certified / Operation & Maintenance	***12901 UNITED***	***W 0 - 1/8 (0.022 mi.)***	***DE813 / 23***	***3177***
UNITED METAL RECOVER Facility Id: 15330007 Status: Certified / Operation & Maintenance	***12403 UNITED STREET***	***W 0 - 1/8 (0.024 mi.)***	***817 / 23***	***3193***
SILVER QUEEN JUNKYAR Facility Id: 15500002 Status: Certified / Operation & Maintenance	***BACK LOT AT 11847 UN***	***WSW 1/8 - 1/4 (0.160 mi.)***	***836 / 23***	***3325***
COMMODITY RESOURCE & Facility Id: 15330008 Status: Certified / Operation & Maintenance	***11847 UNITED ST***	***S 1/8 - 1/4 (0.163 mi.)***	***DI839 / 23***	***3349***
PRC-DE SOTO INTERNAT Facility Id: 15130013 Status: Inactive - Needs Evaluation	***11601 UNITED STREET***	***S 1/4 - 1/2 (0.412 mi.)***	***DJ844 / 23***	***3385***
MOBILE SMELTING Facility Id: 15330011 Status: Active	***UNITED STREET & REED***	***S 1/2 - 1 (0.997 mi.)***	***DK845 / 23***	***3404***
COURTAULDS AEROSPACE Facility Id: 15990002 Status: Active	***UNITED STREET AND RE***	***S 1/2 - 1 (0.997 mi.)***	***DK846 / 23***	***3433***

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Information System

A review of the SWF/LF list, as provided by EDR, has revealed that there are 2 SWF/LF sites within approximately 0.5 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
COLUMBIAN CHEMICAL C Database: SWF/LF (SWIS), Date of Government Version: 02/10/2020 Facility ID: 15-CR-0090 Operational Status: Closed Regulation Status: Unpermitted	***12701 UNITED STREET***	***W 0 - 1/8 (0.020 mi.)***	***DD808 / 23***	***3162***
KCPWD - MOJAVE/ROSAM Database: SWF/LF (SWIS), Date of Government Version: 02/10/2020	***400 SILVER QUEEN RD***	***S 0 - 1/8 (0.022 mi.)***	***DF814 / 23***	***3185***

EXECUTIVE SUMMARY

Facility ID: 15-AA-0058
Operational Status: Active
Regulation Status: Permitted

State and tribal registered storage tank lists

UST: Active UST Facilities

A review of the UST list, as provided by EDR, has revealed that there are 3 UST sites within approximately 0.25 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
AT&T CORP. - SA145 Database: UST, Date of Government Version: 12/09/2019 Database: KERN CO. UST, Date of Government Version: 01/31/2020 Facility Id: 15-010-002991 Facility ID: FA0002991	6201 E HIGHWAY 58	S 0 - 1/8 (0.017 mi.)	DB800 / 20	3147
THE PURDY COMPANY Database: KERN CO. UST, Date of Government Version: 01/31/2020	12901 UNITED RD	W 0 - 1/8 (0.022 mi.)	DE812 / 23	3177
CALPORTLAND COMPANY Database: KERN CO. UST, Date of Government Version: 01/31/2020 Facility ID: FA0003180	9350 OAK CREEK RD	W 0 - 1/8 (0.044 mi.)	DH823 / 13	3259

AST: Aboveground Petroleum Storage Tank Facilities

A review of the AST list, as provided by EDR, has revealed that there are 10 AST sites within approximately 0.25 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
MOJAVE 16/17/18 LLC Database: AST, Date of Government Version: 07/06/2016	7021 OAK CREEK	N 0 - 1/8 (0.015 mi.)	CZ792 / 13	3135
MOJAVE 16/17/18 LLC Database: AST, Date of Government Version: 07/06/2016	7021 OAK CREEK RD	N 0 - 1/8 (0.015 mi.)	CZ793 / 13	3135
EDF - OASIS Database: AST, Date of Government Version: 07/06/2016	7021 OAK CREEK RD	N 0 - 1/8 (0.015 mi.)	CZ794 / 13	3136
TERRA-GEN OPERATING Database: AST, Date of Government Version: 07/06/2016	8560 A OAK CREEK RD	SSW 0 - 1/8 (0.017 mi.)	DA797 / 13	3139
AT&T CORP - SA145 Database: AST, Date of Government Version: 07/06/2016	6201 E HIGHWAY 58	S 0 - 1/8 (0.017 mi.)	DB801 / 20	3149
HYUNDAI KIA MOTORS Database: AST, Date of Government Version: 07/06/2016	5759 HWY 58	SSE 0 - 1/8 (0.019 mi.)	DC804 / 20	3158
HYUNDAI KIA MOTORS Database: AST, Date of Government Version: 07/06/2016	5759 HIGHWAY 58	SSE 0 - 1/8 (0.019 mi.)	DC805 / 20	3158
BROOKFIELD TEHACHAPI Database: AST, Date of Government Version: 07/06/2016	6703 OAK CREEK RD	N 0 - 1/8 (0.027 mi.)	DG820 / 14	3218
VISTA METALS INC Database: AST, Date of Government Version: 07/06/2016	***9350 OAK CREEK RD***	***W 0 - 1/8 (0.044 mi.)***	***DH822 / 13***	***3228***
CALIFORNIA PORTLAND Database: AST, Date of Government Version: 07/06/2016	9350 OAK CREEK RD	W 0 - 1/8 (0.044 mi.)	DH826 / 13	3285

EXECUTIVE SUMMARY

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

A review of the WMUDS/SWAT list, as provided by EDR, and dated 04/01/2000 has revealed that there are 3 WMUDS/SWAT sites within approximately 0.5 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
MOJAVE PLANT-CALIF P	*9350 OAK CREEK ROAD*	*W 0 - 1/8 (0.044 mi.)*	*DH825 / 13*	*3266*
MOJAVE/ROSAMOND LAND	*3 MI SOUTH OF MOJAVE*	*S 1/8 - 1/4 (0.135 mi.)*	*835 / 23*	*3303*
MOJAVE PLANT NO 55	*SOUTH OF MOJAVE*	*W 1/4 - 1/2 (0.391 mi.)*	*842 / 22*	*3376*

Local Lists of Hazardous waste / Contaminated Sites

HIST Cal-Sites: Historical Calsites Database

A review of the HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there are 7 HIST Cal-Sites sites within approximately1 mile of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
EDWARDS AIR FORCE BA	*5 EAST POPSON AVE BL*	*E 1/8 - 1/4 (0.129 mi.)*	*Region / 21,27*	*98*
PURDY COMPANY	*12901 UNITED ROAD*	*W 0 - 1/8 (0.022 mi.)*	*DE809 / 23*	*3165*
UNITED METAL RECOVER	*12403 UNITED STREET*	*W 0 - 1/8 (0.024 mi.)*	*817 / 23*	*3193*
SILVER QUEEN JUNKYAR	*BACK LOT AT 11847 UN*	*WSW 1/8 - 1/4 (0.160 mi.)*	*836 / 23*	*3325*
COMMODITY RESOURCE &	*11847 UNITED ST*	*S 1/8 - 1/4 (0.163 mi.)*	*DI839 / 23*	*3349*
PRC-DE SOTO INTERNAT	*11601 UNITED STREET*	*S 1/4 - 1/2 (0.412 mi.)*	*DJ844 / 23*	*3385*
MOBILE SMELTING	*UNITED STREET & REED*	*S 1/2 - 1 (0.997 mi.)*	*DK845 / 23*	*3404*

CERS HAZ WASTE: CERS HAZ WASTE

A review of the CERS HAZ WASTE list, as provided by EDR, and dated 01/21/2020 has revealed that there are 9 CERS HAZ WASTE sites within approximately 0.25 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
EDF - OASIS	*7021 OAK CREEK RD*	*N 0 - 1/8 (0.015 mi.)*	*CZ791 / 13*	*3112*
ALTA WIND II, LLC	*8560 A OAK CREEK RD*	*SSW 0 - 1/8 (0.017 mi.)*	*DA798 / 13*	*3140*
AT&T CORP. - SA145	*6201 E HIGHWAY 58*	*S 0 - 1/8 (0.017 mi.)*	*DB799 / 20*	*3143*
HYUNDAI KIA MOTORS	*5759 HIGHWAY 58*	*SSE 0 - 1/8 (0.019 mi.)*	*DC803 / 20*	*3150*
KCPWD - MOJAVE/ROSAM	*400 SILVER QUEEN RD*	*S 0 - 1/8 (0.022 mi.)*	*DF814 / 23*	*3185*
VESTAS AMERICAN WIND	*6703 OAK CREEK RD*	*N 0 - 1/8 (0.027 mi.)*	*DG821 / 14*	*3219*
VISTA METALS INC	*9350 OAK CREEK RD*	*W 0 - 1/8 (0.044 mi.)*	*DH822 / 13*	*3228*
VESTAS	*8560 OAK CREEK RD*	*W 0 - 1/8 (0.044 mi.)*	*DH833 / 13*	*3299*
COMMODITY RESOURCES/	*11847 UNITED ST*	*S 1/8 - 1/4 (0.163 mi.)*	*DI838 / 23*	*3342*

EXECUTIVE SUMMARY

PFAS: PFAS Contamination Site Location Listing

A review of the PFAS list, as provided by EDR, and dated 12/09/2019 has revealed that there is 1 PFAS site within approximately 0.5 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
EDWARDS AIR FORCE BA	***5 EAST POPSON AVE BL***	***E 1/8 - 1/4 (0.129 mi.)***	***Region / 21,27***	***98***

Local Lists of Registered Storage Tanks

HIST UST: Hazardous Substance Storage Container Database

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 2 HIST UST sites within approximately 0.25 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
MOJAVE PLANT Facility Id: 00000068861	12901 UNITED ROAD	W 0 - 1/8 (0.022 mi.)	DE810 / 23	3175
PURDY CO OF CALIFORN	***12901 UNITED RD***	***W 0 - 1/8 (0.022 mi.)***	***DE811 / 23***	***3175***

CERS TANKS: California Environmental Reporting System (CERS) Tanks

A review of the CERS TANKS list, as provided by EDR, and dated 01/21/2020 has revealed that there are 6 CERS TANKS sites within approximately 0.25 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
EDF - OASIS	***7021 OAK CREEK RD***	***N 0 - 1/8 (0.015 mi.)***	***CZ791 / 13***	***3112***
ALTA WIND II, LLC	***8560 A OAK CREEK RD***	***SSW 0 - 1/8 (0.017 mi.)***	***DA798 / 13***	***3140***
AT&T CORP. - SA145	***6201 E HIGHWAY 58***	***S 0 - 1/8 (0.017 mi.)***	***DB799 / 20***	***3143***
HYUNDAI KIA MOTORS	***5759 HIGHWAY 58***	***SSE 0 - 1/8 (0.019 mi.)***	***DC803 / 20***	***3150***
VESTAS AMERICAN WIND	***6703 OAK CREEK RD***	***N 0 - 1/8 (0.027 mi.)***	***DG821 / 14***	***3219***
VISTA METALS INC	***9350 OAK CREEK RD***	***W 0 - 1/8 (0.044 mi.)***	***DH822 / 13***	***3228***

Local Land Records

DEED: Deed Restriction Listing

A review of the DEED list, as provided by EDR, and dated 12/03/2019 has revealed that there are 5 DEED sites within approximately 0.5 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
EDWARDS AIR FORCE BA Status: ACTIVE Envirostor ID: 15970001	***5 EAST POPSON AVE BL***	***E 1/8 - 1/4 (0.129 mi.)***	***Region / 21,27***	***98***
PURDY COMPANY Status: CERTIFIED / OPERATION & MAINTENANCE Envirostor ID: 15330010	***12901 UNITED***	***W 0 - 1/8 (0.022 mi.)***	***DE813 / 23***	***3177***
UNITED METAL RECOVER	***12403 UNITED STREET***	***W 0 - 1/8 (0.024 mi.)***	***817 / 23***	***3193***

Status: CERTIFIED / OPERATION & MAINTENANCE Envirostor ID: 15330007				
SILVER QUEEN JUNKYAR	***BACK LOT AT 11847 UN***	***WSW 1/8 - 1/4 (0.160 mi.)***	***836 / 23***	***3325***
Status: CERTIFIED / OPERATION & MAINTENANCE Envirostor ID: 15500002				
COMMODITY RESOURCE &	***11847 UNITED ST***	***S 1/8 - 1/4 (0.163 mi.)***	***DI839 / 23***	***3349***
Status: CERTIFIED / OPERATION & MAINTENANCE Envirostor ID: 15330008				

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 12/16/2019 has revealed that there are 13 RCRA NonGen / NLR sites within approximately 0.25 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
OASIS POWER PARTNERS EPA ID:: CAL000292939	7021 OAK CREEK RD	N 0 - 1/8 (0.015 mi.)	CZ795 / 13	3137
EDF-OASIS EPA ID:: CAL000181430	7021 OAK CREEK RD	N 0 - 1/8 (0.015 mi.)	CZ796 / 13	3138
VOYAGER WIND II/III/ EPA ID:: CAL000436961	8009 OAK CREEK RD	N 0 - 1/8 (0.019 mi.)	802 / 13	3149
HYUNDAI-KIA CALIFORN EPA ID:: CAL000292891	5759 HIGHWAY 58	SSE 0 - 1/8 (0.019 mi.)	DC806 / 20	3159
MOJAVE-ROSAMOND SANI EPA ID:: CAH111000202	400 SILVER QUEEN ROA	S 0 - 1/8 (0.022 mi.)	DF815 / 23	3191
AT & T MOBILITY EPA ID:: CAL000423606	7089 HWY 58	SSE 0 - 1/8 (0.023 mi.)	816 / 20	3192
VESTAS AMERICAN WIND EPA ID:: CAL000398585	6703 OAK CREEK RD	N 0 - 1/8 (0.027 mi.)	DG818 / 14	3216
BROOKFIELD RENEWABLE EPA ID:: CAL000401169	6703 OAK CREEK RD	N 0 - 1/8 (0.027 mi.)	DG819 / 14	3217
VESTAS AMERICAN WIND EPA ID:: CAL000374969	8560 OAK CREEK RD	W 0 - 1/8 (0.044 mi.)	DH830 / 13	3295
ALTA WIND II LLC EPA ID:: CAL000362249	8560 OAK CREEK RD	W 0 - 1/8 (0.044 mi.)	DH831 / 13	3296
ALTA WIND II LLC EPA ID:: CAL000422286	8560 OAK CREEK RD	W 0 - 1/8 (0.044 mi.)	DH832 / 13	3298
AT&T COMMUNICATIONS EPA ID:: CAL000351893	6201 E HIGHWAY 58	SSW 0 - 1/8 (0.045 mi.)	834 / 20	3302
COMMODITY REFINING E EPA ID:: CAD981402522	***11847 UNITED ST.***	***S 1/8 - 1/4 (0.163 mi.)***	***DI840 / 23***	***3372***

EXECUTIVE SUMMARY

DOD: Department of Defense Sites

A review of the DOD list, as provided by EDR, and dated 12/31/2005 has revealed that there is 1 DOD site within approximately1 mile of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
EDWARDS AIR FORCE BA		SSE 0 - 1/8 (0.010 mi.)	Region / 21,27	98

ROD: Records Of Decision

A review of the ROD list, as provided by EDR, and dated 01/30/2020 has revealed that there is 1 ROD site within approximately1 mile of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
EDWARDS AIR FORCE BA	***5 EAST POPSON AVE BL***	***E 1/8 - 1/4 (0.129 mi.)***	***Region / 21,27***	***98***
EPA ID:: CA1570024504				

US MINES: Mines Master Index File

A review of the US MINES list, as provided by EDR, has revealed that there are 2 US MINES sites within approximately 0.25 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
SCREENING PLANT B	9350 OAK CREEK ROAD	W 0 - 1/8 (0.044 mi.)	DH824 / 13	3260
Database: MINES VIOLATIONS, Date of Government Version: 12/03/2019				
MOJAVE PLANT & QUARR	9350 OAK CREEK ROAD	W 0 - 1/8 (0.044 mi.)	DH828 / 13	3288
Database: MINES VIOLATIONS, Date of Government Version: 12/03/2019				

ABANDONED MINES: Abandoned Mines

A review of the ABANDONED MINES list, as provided by EDR, and dated 12/09/2019 has revealed that there is 1 ABANDONED MINES site within approximately 0.25 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
SCREENING PLANT B	9350 OAK CREEK ROAD	W 0 - 1/8 (0.044 mi.)	DH829 / 13	3295

Cortese: "Cortese" Hazardous Waste & Substances Sites List

A review of the Cortese list, as provided by EDR, and dated 12/18/2019 has revealed that there are 4 Cortese sites within approximately 0.5 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
PURDY COMPANY	***12901 UNITED***	***W 0 - 1/8 (0.022 mi.)***	***DE813 / 23***	***3177***
Envirostor Id: 15330010				
Cleanup Status: CERTIFIED / OPERATION & MAINTENANCE - LAND USE RESTRICTIONS				
UNITED METAL RECOVER	***12403 UNITED STREET***	***W 0 - 1/8 (0.024 mi.)***	***817 / 23***	***3193***
Envirostor Id: 15330007				
Cleanup Status: CERTIFIED / OPERATION & MAINTENANCE - LAND USE RESTRICTIONS				
SILVER QUEEN JUNKYAR	***BACK LOT AT 11847 UN***	***WSW 1/8 - 1/4 (0.160 mi.)***	***836 / 23***	***3325***

Envirostor Id: 15500002
Cleanup Status: CERTIFIED / OPERATION & MAINTENANCE - LAND USE RESTRICTIONS

COMMODITY RESOURCE &	***11847 UNITED ST***	***S 1/8 - 1/4 (0.163 mi.)***	***DI839 / 23***	***3349***

Envirostor Id: 15330008
Cleanup Status: CERTIFIED / OPERATION & MAINTENANCE - LAND USE RESTRICTIONS

HIST CORTESE: Hazardous Waste & Substance Site List

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 6 HIST CORTESE sites within approximately 0.5 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
PURDY COMPANY	***12901 UNITED***	***W 0 - 1/8 (0.022 mi.)***	***DE813 / 23***	***3177***
Reg Id: 15330010				
UNITED METAL RECOVER	***12403 UNITED STREET***	***W 0 - 1/8 (0.024 mi.)***	***817 / 23***	***3193***
Reg Id: 15330007				
SILVER QUEEN JUNKYAR	***BACK LOT AT 11847 UN***	***WSW 1/8 - 1/4 (0.160 mi.)***	***836 / 23***	***3325***
Reg Id: 15500002				
COMMODITY RESOURCE &	***11847 UNITED ST***	***S 1/8 - 1/4 (0.163 mi.)***	***DI839 / 23***	***3349***
Reg Id: 15330008				
A & W SMELTERS AND R	SILVER QUEEN RD	W 1/4 - 1/2 (0.284 mi.)	841 / 23	3376
Reg Id: 15330009				
PRC-DE SOTO INTERNAT	***11601 UNITED STREET***	***S 1/4 - 1/2 (0.412 mi.)***	***DJ844 / 23***	***3385***
Reg Id: 15130013				

HWP: EnviroStor Permitted Facilities Listing

A review of the HWP list, as provided by EDR, and dated 02/18/2020 has revealed that there is 1 HWP site within approximately1 mile of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
COMMODITY RESOURCE &	11847 UNITED ST	S 1/8 - 1/4 (0.163 mi.)	DI837 / 23	3341
EPA Id: CAD981402522				
Cleanup Status: CLOSED				

MAPPED SITES SUMMARY

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION		
Reg / Multiple	EDWARDS AIR FORCE BA		DOD	54	0.010	SSE
Reg / Multiple	EDWARDS AIR FORCE BA	5 EAST POPSON AVE BL	NPL, SEMS, CORRACTS, RCRA-TSDF, RCRA-LQG	680	0.129	East
A1 / 2		18700 HIGHWAY 14	CHMIRS	TP		
A2 / 2		18700 HWY 14 NORTH	CHMIRS	TP		
A3 / 2		18700 HIGHWAY 14 6 M	CHMIRS	TP		
A4 / 2		18700 N HWY 14	HMIRS	TP		
A5 / 2		18700 N HWY 14	HMIRS	TP		
A6 / 2	KEMIRA WATER SOLUTIO	18700 N HIGHWAY 14	AST	TP		
A7 / 2	KEMIRA WATER SOLUTIO	18700 N HWY 14	AST	TP		
A8 / 2	KEMIRA WATER SOLUTIO	18700 N HIGHWAY 14	CERS HAZ WASTE, CERS TANKS, CERS	TP		
A9 / 2	KEMIRA WATER SOLUTIO	18700 HWY 14 N	CERS	TP		
A10 / 2	KEMIRON PACIFIC INC	18700 HIGHWAY 14 NOR	CERS	TP		
A11 / 2	KEMIRA WATER SOLUTIO	18700 HIGHWAY 14	HAZNET, HWTS	TP		
A12 / 2		18700 HIGHWAY 14 (IM	CHMIRS	TP		
A13 / 2		18700 HWY 14	CHMIRS	TP		
A14 / 2		18700 HWY 14	CHMIRS	TP		
A15 / 2	KEMIRA WATER SOLUTIO	18700 HWY 14 N	TRIS	TP		
A16 / 2	KEMIRA WATER SOLUTIO	18700 HWY 14 SOUTH	TSCA, FINDS, ECHO	TP		
A17 / 2	KEMIRON PACIFIC INCO	18700 HIGHWAY 14 NOR	TSCA	TP		
A18 / 2	KEMIRA WATER SOLUTIO	18700 HIGHWAY 14 NOR	RMP	TP		
A19 / 2	KEMIRON PACIFIC, INC	18700 HIGHWAY 14 NOR	RMP	TP		
A20 / 2	KEMIRON PACIFIC, INC	18700 HIGHWAY 14 NOR	RMP	TP		
A21 / 2		18700 HIGHWAY 14	ERNS	TP		
A22 / 2		18700 HWY 14 NORTH	ERNS	TP		
A23 / 2	KEMIRA WATER SOLUTIO	18700 N HIGHWAY 14	FINDS	TP		
24 / 2	TEHACHAPI CLAY		MINES MRDS	TP		
25 / 2	BORROW PIT		MINES MRDS	TP		
B26 / 2		IMPERIAL WEST CHEMIC	CHMIRS	TP		
B27 / 2		IMPERIAL WEST CHEMIC	CHMIRS	TP		
28 / 2	UNNAMED QUARRY		MINES MRDS	TP		
C29 / 9	MOJAVE PIT		MINES	TP		
C30 / 9	MOJAVE PIT		MINES MRDS	TP		
31 / 9	VIRGIN ORBIT, LLC	1223-A SABOVICH ST	CERS HAZ WASTE, CERS TANKS, CERS	TP		
D32 / 8	LA DEPARTMENT WATER	17031 SIERRA HWY	FINDS	TP		
E33 / 8	LA DEPARTMENT WATER	17031 SIERRA HWY	RCRA NonGen / NLR, FINDS	TP		
E34 / 8	MOJAVE YARD SO. DIST	17031 SIERRA HWY.	HIST UST	TP		
E35 / 8	MOJAVE YARD SO- DIST	17031 SIERRA HWA	HIST UST	TP		
E36 / 8	LA DEPT OF WATER AND	17031 SIERRA HWY	SWEEPS UST, CA FID UST	TP		
E37 / 8	LADWP MOJAVE YARD SO	17031 SIERRA HWY	LUST	TP		

MAPPED SITES SUMMARY

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
E38 / 8	LADWP MOJAVE	17031 SIERRA HWY	LUST, HIST CORTESE, CERS	TP
D39 / 8	LADWP MOJAVE YARD SO	17031 SIERRA HWY	FINDS	TP
F40 / 8	MOJAVE YARD EMERGENC	17031 HIGHWAY 14	NPDES, CIWQS, CERS	TP
F41 / 8	LA DEPT OF WATER - M	17031 HIGHWAY 14	UST	TP
F42 / 8	LA DEPT OF WATER AND	17031 HIGHWAY 14	AST	TP
F43 / 8	MOJAVE YARD	17031 HIGHWAY 14	UST	TP
F44 / 8	LOS ANGELES DEPARTME	17031 HIGHWAY 14	EMI	TP
F45 / 8	DAN DENNING	17031 HWY 14	PEST LIC	TP
F46 / 8	LA DEPT OF WATER AND	17031 HIGHWAY 14	FINDS	TP
F47 / 8	MOJAVE YARD	17031 HIGHWAY 14	CERS HAZ WASTE, CERS TANKS, CERS	TP
E48 / 8	LA DEPT OF WATER & P	17031 SIERRA HWY (HW	UST	TP
F49 / 8	RYDER TRANSPORTATION	18700 HWY 14 NORTH	HAZNET, HWTS	TP
F50 / 8		18700 HWY 14 NORTH	ERNS	TP
F51 / 8		18700 HWY 14 NORTH	ERNS	TP
F52 / 8		18700 HIWAY 14 NORTH	CHMIRS	TP
53 / 8	LA DWP MOJAVE	17031 SIERRA HIGHWAY	RGA LUST	TP
G54 / 8	MOJAVE CHIROPARACTIC	16940 HIGHWAY 14 STE	HWTS	TP
55 / 8	LADWP MOJAVE	17031 SIERRA HWY	FINDS	TP
G56 / 8	OASIS GAS AMERICA	16900 STATE HIGHWAY	EDR Hist Auto	TP
G57 / 8	E-Z SERVE INC #1245	16900 HWY 14	HWTS	TP
G58 / 8	OASIS GAS STATION	16900 HWY 14	HAZNET, HWTS	TP
G59 / 8	OASIS	16900 HIGHWAY 14	SWEEPS UST	TP
H60 / 8	MOJAVE CHIROPRACTIC	16916 HWY 14	HWTS	TP
H61 / 8	BRYCE L WHITE	16914 HWY 14	HWTS	TP
H62 / 8	KMART #9403	16890 STATE HWY 14	HWTS	TP
I63 / 8	STATER BROS MARKETS	16920 HIGHWAY 14	RCRA NonGen / NLR	TP
I64 / 8	STATER BROS MARKETS	16920 HIGHWAY 14	FINDS, ECHO	TP
I65 / 8	STATER BROS MARKETS	16920 HIGHWAY 14	HAZNET, HWTS	TP
I66 / 8	STATER BROS. MARKETS	16920 HIGHWAY 14	CERS HAZ WASTE, CERS	TP
67 / 8	EARTH RENEWAL RECYCL	16866 HWY 14	SWRCY	TP
J68 / 8	US HENDY OIL, INC	16825 HIGHWAY 14	CERS HAZ WASTE, CERS TANKS, CERS	TP
J69 / 8	OASIS CLUB INC	16825 STATE ROUTE 14	HWTS	TP
J70 / 8	U.S. HENDY OIL	16825 STATE HIGHWAY	EMI	TP
J71 / 8	US HENDY OILNA INC	16825 HIGHWAY 14	FINDS	TP
J72 / 8	USHENDY OIL IMPERIAL	16825 STATE HIGHWAY	HWTS	TP
J73 / 8	USHENDY OIL IMPERIAL	16825 STATE HIGHWAY	RCRA NonGen / NLR	TP
J74 / 8	U.S. HENDY OIL	16825 STATE HIGHWAY	FINDS, ECHO	TP
J75 / 8	OASIS CENTER	16825 HWY 14	UST	TP
J76 / 8	US HENDY OIL, INC	16825 HIGHWAY 14	UST	TP

MAPPED SITES SUMMARY

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
J77 / 8	LADWP MOJAVE YARD SO	17031 SIERRA HWY	RGA LUST	TP
K78 / 8	LA DWP MOJAVE YARD S	17031 SIERRA HWY	RGA LUST	TP
L79 / 9	MONITORING STATION	AIRPORT-BLDG 58	FINDS	TP
L80 / 9	MONITORING STATION	AIRPORT-BLDG 58	CERS	TP
K81 / 8	LA DEPARTMENT WATER	17031 SIERRA HWY	HAZNET, HWTS	TP
K82 / 8	LADWP MOJAVE	17031 SIERRA HWY	RGA LUST	TP
83 / 8	PEDESTRIAN PATH IMPR	STATE ROUTE 14	NPDES, CIWQS	TP
84 / 9	COMMERCIAL AIRCRAFT	MOJAVE AIRPORT BONEY	CERS HAZ WASTE, CERS	TP
85 / 8	BUDGET MOTEL	16698 SIERRA HWY	HAZNET, HWTS	TP
86 / 9	MOJAVE AGGREGATE PIT	P.O. BOX 31089	MINES	TP
87 / 8	AT&T	PO BOX 970	LUST, CERS	TP
M88 / 8	THE STAKE MILL	16552 CHRISTINE STRE	FINDS	TP
M89 / 8	THE STAKE MILL	16552 CHRISTINE STRE	EMI	TP
N90 / 8	SPEEDWAY TRAVEL CENT	16660 SIERRA HWY	HWTS	TP
N91 / 8	DOOMID INC	16660 SIERRA HWY	EDR Hist Auto	TP
N92 / 8	SPEEDWAY TRAVEL CENT	16660 SIERRA HWY	FINDS	TP
N93 / 8	GIANT TRUCK STOP	16600 SIERRA HWY	LUST, CERS HAZ WASTE, SWEEPS UST, HIST U...	TP
N94 / 8	ARCHER TRAVEL CENTER	16660 SIERRA HWY	UST	TP
O95 / 8	GRANT TRUCK STOPS-MO	16600 SIERRA HWY	HWTS	TP
O96 / 8	GIANT TRUCK STOP	16600 SIERRA HWY	RGA LUST	TP
O97 / 8		16600 N. HWY 14	CHMIRS	TP
O98 / 8	GIANT TRUCK STOP	16600 SIERRA HWY	CA FID UST	TP
O99 / 8	GIANT TRUCK STOP	16600 SIERRA HWY	FINDS	TP
O100 / 8	GIANT TRUCK STOP OF	16600 HWY 14	UST	TP
O101 / 8	GIANT TRUCK STOPS MO	16600 SIERRA HIGHWAY	HIST UST, HAZNET, HWTS	TP
O102 / 8	1X CALVERT CO	16600 SIERRA HWY	HAZNET, HWTS	TP
O103 / 8	CALVER CO*	16600 SIERRA HWY	EDR Hist Auto	TP
104 / 9	MOJAVE PIT		MINES	TP
105 / 8	CARDER TRUCK & REPAI	16500 SIERRA HWY	HWTS	TP
P106 / 8	CAPSED	17012 ROPER ST	HWTS	TP
P107 / 8	CAPSED	17012 ROPER ST	FINDS	TP
P108 / 8	TELEDYNE RYAN AERONA	17012 ROPER ST	RCRA-SQG, FINDS, ECHO, HAZNET, HWTS	TP
Q109 / 8	THE STAKE MILL	2555 DOUGLAS AVE	RCRA NonGen / NLR	TP
Q110 / 8	THE STAKE MILL	2555 DOUGLAS AVE	HWTS	TP
Q111 / 8	THE STAKE MILL	2555 DOUGLAS AVE	FINDS, ECHO	TP
R112 / 8	UNOCAL #4311	16451 NORTH SIERRA H	RGA LUST	TP
R113 / 8	UNOCAL #4311	16451 SIERRA HWY N	RGA LUST	TP
R114 / 8	UNOCAL #4311	16451 SIERRA HWY N	FINDS	TP
R115 / 8	UNOCAL SERVICE STATI	16451 SIERRA HIGHWAY	HAZNET, HWTS	TP

MAPPED SITES SUMMARY

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
R116 / 8	UNION OIL SERVICE ST	16451 SIERRA HWY	HIST UST	TP
R117 / 8	MOJAVE 76	16451 SIERRA HWY	EDR Hist Auto	TP
R118 / 8	STATION #4311	16451 SIERRA HWY	HIST UST	TP
R119 / 8	UNION OIL SERVICE ST	16451 N SIERRA HWY	SWEEPS UST, HIST UST, CA FID UST	TP
R120 / 8	UNION OIL STATION #	16451 N SIERRA HWY	UST	TP
R121 / 8	UNOCAL #4311	16451 SIERRA HWY N	LUST, HIST CORTESE, CERS	TP
122 / 9	MILLER PIT		MINES MRDS	TP
S123 / 8	DESERT DISTRIBUTING	16441 K ST	SWEEPS UST, CA FID UST	TP
S124 / 8	DESERT DISTRIBUTING	16441 K ST	HWTS	TP
S125 / 8	DESERT DISTRIBUTING	16441 K STREET	HIST UST	TP
S126 / 8	DESERT DISTRIBUTING	16441 "K" ST	UST	TP
T127 / 8		2001 BELSHAW	CHMIRS	TP
T128 / 8	GRANITE CONSTRUCTION	2001 BELSHAW ST	HAZNET, HWTS	TP
129 / 8	MOJAVE DRAINAGE IMPR	NUMEROUS LOCATIONS	CIWQS	TP
U130 / 9	MOJAVE	UNKNOWN	CERS	TP
U131 / 9	MOJAVE	UNKNOWN	FINDS	TP
S132 / 8	VESTAS AMERICAN WIND	16409 K ST	RCRA NonGen / NLR	TP
S133 / 8	VESTAS AMERICAN WIND	16409 K ST	CERS HAZ WASTE, CERS	TP
S134 / 8	VESTAS AMERICAN WIND	16409 K ST	HAZNET, HWTS	TP
S135 / 8	VESTAS AMERICAN WIND	16409 K ST	FINDS, ECHO	TP
136 / 8	MEILYS TIRE & ALIGNM	16396 K ST	HAZNET, HWTS	TP
V137 / 8	KIEFFE & SONS FORD	16400 SIERRA HWY	HWTS	TP
V138 / 8	KIEFFE & SONS FORD	16400 SIERRA HWY	UST	TP
V139 / 8	MOJAVE MOTORS DBA KI	16400 SIERRA HWY	CERS HAZ WASTE, RCRA NonGen / NLR, FINDS...	TP
V140 / 8	MOJAVE MOTORS DBA KI	16400 SIERRA HWY	ECHO	TP
141 / 8		SR-14 S/B I MILE N/O	CHMIRS	TP
W142 / 8		OAK CREEK & SIERRA H	CHMIRS	TP
W143 / 8		OAK CREEK RD @ HWY 1	CHMIRS	TP
W144 / 8		OAK CREEK ROAD AND S	CHMIRS	TP
145 / 9	FORMER MARINE CORPS	MOJAVE AIRPORT	LUST, CERS	TP
X146 / 8	CHEVRON USA INC MOJA	2481 OAK CREEK RD	RCRA NonGen / NLR, FINDS, ECHO	TP
X147 / 8	RAYMOS/ STRONG INC.	2481 OAK CREEK ROAD	HWTS	TP
X148 / 8	CHEVRON USA INC MOJA	2481 OAK CREEK ROAD	HWTS	TP
Y149 / 9	MARINE CORPS AIRSTAT		FUDS	TP
Y150 / 9	MARINE CORPS AIR STA	PORTION OF THE AREA	ENVIROSTOR	TP
Y151 / 9	FIELD CARRIER ROCKET		UXO	TP
Y152 / 9	EAST KERN AIRPORT		ENVIROSTOR	TP
Y153 / 9	MCAB MOJAVE(DUP)		ENVIROSTOR	TP
X154 / 8	JAGUR TRACTOR CO	2500 OAK CREEK	HWTS	TP

MAPPED SITES SUMMARY

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
W155 / 8	CASA DE GASA	16355 SIERRA HWY	CA FID UST	TP
W156 / 8	CASA DE GASA	16355 SIERRA HWY	HAZNET, CERS, HWTS	TP
W157 / 8	CASA DE GASA	16355 SIERRA HWY	LUST, SWEEPS UST	TP
W158 / 8	CASA DE GASA	16355 SIERRA HWY (HW	UST	TP
W159 / 8	CASA DE GASA	16355 SIERRA HWY	UST	TP
W160 / 8	CASA DE GASA	16355 SIERRA HWY	LUST	TP
W161 / 8	CASA DE GASA	16355 SIERRA HWY	FINDS	TP
W162 / 8	1X CACA DE GASA	16355 SIERRA HWY	HWTS	TP
W163 / 8	1X CASA DE GASA	16355 SIERRA HWY	HAZNET, HWTS	TP
W164 / 8	CASA DE GASA	16355 SIERRA HWY	HIST UST	TP
W165 / 8	CASA DE GASA	16355 SIERRA HWY	RGA LUST	TP
W166 / 8	CASA DE GASA	16355 SIERRA HWY	EDR Hist Auto	TP
167 / 8	18156 MOJAVE TRANSIT	16320 K STREET	NPDES	TP
X168 / 8	RAMOS/STRONG INC	2481 E DEAVER LN	AST	TP
X169 / 8	RAMOS STRONG	2481 E DEAVER LN	FINDS	TP
X170 / 8	RAMOS/STRONG INC	2481 E DEAVER LN	CERS HAZ WASTE, CERS TANKS, CERS	TP
X171 / 8	RAMOS/STRONG INC	2481 DEAVER LN	RCRA NonGen / NLR	TP
X172 / 8		2481 DEAVER LANE	CHMIRS	TP
X173 / 8	RAMOS/STRONG INC	2481 E DEAVER	AST	TP
X174 / 8	RAMOS/STRONG INC	2481 E DEAVER LN	ECHO	TP
X175 / 8	RAMOS STRONG	2481 DEAVER LANE	EMI	TP
X176 / 8	RAMOS/STRONG INC	2481 DEAVER LN	HAZNET, HWTS	TP
Z177 / 8	ARCO FAC #5674	16300 SIERRA HWY	LUST, SWEEPS UST, CA FID UST	TP
Z178 / 8	ARCO FACILITY NO. 05	16300 SIERRA HWY	LUST, CERS	TP
Z179 / 8	V&K OIL COMPANY	16300 SIERRA HIGHWAY	FINDS	TP
Z180 / 8	V&K OIL COMPANY	16300 SIERRA HIGHWAY	EMI	TP
Z181 / 8	ARCO 82752	16300 SIERRA HWY	FINDS	TP
Z182 / 8	ARCO AM/PM - V&K OIL	16300 SIERRA HWY	FINDS, ECHO	TP
Z183 / 8	ARCO FACILITY NO. 05	16300 SIERRA HWY	FINDS	TP
Z184 / 8	ARCO PRODUCTS COMPAN	16300 NORTH SIERRA H	HWTS	TP
Z185 / 8	AM PM MINI MART #567	16300 SIERRA HWY (HW	UST	TP
Z186 / 8	ARCO 82752	16300 SIERRA HWY	UST	TP
Z187 / 8	ARCO AM/PM - V&K OIL	16300 SIERRA HWY	HWTS	TP
Z188 / 8	B AND K OIL COMPANY	16300 SIERRA HWY	EDR Hist Auto	TP
Z189 / 8	ARCO AM/PM - V&K OIL	16300 SIERRA HWY	RCRA NonGen / NLR	TP
Z190 / 8	ARCO FACILITY NO. 05	16300 SIERRA HWY	RGA LUST	TP
Z191 / 8	ARCO PRODUCTS COMPAN	16300 SIERRA HWY	HAZNET, HWTS	TP
Z192 / 8	ARCO 82752	16300 SIERRA HWY	CERS HAZ WASTE, CERS TANKS, HAZNET, CERS	TP
193 / 8	DAVID DOMINGUEZ	2456 OAK CREEK RD.	HWTS	TP

MAPPED SITES SUMMARY

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
194 / 8	FLIGHT RESEARCH INC	MOJAVE AIRPORT HANGA	RCRA-SQG	TP
AA195 / 8	ARCO #5096	16271 SIERRA HWY N	RGA LUST	TP
AA196 / 8	RP&LM ENTERPRISES IN	16271 SIERRA HWY	HIST UST	TP
AA197 / 8	ARCO #5096	16271 SIERRA HWY N	LUST, HIST CORTESE, CERS	TP
AA198 / 8	BARNEYS ARCO SERVICE	16271 N SIERRA	EDR Hist Auto	TP
AA199 / 8	ARCO #5096	16271 SIERRA HWY N	FINDS	TP
AA200 / 8	NONE	16271 N SIERRA HWY	HIST UST	TP
AA201 / 8	ARCO SS #5096	16271 N SIERRA HWY	UST	TP
202 / 9	MARINE CORPS AIR STA	1434 FLIGHTLINE	CERS	TP
AB203 / 8	MOJAVE DEPARTMENT OF	2211 NADEAU ST	HAZNET, HWTS	TP
AB204 / 8	CALTRANS MOJAVE MAIN	2211 NADEAU ST	RGA LUST	TP
AB205 / 8	CALTRANS MOJAVE	2211 NADEAU ST	LUST, CERS HAZ WASTE, SWEEPS UST, CERS T..	TP
AB206 / 8	CAL TRANS MOJAVE MAI	2211 NADEAU ST	RGA LUST	TP
AB207 / 8	CAL TRANS MOJAVE	2211 NADEAU ST	RGA LUST	TP
AB208 / 8	MOJAVE MAINT. STA./A	2211 NADEAU ST	UST	TP
AB209 / 8	CALTRANS MOJAVE	2211 NADEAU ST	RGA LUST	TP
AB210 / 8	CALTRANS - MOJAVE MA	2211 NADEAU ST	RGA LUST	TP
AB211 / 8	CALTRANS - MOJAVE	2211 NADEAU	AST	TP
AB212 / 8	CALTRANS MOJAVE	2211 NADEAU ST	FINDS	TP
AB213 / 8	MOJAVE DEPARTMENT OF	2211 NADEAU ST	ECHO	TP
AB214 / 8	MOJAVE DEPARTMENT OF	2211 NADEAU ST	RCRA NonGen / NLR, FINDS	TP
AB215 / 8	CALTRANS-MOJAVE	2211 NADEAU ST	AST	TP
AC216 / 8	MOJAVE ELKS LODGE	16200 K ST	HAZNET, HWTS	TP
AC217 / 8	ELK'S LODGE #2059	16200 K ST	UST	TP
AB218 / 8	K C ROAD DEPT - MOJA	2200 NADEAU ST	FINDS	TP
AB219 / 8	K C ROAD DEPT - MOJA	2200 NADEAU ST	AST	TP
AB220 / 8	MOJAVE ROAD YARD	2200 NADEAU ST	HIST UST	TP
AB221 / 8	K C ROAD DEPT - MOJA	2200 NADEAU	AST	TP
AB222 / 8	KERN COUNTY ROADS	2200 NADEAU STREET	EMI	TP
AB223 / 8	KERN COUNTY RDS DEPT	2200 NADEAU ST	HAZNET, HWTS	TP
AB224 / 8	MOJAVE ROAD YARD	2200 NADEAU	UST	TP
AB225 / 8	KERN COUNTY RDS DEPT	2200 NADEAU ST	RCRA NonGen / NLR, FINDS, ECHO	TP
AB226 / 8	MOJAVE ROAD YARD	2200 NADEAU ST	CERS HAZ WASTE, SWEEPS UST, HIST UST, CE...	TP
AD227 / 8	1X ALL SHINE INC	16200 SIERRA HWY	HAZNET, HWTS	TP
AE228 / 9	XCOR AEROSPACE INCOR	1314 FLIGHT LINE	HAZNET, HWTS	TP
AE229 / 9	XCOR AEROSPACE, INC.	1314 FLIGHTLINE	FINDS	TP
AE230 / 9	OK AIRLINE SUPPORT I	1314 FLIGHTLINE BLDG	RCRA-SQG, FINDS, ECHO	TP
AF231 / 9	NORTHROP GRUMMAN (MO	1260 FLIGHT LINE, BL	FINDS, ECHO	TP
AF232 / 9	NORTHROP GRUMMAN (MO	1260 FLIGHT LINE, BL	RCRA-SQG	TP

MAPPED SITES SUMMARY

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
AF233 / 9	NORTHROP GRUMMAN MOJ	1260 FLIGHT LINE BLD	HAZNET, HWTS	TP
AD234 / 8	LA DEPARTMENT WATER	17031 SIERRA HWY	ECHO	TP
AG235 / 9	ANTELOPE VALLEY GENE	1122 FLIGHT LINE (BL	HWTS	TP
AG236 / 9	FIRESTAR ENGINEERING	1122 FLIGHT LINE 76	FINDS	TP
AG237 / 9	FIRESTAR ENGINEERING	1122 FLIGHTLINE ST	HWTS	TP
AH238 / 9	FLIGHT RESEARCH INC	1062 FLIGHTLINE ST H	FINDS	TP
AH239 / 9	FLIGHT RESEARCH INC	1062 FLIGHT LINE HAN	HAZNET, HWTS	TP
AF240 / 9	FLIGHT TEST AEROSPAC	1224 FLIGHT LINE HAN	FINDS	TP
AF241 / 9	AVTEL SERVICES INC	1224 FLIGHT LINE	HWTS	TP
AF242 / 9	MERCY AIR SERVICES I	1220 FLIGHTLINE 60	FINDS	TP
AF243 / 9	AIR METHODS CORP DBA	1220 FLIGHT LINE	HAZNET, HWTS	TP
AF244 / 9	AIR METHODS CORP DBA	1220 FLIGHT LINE	RCRA NonGen / NLR	TP
AF245 / 9	AIR METHODS CORP DBA	1220 FLIGHT LINE	FINDS, ECHO	TP
AF246 / 9	MERCY AIR SERVICE, I	1220 FLIGHTLINE DR	CERS HAZ WASTE, CERS	TP
AD247 / 8	WILLIES MOBIL SERVIC	16201 SIERRA HWY	EDR Hist Auto	TP
AD248 / 8	STEVE'S ROUGH RIDERS	16201 SIERRA HWY	SWEEPS UST, CA FID UST	TP
AD249 / 8	A GUNAWAN WAIDISONG	16201 SIERRA HWY	HAZNET, HWTS	TP
AD250 / 8	STEVES ROUGH RIDERS	16201 SIERRA HWY	LUST, HIST UST, CERS	TP
AD251 / 8	WIBISONO PROPERTY	16201 SIERRA HWY	RGA LUST	TP
AD252 / 8	GUNAWAN WIBISONO PRO	16201 SIERRA HWY	UST	TP
AD253 / 8	WIBISONO PROPERTY	16201 SIERRA HWY	FINDS	TP
AD254 / 8	UNKNOWN	16201 SIERRA HWY	RGA LUST	TP
AD255 / 8	WIBISONO PROPERTY	16201 SIERRA HWY	LUST	TP
AI256 / 8	HALL AMBULANCE SERVI	1901B BELSHAW ST	CERS	TP
AI257 / 8	HALL AMBULANCE SERVI	1901B BELSHAW ST	FINDS	TP
AJ258 / 8	AVIATION WAREHOUSE I	1434 FLIGHT LINE	HAZNET, HWTS	TP
AJ259 / 8	THE UNITED STATES AR	1434 FLIGHT LINE	HAZNET, HWTS	TP
AJ260 / 8	AUTEL SERVICES INC	1434 FLIGHT LINE	HAZNET, HWTS	TP
AJ261 / 8	EAST KERN AIRPORT DI	1434 FLIGHTLINE (BLD	FINDS	TP
AJ262 / 8	B A E SYSTEMS FLIGHT	1434 FLIGHT LINE BLD	HWTS	TP
AJ263 / 8	MOJAVE AIR AND SPACE	1434 FLIGHT LINE	FINDS, ECHO	TP
AJ264 / 8	COMMERCIAL AIRCRAFT	1434 FLIGHT LINE	HWTS	TP
AJ265 / 8	PINYON PINES WIND IN	1434 FLIGHTLINE RD S	FINDS	TP
AJ266 / 8	NORTHROP GRUMMAN SYS	1434 FLIGHT LINE	HWTS	TP
AJ267 / 8	WHITTINGHILL AEROSPA	1434 FLIGHT LINE TES	CERS HAZ WASTE, CERS	TP
AJ268 / 8	B A E SYSTEMS FLIGHT	1434 FLIGHT LINE BLD	RCRA NonGen / NLR	TP
AJ269 / 8	MOJAVE AIR AND SPACE	1434 FLIGHT LINE	HAZNET, NPDES, CIWQS, CERS, HWTS	TP
AJ270 / 8	EAST KERN AIRPORT DI	1434 FLIGHTLINE BLDG	HAZNET, HWTS	TP
AJ271 / 8	COMMERCIAL AIRCRAFT	1434 FLIGHT LINE	RCRA NonGen / NLR	TP

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MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
AJ272 / 8	GENERAL RAILWAY SERV	1434 FLIGHT LINE BLD	HAZNET, HWTS	TP
AJ273 / 8	COMMERCIAL AIRCRAFT	1434 FLIGHT LINE	FINDS, ECHO	TP
AJ274 / 8	MOJAVE AIR AND SPACE	1434 FLIGHT LINE ROA	NPDES, CIWQS, CERS	TP
AJ275 / 8	BAE SYSTEMS FLIGHT S	1434 FLIGHT LINE BLD	RCRA-SQG, FINDS, ECHO	TP
AJ276 / 8	EAST KERN AIRPORT DI	1434 FLIGHT LINE	HAZNET, HWTS	TP
AJ277 / 8		1434 FLIGHT LINE STR	ERNS	TP
AJ278 / 8	NORTHROP GRUMMIN COR	1434 FLIGHT LINE	RCRA NonGen / NLR	TP
AJ279 / 8	NORTHROP GRUMMIN COR	1434 FLIGHT LINE	ECHO	TP
AJ280 / 8	EAST KERN AIRPORT DI	1434 FLIGHTLINE (BLD	AST	TP
AJ281 / 8	US ARMY CORP OF ENGI	1434 FLIGHT LINE	HWTS	TP
AJ282 / 8	P & M AIRCRAFT INC	1434 FLIGHT LINE	HWTS	TP
AJ283 / 8	MOJAVE AIR AND SPACE	1434 FLIGHTLINE (BLD	AST	TP
AJ284 / 8	MARINE CORPS AIR STA	1434 FLIGHTLINE	RESPONSE, ENVIROSTOR, CHMIRS, WDS	TP
AJ285 / 8		1434 FLIGHT LINE ST	CHMIRS	TP
286 / 8	MOJAVE AIR AND SPACE	1434 FLIGHTLINE (BLD	CERS HAZ WASTE, CERS TANKS, CERS	TP
AC287 / 8	FREEWAY SMOG TEST &	16158 K ST	RCRA NonGen / NLR	TP
AC288 / 8	MOJAVE AUTO REPAIR &	16158 K ST	HAZNET, HWTS	TP
AC289 / 8	DON'S OIL CHANGERS	16158 K ST	HAZNET, HWTS	TP
AC290 / 8	FREEWAY SMOG TEST &	16158 K ST	ECHO	TP
AC291 / 8	DONS OIL CHANGERS	16158 K ST	HAZNET, HWTS	TP
AC292 / 8	FREEWAY SMOG & AUTO	16158 K STREET	HAULERS	TP
AC293 / 8	BEST AUTO REPAIR	16158 K ST	HWTS	TP
AC294 / 8	FREEWAY SMOG TEST &	16158 K ST	HWTS	TP
AC295 / 8	FREEWAY SMOG TEST &	16158 K ST	FINDS	TP
AC296 / 8	DON'S LUBE & OIL	16158 K ST	HWTS	TP
297 / 8		2860 OAKCREEK RD, #3	CDL	TP
AK298 / 8	ANTELOPE VALLEY GENE	1504 FLIGHT LINE BLD	HAZNET, HWTS	TP
AK299 / 8	VIKING AVIATION INC	1504 FLIGHT LINE STE	HWTS	TP
AK300 / 8	VIKING AVIATION	1504 FLIGHT LINE HNG	HWTS	TP
AK301 / 8	BAE SYSTEMS-IESI	1506 FLIGHT LINE BLD	HAZNET, HWTS	TP
AK302 / 8	CALSPAN BICYCLE WORK	1506 FLIGHT LINE BLD	HAZNET, HWTS	TP
AK303 / 8	NORTHROP GRUMMAN MOJ	1506 FLIGHT LINE ON	FINDS	TP
AK304 / 8	NORTHROP GRUMMAN MOJ	1506 FLIGHT LINE ON	ECHO	TP
AK305 / 8	NORTHROP GRUMMAN MOJ	1506 FLIGHT LINE	RCRA NonGen / NLR	TP
AK306 / 8	NORTHRUP GRUMMAN MOJ	1506 FLIGHT LINE ON	HAZNET, HWTS	TP
AL307 / 8	KA FLEETONE INC	2471 NADEAU ST	FINDS, ECHO	TP
AL308 / 8	KELLEY FLEET SERVICE	2471 NADEAU ST	HAZNET, HWTS	TP
AL309 / 8	PEPSI COLA COMPANY	2471 NADEAU	RGA LUST	TP
AL310 / 8	PEPSI COLA COMPANY	2471 NADEAU ST	RGA LUST	TP

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AL311 / 8	PEPSI COLA BOTTLING	2471 NADEAU	LUST, SWEEPS UST, HIST UST, CA FID UST, ...	TP
AL312 / 8	KA FLEETONE INC	2471 NADEAU ST	HWTS	TP
AL313 / 8	PEPSI COLA COMPANY	2471 NADEAU ST	LUST	TP
AL314 / 8	PEPSI-COLA BOTTLING	2471 NADEAU ST	UST	TP
AL315 / 8	PEPSI BEVERAGES COMP	2471 NADEAU ST	FINDS	TP
AL316 / 8	PEPSI COLA BOTTLING	2471 NADEAU ST	HAZNET, HWTS	TP
AL317 / 8	NEWBERN TRANSPORTATI	2471 NADEAU	HAZNET, HWTS	TP
AL318 / 8	KA FLEETONE INC	2471 NADEAU ST	RCRA NonGen / NLR	TP
AM319 / 8	THE SPACESHIP COMPAN	1570 FLIGHT LINE	FINDS	TP
AM320 / 8	THE SPACESHIP COMPAN	1570 FLIGHT LINE	EMI	TP
AN321 / 8	TEST SITE 19 LEASE A	1624 FLIGHT LINE ROA	NPDES	TP
AN322 / 8	SCALED COMPOSITES, L	1624 FLIGHT LINE RD.	FINDS	TP
AN323 / 8	SCALED COMPOSITES IN	1624 FLIGHT LINE, HA	FINDS, ECHO	TP
AN324 / 8	SCALED COMPOSITES LL	1624 FLIGHT LINE BLD	HAZNET	TP
AN325 / 8	SCALED COMPOSITES, L	1624 FLIGHTLINE	HAZNET, HWTS	TP
AN326 / 8	SCALED COMPOSITES	1624 FLIGHT LINE BUI	EMI	TP
AN327 / 8	SCALED COMPOSITES LL	1624 FLIGHT LINE BLD	RCRA-SQG	TP
AO328 / 9	ORBITAL SCIENCES COR	17143 FLIGHT SYSTEMS	CERS HAZ WASTE, CERS	TP
AO329 / 9	ORBITAL SCIENCES COR	17143 FLIGHT SYSTEMS	FINDS	TP
AP330 / 8	UNITED STATES POSTAL	2053 BELSHAW ST	HAZNET, HWTS	TP
AP331 / 8	US POSTAL SERVICE/MO	2053 BELSHAW ST	HAZNET, HWTS	TP
AQ332 / 8	SOUTHERN CALIFORNIA	OAK CREEK ROAD AND H	FINDS	TP
AQ333 / 8	SOUTHERN CALIFORNIA	CORNER OF HOLT ST. A	HAZNET, HWTS	TP
AQ334 / 8	SCE GOLDTOWN SUBSTAT	OAK CREEK ROAD AND H	CERS	TP
AQ335 / 8	SOUTHERN CALIFORNIA	CORNER OF HOLT ST. A	HAZNET, HWTS	TP
AP336 / 8	EAST KERM CEMETERY D	2040 BELSHAW ST	HWTS	TP
337 / 9	FLIGHT RESEARCH INC	1062 FLIGHTLINE ST H	CERS HAZ WASTE, CERS	TP
AR338 / 9	TSC, LLC	1223-A SABOVICH ST	AST	TP
AR339 / 9	TSC, LLC	1223-A SABOVICH ST	CERS HAZ WASTE, CERS	TP
AP340 / 8	PACIFIC BELL	2100 BELSHAW AVENUE	EMI	TP
AP341 / 8	AT&T CALIFORNIA - SA	2100 BELSHAW ST	FINDS	TP
AP342 / 8	PACIFIC BELL TELEPHO	2100 BELSHAW	SWEEPS UST, HIST UST, CA FID UST, RCRA N...	TP
AP343 / 8	PACIFIC BELL TELEPHO	2100 BELSHAW ST	CERS HAZ WASTE, HAZNET, CERS, HWTS	TP
344 / 8	MOJAVE HOTEL INVESTM	16100 SIERRA HWY	HAZNET, HWTS	TP
AS345 / 8	WESTERN COUPLING	1711 SABOVICH ST MOJ	RCRA-SQG, FINDS, ECHO, HAZNET, HWTS	TP
AS346 / 8	ALPHA EXPLOSIVES	1683 SABOVICH STREET	FINDS	TP
AS347 / 8	ALPHA EXPLOSIVES	1683 SABOVICH STREET	EMI	TP
AT348 / 8	BAE SYSTEMS	1501 SABOVICH STREET	EMI	TP
AT349 / 8	BAE SYSTEMS IESI	1501 SABOVICH ST	ICIS, FINDS, ECHO	TP

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AT350 / 8	BAE SYSTEMS MOJAVE O	1501 SABOVICH STREET	RCRA NonGen / NLR	TP
AT351 / 8	BAE SYSTEMS MOJAVE O	1501 SABOVICH ST BLD	HAZNET, HWTS	TP
AT352 / 8	BAE SYSTEMS	1501 SABOVICH ST BLD	FINDS	TP
AT353 / 8	BAE SYSTEMS-IESI	1501 SABOVICH ST BLD	HAZNET, HWTS	TP
AT354 / 8	BAE SYSTEMS - BLDG 6	1501 SABOVICH ST BLD	CERS HAZ WASTE, CERS	TP
AT355 / 8	BAE SYSTEMS IESI INC	1501 SABOVICH STREET	CERS	TP
AU356 / 9	TSC LLC	1223A SABOVICH ST BL	FINDS, ECHO	TP
AU357 / 9	TSC LLC	1223A SABOVICH ST BL	RCRA-SQG	TP
AU358 / 9	THE SPACESHIP COMPAN	1223A SABOVICH STREE	EMI	TP
AU359 / 9	TSC LLC	1223A SABOVICH ST BL	HAZNET, HWTS	TP
AU360 / 9	THE SPACESHIP COMPAN	1223A SABOVICH STREE	FINDS	TP
AU361 / 9	TSC LLC	1223A SABOVICH ST BL	HAZNET, HWTS	TP
AU362 / 9	MITSUBISHI POWER SYS	1223 SABOVICH ST STE	HWTS	TP
AV363 / 9	RENEWABLE MANAGEMENT	1011 SABOVICH ST	HAZNET, HWTS	TP
AW364 / 8	UNITED PARCEL SERVIC	1522 SABOVITCH ST	SWEEPS UST, CA FID UST	TP
AU365 / 9	TSCNA LLC	1223-A SABOVICH ST	FINDS	TP
366 / 8	SHAWNS TRUCK STOP	16137 I ST	EDR Hist Auto	TP
367 / 8	ALPHA DYNO NOBEL	1824 SABOVICH ST, ST	HAZNET, HWTS	TP
AS368 / 8	BAE SYSTEMS INC	1718 SABOVICH ST	HAZNET, HWTS	TP
AS369 / 8	ALPHA EXPLOSIVES	1682 SABOVICH ST	HAZNET, HWTS	TP
AS370 / 8	ALPHA EXPLOSIVES	1682 SABOVICH ST	RCRA NonGen / NLR	TP
AS371 / 8	ALPHA DYNO NOBEL	1682 SABOVICH	AST	TP
AS372 / 8	THE BOEING CO.	1682 SABOVICH ST	HAZNET, HWTS	TP
AS373 / 8	ALPHA DYNO NOBEL	1682 SABOVICH ST 30	AST	TP
AS374 / 8	ALPHA DYNO NOBEL	1682 SABOVICH ST 30	CERS HAZ WASTE, CERS TANKS, CERS	TP
AS375 / 8	ALPHA EXPLOSIVES	1682 SABOVICH ST	FINDS, ECHO	TP
AS376 / 8	ALPHA DYNO NOBEL MOJ	1682 SABOVICH STREET	FINDS	TP
AW377 / 8	STINGER ENGINES INC	1620 SABOVICH ST UNI	HWTS	TP
AW378 / 8	MASTEN SPACE SYSTEMS	1570 SABOVICH ST BLD	RCRA NonGen / NLR	TP
AW379 / 8	MASTEN SPACE SYSTEMS	1570 SABOVICH ST BLD	HWTS	TP
AW380 / 8	MASTEN SPACE SYSTEMS	1570 SABOVICH ST	CERS HAZ WASTE, CERS	TP
AW381 / 8	MASTEN SPACE SYSTEMS	1570 SABOVICH ST	FINDS, ECHO	TP
AT382 / 8	THE ENERGY ENHANCEME	1522 SABOVICH ST	HAZNET, HWTS	TP
AT383 / 8	UNITED PARCEL SERVIC	1522 SABOVICH BLDG 1	UST	TP
AT384 / 8	UNITED PARCEL SERVIC	1522 SABOVICH BLDG 1	UST	TP
AT385 / 8	UNITED PARCEL SERVIC	1522 SABOVICH ST	HAZNET, HWTS	TP
AT386 / 8	UNITED PARCEL SERVIC	1522 SABOVICH BLDG 1	FINDS, ECHO	TP
AT387 / 8	UNITED PARCEL SERVIC	1522 SABOVICH BLDG 1	AST	TP
AT388 / 8	UNITED PARCEL SERVIC	1522 SABOVICH ST	RCRA NonGen / NLR	TP

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MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
AT389 / 8	THE ENERGY ENCHANCEM	1522 SABOVICH ST	HAZNET, HWTS	TP
AT390 / 8	UPS	1522 SABOVICH ST	NPDES, WDS, CIWQS	TP
AT391 / 8	THE ENERGY ENHANCEME	1522 SABOVICH AVE	FINDS, ECHO	TP
AT392 / 8	THE ENERGY ENHANCEME	1522 SABOVICH AVE	RCRA-SQG	TP
AT393 / 8	UPS - MOJAVE	1522 SABOVICH BLDG 1	CERS HAZ WASTE, CERS	TP
AT394 / 8	THE ENERGY ENHANCEME	1522 SABOVICH AVE	RCRA-LQG	TP
AT395 / 8	UPS - MOJAVE	1522 SABOVICH BLDG 1	UST	TP
AR396 / 9	DERRINGER AIRCRAFT C	1246 SABOVICH	HAZNET, HWTS	TP
AV397 / 9	ASB AVIONICS	1032 SABOVICH 101	FINDS	TP
AV398 / 9	ASB AVIONICS	1032 SABOVICH 101	CERS HAZ WASTE, CERS	TP
AV399 / 9	ASB AVIONICS LLC	1032 SABOVICH ST	HWTS	TP
400 / 8	GLORIA VAUGHN	15946 P STREET	HWTS	TP
AV401 / 9	TSC FAITH HANGAR	16555 SPACESHIP LAND	CIWQS	TP
AX402 / 9	KCWMD - SPECIAL WAST	17035 FINNIN ST BLDG	CERS HAZ WASTE, CERS	TP
AY403 / 8	INTERORBITAL	1394 BARNES	CERS	TP
AY404 / 8	INTERORBITAL	1394 BARNES	FINDS	TP
AZ405 / 8	WHITE'S SHELL STATIO	16074 SIERRA HWY	FINDS	TP
AZ406 / 8	1X WHITE, JOHN	16074 SIERRA HWY	HAZNET, HWTS	TP
AZ407 / 8	WHITES SHELL STATION	16074 SIERRA HWY	EDR Hist Auto	TP
AZ408 / 8	WHITE'S SHELL STATIO	16074 SIERRA HWY	CA FID UST	TP
AZ409 / 8	WHITE'S SHELL STATIO	16074 SIERRA HWY	LUST, SWEEPS UST, HIST UST, CERS	TP
AZ410 / 8	WHITE'S SHELL	16074 SIERRA HWY	RGA LUST	TP
AZ411 / 8	WHITE'S SHELL STATIO	16074 SIERRA HWY	RGA LUST	TP
AZ412 / 8	WHITE'S SHELL	16074 SIERRA	LUST, HIST CORTESE	TP
AZ413 / 8	1X WHITES SHELL STAT	16074 SIERRA HWY	HAZNET, HWTS	TP
AX414 / 9	KCWMD - SPECIAL WAST	17035 FINNIN ST BLDG	FINDS	TP
AX415 / 9	KERN COUNTY SPECIAL	17035 FINNIN STREET	FINDS	TP
BA416 / 8	CHARLES MORRIS	15925 Q ST	HAZNET, HWTS	TP
BA417 / 8	MORRIS PROPERTY	15925 Q ST	UST	TP
AZ418 / 8	MOJAVE SHELL	16048 SIERRA HWY (HW	FINDS	TP
AZ419 / 8	INYO CRUDE INC	16048 SIERRA HWY	EDR Hist Auto	TP
AZ420 / 8	INYO CRUDE INC.	16048 SIERRA HIGHWAY	FINDS	TP
AZ421 / 8	MOJAVE SHELL	16048 SIERRA HWY (HW	UST	TP
AZ422 / 8	INYO CRUDE INC.	16048 SIERRA HIGHWAY	EMI	TP
AZ423 / 8	MOJAVE SHELL	16048 SIERRA HWY	HWTS	TP
AZ424 / 8	MOJAVE SHELL	16048 SIERRA HWY (HW	CERS TANKS, CERS	TP
AZ425 / 8	11873 RB6T	HWY 14 & SALTDALE RD	FINDS	TP
AZ426 / 8	FAA-FREEMONT VALLEY	OFF PHILIPS RANCH RO	CERS	TP
AZ427 / 8	NORTHROP GRUMMAN SYS	1260 FLIGHTLINE HANG	CERS HAZ WASTE, CERS	TP

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MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
BB428 / 8	MOJAVE USD	1834 INYO ST	RCRA NonGen / NLR	TP
BB429 / 8	1X MOJAVE SCHOOL DIS	1834 INYO STREET	HWTS	TP
BB430 / 8	MOJAVE UNIFIED SCHOO	1834 INYO ST	CERS HAZ WASTE, CERS TANKS, HAZNET, CERS	TP
BB431 / 8	MOJAVE USD	1834 INYO ST	HAZNET, HWTS	TP
BB432 / 8	MOJAVE UNIFIED SCHOO	1834 INYO ST	AST	TP
BB433 / 8	MOJAVE UNIFIED SCHOO	1834 INYO	AST	TP
BB434 / 8	MOJAVE UNIFIED SCHOO	1834 INYO ST	HAZNET, HWTS	TP
BB435 / 8	1X MOJAVE U.S.D.	1834 INYO	HAZNET, HWTS	TP
BB436 / 8	MOJAVE UNIFIED SCHOO	1834 INYO ST	FINDS	TP
BB437 / 8	MOJAVE USD	1834 INYO ST	FINDS, ECHO	TP
BB438 / 8	TRANSPORTATION DEPAR	1830 INYO ST	HIST UST	TP
BB439 / 8	TRANSPORTATION DEPAR	1830 INYO ST	SWEEPS UST, HIST UST, CA FID UST	TP
BC440 / 8	SOUTHERN CALIFORNIA	1700 INYO ST	CERS	TP
BC441 / 8	SOUTHERN CALIFORNIA	1700 INYO ST	FINDS	TP
442 / 8	SOUTHERN CALIFORNIA	1900 INYO ST	HAZNET, HWTS	TP
BD443 / 9		16880 FLIGHT SYSTEMS	CHMIRS	TP
BD444 / 9	NORTHROP GRUMMAN SYS	16880 FLIGHT SYSTEMS	CERS HAZ WASTE, CERS	TP
BD445 / 9	AVTEL SVCS INC	16880 AVTEL DR HANGA	HAZNET, HWTS	TP
BD446 / 9	SOUTHERN CALIFORNIA	16880 FLIGHT SYSTEMS	HAZNET, HWTS	TP
BD447 / 9	KING KONA PRODUCTION	16880 LAIDLAW	HWTS	TP
BD448 / 9	NORTHROP GRUMMAN SYS	16880 FLIGHT SYSTEMS	EMI	TP
BD449 / 9	NORTHROP GRUMMAN MOJ	16880 FLIGHT SYSTEMS	HAZNET, HWTS	TP
BD450 / 9	NORTHROP GRUMMAN MOJ	16880 FLIGHT SYSTEMS	RCRA-LQG, ECHO	TP
BD451 / 9	NORTHROP GRUMMAN MOJ	16880 FLIGHT SYSTEMS	FINDS	TP
BD452 / 9	AVTEL SERVICES INC.	16880 AVTEL DR	RCRA-SQG	TP
BD453 / 9	AVTEL SERVICES INC.	16880 AVTEL DRIVE	FINDS, ECHO	TP
BD454 / 9	BAE SYSTEMS-IESI	16880 FLIGHT SYSTEMS	HAZNET, HWTS	TP
BD455 / 9	BAE SYSTEMS BLDG. 21	16880 FLIGHT SYSTEMS	AST	TP
BD456 / 9	BAE SYSTEMSNA BLDG.	16880 FLIGHT SYSTEMS	FINDS	TP
BE457 / 8	K STREET INTERSECTIO	15999 K STREET	NPDES, CIWQS	TP
BE458 / 8	MAC ARTHUR MARIANNA	2326 CERRO GORDO	EDR Hist Cleaner	TP
459 / 8	ROBERT & JUDY SAUNDE	3175 JEAN DR	HAZNET, HWTS	TP
BF460 / 8	BLANCHARD FLOYD E	15974 SIERRA HWY	EDR Hist Auto	TP
BG461 / 8	HELENE SMITH & SONS	15931 L ST	HWTS	TP
462 / 8	PARK PALACE 2 APARTM	16197 H ST	NPDES, CIWQS	TP
BH463 / 9	NORTHROP GRUMMAN SYS	1031 MOBLEY ST HANGA	CERS HAZ WASTE, CERS	TP
BH464 / 9	FLIGHT TEST ASSOCIAT	1031 MOBLEY HANGAR 1	HAZNET, HWTS	TP
BH465 / 9	NORTHROP GRUMMAN COR	1031 MOBLEY ST, HANG	HAZNET, HWTS	TP
BH466 / 9	NORTHROP GRUMMAN COR	1031 MOBLEY ST HANGA	RCRA-SQG, FINDS, ECHO	TP

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467 / 8	INNOVATIVE ENGINEERI	TEST SITE 20	CERS	TP
BI468 / 8	WHALING, KIM	15974 JEAN DR	HWTS	TP
BI469 / 8	WHALING, KIM	15974 JEAN DR	FINDS, ECHO	TP
BI470 / 8	WHALING, KIM	15974 JEAN DR	RCRA NonGen / NLR	TP
BJ471 / 8	KERN COUNTY REGIONAL	15926 SOUTH K ST	HAZNET, HWTS	TP
BJ472 / 8	1X KERN COUNTY REGIO	15926 SOUTH K STREET	HWTS	TP
BG473 / 8	STICKEL MORTUARY	2201 INYO ST	UST	TP
BF474 / 8	KTM OF MOJAVE	15938 SIERRA HWY	HAZNET, HWTS	TP
BK475 / 8	RANDALL A KELLEY	16852 ROPER RD	FINDS, ECHO	TP
BK476 / 8	RANDALL KELLEY	16852 ROPER ST BLDG	CERS HAZ WASTE, CERS	TP
BK477 / 8	RANDALL A. KELLEY	16852 ROPER ST	HAULERS	TP
BK478 / 8	RANDALL A KELLEY	16852 ROPER RD	RCRA NonGen / NLR	TP
BK479 / 8	RANDALL A KELLEY	16852 ROPER RD	HAZNET, HWTS	TP
BK480 / 8	RANDALL KELLEY	16852 ROPER ST BLDG	FINDS	TP
BK481 / 8	JOHNSONS AUTO REPAIR	16853 ROPER ST BLDG	HWTS	TP
482 / 8	DONNA LOPEZ	15938 REXROTH ST	HAZNET, HWTS	TP
BL483 / 8	CARL'S JR #176	15900 SIERRA HIGHWAY	FINDS	TP
BL484 / 8	CARL'S JR #176	15900 SIERRA HIGHWAY	EMI	TP
485 / 8	17018 PED PATH IMPRO	VARIOUS STREETS	NPDES, CIWQS	TP
486 / 8	STREET LIGHT IMPROVE	K STREET	NPDES, CIWQS	TP
BM487 / 8	1X MUSD MOJAVE ELEM	15800 O ST .	HWTS	TP
BM488 / 8	MOJAVE USD	15800 O ST	HAZNET, HWTS	TP
BM489 / 8	MOJAVE USD - MOJAVE	15800 O ST	HAZNET, HWTS	TP
BM490 / 8	MOJAVE ELEMENTARY SC	15800 O STREET	HWTS	TP
BL491 / 8	MOJAVE STATION	15887 N SIERRA HWY	UST	TP
BL492 / 8	SOUTHERN PACIFIC - M	15887 SIERRA HWY N	RGA LUST	TP
BL493 / 8	1X SOUTHERN PACIFIC	15887 NO SIERRA HWY	HAZNET, HWTS	TP
BL494 / 8	SOUTHERN PACIFIC - M	15887 SIERRA HWY N	FINDS	TP
BL495 / 8	MOJAVE STATION	15887 SIERRA HWY	HIST UST	TP
BL496 / 8	SOUTHERN PACIFIC - M	15887 SIERRA HWY N	LUST, HIST CORTESE, CERS	TP
BN497 / 8	BEE B COY JR	15844 K ST	PEST LIC	TP
BN498 / 8	MOJAVE CS	15844 K STREET	CIWQS	TP
BN499 / 8	MOJAVE CS	15844 K	FINDS	TP
BN500 / 8	MOJAVE PUBLIC UTILIT	15844 K ST	CERS HAZ WASTE, SWEEPS UST, CA FID UST, ...	TP
BN501 / 8	MOJAVE PUBLIC UTILIT	15844 K ST	RCRA NonGen / NLR	TP
BN502 / 8	MOJAVE PUD	15844 K ST	FINDS, ECHO	TP
BN503 / 8	1X MOJAVE PUBLIC UTI	15844 K ST	HAZNET, HWTS	TP
BN504 / 8	MOJAVE PUBLIC UTILIT	15844 "K" ST	UST	TP
505 / 8	MOJAVE STATION	15867 N SIERRA HY	HIST UST	TP

MAPPED SITES SUMMARY

Target Property:
BELLEFIELD
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MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
BO506 / 8	UNION PACIFIC RAILRO	15780 I ST.	HAZNET, HWTS	TP
BO507 / 8	UNION PACIFIC RAILRO	15780 SOUTH I ST	HWTS	TP
BP508 / 8	MOJAVE HIGH SCHOOL M	15732 O ST	FINDS	TP
BP509 / 8	MOJAVE HIGH SCHOOL M	15732 O ST	CERS	TP
BP510 / 8	MAJAVE HIGH SCHOOL	15732 O ST.	HAZNET, HWTS	TP
BP511 / 8	MOJAVE UNIFIED SCHOO	15732 O ST	HAZNET, HWTS	TP
BP512 / 8	MOJAVE HIGH SCHOOL	15732 O STREET	HIST UST, HAZNET, HWTS	TP
BP513 / 8	MOJAVE UNIFIED SCHOO	15732 O ST	HAZNET, HWTS	TP
BQ514 / 8	CHEVRON 91095	15800 SIERRA WAYOUNT	HAZNET, HWTS	TP
BQ515 / 8	CHEVRON STATION #910	15800 SIERRA HWY	HAZNET, HWTS	TP
BQ516 / 8	RAMOS STRONG	15800 SIERRA HIGHWAY	FINDS	TP
BQ517 / 8	CHEVRON STATION NO 9	15800 SIERRA HWY	RCRA NonGen / NLR, FINDS, ECHO	TP
BQ518 / 8	MOJAVE CHEVRON #9109	15800 SIERRA HWY (HW	UST	TP
BQ519 / 8		15800 SIERRA HWY	RCRA NonGen / NLR	TP
BQ520 / 8	CHEVRON #1095	15800 SIERRA HWY	RGA LUST	TP
BQ521 / 8	RAMOS STRONG	15800 SIERRA HIGHWAY	EMI	TP
BQ522 / 8	91095	15800 SIERRA HWY	SWEEPS UST, HIST UST	TP
BQ523 / 8	MOJAVE CFN	15800 SIERRA HWY	ECHO	TP
BQ524 / 8	CHEVRON #1095	15800 SIERRA HWY	FINDS	TP
BQ525 / 8	MOJAVE CFN	15800 SIERRA HWY	HWTS	TP
BQ526 / 8	APSI CHEVRON 1401	15800 SIERRA HWY	EDR Hist Auto	TP
BQ527 / 8	1X CHEVERON CORP	15800 SIERRA HWY	HAZNET, HWTS	TP
BQ528 / 8	CHEVRON #1095	15800 SIERRA HWY	LUST, SWEEPS UST, HIST CORTESE, CERS	TP
BO529 / 8		15772 SOUTH I. STREE	CHMIRS	TP
BO530 / 8		15772 SOUTH I ST	ERNS	TP
BQ531 / 8	RSI CARDLOCK	15800 HIGHWAY 14 (SI	CERS HAZ WASTE, CERS TANKS, CERS	TP
BQ532 / 8	RSI CARDLOCK	15800 HIGHWAY 14 (S	FINDS	TP
BQ533 / 8	RSI CARDLOCK	15800 HIGHWAY 14 (SI	UST	TP
BO534 / 8		15760 I ST.	CHMIRS	TP
BQ535 / 8	91095	15800 SIERRA HWY	SWEEPS UST, CA FID UST	TP
536 / 8	BANK OF AMERICA	15773 K ST	HAZNET, HWTS	TP
BQ537 / 8	CONOCO PHILLIPS #251	15764 SIERRA HWY	HAZNET, HWTS	TP
BQ538 / 8	GASOLINE RETAIL	15764 SIERRA HWY	EDR Hist Auto	TP
BQ539 / 8	SIERRA HWY UNOCAL #1	15764 SIERRA HWY	RGA LUST	TP
BQ540 / 8	RAMOS/STRONG INC DBA	15764 SIERRA HWY	HWTS	TP
BQ541 / 8	SIERRA 76 #1247	15764 SIERRA HWY	UST	TP
BQ542 / 8	UNOCAL #1247	15764 SIERRA HWY	LUST, HIST CORTESE, CERS	TP
BQ543 / 8	RAMOS STRONG	15764 SIERRA HWY	FINDS	TP
BQ544 / 8	UNION OIL SERVICE ST	15764 SIERRA HWY	SWEEPS UST, CA FID UST	TP

MAPPED SITES SUMMARY

Target Property:
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MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
BQ545 / 8	RAMOS/STRONG INC DBA	15764 SIERRA HWY	ECHO	TP
BQ546 / 8	RAMOS STRONG	15764 SIERRA HIGHWAY	EMI	TP
BQ547 / 8	RAMOS/STRONG INC DBA	15764 SIERRA HWY	RCRA NonGen / NLR	TP
BQ548 / 8	TOSCO CORPORATION ST	15764 SIERRA HWY	HAZNET, HWTS	TP
BQ549 / 8	UNOCAL SERVICE STATI	15764 SIERRA HIGHWAY	CERS HAZ WASTE, HIST UST, CERS TANKS, HA...	TP
BQ550 / 8	UNOCAL #1247	15764 SIERRA HWY	FINDS	TP
BQ551 / 8	UNOCAL #1247	15764 SIERRA HWY	RGA LUST	TP
BQ552 / 8	STATION #1247	15764 SIERRA HWY	HIST UST	TP
BQ553 / 8	1X UNOCAL STN #1247	15764 SIERRA HWY	HWTS	TP
BQ554 / 8	UNION OIL SERVICE ST	15764 SIERRA HWY	HIST UST	TP
BQ555 / 8	MOJAVE CHEVRON	15764 SIERRA HWY	FINDS	TP
556 / 7		3950 OAK CREEK ROAD	CHMIRS	TP
557 / 8	DIFWIND FARMS LTD VI	OAK CREK ROAD	FINDS	TP
BR558 / 9	INNOVATIVE COATINGS	1347 POOLE STREET	ECHO	TP
BR559 / 9	INNOVATIVE COATINGS	1347 POOLE STREET	EMI	TP
BR560 / 9	INCOTEC	1347 POOLE STREET	HAZNET, HWTS	TP
BR561 / 9		1347 POOLE ST	ERNS	TP
BR562 / 9	INNOVATIVE COATINGS	1347 POOLE STREET	TRIS, FINDS	TP
BR563 / 9	INCOTEC CORPORATION	1347 POOLE ST.	RCRA-LQG	TP
BR564 / 9	INNOVATIVE COATINGS	1347 POOLE STREET	EMI	TP
BR565 / 9		1347 POOLE ST	ERNS	TP
BR566 / 9		1347 POOLE ST, INCOT	CHMIRS	TP
BR567 / 9	INNOVATIVE COATINGS	1347 POOLE ST BLDG 1	CERS HAZ WASTE, CERS	TP
BR568 / 9		1347 POOLE ST.	CHMIRS	TP
BR569 / 9	INCOTEC CORPORATION	1347 POOLE STREET	HAZNET, NPDES, CERS, HWTS	TP
BR570 / 9	INCOTEC CORPORATION	1347 POOLE STREET	CIWQS	TP
BR571 / 9	INNOVATIVE COATING T	1347 POOLE ST	CERS	TP
BR572 / 9	INNOVATIVE COATINGS	1347 POOLE STREET	CHMIRS, CERS	TP
BR573 / 9	INCOTEC	1347 POOLE ST BLDG 1	HAZNET, HWTS	TP
BS574 / 8	MOJAVE TIRE SMOG AND	15736 SIERRA HWY	UST	TP
BS575 / 8	BUDS GARAGE	15736 SIERRA HWY	EDR Hist Auto	TP
BS576 / 8	TONY'S WHEELS & TIRE	15736 SIERRA HWY	ECHO	TP
BS577 / 8	CENTURY PREMIUM CAR	15736 SIERRA HWY	HAZNET, HWTS	TP
BS578 / 8		15736 SIERRA HWY	RCRA NonGen / NLR	TP
BS579 / 8	MOJAVE TIRE SMOG & A	15736 SIERRA HWY	HWTS	TP
BS580 / 8	MOJAVE TIRES SMOG &	15736 SIERRA HWY	HWTS	TP
BS581 / 8	JIMS TEXACO & GARAGE	15736 SIERRA HWY	HWTS	TP
BR582 / 9	PROGRESS RAIL SERVIC	1695 KINNICUTT RD	RCRA NonGen / NLR	TP
BR583 / 9	PROGRESS RAIL SERVIC	1695 KINNICUTT RD	CERS HAZ WASTE, CERS TANKS, HAZNET, CERS	TP

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MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
BR584 / 9	PROGRESS RAIL SERVIC	1695 KINNICUTT STREE	EMI	TP
BR585 / 9	PROGRESS RAIL SERVIC	1695 KINNICUTT RD	FINDS, ECHO	TP
BR586 / 9	RAILX WEST	1695 KINNICUTT ROAD	HAZNET, HWTS	TP
BR587 / 9	PROGRESS RAIL SERVIC	1695 KINNICUTT RD	AST	TP
BR588 / 9	PROGRESS RAIL SERVIC	1695 KINNICUTT ROAD	RCRA-SQG, FINDS, ECHO	TP
BR589 / 9	PROGRESS RAIL SVCS *	1695 KINNICUTT RD	HAZNET, HWTS	TP
BT590 / 9	FIBERSET, INC	1046 POOLE ST	FINDS, ECHO	TP
BT591 / 9	FIBERSET, INC	1046 POOLE ST	HWTS	TP
BT592 / 9	FIBERSET, INC	1046 POOLE ST	RCRA NonGen / NLR	TP
BU593 / 8	EDWARDS AFB PROJ ROU		FUDS	TP
BU594 / 8	EDWARDS AFB PROJ R-U		ENVIROSTOR	TP
BV595 / 9	LOCATED 0.33 MILE NO	923 POOLE STREET	FINDS	TP
BV596 / 9	LOCATED 0.33 MILE NO	923 POOLE STREET	CERS	TP
BW597 / 8	MOJAVE MAKERS, A PUB	16722 ROPER STREET	FINDS, ECHO	TP
BW598 / 8	MOJAVE MAKERS, A PUB	16722 ROPER STREET	RCRA NonGen / NLR	TP
BW599 / 8	MOJAVE MAKERS, A PUB	16722 ROPER STREET	HWTS	TP
BS600 / 8	SHAHRIAR NAZARI	2337 SHASTA ST	HAZNET, HWTS	TP
BS601 / 8	SIERRA MINI MART	2337 SHASTA AVE	CA FID UST	TP
BS602 / 8	SIERRA DRIVE THRU MI	2337 SHASTA ST	UST	TP
BS603 / 8	SIERRA MINI MART	2337 SHASTA AVE	SWEEPS UST	TP
BS604 / 8	TEXACO	15700 SIERRA HWY	SWEEPS UST, HIST UST, CA FID UST, CERS T...	TP
BS605 / 8	SHAN'S TEXACO	15700 SERRIA HWY	HAZNET, HWTS	TP
BS606 / 8	MOJAVE TEXACO	15700 SIERRA HWY	UST	TP
BS607 / 8	MOJAVE TEXACO	15700 SIERRA HWY	UST	TP
BS608 / 8	EXPRESS MART SERVICE	15700 SIERRA HWY	HAZNET, HWTS	TP
BS609 / 8	OASIS TRAVEL STATION	15700 SIERRA HWY	UST	TP
BS610 / 8	OASIS TRAVEL STOP	15700 SIERRA HWY	FINDS	TP
BS611 / 8	GORMAN ROBERT	15700 SIERRA HWY	EDR Hist Auto	TP
BS612 / 8	GORMAN TEXACO	15700 SIERRA HWY	HIST UST	TP
BS613 / 8	OASIS TRAVEL STOP	15700 SIERRA HIGHWAY	EMI	TP
BS614 / 8	SHAN TEXACO	15700 SIERRA HWY	HAZNET, HWTS	TP
BX615 / 8	MSD = JOHNSON MIDDLE	3200 PAT AVE	HAZNET, HWTS	TP
BX616 / 8	MSD/ JOHNSON MIDDLE	3200 PAT AVE	HAZNET, HWTS	TP
617 / 8	VICTORY MILLSITE (A	SILVER QUEEN ROAD	SEMS-ARCHIVE, LEAD SMELTERS	TP
BU618 / 8	MOJAVE #1 BD	S/2,SE/4,SE/4, SEC 1	SWF/LF, CERS	TP
BY619 / 8		15664 K STREET	HMIRS	TP
BY620 / 8		15664 K STREET	HMIRS	TP
BZ621 / 8	HIGH DESERT FABRICAT	1646 KINNICUTT ST	HWTS	TP
BZ622 / 8	HIGH DESERT FABRICAT	1646 KINNICUTT ST BL	HAZNET, HWTS	TP

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MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
CA623 / 8	SALMEX AUTO	15652 SIERRA HIGHWAY	FINDS	TP
CA624 / 8	SALMEX AUTO	15652 SIERRA HIGHWAY	CERS HAZ WASTE, CERS	TP
CA625 / 8	ANDERSON AUTO REPAIR	15652 SIERRA HWY	HAZNET, HWTS	TP
CA626 / 8	CLC AUTO REPAIR	15652 SIERRA HWY BUI	HWTS	TP
CA627 / 8	PHILLIP RICCOMINI	15652 SIERRA HWY	HWTS	TP
628 / 9	SCALED COMPOSITES LL	555 RICCOMINI ST	CERS HAZ WASTE, CERS TANKS, HAZNET, CIWQ...	TP
CA629 / 8	SALMEX AUTO REPAIR	15651 SIERRA HWY STE	HWTS	TP
CA630 / 8	SALMEX AUTO REPAIR	15651 SIERRA HWY STE	RCRA NonGen / NLR	TP
CA631 / 8	SALMEX AUTO REPAIR	15651 SIERRA HWY STE	FINDS, ECHO	TP
632 / 8	PRICE SAVERS TRUCK S	2001 HWY 58	UST	TP
CB633 / 9	STRATOLAUNCH	RICCOMINI AVE & LOME	NPDES	TP
CB634 / 9	STRATOLAUNCH SYSTEMS	553 RICCOMINI AVE	RCRA-SQG	TP
CB635 / 9	SCALED COMPOSITES, L	553 RICCOMINI ST.	FINDS	TP
CB636 / 9	SCALED COMPOSITES LL	555 RICCOMINI ST	RCRA NonGen / NLR	TP
CB637 / 9	STRATOLAUNCH SYSTEMS	553 RICCOMINI AVE	FINDS, ECHO	TP
CC638 / 8	BAE SYSTEMS MOJAVE O	16927 AIRPORT BLVD B	HAZNET, HWTS	TP
CC639 / 8	BAE SYSTEMS	16921 AIRPORT BLVD B	RCRA-SQG	TP
CC640 / 8	BAE SYSTEMS	16921 AIRPORT BLVD	FINDS, ECHO	TP
CD641 / 8	FAMILY DOLLAR #10107	2343 HIGHWAY 58	CERS HAZ WASTE, CERS	TP
642 / 9	SCALED COMPOSITES LL	555 RICCOMINI ST	FINDS, ECHO	TP
CE643 / 8	CIRCLE K STORE #735	15510 K ST	RCRA-SQG, LUST, SWEEPS UST, HIST UST, CA...	TP
CE644 / 8	CIRCLE K STORES INC.	15510 K ST	HAZNET, HWTS	TP
CE645 / 8	FORMER CIRCLE K STOR	15510 K STREET	FINDS	TP
CE646 / 8	CIRCLE K #735	15510 K ST	RGA LUST	TP
CE647 / 8	CIRCLE K 735	15510 K ST	UST	TP
CE648 / 8	FORMER CIRCLE K STOR	15510 K ST	RGA LUST	TP
CE649 / 8	FORMER CIRCLE K STOR	15510 K STREET	RGA LUST	TP
CE650 / 8	CIRCLE K #735	15510 K STREET	RGA LUST	TP
CE651 / 8	CIRCLE K CORPORATION	15510 K ST	EDR Hist Auto	TP
CE652 / 8	FORMER CIRCLE K STOR	15510 K STREET	LUST	TP
653 / 8	FIRE STATION 14	1953 HIGHWAY 58	CERS	TP
CD654 / 8	FAMILY DOLLAR INC #	2343 STATE HIGHWAY 5	FINDS, ECHO	TP
CD655 / 8	FAMILY DOLLAR INC #	2343 STATE HIGHWAY 5	RCRA NonGen / NLR	TP
CD656 / 8	FAMILY DOLLAR INC #	2343 STATE HIGHWAY 5	HAZNET, HWTS	TP
CE657 / 8	CIRCLE K #735	15510 "K" ST	UST	TP
658 / 8	RAPID LUBE AND TRUCK	2001 HIGHWAY 58	CERS TANKS, CERS	TP
CF659 / 8	MOJAVE HOSPITALITY L	2201 STATE HIGHWAY 5	HWTS	TP
CG660 / 8	FASTRIP #38	2350 HWY 58	UST	TP
CG661 / 8	#7704 FASTRIP #38	2350 HIGHWAY 58	UST	TP

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MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
CG662 / 8	#7704 FASTRIP #38	2350 HIGHWAY 58	CERS HAZ WASTE, CERS TANKS, CERS	TP
CF663 / 8		SR 58 E/O SR 14	CHMIRS	TP
CH664 / 8	HEARTLAND TRUCK STOP	2001 HWY 58	LUST, Cortese, HAZNET, CERS, HWTS	TP
665 / 8		2001 HWY 58 AND PARK	CHMIRS	TP
CH666 / 8	ANGELS TRUCK STOP	2001 HWY 58	RGA LUST	TP
CH667 / 8	PRICE SAVER INC	2001 STATE HIGHWAY 5	EDR Hist Auto	TP
CH668 / 8	RAPID LUBE AND TRUCK	2001 HIGHWAY 58	UST	TP
CH669 / 8	PRICE SAVER RAPID LU	2001 STATE HIGHWAY 5	HWTS	TP
CH670 / 8	KELLY NAZARI	2005 STATE HIGHWAY 5	HWTS	TP
CH671 / 8	RAPID LUBE	2005 STATE HIGHWAY 5	HWTS	TP
CI672 / 8	MONITORING STATION	KERN CO FIRE DEPT.,	FINDS	TP
CI673 / 8	MONITORING STATION	KERN CO FIRE DEPT.,	CERS	TP
674 / 8	FIRE STATION #14	1953 STATE HIGHWAY 5	HIST UST	TP
CH675 / 8	RIO GRANDE SOLAR	13012 MEYER ROAD	FINDS	TP
676 / 8	TEHACHAPI SPINDLE		FINDS	TP
677 / 8	KCGS - MOJAVE MICROW	1775 HIGHWAY 58	CERS	TP
CJ678 / 16	MOJAVE MAIN COURT	1773 STATE HIGHWAY 5	HWTS	TP
CJ679 / 16	MOJAVE MAIN COURT, J	1773 STATE HIGHWAY 5	HAZNET, HWTS	TP
CK680 / 16	MOJAVE BURN DUMP	2M S OF HWY 58/2M E	SEMS-ARCHIVE	TP
CK681 / 16	BOB GRAY S AUTO&TRUC	1634 STATE HIGHWAY 5	NPDES, CIWQS	TP
CK682 / 16	BOB GRAY'S AUTOWRECK	1634 STATE HIGHWAY 5	HAZNET, HWTS	TP
683 / 16		1779 RICHARD AVENUE	CDL	TP
CL684 / 17	CALIFORNIA HIGHWAY P	1365 STATE HIGHWAY 5	HAZNET, HWTS	TP
CL685 / 17	DEPARTMENT OF CALIFO	1365 STATE HIGHWAY 5	CERS TANKS, CERS	TP
CL686 / 17	CALIFORNIA HIGHWAY P	1365 HIGHWAY 58	SWEEPS UST, CA FID UST, CIWQS	TP
CL687 / 17	CALIFORNIA HIGHWAY P	1365 STATE HIGHWAY 5	FINDS, ECHO	TP
CL688 / 17	CALIFORNIA HIGHWAY P	1365 STATE HIGHWAY 5	RCRA NonGen / NLR	TP
CL689 / 17	CALIF HWY PATROL - M	1365 STATE HIGHWAY 5	UST	TP
CL690 / 17	CALIFORNIA HIGHWAY P	1365 STATE HIGHWAY 5	HIST UST	TP
CM691 / 17	CALIF HWY PATROL-MOJ	1313 STATE HIGHWAY 5	FINDS	TP
CM692 / 17	DEPARTMENT OF CALIFO	1313 STATE HIGHWAY 5	AST	TP
CM693 / 17	DEPARTMENT OF CALIFO	1313 STATE HIGHWAY 5	CERS HAZ WASTE, CERS TANKS, CERS	TP
CN694 / 16	MOJAVE RETENTION BAS	MYERS ST AND VICTOR	CIWQS	TP
695 / 17	ROAD MACHINEY - MOJA	1265 HIGHWAY 58 BUSI	CERS	TP
696 / 16	RE CLEARWATER LLC	15200 HOLT STREET	CIWQS	TP
CO697 / 16	DESERT TRUCK SERVICE	1426 HIGHWAY 58	CERS HAZ WASTE, CERS	TP
CO698 / 16	DESERT TRUCK SERVICE	1426 STATE HIGHWAY 5	HAZNET, CERS, HWTS	TP
CO699 / 16	VERIZON WIRELESS MOJ	1426 STATE HIGHWAY 5	FINDS	TP
CO700 / 16	DESERT TRUCK SERVICE	1426 STATE HIGHWAY 5	RCRA NonGen / NLR	TP

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MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
CO701 / 16	DESERT TRUCK SERVICE	1426 STATE HIGHWAY 5	FINDS, ECHO	TP
CN702 / 16		15314 MEYER ROAD	CHMIRS	TP
CP703 / 16	CALTRANS MOJAVE MAIN	HWY 14	LUST, CERS	TP
CP704 / 16	LEONARD CONSTRUCTION	HWY 14	LUST, CERS	TP
CP705 / 16	MOJAVE MO-MART	15200 SIERRA HWY	RGA LUST	TP
CP706 / 16	MOJAVE MO-MART	15200 SIERRA HWY	LUST, HIST CORTESE, CERS	TP
CP707 / 16	MOJAVE MO-MART	15200 SIERRA HWY	FINDS	TP
CP708 / 16	MO MART MOBIL	15200 SIERRA HWY	HIST UST	TP
CP709 / 16	MO MART MOBIL	15200 SIERRA HWY	SWEEPS UST, HIST UST, CA FID UST	TP
CQ710 / 16		MOJAVE RAILROAD DEPO	CHMIRS	TP
CQ711 / 16	MOJAVE MOBIL	15190 SIERRA HWY	EDR Hist Auto	TP
CQ712 / 16	MOJAVE MOBIL	15190 SIERRA HWY	CERS HAZ WASTE, CERS TANKS, CERS	TP
CQ713 / 16	MOJAVE MOBIL	15190 SIERRA HWY	FINDS	TP
CQ714 / 16	MOJAVE MOBIL	15190 SIERRA HWY	UST	TP
CQ715 / 16	MOJAVE MOBIL	15190 SIERRA HWY.	HAZNET, HWTS	TP
CQ716 / 16	MOJAVE MOBIL	15190 SIERRA HWY	HAZNET, HWTS	TP
CQ717 / 16	MOJAVE MOBIL	15190 SIERRA HIGHWAY	EMI	TP
CQ718 / 16		MEYER RD AND HWY 14	CHMIRS	TP
719 / 16	RE YAKIMA LLC	15074 HOLT STREET	CIWQS	TP
720 / 17	ANGELS TRUCK STOP	2001 58	LUST, HIST CORTESE	TP
CR721 / 14	RISING TREE II WIND	70TH STREET & OAK CR	FINDS, ECHO	TP
CR722 / 14	RISING TREE I WIND F	70TH STREET & OAK CR	FINDS, ECHO	TP
CR723 / 14	RISING TREE II WIND	70TH STREET & OAK CR	NPDES, CIWQS, CERS	TP
CR724 / 14	RISING TREE III WIND	70TH STREET & OAK CR	NPDES, CIWQS, CERS	TP
CR725 / 14	VOYAGER WIND I LLC	OAK CREEK ROAD AND 7	NPDES, CIWQS, CERS	TP
CR726 / 14	TEHACHAPI ENERGY STO	OAK CREEK ROAD AND 7	NPDES, CIWQS, CERS	TP
CR727 / 14	RISING TREE I WIND F	70TH STREET & OAK CR	NPDES, CIWQS, CERS	TP
728 / 13	SCE EKWRA WORK PACKA	LUP	CIWQS	TP
729 / 17	MOJAVE #2 BD	NE/4,NE/4,NW/4, SEC2	SWF/LF, CERS	TP
730 / 16	PG&E PIPELINE	HOLT STREET & BIG IN	EMI	TP
CS731 / 16	PG&E	14675 HOLT STREET	HAZNET, HWTS	TP
CS732 / 16	T-1230 LOCATION A	14675 HOLT STREET	HWTS	TP
733 / 18	UNNAMED QUARRY		MINES MRDS	TP
CT734 / 16	WESTERN GROWTH PROPE	14501 HOLT ST	LUST	TP
CT735 / 16	WESTERN GROWTH PROPE	14501 HOLT ST	FINDS	TP
CT736 / 16	REVERE EXTRUDERS, IN	14501 HOLT ST	LUST, SWEEPS UST, HIST UST, CA FID UST, ...	TP
CT737 / 16	STEVEN OLIVER PROPER	14501 HOLT ST	UST	TP
CT738 / 16	UNKNOWN	14501 HOLT ST	HIST CORTESE	TP
CT739 / 16	REVERE EXTRUDERS, IN	14501 HOLT ST	HAZNET, HWTS	TP

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MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
CT740 / 16	WESTERN GROWTH PROPE	14501 HOLT ST	RGA LUST	TP
CT741 / 16	UNKNOWN	14501 HOLT ST	RGA LUST	TP
CT742 / 16	GRANITE CONSTRUCTION	HOLT AND CAMELOT	HAZNET, HWTS	TP
743 / 15	PINYON PINES WIND I	5001 CAMELOT BLVD.	EMI	TP
744 / 17	MOJAVE STP	SE OF MOJAVE	ENF, WDS, WDR, CIWQS, CERS	TP
CU745 / 17	ALON ASPHALT COMPANY	1873 PURDY RD	RCRA NonGen / NLR	TP
CU746 / 17	MOJAVE ASPHALT TERMI	1873 PURDY ROAD	FINDS	TP
CU747 / 17	MOJAVE TERMINAL	1873 PURDY ROAD	FINDS, ECHO	TP
CU748 / 17	ALON ASPHALT MOJAVE	1873 PURDY ROAD	FINDS, ECHO	TP
CU749 / 17	ALON ASPHALT COMPANY	1873 PURDY RD	FINDS	TP
CU750 / 17	MOJAVE ASPHALT TERMI	1873 PURDY ROAD	ECHO	TP
CU751 / 17	MOJAVE ASPHALT TERMI	1873 PURDY ROAD	HWTS	TP
CU752 / 17	ALON ASPHALT COMPANY	1873 PURDY RD	FINDS, ECHO	TP
CU753 / 17	MOJAVE ASPHALT TERMI	1873 PURDY ROAD	RCRA-VSQG	TP
CU754 / 17	MOJAVE TERMINAL	1873 PURDY ROAD	CIWQS	TP
CU755 / 17	ALON ASPHALT COMPANY	1873 PURDY RD	HAZNET, HWTS	TP
CU756 / 17	MOJAVE TERMINAL	1873 PURDY ROAD	CERS HAZ WASTE, CERS TANKS, NPDES, CERS	TP
CU757 / 17		1873 PURDY RD, A TRA	CHMIRS	TP
CU758 / 17	TOSCO MOJAVE TERMINA	1873 PURDY RD	HAZNET, HWTS	TP
CU759 / 17		1873 PURDY RD	ERNS	TP
CU760 / 17		1873 PURDY RD	ERNS	TP
CU761 / 17	PARAMOUNT PETROLEUM	1873 PURDY RD	AST	TP
CU762 / 17		1873 PURDY ROAD	ERNS	TP
CU763 / 17	PARAMOUNT PETROLEUM	1873 PURDY RD	FINDS	TP
CU764 / 17	TOSCO MOJAVE TERMINA	1873 PURDY ROAD	RCRA-SQG, CHMIRS, FINDS, ECHO, NPDES, CI...	TP
765 / 16	NONE	14301 HOLT STREET	HIST UST	TP
766 / 16	TRICAL, INC.	1667 PURDY AVE	SSTS	TP
CV767 / 17		1673 PURDY RD	RCRA NonGen / NLR	TP
CV768 / 17	WESTERN EMULSIONS IN	1673 PURDY RD	ECHO	TP
CV769 / 17	TRICAL INC.	1667 PURDY RD	RCRA-LQG, FINDS, ECHO	TP
CV770 / 17	NIKLOR CHEMICAL CO I	1667 PURDY RD	CHMIRS, NPDES, WDS, CIWQS, CERS, HWTS	TP
CV771 / 17	TRICAL INC	1667 PURDY RD	HAZNET, HWTS	TP
CW772 / 16	TRICAL MOJAVE	1667 PURDY AVE	TRIS	TP
CW773 / 16	TERMINAL STORAGE FAC	1667 PURDY AVE	CERS HAZ WASTE, CERS TANKS, CIWQS, CERS	TP
CW774 / 16	TRICAL, INC	1667 PURDY AVENUE	EMI	TP
CW775 / 16	NIKLOR CHEMICAL COMP	1667 PURDY AVENUE	RMP	TP
CW776 / 16	TRICAL,INC.	1667 PURDY AVE	RCRA-LQG, FINDS, ECHO	TP
CW777 / 16	NIKLOR CHEMICAL COMP	1667 PURDY AVENUE	ICIS	TP
CW778 / 16	ARYSTA LIFESCIENCE N	1667 PURDY AVE.	RCRA-LQG	TP

MAPPED SITES SUMMARY

Target Property:
BELLEFIELD
MOJAVE, CA 93501

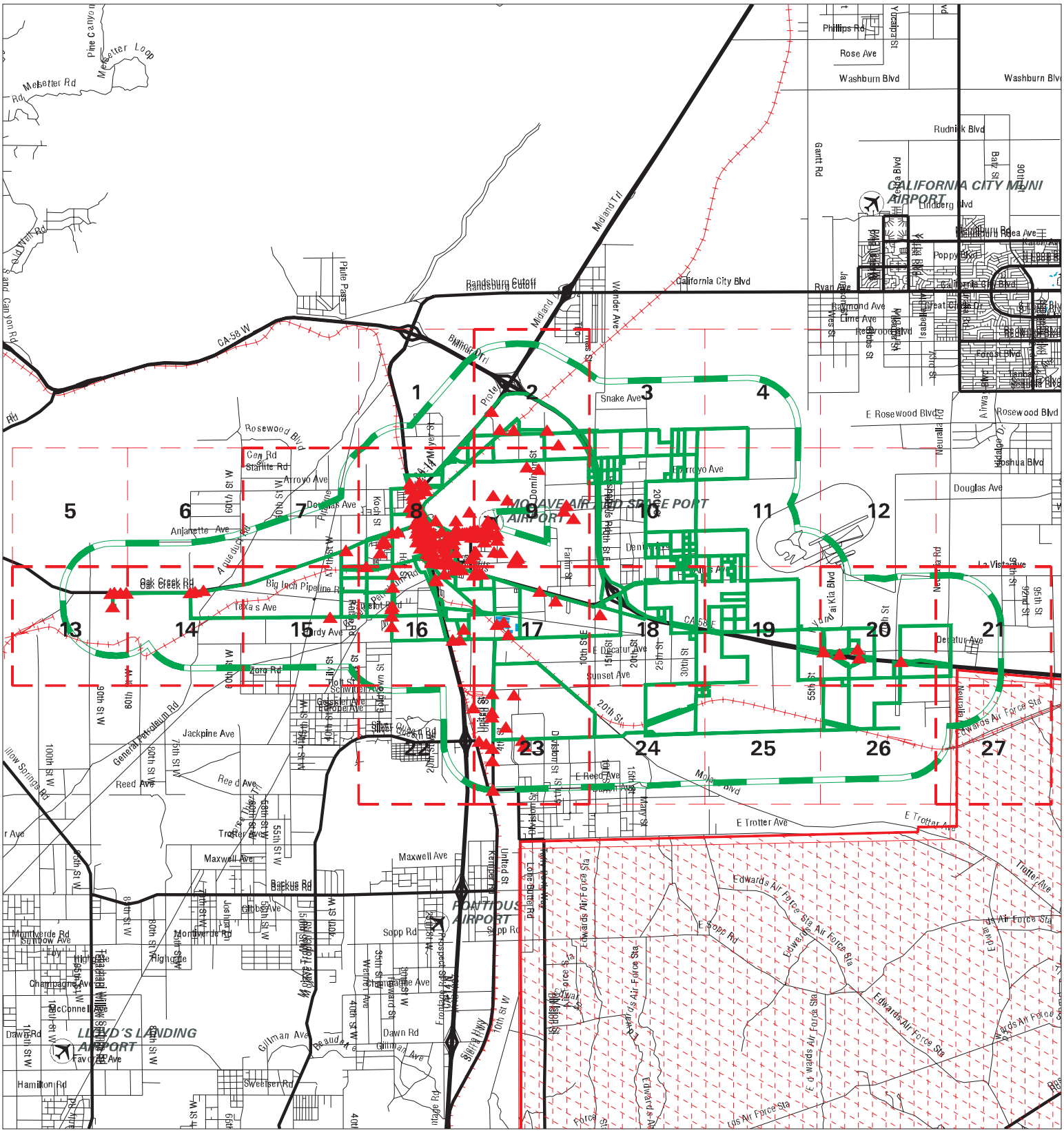
MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.)		DIRECTION
CW779 / 16	ARYSTA LIFESCIENCE N	1667 PURDY AVE	HAZNET, NPDES, CIWQS, CERS, HWTS	TP		
CW780 / 16	TRICAL INC.	1667 PURDY AVENUE	RMP	TP		
CW781 / 16	GREAT LAKES SOLUTION	1667 PURDY AVE	HWTS	TP		
CW782 / 16	NIKLOR CHEMICAL COMP	1667 PURDY AVE	SSTS	TP		
CW783 / 16	MOJAVE ASPHALT TERMI	1673 PURDY AVE	NPDES, CIWQS	TP		
CX784 / 16	PARAMOUNT PETROLEUM	1873 PURDY AVENUE	FINDS	TP		
CX785 / 16	PARAMOUNT PETROLEUM	1873 PURDY AVENUE	EMI	TP		
786 / 20	AT AND T (CAO580)	HWY 58 9 MI E OF MOJ	UST	TP		
787 / 23	CALTRANS #251		MINES MRDS	TP		
788 / 23	PRIMARY GOLD COMPANY	1/2 MI N OF SILVER Q	ENVIROSTOR	TP		
CY789 / 14	MITSUBISHI HEAVY IND	6737 OAK CREEK RD UN	RCRA-SQG, FINDS, ECHO	74	0.014	North
CY790 / 14	SEA WEST TEHACHAPI	6737 OAK CREEK RD	RCRA-SQG, FINDS, ECHO, HAZNET, HWTS	74	0.014	North
CZ791 / 13	EDF - OASIS	7021 OAK CREEK RD	CERS HAZ WASTE, CERS TANKS, HAZNET, CERS	79	0.015	North
CZ792 / 13	MOJAVE 16/17/18 LLC	7021 OAK CREEK	AST	79	0.015	North
CZ793 / 13	MOJAVE 16/17/18 LLC	7021 OAK CREEK RD	AST	79	0.015	North
CZ794 / 13	EDF - OASIS	7021 OAK CREEK RD	AST	79	0.015	North
CZ795 / 13	OASIS POWER PARTNERS	7021 OAK CREEK RD	RCRA NonGen / NLR	79	0.015	North
CZ796 / 13	EDF-OASIS	7021 OAK CREEK RD	RCRA NonGen / NLR	79	0.015	North
DA797 / 13	TERRA-GEN OPERATING	8560 A OAK CREEK RD	AST	89	0.017	SSW
DA798 / 13	ALTA WIND II, LLC	8560 A OAK CREEK RD	CERS HAZ WASTE, CERS TANKS, CERS	89	0.017	SSW
DB799 / 20	AT&T CORP. - SA145	6201 E HIGHWAY 58	CERS HAZ WASTE, CERS TANKS, CERS	90	0.017	South
DB800 / 20	AT&T CORP. - SA145	6201 E HIGHWAY 58	UST	90	0.017	South
DB801 / 20	AT&T CORP - SA145	6201 E HIGHWAY 58	AST	90	0.017	South
802 / 13	VOYAGER WIND II/III/	8009 OAK CREEK RD	RCRA NonGen / NLR	98	0.019	North
DC803 / 20	HYUNDAI KIA MOTORS	5759 HIGHWAY 58	CERS HAZ WASTE, CERS TANKS, CERS	101	0.019	SSE
DC804 / 20	HYUNDAI KIA MOTORS	5759 HWY 58	AST	101	0.019	SSE
DC805 / 20	HYUNDAI KIA MOTORS	5759 HIGHWAY 58	AST	101	0.019	SSE
DC806 / 20	HYUNDAI-KIA CALIFORN	5759 HIGHWAY 58	RCRA NonGen / NLR	101	0.019	SSE
DD807 / 23	CITY SERV ONSITE LDF	12701 UNITED ST	SEMS-ARCHIVE	107	0.020	West
DD808 / 23	COLUMBIAN CHEMICAL C	12701 UNITED STREET	ENVIROSTOR, SWF/LF, LDS, CERS	107	0.020	West
DE809 / 23	PURDY COMPANY	12901 UNITED ROAD	HIST Cal-Sites, CERS	116	0.022	West
DE810 / 23	MOJAVE PLANT	12901 UNITED ROAD	HIST UST	116	0.022	West
DE811 / 23	PURDY CO OF CALIFORN	12901 UNITED RD	HIST UST, HAZNET, HWTS	116	0.022	West
DE812 / 23	THE PURDY COMPANY	12901 UNITED RD	UST	116	0.022	West
DE813 / 23	PURDY COMPANY	12901 UNITED	RESPONSE, ENVIROSTOR, DEED, Cortese, HIS...	116	0.022	West
DF814 / 23	KCPWD - MOJAVE/ROSAM	400 SILVER QUEEN RD	SWF/LF, CERS HAZ WASTE, Financial Assura...	118	0.022	South
DF815 / 23	MOJAVE-ROSAMOND SANI	400 SILVER QUEEN ROA	RCRA NonGen / NLR	118	0.022	South
816 / 20	AT & T MOBILITY	7089 HWY 58	RCRA NonGen / NLR	123	0.023	SSE
817 / 23	UNITED METAL RECOVER	12403 UNITED STREET	RESPONSE, ENVIROSTOR, HIST Cal-Sites, LI...	129	0.024	West

MAPPED SITES SUMMARY

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.)		DIRECTION
DG818 / 14	VESTAS AMERICAN WIND	6703 OAK CREEK RD	RCRA NonGen / NLR	143	0.027	North
DG819 / 14	BROOKFIELD RENEWABLE	6703 OAK CREEK RD	RCRA NonGen / NLR	143	0.027	North
DG820 / 14	BROOKFIELD TEHACHAPI	6703 OAK CREEK RD	AST	143	0.027	North
DG821 / 14	VESTAS AMERICAN WIND	6703 OAK CREEK RD	CERS HAZ WASTE, CERS TANKS, HAZNET, CERS	143	0.027	North
DH822 / 13	VISTA METALS INC	9350 OAK CREEK RD	AST, CERS HAZ WASTE, CERS TANKS, HAZNET,..	234	0.044	West
DH823 / 13	CALPORTLAND COMPANY	9350 OAK CREEK RD	UST	234	0.044	West
DH824 / 13	SCREENING PLANT B	9350 OAK CREEK ROAD	US MINES	234	0.044	West
DH825 / 13	MOJAVE PLANT-CALIF P	9350 OAK CREEK ROAD	WMUDS/SWAT, CHMIRS, EMI, ENF, WDS, CIWQS..	234	0.044	West
DH826 / 13	CALIFORNIA PORTLAND	9350 OAK CREEK RD	AST	234	0.044	West
DH827 / 13	CALIFORNIA PORTLAND	9350 OAK CREEK RD.	SEMS-ARCHIVE, RCRA-SQG	234	0.044	West
DH828 / 13	MOJAVE PLANT & QUARR	9350 OAK CREEK ROAD	US MINES	234	0.044	West
DH829 / 13	SCREENING PLANT B	9350 OAK CREEK ROAD	ABANDONED MINES	234	0.044	West
DH830 / 13	VESTAS AMERICAN WIND	8560 OAK CREEK RD	RCRA NonGen / NLR	234	0.044	West
DH831 / 13	ALTA WIND II LLC	8560 OAK CREEK RD	RCRA NonGen / NLR	234	0.044	West
DH832 / 13	ALTA WIND II LLC	8560 OAK CREEK RD	RCRA NonGen / NLR	234	0.044	West
DH833 / 13	VESTAS	8560 OAK CREEK RD	CERS HAZ WASTE, CERS	234	0.044	West
834 / 20	AT&T COMMUNICATIONS	6201 E HIGHWAY 58	RCRA NonGen / NLR	237	0.045	SSW
835 / 23	MOJAVE/ROSAMOND LAND	3 MI SOUTH OF MOJAVE	WMUDS/SWAT, LDS, ENF, CIWQS, CERS	713	0.135	South
836 / 23	SILVER QUEEN JUNKYAR	BACK LOT AT 11847 UN	RESPONSE, ENVIROSTOR, HIST Cal-Sites, DE...	846	0.160	WSW
DI837 / 23	COMMODITY RESOURCE &	11847 UNITED ST	HWP	860	0.163	South
DI838 / 23	COMMODITY RESOURCES/	11847 UNITED ST	CERS HAZ WASTE, HAZNET, CERS, HWTS	860	0.163	South
DI839 / 23	COMMODITY RESOURCE &	11847 UNITED ST	RESPONSE, ENVIROSTOR, HIST Cal-Sites, DE...	860	0.163	South
DI840 / 23	COMMODITY REFINING E	11847 UNITED ST.	SEMS-ARCHIVE, RCRA NonGen / NLR	860	0.163	South
841 / 23	A & W SMELTERS AND R	SILVER QUEEN RD	HIST CORTESE	1500	0.284	West
842 / 22	MOJAVE PLANT NO 55	SOUTH OF MOJAVE	WMUDS/SWAT, ENF, WDS, CIWQS, CERS	2066	0.391	West
DJ843 / 23	PRODUCTS RESEARCH CH	11601 UNITED	SEMS-ARCHIVE	2175	0.412	South
DJ844 / 23	PRC-DE SOTO INTERNAT	11601 UNITED STREET	RCRA-LQG, ENVIROSTOR, HIST Cal-Sites, EM...	2175	0.412	South
DK845 / 23	MOBILE SMELTING	UNITED STREET & REED	RESPONSE, ENVIROSTOR, HIST Cal-Sites, Co...	5263	0.997	South
DK846 / 23	COURTAULDS AEROSPACE	UNITED STREET AND RE	ENVIROSTOR, VCP	5263	0.997	South

Key Map - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 2 1/2 5 Miles

SITE NAME: Bellefield	CLIENT: Stantec
ADDRESS: Bellefield	CONTACT: Alicia Jansen
CITY/STATE: Mojave CA	INQUIRY #: 6051837.2s
ZIP: 93501	DATE: 04/30/20 4:57 PM

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	1	0	0	NR	1
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	1	0	NR	NR	1
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500	2	2	1	1	NR	NR	6
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	1	0	0	NR	1
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	1	0	NR	NR	1
Federal RCRA generators list								
RCRA-LQG	0.250	6	0	1	NR	NR	NR	7
RCRA-SQG	0.250	16	3	0	NR	NR	NR	19
RCRA-VSQG	0.250	1	0	0	NR	NR	NR	1
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	1	0	NR	NR	1
US INST CONTROLS	0.500		0	1	0	NR	NR	1
Federal ERNS list								
ERNS	TP	11	NR	NR	NR	NR	NR	11
State- and tribal - equivalent NPL								
RESPONSE	1.000	1	2	2	0	1	NR	6
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000	6	3	3	1	2	NR	15
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500	2	2	0	0	NR	NR	4
State and tribal leaking storage tank lists								
LUST	0.500	30	0	0	0	NR	NR	30

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250	46	3	0	NR	NR	NR	49
AST	0.250	21	10	0	NR	NR	NR	31
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		1	1	1	NR	NR	3
SWRCY	0.500	1	0	0	0	NR	NR	1
HAULERS	TP	2	NR	NR	NR	NR	NR	2
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		2	3	1	1	NR	7
SCH	0.250		0	0	NR	NR	NR	0
CDL	TP	2	NR	NR	NR	NR	NR	2
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250	45	8	1	NR	NR	NR	54
US CDL	TP		NR	NR	NR	NR	NR	0
PFAS	0.500		0	1	0	NR	NR	1
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250	26	0	0	NR	NR	NR	26
HIST UST	0.250	35	2	0	NR	NR	NR	37
CERS TANKS	0.250	25	6	0	NR	NR	NR	31
CA FID UST	0.250	23	0	0	NR	NR	NR	23
Local Land Records								
LIENS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	TP		NR	NR	NR	NR	NR	0
DEED	0.500		2	3	0	NR	NR	5
Records of Emergency Release Reports								
HMIRS	TP	4	NR	NR	NR	NR	NR	4
CHMIRS	TP	33	NR	NR	NR	NR	NR	33
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250	42	12	1	NR	NR	NR	55
FUDS	1.000	2	0	0	0	0	NR	2
DOD	1.000		1	0	0	0	NR	1
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP	2	NR	NR	NR	NR	NR	2
TRIS	TP	3	NR	NR	NR	NR	NR	3
SSTS	TP	2	NR	NR	NR	NR	NR	2
ROD	1.000		0	1	0	0	NR	1
RMP	TP	5	NR	NR	NR	NR	NR	5
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP	2	NR	NR	NR	NR	NR	2
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP	1	NR	NR	NR	NR	NR	1
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		2	0	NR	NR	NR	2
ABANDONED MINES	0.250		1	0	NR	NR	NR	1
FINDS	TP	141	NR	NR	NR	NR	NR	141
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
UXO	1.000	1	0	0	0	0	NR	1
ECHO	TP	67	NR	NR	NR	NR	NR	67
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500	1	2	2	0	NR	NR	5
CUPA Listings	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	TP	26	NR	NR	NR	NR	NR	26
ENF	TP	1	NR	NR	NR	NR	NR	1
Financial Assurance	TP		NR	NR	NR	NR	NR	0
HAZNET	TP	135	NR	NR	NR	NR	NR	135
ICE	TP		NR	NR	NR	NR	NR	0
HIST CORTESE	0.500	14	2	2	2	NR	NR	20
HWP	1.000		0	1	0	0	NR	1
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250	3	0	0	NR	NR	NR	3
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	TP	24	NR	NR	NR	NR	NR	24
PEST LIC	TP	2	NR	NR	NR	NR	NR	2
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
UIC GEO	TP		NR	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	TP	4	NR	NR	NR	NR	NR	4
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	TP		NR	NR	NR	NR	NR	0
PROJECT	TP		NR	NR	NR	NR	NR	0
WDR	TP	1	NR	NR	NR	NR	NR	1
CIWQS	TP	32	NR	NR	NR	NR	NR	32
CERS	TP	103	NR	NR	NR	NR	NR	103
NON-CASE INFO	TP		NR	NR	NR	NR	NR	0
OTHER OIL GAS	TP		NR	NR	NR	NR	NR	0
PROD WATER PONDS	TP		NR	NR	NR	NR	NR	0
SAMPLING POINT	TP		NR	NR	NR	NR	NR	0
WELL STIM PROJ	TP		NR	NR	NR	NR	NR	0
HWTS	TP	207	NR	NR	NR	NR	NR	207
MINES MRDS	TP	7	NR	NR	NR	NR	NR	7
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125	19	0	NR	NR	NR	NR	19
EDR Hist Cleaner	0.125	1	0	NR	NR	NR	NR	1
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP	33	NR	NR	NR	NR	NR	33
- Totals --		1219	66	29	6	4	0	1324

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted

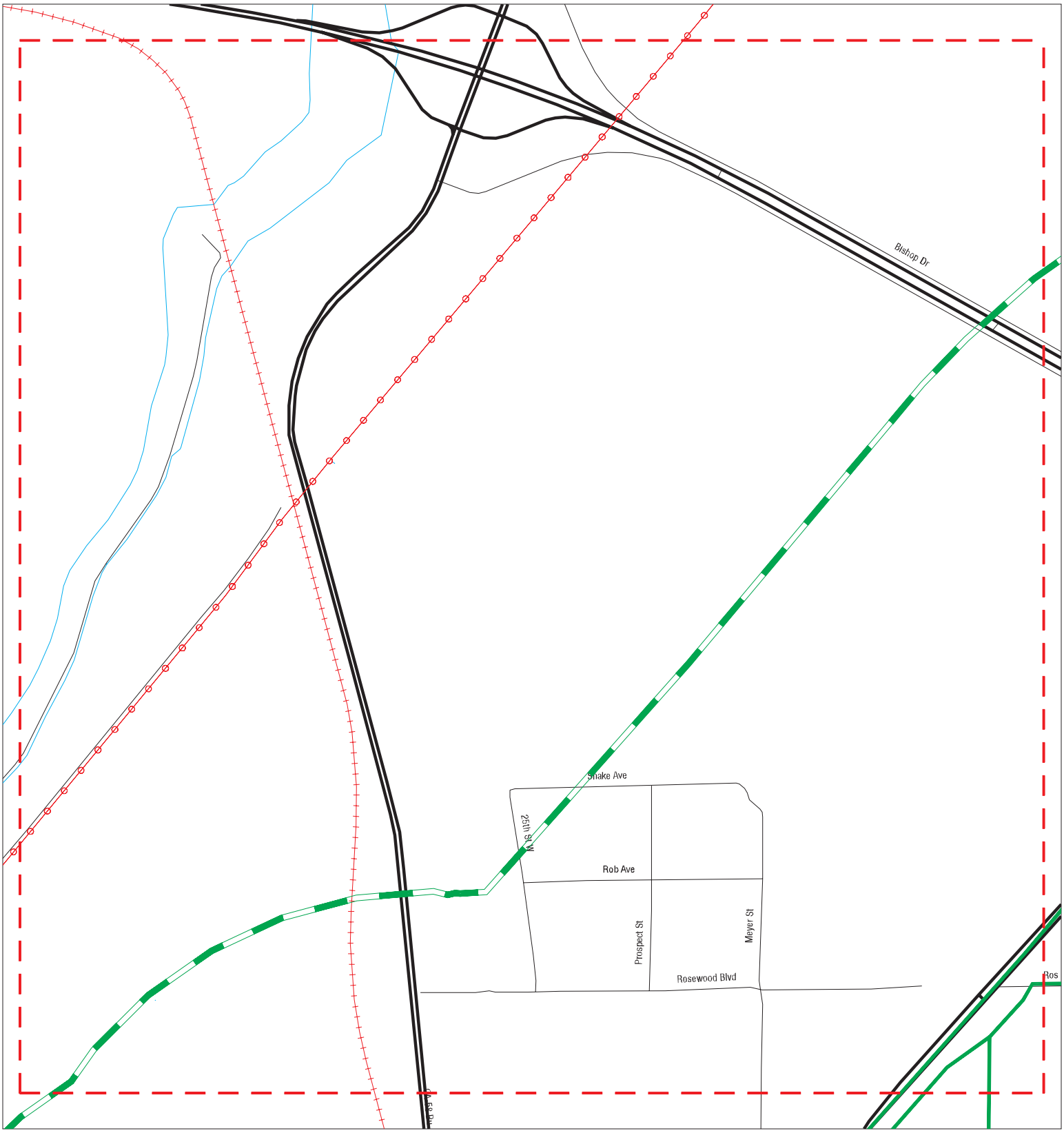
NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Focus Map - 1 - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/4 1/2 Miles

SITE NAME: Bellefield	CLIENT: Stantec
ADDRESS: Bellefield	CONTACT: Alicia Jansen
CITY/STATE: Mojave CA	INQUIRY #: 6051837.2s
ZIP: 93501	DATE: 04/30/20

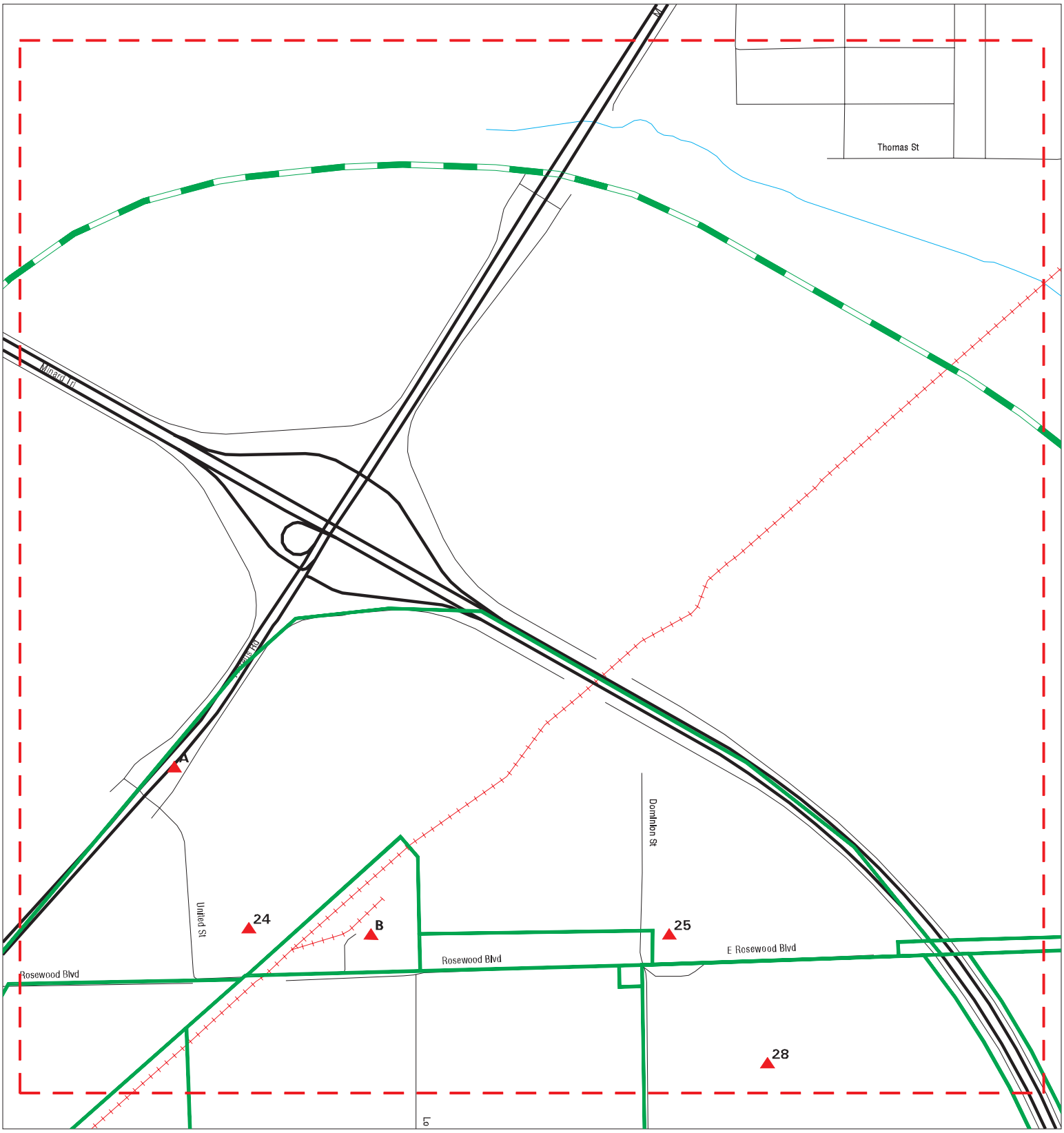
MAPPED SITES SUMMARY - FOCUS MAP 1

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 2 - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/4 1/2 Miles

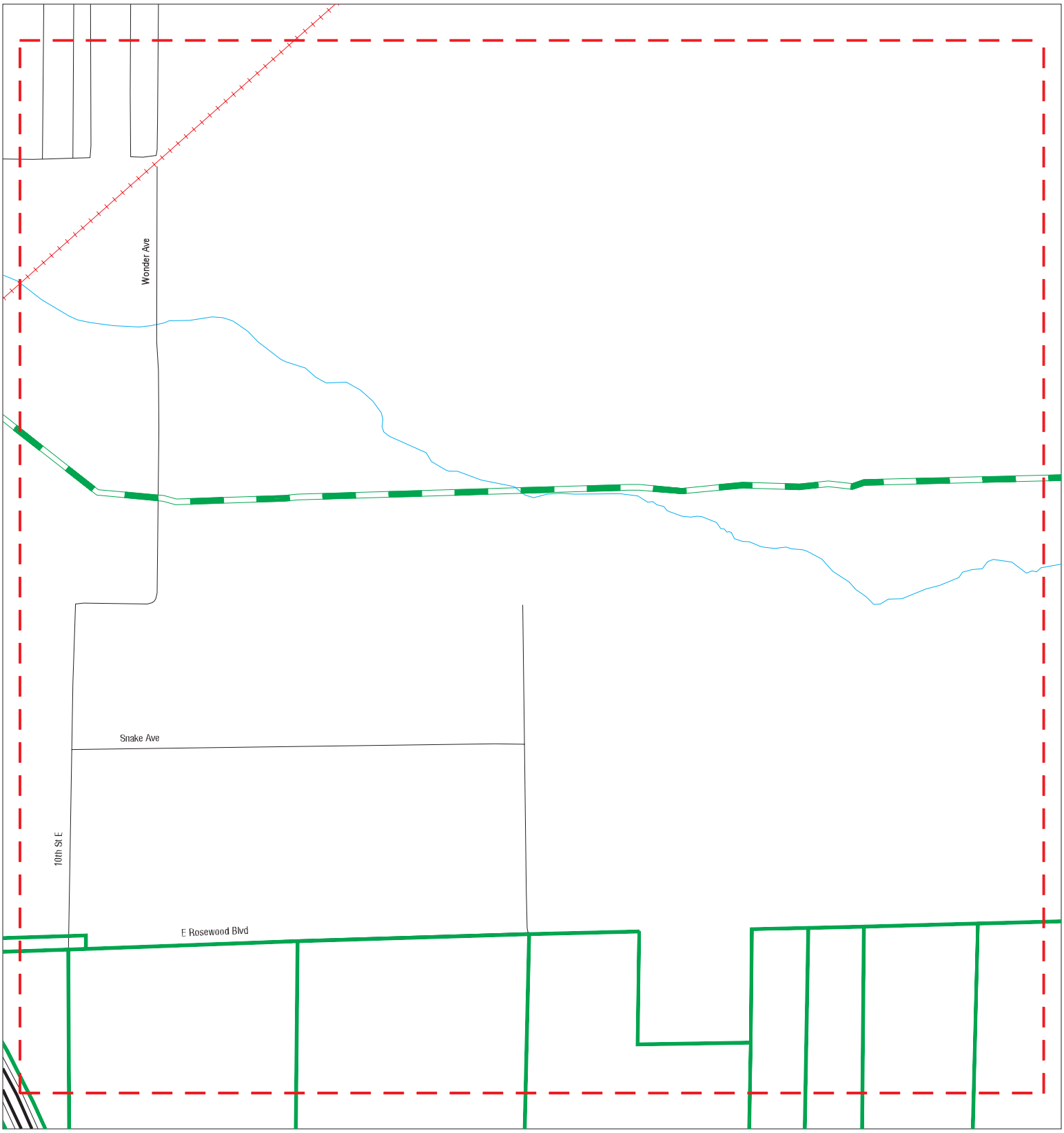
SITE NAME: Bellefield ADDRESS: Bellefield CITY/STATE: Mojave CA ZIP: 93501	CLIENT: Stantec CONTACT: Alicia Jansen INQUIRY #: 6051837.2s DATE: 04/30/20

MAPPED SITES SUMMARY - FOCUS MAP 2

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
A1 / 2		18700 HIGHWAY 14	CHMIRS	TP
A2 / 2		18700 HWY 14 NORTH	CHMIRS	TP
A3 / 2		18700 HIGHWAY 14 6 M	CHMIRS	TP
A4 / 2		18700 N HWY 14	HMIRS	TP
A5 / 2		18700 N HWY 14	HMIRS	TP
A6 / 2	KEMIRA WATER SOLUTIO	18700 N HIGHWAY 14	AST	TP
A7 / 2	KEMIRA WATER SOLUTIO	18700 N HWY 14	AST	TP
A8 / 2	KEMIRA WATER SOLUTIO	18700 N HIGHWAY 14	CERS HAZ WASTE, CERS TANKS, CERS	TP
A9 / 2	KEMIRA WATER SOLUTIO	18700 HWY 14 N	CERS	TP
A10 / 2	KEMIRON PACIFIC INC	18700 HIGHWAY 14 NOR	CERS	TP
A11 / 2	KEMIRA WATER SOLUTIO	18700 HIGHWAY 14	HAZNET, HWTS	TP
A12 / 2		18700 HIGHWAY 14 (IM	CHMIRS	TP
A13 / 2		18700 HWY 14	CHMIRS	TP
A14 / 2		18700 HWY 14	CHMIRS	TP
A15 / 2	KEMIRA WATER SOLUTIO	18700 HWY 14 N	TRIS	TP
A16 / 2	KEMIRA WATER SOLUTIO	18700 HWY 14 SOUTH	TSCA, FINDS, ECHO	TP
A17 / 2	KEMIRON PACIFIC INCO	18700 HIGHWAY 14 NOR	TSCA	TP
A18 / 2	KEMIRA WATER SOLUTIO	18700 HIGHWAY 14 NOR	RMP	TP
A19 / 2	KEMIRON PACIFIC, INC	18700 HIGHWAY 14 NOR	RMP	TP
A20 / 2	KEMIRON PACIFIC, INC	18700 HIGHWAY 14 NOR	RMP	TP
A21 / 2		18700 HIGHWAY 14	ERNS	TP
A22 / 2		18700 HWY 14 NORTH	ERNS	TP
A23 / 2	KEMIRA WATER SOLUTIO	18700 N HIGHWAY 14	FINDS	TP
24 / 2	TEHACHAPI CLAY		MINES MRDS	TP
25 / 2	BORROW PIT		MINES MRDS	TP
B26 / 2		IMPERIAL WEST CHEMIC	CHMIRS	TP
B27 / 2		IMPERIAL WEST CHEMIC	CHMIRS	TP
28 / 2	UNNAMED QUARRY		MINES MRDS	TP

Focus Map - 3 - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/4 1/2 Miles

SITE NAME: Bellefield ADDRESS: Bellefield CITY/STATE: Mojave CA ZIP: 93501	CLIENT: Stantec CONTACT: Alicia Jansen INQUIRY #: 6051837.2s DATE: 04/30/20

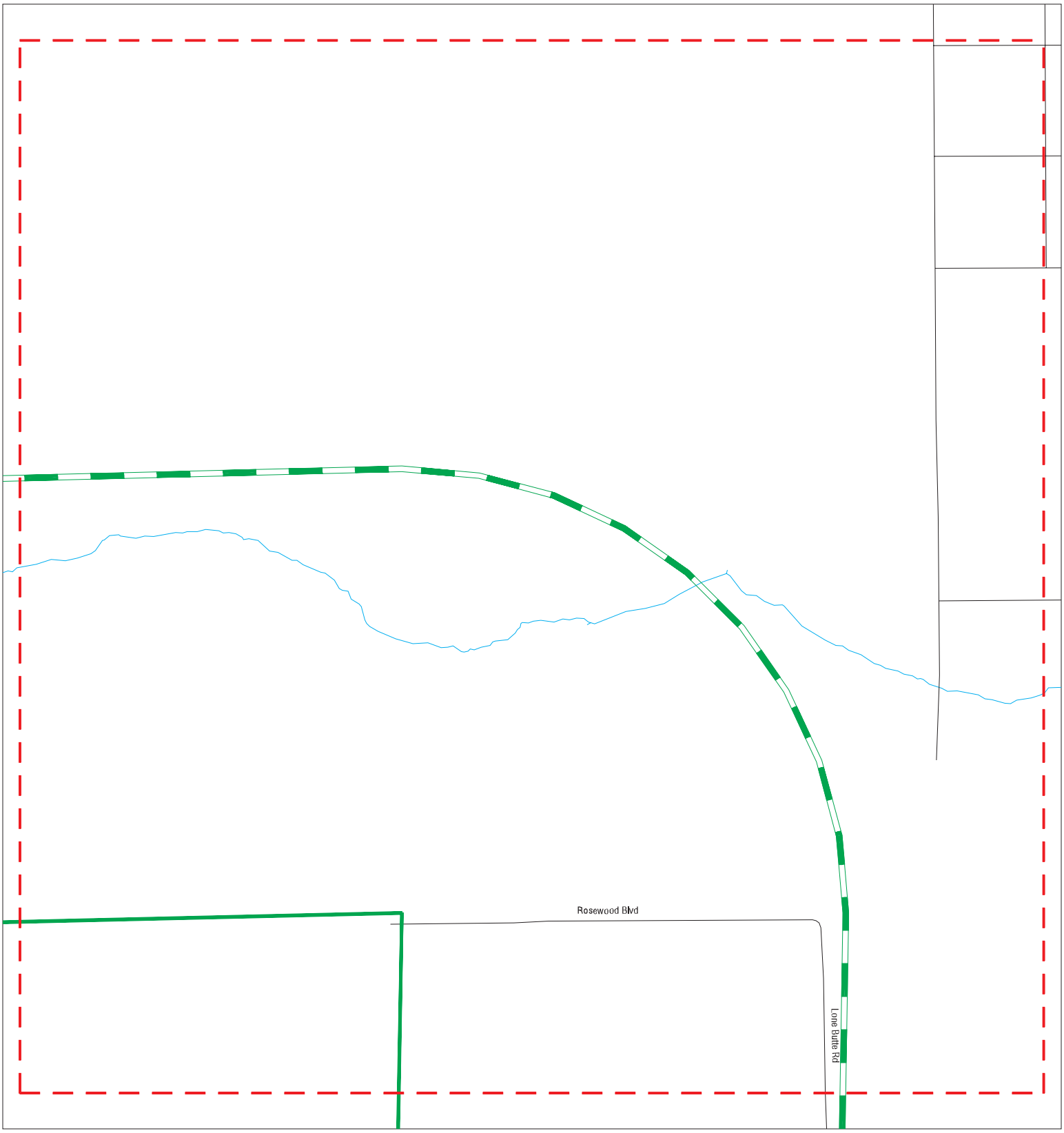
MAPPED SITES SUMMARY - FOCUS MAP 3

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 4 - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/4 1/2 Miles

SITE NAME: Bellefield ADDRESS: Bellefield CITY/STATE: Mojave CA ZIP: 93501	CLIENT: Stantec CONTACT: Alicia Jansen INQUIRY #: 6051837.2s DATE: 04/30/20

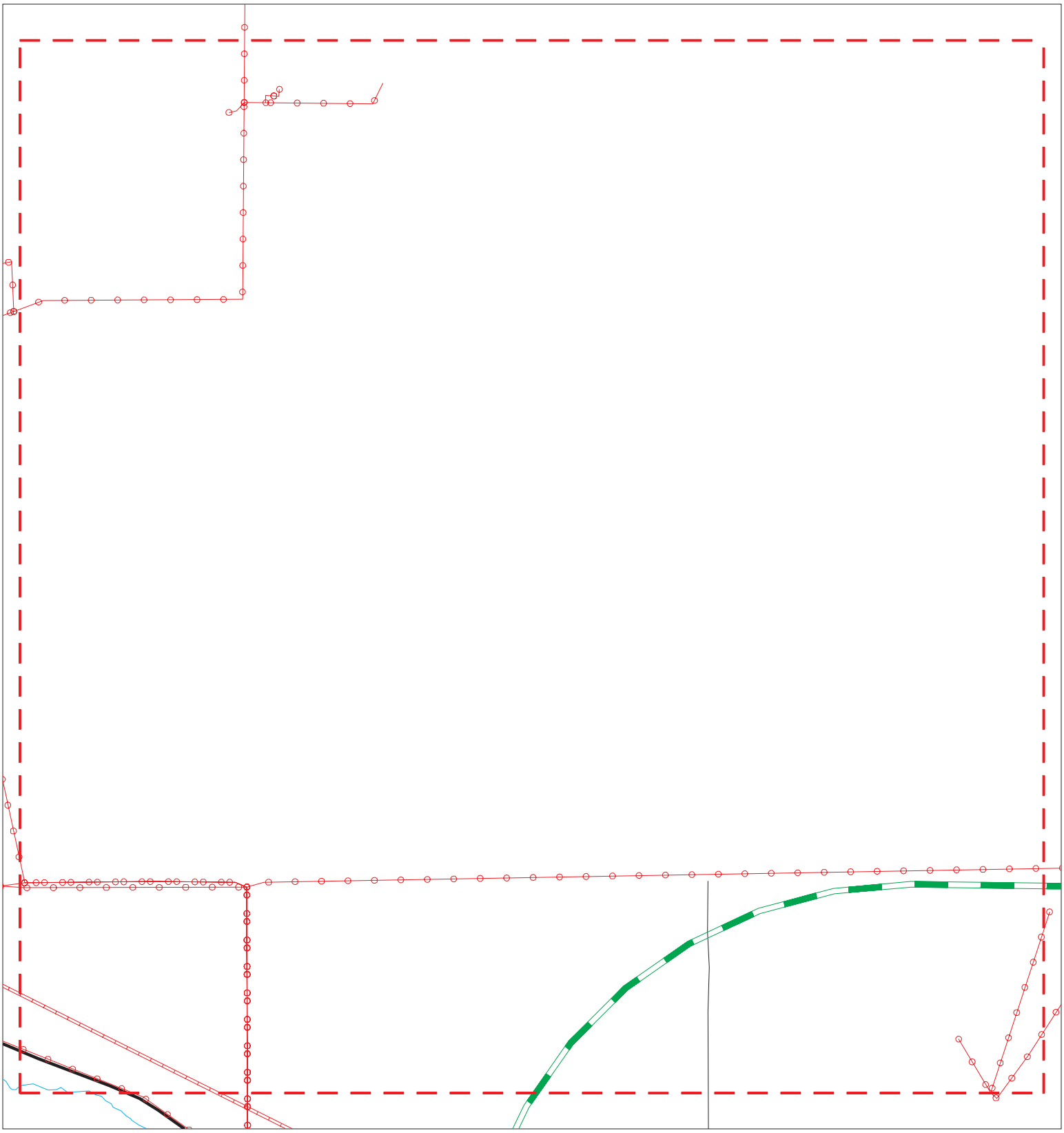
MAPPED SITES SUMMARY - FOCUS MAP 4

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 5 - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/4 1/2 Miles

SITE NAME: Bellefield ADDRESS: Bellefield CITY/STATE: Mojave CA ZIP: 93501	CLIENT: Stantec CONTACT: Alicia Jansen INQUIRY #: 6051837.2s DATE: 04/30/20

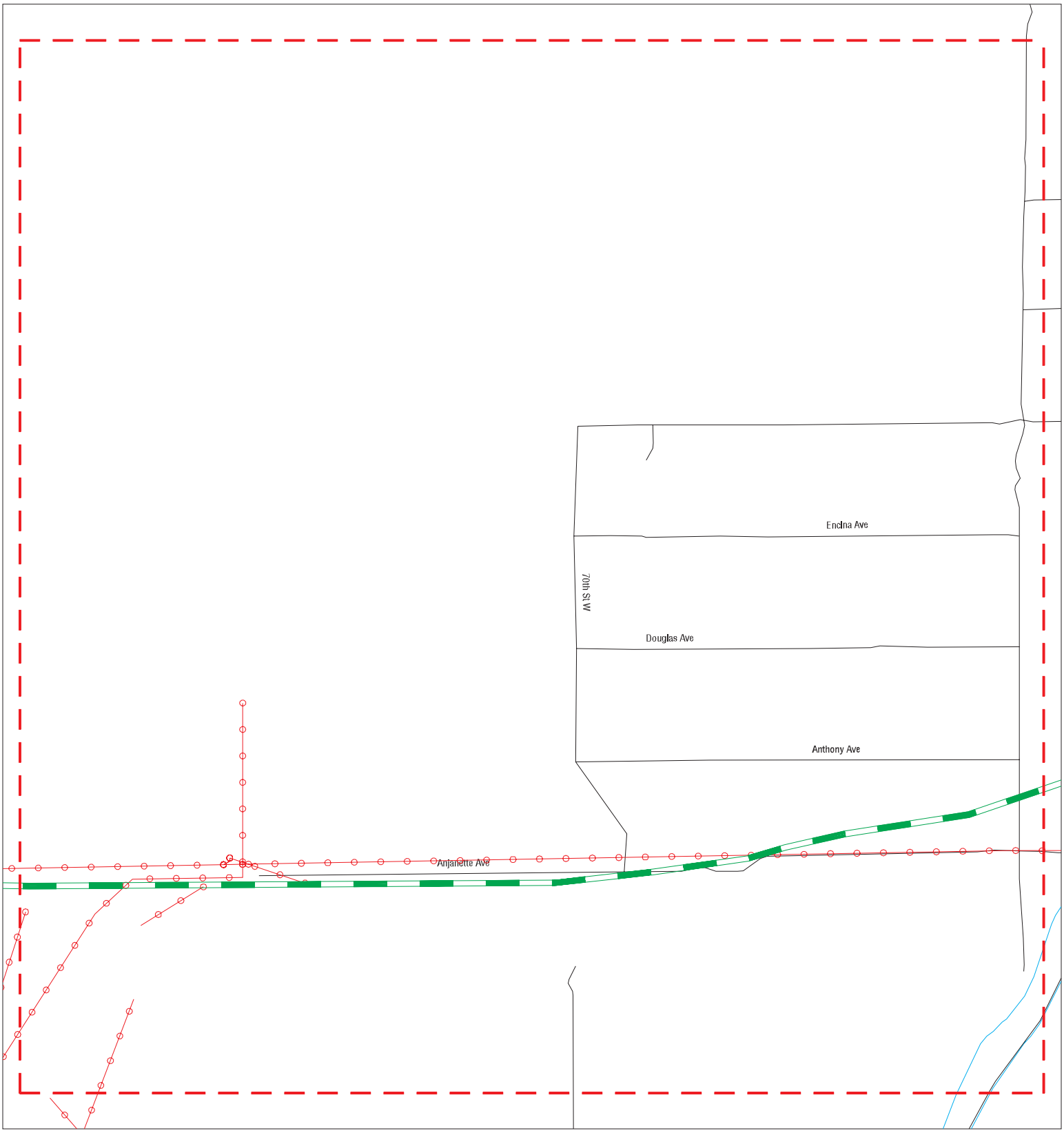
MAPPED SITES SUMMARY - FOCUS MAP 5

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 6 - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/4 1/2 Miles

SITE NAME: Bellefield ADDRESS: Bellefield CITY/STATE: Mojave CA ZIP: 93501	CLIENT: Stantec CONTACT: Alicia Jansen INQUIRY #: 6051837.2s DATE: 04/30/20

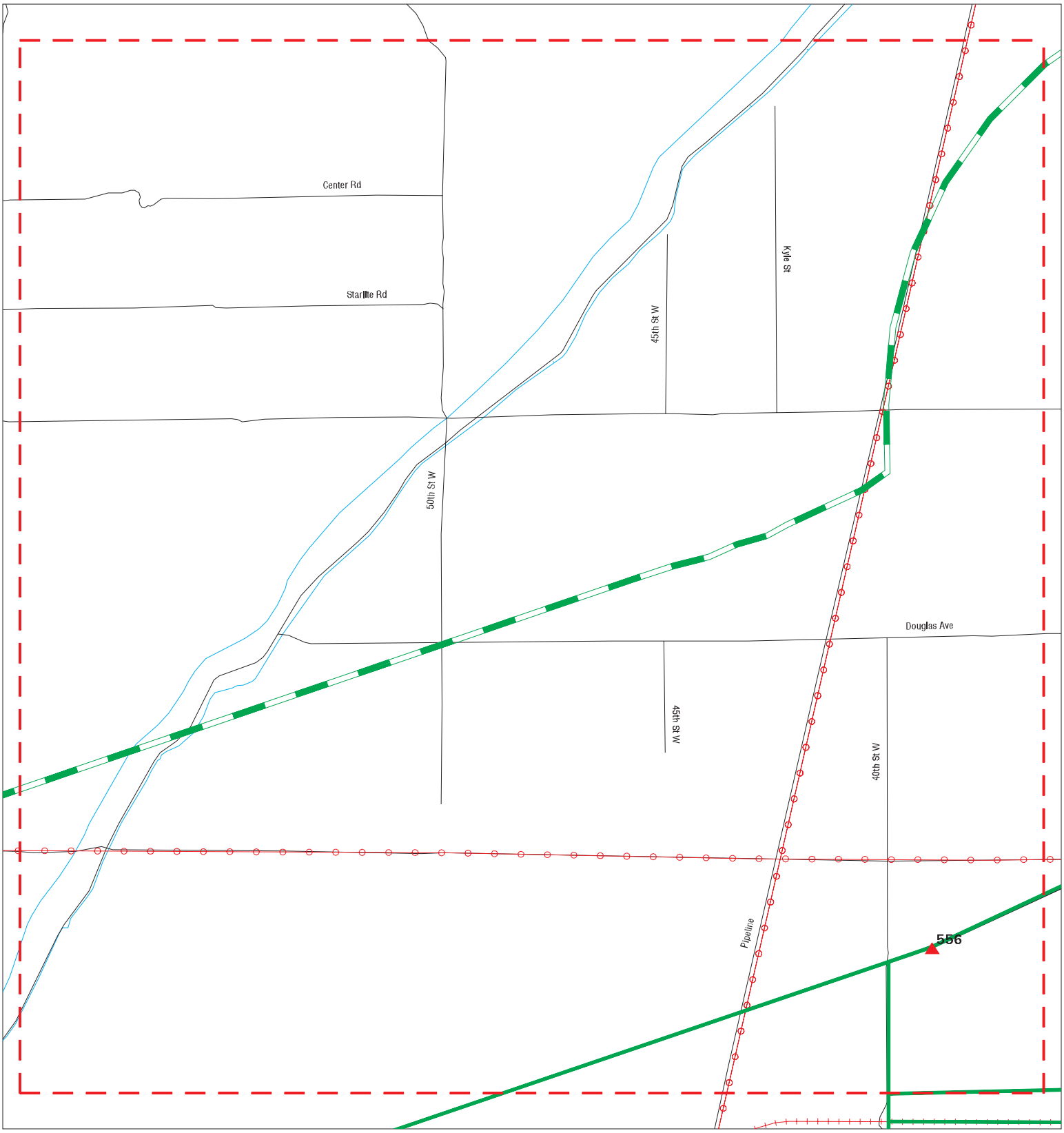
MAPPED SITES SUMMARY - FOCUS MAP 6

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 7 - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/4 1/2 Miles

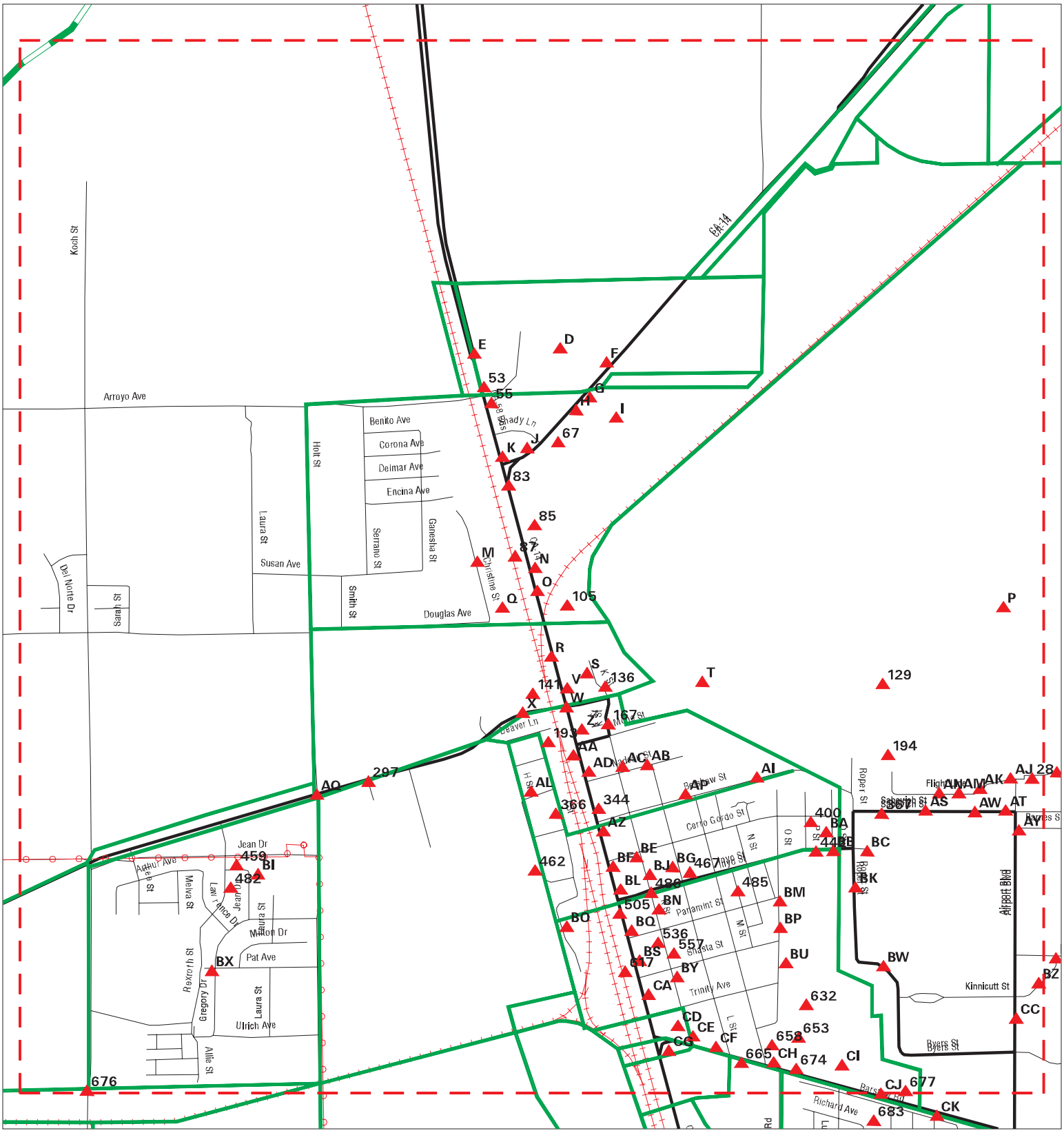
SITE NAME: Bellefield ADDRESS: Bellefield CITY/STATE: Mojave CA ZIP: 93501	CLIENT: Stantec CONTACT: Alicia Jansen INQUIRY #: 6051837.2s DATE: 04/30/20

MAPPED SITES SUMMARY - FOCUS MAP 7

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
556 / 7		3950 OAK CREEK ROAD	CHMIRS	TP

Focus Map - 8 - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

SITE NAME: Bellefield	CLIENT: Stantec
ADDRESS: Bellefield	CONTACT: Alicia Jansen
CITY/STATE: Mojave CA	INQUIRY #: 6051837.2s
ZIP: 93501	DATE: 04/30/20

MAPPED SITES SUMMARY - FOCUS MAP 8

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
D32 / 8	LA DEPARTMENT WATER	17031 SIERRA HWY	FINDS	TP
E33 / 8	LA DEPARTMENT WATER	17031 SIERRA HWY	RCRA NonGen / NLR, FINDS	TP
E34 / 8	MOJAVE YARD SO. DIST	17031 SIERRA HWY.	HIST UST	TP
E35 / 8	MOJAVE YARD SO- DIST	17031 SIERRA HWA	HIST UST	TP
E36 / 8	LA DEPT OF WATER AND	17031 SIERRA HWY	SWEEPS UST, CA FID UST	TP
E37 / 8	LADWP MOJAVE YARD SO	17031 SIERRA HWY	LUST	TP
E38 / 8	LADWP MOJAVE	17031 SIERRA HWY	LUST, HIST CORTESE, CERS	TP
D39 / 8	LADWP MOJAVE YARD SO	17031 SIERRA HWY	FINDS	TP
F40 / 8	MOJAVE YARD EMERGENC	17031 HIGHWAY 14	NPDES, CIWQS, CERS	TP
F41 / 8	LA DEPT OF WATER - M	17031 HIGHWAY 14	UST	TP
F42 / 8	LA DEPT OF WATER AND	17031 HIGHWAY 14	AST	TP
F43 / 8	MOJAVE YARD	17031 HIGHWAY 14	UST	TP
F44 / 8	LOS ANGELES DEPARTME	17031 HIGHWAY 14	EMI	TP
F45 / 8	DAN DENNING	17031 HWY 14	PEST LIC	TP
F46 / 8	LA DEPT OF WATER AND	17031 HIGHWAY 14	FINDS	TP
F47 / 8	MOJAVE YARD	17031 HIGHWAY 14	CERS HAZ WASTE, CERS TANKS, CERS	TP
E48 / 8	LA DEPT OF WATER & P	17031 SIERRA HWY (HW	UST	TP
F49 / 8	RYDER TRANSPORTATION	18700 HWY 14 NORTH	HAZNET, HWTS	TP
F50 / 8		18700 HWY 14 NORTH	ERNS	TP
F51 / 8		18700 HWY 14 NORTH	ERNS	TP
F52 / 8		18700 HIWAY 14 NORTH	CHMIRS	TP
53 / 8	LA DWP MOJAVE	17031 SIERRA HIGHWAY	RGA LUST	TP
G54 / 8	MOJAVE CHIROPARACTIC	16940 HIGHWAY 14 STE	HWTS	TP
55 / 8	LADWP MOJAVE	17031 SIERRA HWY	FINDS	TP
G56 / 8	OASIS GAS AMERICA	16900 STATE HIGHWAY	EDR Hist Auto	TP
G57 / 8	E-Z SERVE INC #1245	16900 HWY 14	HWTS	TP
G58 / 8	OASIS GAS STATION	16900 HWY 14	HAZNET, HWTS	TP
G59 / 8	OASIS	16900 HIGHWAY 14	SWEEPS UST	TP
H60 / 8	MOJAVE CHIROPRACTIC	16916 HWY 14	HWTS	TP
H61 / 8	BRYCE L WHITE	16914 HWY 14	HWTS	TP
H62 / 8	KMART #9403	16890 STATE HWY 14	HWTS	TP
I63 / 8	STATER BROS MARKETS	16920 HIGHWAY 14	RCRA NonGen / NLR	TP
I64 / 8	STATER BROS MARKETS	16920 HIGHWAY 14	FINDS, ECHO	TP
I65 / 8	STATER BROS MARKETS	16920 HIGHWAY 14	HAZNET, HWTS	TP
I66 / 8	STATER BROS. MARKETS	16920 HIGHWAY 14	CERS HAZ WASTE, CERS	TP
67 / 8	EARTH RENEWAL RECYCL	16866 HWY 14	SWRCY	TP
J68 / 8	US HENDY OIL, INC	16825 HIGHWAY 14	CERS HAZ WASTE, CERS TANKS, CERS	TP
J69 / 8	OASIS CLUB INC	16825 STATE ROUTE 14	HWTS	TP
J70 / 8	U.S. HENDY OIL	16825 STATE HIGHWAY	EMI	TP

MAPPED SITES SUMMARY - FOCUS MAP 8

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
J71 / 8	US HENDY OILNA INC	16825 HIGHWAY 14	FINDS	TP
J72 / 8	USHENDY OIL IMPERIAL	16825 STATE HIGHWAY	HWTS	TP
J73 / 8	USHENDY OIL IMPERIAL	16825 STATE HIGHWAY	RCRA NonGen / NLR	TP
J74 / 8	U.S. HENDY OIL	16825 STATE HIGHWAY	FINDS, ECHO	TP
J75 / 8	OASIS CENTER	16825 HWY 14	UST	TP
J76 / 8	US HENDY OIL, INC	16825 HIGHWAY 14	UST	TP
J77 / 8	LADWP MOJAVE YARD SO	17031 SIERRA HWY	RGA LUST	TP
K78 / 8	LA DWP MOJAVE YARD S	17031 SIERRA HWY	RGA LUST	TP
K81 / 8	LA DEPARTMENT WATER	17031 SIERRA HWY	HAZNET, HWTS	TP
K82 / 8	LADWP MOJAVE	17031 SIERRA HWY	RGA LUST	TP
83 / 8	PEDESTRIAN PATH IMPR	STATE ROUTE 14	NPDES, CIWQS	TP
85 / 8	BUDGET MOTEL	16698 SIERRA HWY	HAZNET, HWTS	TP
87 / 8	AT&T	PO BOX 970	LUST, CERS	TP
M88 / 8	THE STAKE MILL	16552 CHRISTINE STRE	FINDS	TP
M89 / 8	THE STAKE MILL	16552 CHRISTINE STRE	EMI	TP
N90 / 8	SPEEDWAY TRAVEL CENT	16660 SIERRA HWY	HWTS	TP
N91 / 8	DOOMID INC	16660 SIERRA HWY	EDR Hist Auto	TP
N92 / 8	SPEEDWAY TRAVEL CENT	16660 SIERRA HWY	FINDS	TP
N93 / 8	GIANT TRUCK STOP	16600 SIERRA HWY	LUST, CERS HAZ WASTE, SWEEPS UST, HIST U...	TP
N94 / 8	ARCHER TRAVEL CENTER	16660 SIERRA HWY	UST	TP
O95 / 8	GRANT TRUCK STOPS-MO	16600 SIERRA HWY	HWTS	TP
O96 / 8	GIANT TRUCK STOP	16600 SIERRA HWY	RGA LUST	TP
O97 / 8		16600 N. HWY 14	CHMIRS	TP
O98 / 8	GIANT TRUCK STOP	16600 SIERRA HWY	CA FID UST	TP
O99 / 8	GIANT TRUCK STOP	16600 SIERRA HWY	FINDS	TP
O100 / 8	GIANT TRUCK STOP OF	16600 HWY 14	UST	TP
O101 / 8	GIANT TRUCK STOPS MO	16600 SIERRA HIGHWAY	HIST UST, HAZNET, HWTS	TP
O102 / 8	1X CALVERT CO	16600 SIERRA HWY	HAZNET, HWTS	TP
O103 / 8	CALVER CO*	16600 SIERRA HWY	EDR Hist Auto	TP
105 / 8	CARDER TRUCK & REPAI	16500 SIERRA HWY	HWTS	TP
P106 / 8	CAPSED	17012 ROPER ST	HWTS	TP
P107 / 8	CAPSED	17012 ROPER ST	FINDS	TP
P108 / 8	TELEDYNE RYAN AERONA	17012 ROPER ST	RCRA-SQG, FINDS, ECHO, HAZNET, HWTS	TP
Q109 / 8	THE STAKE MILL	2555 DOUGLAS AVE	RCRA NonGen / NLR	TP
Q110 / 8	THE STAKE MILL	2555 DOUGLAS AVE	HWTS	TP
Q111 / 8	THE STAKE MILL	2555 DOUGLAS AVE	FINDS, ECHO	TP
R112 / 8	UNOCAL #4311	16451 NORTH SIERRA H	RGA LUST	TP
R113 / 8	UNOCAL #4311	16451 SIERRA HWY N	RGA LUST	TP
R114 / 8	UNOCAL #4311	16451 SIERRA HWY N	FINDS	TP

MAPPED SITES SUMMARY - FOCUS MAP 8

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
R115 / 8	UNOCAL SERVICE STATI	16451 SIERRA HIGHWAY	HAZNET, HWTS	TP
R116 / 8	UNION OIL SERVICE ST	16451 SIERRA HWY	HIST UST	TP
R117 / 8	MOJAVE 76	16451 SIERRA HWY	EDR Hist Auto	TP
R118 / 8	STATION #4311	16451 SIERRA HWY	HIST UST	TP
R119 / 8	UNION OIL SERVICE ST	16451 N SIERRA HWY	SWEEPS UST, HIST UST, CA FID UST	TP
R120 / 8	UNION OIL STATION #	16451 N SIERRA HWY	UST	TP
R121 / 8	UNOCAL #4311	16451 SIERRA HWY N	LUST, HIST CORTESE, CERS	TP
S123 / 8	DESERT DISTRIBUTING	16441 K ST	SWEEPS UST, CA FID UST	TP
S124 / 8	DESERT DISTRIBUTING	16441 K ST	HWTS	TP
S125 / 8	DESERT DISTRIBUTING	16441 K STREET	HIST UST	TP
S126 / 8	DESERT DISTRIBUTING	16441 "K" ST	UST	TP
T127 / 8		2001 BELSHAW	CHMIRS	TP
T128 / 8	GRANITE CONSTRUCTION	2001 BELSHAW ST	HAZNET, HWTS	TP
129 / 8	MOJAVE DRAINAGE IMPR	NUMEROUS LOCATIONS	CIWQS	TP
S132 / 8	VESTAS AMERICAN WIND	16409 K ST	RCRA NonGen / NLR	TP
S133 / 8	VESTAS AMERICAN WIND	16409 K ST	CERS HAZ WASTE, CERS	TP
S134 / 8	VESTAS AMERICAN WIND	16409 K ST	HAZNET, HWTS	TP
S135 / 8	VESTAS AMERICAN WIND	16409 K ST	FINDS, ECHO	TP
136 / 8	MEILYS TIRE & ALIGNM	16396 K ST	HAZNET, HWTS	TP
V137 / 8	KIEFFE & SONS FORD	16400 SIERRA HWY	HWTS	TP
V138 / 8	KIEFFE & SONS FORD	16400 SIERRA HWY	UST	TP
V139 / 8	MOJAVE MOTORS DBA KI	16400 SIERRA HWY	CERS HAZ WASTE, RCRA NonGen / NLR, FINDS...	TP
V140 / 8	MOJAVE MOTORS DBA KI	16400 SIERRA HWY	ECHO	TP
141 / 8		SR-14 S/B I MILE N/O	CHMIRS	TP
W142 / 8		OAK CREEK & SIERRA H	CHMIRS	TP
W143 / 8		OAK CREEK RD @ HWY 1	CHMIRS	TP
W144 / 8		OAK CREEK ROAD AND S	CHMIRS	TP
X146 / 8	CHEVRON USA INC MOJA	2481 OAK CREEK RD	RCRA NonGen / NLR, FINDS, ECHO	TP
X147 / 8	RAYMOS/ STRONG INC.	2481 OAK CREEK ROAD	HWTS	TP
X148 / 8	CHEVRON USA INC MOJA	2481 OAK CREEK ROAD	HWTS	TP
X154 / 8	JAGUR TRACTOR CO	2500 OAK CREEK	HWTS	TP
W155 / 8	CASA DE GASA	16355 SIERRA HWY	CA FID UST	TP
W156 / 8	CASA DE GASA	16355 SIERRA HWY	HAZNET, CERS, HWTS	TP
W157 / 8	CASA DE GASA	16355 SIERRA HWY	LUST, SWEEPS UST	TP
W158 / 8	CASA DE GASA	16355 SIERRA HWY (HW	UST	TP
W159 / 8	CASA DE GASA	16355 SIERRA HWY	UST	TP
W160 / 8	CASA DE GASA	16355 SIERRA HWY	LUST	TP
W161 / 8	CASA DE GASA	16355 SIERRA HWY	FINDS	TP
W162 / 8	1X CACA DE GASA	16355 SIERRA HWY	HWTS	TP

MAPPED SITES SUMMARY - FOCUS MAP 8

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
W163 / 8	1X CASA DE GASA	16355 SIERRA HWY	HAZNET, HWTS	TP
W164 / 8	CASA DE GASA	16355 SIERRA HWY	HIST UST	TP
W165 / 8	CASA DE GASA	16355 SIERRA HWY	RGA LUST	TP
W166 / 8	CASA DE GASA	16355 SIERRA HWY	EDR Hist Auto	TP
167 / 8	18156 MOJAVE TRANSIT	16320 K STREET	NPDES	TP
X168 / 8	RAMOS/STRONG INC	2481 E DEAVER LN	AST	TP
X169 / 8	RAMOS STRONG	2481 E DEAVER LN	FINDS	TP
X170 / 8	RAMOS/STRONG INC	2481 E DEAVER LN	CERS HAZ WASTE, CERS TANKS, CERS	TP
X171 / 8	RAMOS/STRONG INC	2481 DEAVER LN	RCRA NonGen / NLR	TP
X172 / 8		2481 DEAVER LANE	CHMIRS	TP
X173 / 8	RAMOS/STRONG INC	2481 E DEAVER	AST	TP
X174 / 8	RAMOS/STRONG INC	2481 E DEAVER LN	ECHO	TP
X175 / 8	RAMOS STRONG	2481 DEAVER LANE	EMI	TP
X176 / 8	RAMOS/STRONG INC	2481 DEAVER LN	HAZNET, HWTS	TP
Z177 / 8	ARCO FAC #5674	16300 SIERRA HWY	LUST, SWEEPS UST, CA FID UST	TP
Z178 / 8	ARCO FACILITY NO. 05	16300 SIERRA HWY	LUST, CERS	TP
Z179 / 8	V&K OIL COMPANY	16300 SIERRA HIGHWAY	FINDS	TP
Z180 / 8	V&K OIL COMPANY	16300 SIERRA HIGHWAY	EMI	TP
Z181 / 8	ARCO 82752	16300 SIERRA HWY	FINDS	TP
Z182 / 8	ARCO AM/PM - V&K OIL	16300 SIERRA HWY	FINDS, ECHO	TP
Z183 / 8	ARCO FACILITY NO. 05	16300 SIERRA HWY	FINDS	TP
Z184 / 8	ARCO PRODUCTS COMPAN	16300 NORTH SIERRA H	HWTS	TP
Z185 / 8	AM PM MINI MART #567	16300 SIERRA HWY (HW	UST	TP
Z186 / 8	ARCO 82752	16300 SIERRA HWY	UST	TP
Z187 / 8	ARCO AM/PM - V&K OIL	16300 SIERRA HWY	HWTS	TP
Z188 / 8	B AND K OIL COMPANY	16300 SIERRA HWY	EDR Hist Auto	TP
Z189 / 8	ARCO AM/PM - V&K OIL	16300 SIERRA HWY	RCRA NonGen / NLR	TP
Z190 / 8	ARCO FACILITY NO. 05	16300 SIERRA HWY	RGA LUST	TP
Z191 / 8	ARCO PRODUCTS COMPAN	16300 SIERRA HWY	HAZNET, HWTS	TP
Z192 / 8	ARCO 82752	16300 SIERRA HWY	CERS HAZ WASTE, CERS TANKS, HAZNET, CERS	TP
193 / 8	DAVID DOMINGUEZ	2456 OAK CREEK RD.	HWTS	TP
194 / 8	FLIGHT RESEARCH INC	MOJAVE AIRPORT HANGA	RCRA-SQG	TP
AA195 / 8	ARCO #5096	16271 SIERRA HWY N	RGA LUST	TP
AA196 / 8	RP&LM ENTERPRISES IN	16271 SIERRA HWY	HIST UST	TP
AA197 / 8	ARCO #5096	16271 SIERRA HWY N	LUST, HIST CORTESE, CERS	TP
AA198 / 8	BARNEYS ARCO SERVICE	16271 N SIERRA	EDR Hist Auto	TP
AA199 / 8	ARCO #5096	16271 SIERRA HWY N	FINDS	TP
AA200 / 8	NONE	16271 N SIERRA HWY	HIST UST	TP
AA201 / 8	ARCO SS #5096	16271 N SIERRA HWY	UST	TP

MAPPED SITES SUMMARY - FOCUS MAP 8

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
AB203 / 8	MOJAVE DEPARTMENT OF	2211 NADEAU ST	HAZNET, HWTS	TP
AB204 / 8	CALTRANS MOJAVE MAIN	2211 NADEAU ST	RGA LUST	TP
AB205 / 8	CALTRANS MOJAVE	2211 NADEAU ST	LUST, CERS HAZ WASTE, SWEEPS UST, CERS T..	TP
AB206 / 8	CAL TRANS MOJAVE MAI	2211 NADEAU ST	RGA LUST	TP
AB207 / 8	CAL TRANS MOJAVE	2211 NADEAU ST	RGA LUST	TP
AB208 / 8	MOJAVE MAINT. STA./A	2211 NADEAU ST	UST	TP
AB209 / 8	CALTRANS MOJAVE	2211 NADEAU ST	RGA LUST	TP
AB210 / 8	CALTRANS - MOJAVE MA	2211 NADEAU ST	RGA LUST	TP
AB211 / 8	CALTRANS - MOJAVE	2211 NADEAU	AST	TP
AB212 / 8	CALTRANS MOJAVE	2211 NADEAU ST	FINDS	TP
AB213 / 8	MOJAVE DEPARTMENT OF	2211 NADEAU ST	ECHO	TP
AB214 / 8	MOJAVE DEPARTMENT OF	2211 NADEAU ST	RCRA NonGen / NLR, FINDS	TP
AB215 / 8	CALTRANS-MOJAVE	2211 NADEAU ST	AST	TP
AC216 / 8	MOJAVE ELKS LODGE	16200 K ST	HAZNET, HWTS	TP
AC217 / 8	ELK'S LODGE #2059	16200 K ST	UST	TP
AB218 / 8	K C ROAD DEPT - MOJA	2200 NADEAU ST	FINDS	TP
AB219 / 8	K C ROAD DEPT - MOJA	2200 NADEAU ST	AST	TP
AB220 / 8	MOJAVE ROAD YARD	2200 NADEAU ST	HIST UST	TP
AB221 / 8	K C ROAD DEPT - MOJA	2200 NADEAU	AST	TP
AB222 / 8	KERN COUNTY ROADS	2200 NADEAU STREET	EMI	TP
AB223 / 8	KERN COUNTY RDS DEPT	2200 NADEAU ST	HAZNET, HWTS	TP
AB224 / 8	MOJAVE ROAD YARD	2200 NADEAU	UST	TP
AB225 / 8	KERN COUNTY RDS DEPT	2200 NADEAU ST	RCRA NonGen / NLR, FINDS, ECHO	TP
AB226 / 8	MOJAVE ROAD YARD	2200 NADEAU ST	CERS HAZ WASTE, SWEEPS UST, HIST UST, CE...	TP
AD227 / 8	1X ALL SHINE INC	16200 SIERRA HWY	HAZNET, HWTS	TP
AD234 / 8	LA DEPARTMENT WATER	17031 SIERRA HWY	ECHO	TP
AD247 / 8	WILLIES MOBIL SERVIC	16201 SIERRA HWY	EDR Hist Auto	TP
AD248 / 8	STEVE'S ROUGH RIDERS	16201 SIERRA HWY	SWEEPS UST, CA FID UST	TP
AD249 / 8	A GUNAWAN WAIDISONG	16201 SIERRA HWY	HAZNET, HWTS	TP
AD250 / 8	STEVES ROUGH RIDERS	16201 SIERRA HWY	LUST, HIST UST, CERS	TP
AD251 / 8	WIBISONO PROPERTY	16201 SIERRA HWY	RGA LUST	TP
AD252 / 8	GUNAWAN WIBISONO PRO	16201 SIERRA HWY	UST	TP
AD253 / 8	WIBISONO PROPERTY	16201 SIERRA HWY	FINDS	TP
AD254 / 8	UNKNOWN	16201 SIERRA HWY	RGA LUST	TP
AD255 / 8	WIBISONO PROPERTY	16201 SIERRA HWY	LUST	TP
AI256 / 8	HALL AMBULANCE SERVI	1901B BELSHAW ST	CERS	TP
AI257 / 8	HALL AMBULANCE SERVI	1901B BELSHAW ST	FINDS	TP
AJ258 / 8	AVIATION WAREHOUSE I	1434 FLIGHT LINE	HAZNET, HWTS	TP
AJ259 / 8	THE UNITED STATES AR	1434 FLIGHT LINE	HAZNET, HWTS	TP

MAPPED SITES SUMMARY - FOCUS MAP 8

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
AJ260 / 8	AUTEL SERVICES INC	1434 FLIGHT LINE	HAZNET, HWTS	TP
AJ261 / 8	EAST KERN AIRPORT DI	1434 FLIGHTLINE (BLD	FINDS	TP
AJ262 / 8	B A E SYSTEMS FLIGHT	1434 FLIGHT LINE BLD	HWTS	TP
AJ263 / 8	MOJAVE AIR AND SPACE	1434 FLIGHT LINE	FINDS, ECHO	TP
AJ264 / 8	COMMERCIAL AIRCRAFT	1434 FLIGHT LINE	HWTS	TP
AJ265 / 8	PINYON PINES WIND IN	1434 FLIGHTLINE RD S	FINDS	TP
AJ266 / 8	NORTHROP GRUMMAN SYS	1434 FLIGHT LINE	HWTS	TP
AJ267 / 8	WHITTINGHILL AEROSPA	1434 FLIGHT LINE TES	CERS HAZ WASTE, CERS	TP
AJ268 / 8	B A E SYSTEMS FLIGHT	1434 FLIGHT LINE BLD	RCRA NonGen / NLR	TP
AJ269 / 8	MOJAVE AIR AND SPACE	1434 FLIGHT LINE	HAZNET, NPDES, CIWQS, CERS, HWTS	TP
AJ270 / 8	EAST KERN AIRPORT DI	1434 FLIGHTLINE BLDG	HAZNET, HWTS	TP
AJ271 / 8	COMMERCIAL AIRCRAFT	1434 FLIGHT LINE	RCRA NonGen / NLR	TP
AJ272 / 8	GENERAL RAILWAY SERV	1434 FLIGHT LINE BLD	HAZNET, HWTS	TP
AJ273 / 8	COMMERCIAL AIRCRAFT	1434 FLIGHT LINE	FINDS, ECHO	TP
AJ274 / 8	MOJAVE AIR AND SPACE	1434 FLIGHT LINE ROA	NPDES, CIWQS, CERS	TP
AJ275 / 8	BAE SYSTEMS FLIGHT S	1434 FLIGHT LINE BLD	RCRA-SQG, FINDS, ECHO	TP
AJ276 / 8	EAST KERN AIRPORT DI	1434 FLIGHT LINE	HAZNET, HWTS	TP
AJ277 / 8		1434 FLIGHT LINE STR	ERNS	TP
AJ278 / 8	NORTHROP GRUMMIN COR	1434 FLIGHT LINE	RCRA NonGen / NLR	TP
AJ279 / 8	NORTHROP GRUMMIN COR	1434 FLIGHT LINE	ECHO	TP
AJ280 / 8	EAST KERN AIRPORT DI	1434 FLIGHTLINE (BLD	AST	TP
AJ281 / 8	US ARMY CORP OF ENGI	1434 FLIGHT LINE	HWTS	TP
AJ282 / 8	P & M AIRCRAFT INC	1434 FLIGHT LINE	HWTS	TP
AJ283 / 8	MOJAVE AIR AND SPACE	1434 FLIGHTLINE (BLD	AST	TP
AJ284 / 8	MARINE CORPS AIR STA	1434 FLIGHTLINE	RESPONSE, ENVIROSTOR, CHMIRS, WDS	TP
AJ285 / 8		1434 FLIGHT LINE ST	CHMIRS	TP
286 / 8	MOJAVE AIR AND SPACE	1434 FLIGHTLINE (BLD	CERS HAZ WASTE, CERS TANKS, CERS	TP
AC287 / 8	FREEWAY SMOG TEST &	16158 K ST	RCRA NonGen / NLR	TP
AC288 / 8	MOJAVE AUTO REPAIR &	16158 K ST	HAZNET, HWTS	TP
AC289 / 8	DON'S OIL CHANGERS	16158 K ST	HAZNET, HWTS	TP
AC290 / 8	FREEWAY SMOG TEST &	16158 K ST	ECHO	TP
AC291 / 8	DONS OIL CHANGERS	16158 K ST	HAZNET, HWTS	TP
AC292 / 8	FREEWAY SMOG & AUTO	16158 K STREET	HAULERS	TP
AC293 / 8	BEST AUTO REPAIR	16158 K ST	HWTS	TP
AC294 / 8	FREEWAY SMOG TEST &	16158 K ST	HWTS	TP
AC295 / 8	FREEWAY SMOG TEST &	16158 K ST	FINDS	TP
AC296 / 8	DON'S LUBE & OIL	16158 K ST	HWTS	TP
297 / 8		2860 OAKCREEK RD, #3	CDL	TP
AK298 / 8	ANTELOPE VALLEY GENE	1504 FLIGHT LINE BLD	HAZNET, HWTS	TP

MAPPED SITES SUMMARY - FOCUS MAP 8

Target Property:
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MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
AK299 / 8	VIKING AVIATION INC	1504 FLIGHT LINE STE	HWTS	TP
AK300 / 8	VIKING AVIATION	1504 FLIGHT LINE HNG	HWTS	TP
AK301 / 8	BAE SYSTEMS-IESI	1506 FLIGHT LINE BLD	HAZNET, HWTS	TP
AK302 / 8	CALSPAN BICYCLE WORK	1506 FLIGHT LINE BLD	HAZNET, HWTS	TP
AK303 / 8	NORTHROP GRUMMAN MOJ	1506 FLIGHT LINE ON	FINDS	TP
AK304 / 8	NORTHROP GRUMMAN MOJ	1506 FLIGHT LINE ON	ECHO	TP
AK305 / 8	NORTHROP GRUMMAN MOJ	1506 FLIGHT LINE	RCRA NonGen / NLR	TP
AK306 / 8	NORTHRUP GRUMMAN MOJ	1506 FLIGHT LINE ON	HAZNET, HWTS	TP
AL307 / 8	KA FLEETONE INC	2471 NADEAU ST	FINDS, ECHO	TP
AL308 / 8	KELLEY FLEET SERVICE	2471 NADEAU ST	HAZNET, HWTS	TP
AL309 / 8	PEPSI COLA COMPANY	2471 NADEAU	RGA LUST	TP
AL310 / 8	PEPSI COLA COMPANY	2471 NADEAU ST	RGA LUST	TP
AL311 / 8	PEPSI COLA BOTTLING	2471 NADEAU	LUST, SWEEPS UST, HIST UST, CA FID UST, ...	TP
AL312 / 8	KA FLEETONE INC	2471 NADEAU ST	HWTS	TP
AL313 / 8	PEPSI COLA COMPANY	2471 NADEAU ST	LUST	TP
AL314 / 8	PEPSI-COLA BOTTLING	2471 NADEAU ST	UST	TP
AL315 / 8	PEPSI BEVERAGES COMP	2471 NADEAU ST	FINDS	TP
AL316 / 8	PEPSI COLA BOTTLING	2471 NADEAU ST	HAZNET, HWTS	TP
AL317 / 8	NEWBERN TRANSPORTATI	2471 NADEAU	HAZNET, HWTS	TP
AL318 / 8	KA FLEETONE INC	2471 NADEAU ST	RCRA NonGen / NLR	TP
AM319 / 8	THE SPACESHIP COMPAN	1570 FLIGHT LINE	FINDS	TP
AM320 / 8	THE SPACESHIP COMPAN	1570 FLIGHT LINE	EMI	TP
AN321 / 8	TEST SITE 19 LEASE A	1624 FLIGHT LINE ROA	NPDES	TP
AN322 / 8	SCALED COMPOSITES, L	1624 FLIGHT LINE RD.	FINDS	TP
AN323 / 8	SCALED COMPOSITES IN	1624 FLIGHT LINE, HA	FINDS, ECHO	TP
AN324 / 8	SCALED COMPOSITES LL	1624 FLIGHT LINE BLD	HAZNET	TP
AN325 / 8	SCALED COMPOSITES, L	1624 FLIGHTLINE	HAZNET, HWTS	TP
AN326 / 8	SCALED COMPOSITES	1624 FLIGHT LINE BUI	EMI	TP
AN327 / 8	SCALED COMPOSITES LL	1624 FLIGHT LINE BLD	RCRA-SQG	TP
AP330 / 8	UNITED STATES POSTAL	2053 BELSHAW ST	HAZNET, HWTS	TP
AP331 / 8	US POSTAL SERVICE/MO	2053 BELSHAW ST	HAZNET, HWTS	TP
AQ332 / 8	SOUTHERN CALIFORNIA	OAK CREEK ROAD AND H	FINDS	TP
AQ333 / 8	SOUTHERN CALIFORNIA	CORNER OF HOLT ST. A	HAZNET, HWTS	TP
AQ334 / 8	SCE GOLDTOWN SUBSTAT	OAK CREEK ROAD AND H	CERS	TP
AQ335 / 8	SOUTHERN CALIFORNIA	CORNER OF HOLT ST. A	HAZNET, HWTS	TP
AP336 / 8	EAST KERM CEMETERY D	2040 BELSHAW ST	HWTS	TP
AP340 / 8	PACIFIC BELL	2100 BELSHAW AVENUE	EMI	TP
AP341 / 8	AT&T CALIFORNIA - SA	2100 BELSHAW ST	FINDS	TP
AP342 / 8	PACIFIC BELL TELEPHO	2100 BELSHAW	SWEEPS UST, HIST UST, CA FID UST, RCRA N...	TP

MAPPED SITES SUMMARY - FOCUS MAP 8

Target Property:
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MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
AP343 / 8	PACIFIC BELL TELEPHO	2100 BELSHAW ST	CERS HAZ WASTE, HAZNET, CERS, HWTS	TP
344 / 8	MOJAVE HOTEL INVESTM	16100 SIERRA HWY	HAZNET, HWTS	TP
AS345 / 8	WESTERN COUPLING	1711 SABOVICH ST MOJ	RCRA-SQG, FINDS, ECHO, HAZNET, HWTS	TP
AS346 / 8	ALPHA EXPLOSIVES	1683 SABOVICH STREET	FINDS	TP
AS347 / 8	ALPHA EXPLOSIVES	1683 SABOVICH STREET	EMI	TP
AT348 / 8	BAE SYSTEMS	1501 SABOVICH STREET	EMI	TP
AT349 / 8	BAE SYSTEMS IESI	1501 SABOVICH ST	ICIS, FINDS, ECHO	TP
AT350 / 8	BAE SYSTEMS MOJAVE O	1501 SABOVICH STREET	RCRA NonGen / NLR	TP
AT351 / 8	BAE SYSTEMS MOJAVE O	1501 SABOVICH ST BLD	HAZNET, HWTS	TP
AT352 / 8	BAE SYSTEMS	1501 SABOVICH ST BLD	FINDS	TP
AT353 / 8	BAE SYSTEMS-IESI	1501 SABOVICH ST BLD	HAZNET, HWTS	TP
AT354 / 8	BAE SYSTEMS - BLDG 6	1501 SABOVICH ST BLD	CERS HAZ WASTE, CERS	TP
AT355 / 8	BAE SYSTEMS IESI INC	1501 SABOVICH STREET	CERS	TP
AW364 / 8	UNITED PARCEL SERVIC	1522 SABOVITCH ST	SWEEPS UST, CA FID UST	TP
366 / 8	SHAWNS TRUCK STOP	16137 I ST	EDR Hist Auto	TP
367 / 8	ALPHA DYNO NOBEL	1824 SABOVICH ST, ST	HAZNET, HWTS	TP
AS368 / 8	BAE SYSTEMS INC	1718 SABOVICH ST	HAZNET, HWTS	TP
AS369 / 8	ALPHA EXPLOSIVES	1682 SABOVICH ST	HAZNET, HWTS	TP
AS370 / 8	ALPHA EXPLOSIVES	1682 SABOVICH ST	RCRA NonGen / NLR	TP
AS371 / 8	ALPHA DYNO NOBEL	1682 SABOVICH	AST	TP
AS372 / 8	THE BOEING CO.	1682 SABOVICH ST	HAZNET, HWTS	TP
AS373 / 8	ALPHA DYNO NOBEL	1682 SABOVICH ST 30	AST	TP
AS374 / 8	ALPHA DYNO NOBEL	1682 SABOVICH ST 30	CERS HAZ WASTE, CERS TANKS, CERS	TP
AS375 / 8	ALPHA EXPLOSIVES	1682 SABOVICH ST	FINDS, ECHO	TP
AS376 / 8	ALPHA DYNO NOBEL MOJ	1682 SABOVICH STREET	FINDS	TP
AW377 / 8	STINGER ENGINES INC	1620 SABOVICH ST UNI	HWTS	TP
AW378 / 8	MASTEN SPACE SYSTEMS	1570 SABOVICH ST BLD	RCRA NonGen / NLR	TP
AW379 / 8	MASTEN SPACE SYSTEMS	1570 SABOVICH ST BLD	HWTS	TP
AW380 / 8	MASTEN SPACE SYSTEMS	1570 SABOVICH ST	CERS HAZ WASTE, CERS	TP
AW381 / 8	MASTEN SPACE SYSTEMS	1570 SABOVICH ST	FINDS, ECHO	TP
AT382 / 8	THE ENERGY ENHANCEME	1522 SABOVICH ST	HAZNET, HWTS	TP
AT383 / 8	UNITED PARCEL SERVIC	1522 SABOVICH BLDG 1	UST	TP
AT384 / 8	UNITED PARCEL SERVIC	1522 SABOVICH BLDG 1	UST	TP
AT385 / 8	UNITED PARCEL SERVIC	1522 SABOVICH ST	HAZNET, HWTS	TP
AT386 / 8	UNITED PARCEL SERVIC	1522 SABOVICH BLDG 1	FINDS, ECHO	TP
AT387 / 8	UNITED PARCEL SERVIC	1522 SABOVICH BLDG 1	AST	TP
AT388 / 8	UNITED PARCEL SERVIC	1522 SABOVICH ST	RCRA NonGen / NLR	TP
AT389 / 8	THE ENERGY ENCHANCEM	1522 SABOVICH ST	HAZNET, HWTS	TP
AT390 / 8	UPS	1522 SABOVICH ST	NPDES, WDS, CIWQS	TP

MAPPED SITES SUMMARY - FOCUS MAP 8

Target Property:
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MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
AT391 / 8	THE ENERGY ENHANCEME	1522 SABOVICH AVE	FINDS, ECHO	TP
AT392 / 8	THE ENERGY ENHANCEME	1522 SABOVICH AVE	RCRA-SQG	TP
AT393 / 8	UPS - MOJAVE	1522 SABOVICH BLDG 1	CERS HAZ WASTE, CERS	TP
AT394 / 8	THE ENERGY ENHANCEME	1522 SABOVICH AVE	RCRA-LQG	TP
AT395 / 8	UPS - MOJAVE	1522 SABOVICH BLDG 1	UST	TP
400 / 8	GLORIA VAUGHN	15946 P STREET	HWTS	TP
AY403 / 8	INTERORBITAL	1394 BARNES	CERS	TP
AY404 / 8	INTERORBITAL	1394 BARNES	FINDS	TP
AZ405 / 8	WHITE'S SHELL STATIO	16074 SIERRA HWY	FINDS	TP
AZ406 / 8	1X WHITE, JOHN	16074 SIERRA HWY	HAZNET, HWTS	TP
AZ407 / 8	WHITES SHELL STATION	16074 SIERRA HWY	EDR Hist Auto	TP
AZ408 / 8	WHITE'S SHELL STATIO	16074 SIERRA HWY	CA FID UST	TP
AZ409 / 8	WHITE'S SHELL STATIO	16074 SIERRA HWY	LUST, SWEEPS UST, HIST UST, CERS	TP
AZ410 / 8	WHITE'S SHELL	16074 SIERRA HWY	RGA LUST	TP
AZ411 / 8	WHITE'S SHELL STATIO	16074 SIERRA HWY	RGA LUST	TP
AZ412 / 8	WHITE'S SHELL	16074 SIERRA	LUST, HIST CORTESE	TP
AZ413 / 8	1X WHITES SHELL STAT	16074 SIERRA HWY	HAZNET, HWTS	TP
BA416 / 8	CHARLES MORRIS	15925 Q ST	HAZNET, HWTS	TP
BA417 / 8	MORRIS PROPERTY	15925 Q ST	UST	TP
AZ418 / 8	MOJAVE SHELL	16048 SIERRA HWY (HW	FINDS	TP
AZ419 / 8	INYO CRUDE INC	16048 SIERRA HWY	EDR Hist Auto	TP
AZ420 / 8	INYO CRUDE INC.	16048 SIERRA HIGHWAY	FINDS	TP
AZ421 / 8	MOJAVE SHELL	16048 SIERRA HWY (HW	UST	TP
AZ422 / 8	INYO CRUDE INC.	16048 SIERRA HIGHWAY	EMI	TP
AZ423 / 8	MOJAVE SHELL	16048 SIERRA HWY	HWTS	TP
AZ424 / 8	MOJAVE SHELL	16048 SIERRA HWY (HW	CERS TANKS, CERS	TP
AZ425 / 8	11873 RB6T	HWY 14 & SALTDALE RD	FINDS	TP
AZ426 / 8	FAA-FREEMONT VALLEY	OFF PHILIPS RANCH RO	CERS	TP
AZ427 / 8	NORTHROP GRUMMAN SYS	1260 FLIGHTLINE HANG	CERS HAZ WASTE, CERS	TP
BB428 / 8	MOJAVE USD	1834 INYO ST	RCRA NonGen / NLR	TP
BB429 / 8	1X MOJAVE SCHOOL DIS	1834 INYO STREET	HWTS	TP
BB430 / 8	MOJAVE UNIFIED SCHOO	1834 INYO ST	CERS HAZ WASTE, CERS TANKS, HAZNET, CERS	TP
BB431 / 8	MOJAVE USD	1834 INYO ST	HAZNET, HWTS	TP
BB432 / 8	MOJAVE UNIFIED SCHOO	1834 INYO ST	AST	TP
BB433 / 8	MOJAVE UNIFIED SCHOO	1834 INYO	AST	TP
BB434 / 8	MOJAVE UNIFIED SCHOO	1834 INYO ST	HAZNET, HWTS	TP
BB435 / 8	1X MOJAVE U.S.D.	1834 INYO	HAZNET, HWTS	TP
BB436 / 8	MOJAVE UNIFIED SCHOO	1834 INYO ST	FINDS	TP
BB437 / 8	MOJAVE USD	1834 INYO ST	FINDS, ECHO	TP

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MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
BB438 / 8	TRANSPORTATION DEPAR	1830 INYO ST	HIST UST	TP
BB439 / 8	TRANSPORTATION DEPAR	1830 INYO ST	SWEEPS UST, HIST UST, CA FID UST	TP
BC440 / 8	SOUTHERN CALIFORNIA	1700 INYO ST	CERS	TP
BC441 / 8	SOUTHERN CALIFORNIA	1700 INYO ST	FINDS	TP
442 / 8	SOUTHERN CALIFORNIA	1900 INYO ST	HAZNET, HWTS	TP
BE457 / 8	K STREET INTERSECTIO	15999 K STREET	NPDES, CIWQS	TP
BE458 / 8	MAC ARTHUR MARIANNA	2326 CERRO GORDO	EDR Hist Cleaner	TP
459 / 8	ROBERT & JUDY SAUNDE	3175 JEAN DR	HAZNET, HWTS	TP
BF460 / 8	BLANCHARD FLOYD E	15974 SIERRA HWY	EDR Hist Auto	TP
BG461 / 8	HELENE SMITH & SONS	15931 L ST	HWTS	TP
462 / 8	PARK PALACE 2 APARTM	16197 H ST	NPDES, CIWQS	TP
467 / 8	INNOVATIVE ENGINEERI	TEST SITE 20	CERS	TP
BI468 / 8	WHALING, KIM	15974 JEAN DR	HWTS	TP
BI469 / 8	WHALING, KIM	15974 JEAN DR	FINDS, ECHO	TP
BI470 / 8	WHALING, KIM	15974 JEAN DR	RCRA NonGen / NLR	TP
BJ471 / 8	KERN COUNTY REGIONAL	15926 SOUTH K ST	HAZNET, HWTS	TP
BJ472 / 8	1X KERN COUNTY REGIO	15926 SOUTH K STREET	HWTS	TP
BG473 / 8	STICKEL MORTUARY	2201 INYO ST	UST	TP
BF474 / 8	KTM OF MOJAVE	15938 SIERRA HWY	HAZNET, HWTS	TP
BK475 / 8	RANDALL A KELLEY	16852 ROPER RD	FINDS, ECHO	TP
BK476 / 8	RANDALL KELLEY	16852 ROPER ST BLDG	CERS HAZ WASTE, CERS	TP
BK477 / 8	RANDALL A. KELLEY	16852 ROPER ST	HAULERS	TP
BK478 / 8	RANDALL A KELLEY	16852 ROPER RD	RCRA NonGen / NLR	TP
BK479 / 8	RANDALL A KELLEY	16852 ROPER RD	HAZNET, HWTS	TP
BK480 / 8	RANDALL KELLEY	16852 ROPER ST BLDG	FINDS	TP
BK481 / 8	JOHNSONS AUTO REPAIR	16853 ROPER ST BLDG	HWTS	TP
482 / 8	DONNA LOPEZ	15938 REXROTH ST	HAZNET, HWTS	TP
BL483 / 8	CARL'S JR #176	15900 SIERRA HIGHWAY	FINDS	TP
BL484 / 8	CARL'S JR #176	15900 SIERRA HIGHWAY	EMI	TP
485 / 8	17018 PED PATH IMPRO	VARIOUS STREETS	NPDES, CIWQS	TP
486 / 8	STREET LIGHT IMPROVE	K STREET	NPDES, CIWQS	TP
BM487 / 8	1X MUSD MOJAVE ELEM	15800 O ST .	HWTS	TP
BM488 / 8	MOJAVE USD	15800 O ST	HAZNET, HWTS	TP
BM489 / 8	MOJAVE USD - MOJAVE	15800 O ST	HAZNET, HWTS	TP
BM490 / 8	MOJAVE ELEMENTARY SC	15800 O STREET	HWTS	TP
BL491 / 8	MOJAVE STATION	15887 N SIERRA HWY	UST	TP
BL492 / 8	SOUTHERN PACIFIC - M	15887 SIERRA HWY N	RGA LUST	TP
BL493 / 8	1X SOUTHERN PACIFIC	15887 NO SIERRA HWY	HAZNET, HWTS	TP
BL494 / 8	SOUTHERN PACIFIC - M	15887 SIERRA HWY N	FINDS	TP

MAPPED SITES SUMMARY - FOCUS MAP 8

Target Property:
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MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
BL495 / 8	MOJAVE STATION	15887 SIERRA HWY	HIST UST	TP
BL496 / 8	SOUTHERN PACIFIC - M	15887 SIERRA HWY N	LUST, HIST CORTESE, CERS	TP
BN497 / 8	BEE B COY JR	15844 K ST	PEST LIC	TP
BN498 / 8	MOJAVE CS	15844 K STREET	CIWQS	TP
BN499 / 8	MOJAVE CS	15844 K	FINDS	TP
BN500 / 8	MOJAVE PUBLIC UTILIT	15844 K ST	CERS HAZ WASTE, SWEEPS UST, CA FID UST, ...	TP
BN501 / 8	MOJAVE PUBLIC UTILIT	15844 K ST	RCRA NonGen / NLR	TP
BN502 / 8	MOJAVE PUD	15844 K ST	FINDS, ECHO	TP
BN503 / 8	1X MOJAVE PUBLIC UTI	15844 K ST	HAZNET, HWTS	TP
BN504 / 8	MOJAVE PUBLIC UTILIT	15844 "K" ST	UST	TP
505 / 8	MOJAVE STATION	15867 N SIERRA HY	HIST UST	TP
BO506 / 8	UNION PACIFIC RAILRO	15780 I ST.	HAZNET, HWTS	TP
BO507 / 8	UNION PACIFIC RAILRO	15780 SOUTH I ST	HWTS	TP
BP508 / 8	MOJAVE HIGH SCHOOL M	15732 O ST	FINDS	TP
BP509 / 8	MOJAVE HIGH SCHOOL M	15732 O ST	CERS	TP
BP510 / 8	MAJAVE HIGH SCHOOL	15732 O ST.	HAZNET, HWTS	TP
BP511 / 8	MOJAVE UNIFIED SCHOO	15732 O ST	HAZNET, HWTS	TP
BP512 / 8	MOJAVE HIGH SCHOOL	15732 O STREET	HIST UST, HAZNET, HWTS	TP
BP513 / 8	MOJAVE UNIFIED SCHOO	15732 O ST	HAZNET, HWTS	TP
BQ514 / 8	CHEVRON 91095	15800 SIERRA WAYOUNT	HAZNET, HWTS	TP
BQ515 / 8	CHEVRON STATION #910	15800 SIERRA HWY	HAZNET, HWTS	TP
BQ516 / 8	RAMOS STRONG	15800 SIERRA HIGHWAY	FINDS	TP
BQ517 / 8	CHEVRON STATION NO 9	15800 SIERRA HWY	RCRA NonGen / NLR, FINDS, ECHO	TP
BQ518 / 8	MOJAVE CHEVRON #9109	15800 SIERRA HWY (HW	UST	TP
BQ519 / 8		15800 SIERRA HWY	RCRA NonGen / NLR	TP
BQ520 / 8	CHEVRON #1095	15800 SIERRA HWY	RGA LUST	TP
BQ521 / 8	RAMOS STRONG	15800 SIERRA HIGHWAY	EMI	TP
BQ522 / 8	91095	15800 SIERRA HWY	SWEEPS UST, HIST UST	TP
BQ523 / 8	MOJAVE CFN	15800 SIERRA HWY	ECHO	TP
BQ524 / 8	CHEVRON #1095	15800 SIERRA HWY	FINDS	TP
BQ525 / 8	MOJAVE CFN	15800 SIERRA HWY	HWTS	TP
BQ526 / 8	APSI CHEVRON 1401	15800 SIERRA HWY	EDR Hist Auto	TP
BQ527 / 8	1X CHEVERON CORP	15800 SIERRA HWY	HAZNET, HWTS	TP
BQ528 / 8	CHEVRON #1095	15800 SIERRA HWY	LUST, SWEEPS UST, HIST CORTESE, CERS	TP
BO529 / 8		15772 SOUTH I. STREE	CHMIRS	TP
BO530 / 8		15772 SOUTH I ST	ERNS	TP
BQ531 / 8	RSI CARDLOCK	15800 HIGHWAY 14 (SI	CERS HAZ WASTE, CERS TANKS, CERS	TP
BQ532 / 8	RSI CARDLOCK	15800 HIGHWAY 14 (S	FINDS	TP
BQ533 / 8	RSI CARDLOCK	15800 HIGHWAY 14 (SI	UST	TP

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MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
BO534 / 8		15760 I ST.	CHMIRS	TP
BQ535 / 8	91095	15800 SIERRA HWY	SWEEPS UST, CA FID UST	TP
536 / 8	BANK OF AMERICA	15773 K ST	HAZNET, HWTS	TP
BQ537 / 8	CONOCO PHILLIPS #251	15764 SIERRA HWY	HAZNET, HWTS	TP
BQ538 / 8	GASOLINE RETAIL	15764 SIERRA HWY	EDR Hist Auto	TP
BQ539 / 8	SIERRA HWY UNOCAL #1	15764 SIERRA HWY	RGA LUST	TP
BQ540 / 8	RAMOS/STRONG INC DBA	15764 SIERRA HWY	HWTS	TP
BQ541 / 8	SIERRA 76 #1247	15764 SIERRA HWY	UST	TP
BQ542 / 8	UNOCAL #1247	15764 SIERRA HWY	LUST, HIST CORTESE, CERS	TP
BQ543 / 8	RAMOS STRONG	15764 SIERRA HWY	FINDS	TP
BQ544 / 8	UNION OIL SERVICE ST	15764 SIERRA HWY	SWEEPS UST, CA FID UST	TP
BQ545 / 8	RAMOS/STRONG INC DBA	15764 SIERRA HWY	ECHO	TP
BQ546 / 8	RAMOS STRONG	15764 SIERRA HIGHWAY	EMI	TP
BQ547 / 8	RAMOS/STRONG INC DBA	15764 SIERRA HWY	RCRA NonGen / NLR	TP
BQ548 / 8	TOSCO CORPORATION ST	15764 SIERRA HWY	HAZNET, HWTS	TP
BQ549 / 8	UNOCAL SERVICE STATI	15764 SIERRA HIGHWAY	CERS HAZ WASTE, HIST UST, CERS TANKS, HA...	TP
BQ550 / 8	UNOCAL #1247	15764 SIERRA HWY	FINDS	TP
BQ551 / 8	UNOCAL #1247	15764 SIERRA HWY	RGA LUST	TP
BQ552 / 8	STATION #1247	15764 SIERRA HWY	HIST UST	TP
BQ553 / 8	1X UNOCAL STN #1247	15764 SIERRA HWY	HWTS	TP
BQ554 / 8	UNION OIL SERVICE ST	15764 SIERRA HWY	HIST UST	TP
BQ555 / 8	MOJAVE CHEVRON	15764 SIERRA HWY	FINDS	TP
557 / 8	DIFWIND FARMS LTD VI	OAK CREK ROAD	FINDS	TP
BS574 / 8	MOJAVE TIRE SMOG AND	15736 SIERRA HWY	UST	TP
BS575 / 8	BUDS GARAGE	15736 SIERRA HWY	EDR Hist Auto	TP
BS576 / 8	TONY'S WHEELS & TIRE	15736 SIERRA HWY	ECHO	TP
BS577 / 8	CENTURY PREMIUM CAR	15736 SIERRA HWY	HAZNET, HWTS	TP
BS578 / 8		15736 SIERRA HWY	RCRA NonGen / NLR	TP
BS579 / 8	MOJAVE TIRE SMOG & A	15736 SIERRA HWY	HWTS	TP
BS580 / 8	MOJAVE TIRES SMOG &	15736 SIERRA HWY	HWTS	TP
BS581 / 8	JIMS TEXACO & GARAGE	15736 SIERRA HWY	HWTS	TP
BU593 / 8	EDWARDS AFB PROJ ROU		FUDS	TP
BU594 / 8	EDWARDS AFB PROJ R-U		ENVIROSTOR	TP
BW597 / 8	MOJAVE MAKERS, A PUB	16722 ROPER STREET	FINDS, ECHO	TP
BW598 / 8	MOJAVE MAKERS, A PUB	16722 ROPER STREET	RCRA NonGen / NLR	TP
BW599 / 8	MOJAVE MAKERS, A PUB	16722 ROPER STREET	HWTS	TP
BS600 / 8	SHAHRIAR NAZARI	2337 SHASTA ST	HAZNET, HWTS	TP
BS601 / 8	SIERRA MINI MART	2337 SHASTA AVE	CA FID UST	TP
BS602 / 8	SIERRA DRIVE THRU MI	2337 SHASTA ST	UST	TP

MAPPED SITES SUMMARY - FOCUS MAP 8

Target Property:
BELLEFIELD
MOJAVE, CA 93501

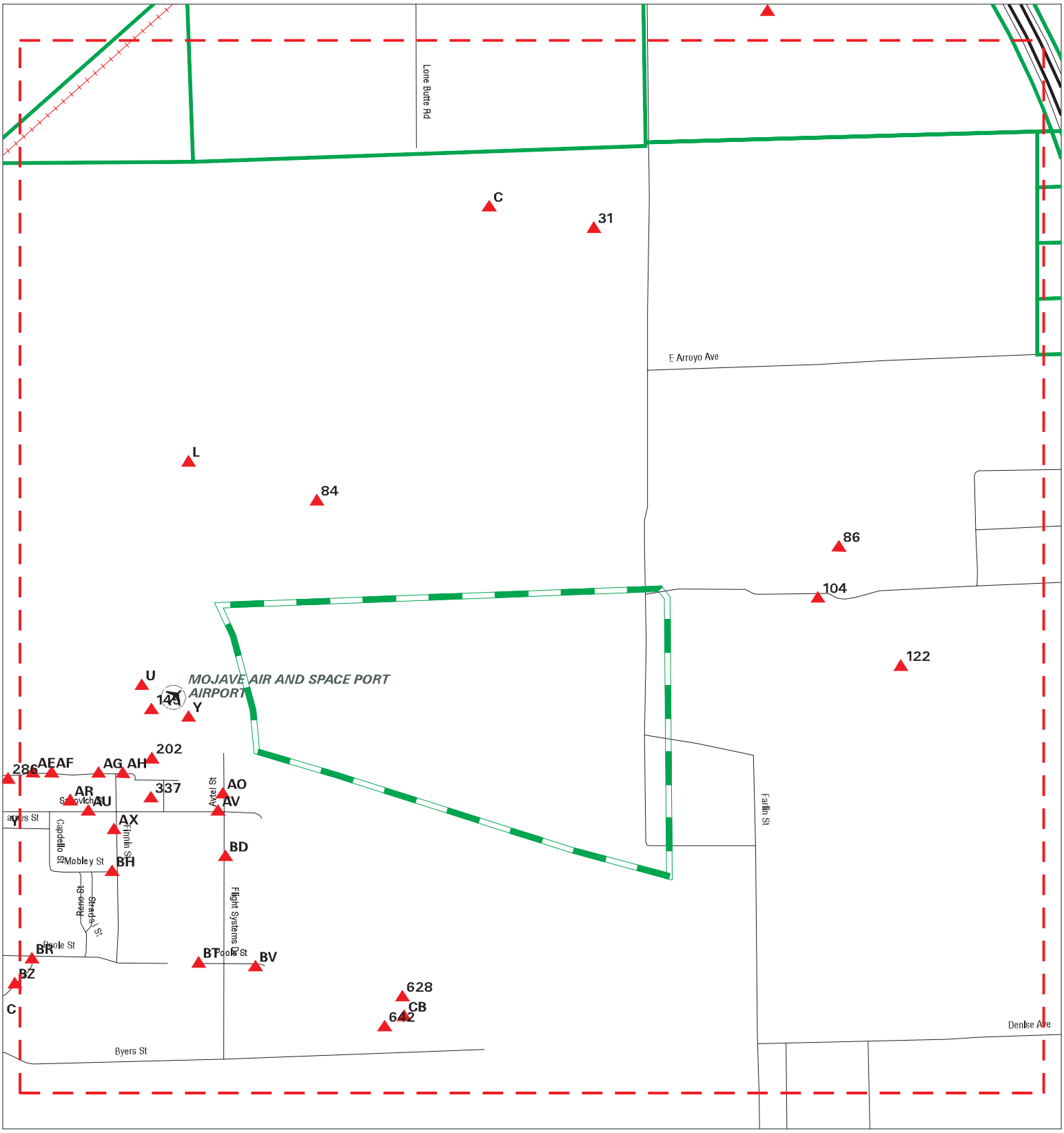
MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
BS603 / 8	SIERRA MINI MART	2337 SHASTA AVE	SWEEPS UST	TP
BS604 / 8	TEXACO	15700 SIERRA HWY	SWEEPS UST, HIST UST, CA FID UST, CERS T...	TP
BS605 / 8	SHAN'S TEXACO	15700 SERRIA HWY	HAZNET, HWTS	TP
BS606 / 8	MOJAVE TEXACO	15700 SIERRA HWY	UST	TP
BS607 / 8	MOJAVE TEXACO	15700 SIERRA HWY	UST	TP
BS608 / 8	EXPRESS MART SERVICE	15700 SIERRA HWY	HAZNET, HWTS	TP
BS609 / 8	OASIS TRAVEL STATION	15700 SIERRA HWY	UST	TP
BS610 / 8	OASIS TRAVEL STOP	15700 SIERRA HWY	FINDS	TP
BS611 / 8	GORMAN ROBERT	15700 SIERRA HWY	EDR Hist Auto	TP
BS612 / 8	GORMAN TEXACO	15700 SIERRA HWY	HIST UST	TP
BS613 / 8	OASIS TRAVEL STOP	15700 SIERRA HIGHWAY	EMI	TP
BS614 / 8	SHAN TEXACO	15700 SIERRA HWY	HAZNET, HWTS	TP
BX615 / 8	MSD = JOHNSON MIDDLE	3200 PAT AVE	HAZNET, HWTS	TP
BX616 / 8	MSD/ JOHNSON MIDDLE	3200 PAT AVE	HAZNET, HWTS	TP
617 / 8	VICTORY MILLSITE (A	SILVER QUEEN ROAD	SEMS-ARCHIVE, LEAD SMELTERS	TP
BU618 / 8	MOJAVE #1 BD	S/2,SE/4,SE/4, SEC 1	SWF/LF, CERS	TP
BY619 / 8		15664 K STREET	HMIRS	TP
BY620 / 8		15664 K STREET	HMIRS	TP
BZ621 / 8	HIGH DESERT FABRICAT	1646 KINNICUTT ST	HWTS	TP
BZ622 / 8	HIGH DESERT FABRICAT	1646 KINNICUTT ST BL	HAZNET, HWTS	TP
CA623 / 8	SALMEX AUTO	15652 SIERRA HIGHWAY	FINDS	TP
CA624 / 8	SALMEX AUTO	15652 SIERRA HIGHWAY	CERS HAZ WASTE, CERS	TP
CA625 / 8	ANDERSON AUTO REPAIR	15652 SIERRA HWY	HAZNET, HWTS	TP
CA626 / 8	CLC AUTO REPAIR	15652 SIERRA HWY BUI	HWTS	TP
CA627 / 8	PHILLIP RICCOMINI	15652 SIERRA HWY	HWTS	TP
CA629 / 8	SALMEX AUTO REPAIR	15651 SIERRA HWY STE	HWTS	TP
CA630 / 8	SALMEX AUTO REPAIR	15651 SIERRA HWY STE	RCRA NonGen / NLR	TP
CA631 / 8	SALMEX AUTO REPAIR	15651 SIERRA HWY STE	FINDS, ECHO	TP
632 / 8	PRICE SAVERS TRUCK S	2001 HWY 58	UST	TP
CC638 / 8	BAE SYSTEMS MOJAVE O	16927 AIRPORT BLVD B	HAZNET, HWTS	TP
CC639 / 8	BAE SYSTEMS	16921 AIRPORT BLVD B	RCRA-SQG	TP
CC640 / 8	BAE SYSTEMS	16921 AIRPORT BLVD	FINDS, ECHO	TP
CD641 / 8	FAMILY DOLLAR #10107	2343 HIGHWAY 58	CERS HAZ WASTE, CERS	TP
CE643 / 8	CIRCLE K STORE #735	15510 K ST	RCRA-SQG, LUST, SWEEPS UST, HIST UST, CA...	TP
CE644 / 8	CIRCLE K STORES INC.	15510 K ST	HAZNET, HWTS	TP
CE645 / 8	FORMER CIRCLE K STOR	15510 K STREET	FINDS	TP
CE646 / 8	CIRCLE K #735	15510 K ST	RGA LUST	TP
CE647 / 8	CIRCLE K 735	15510 K ST	UST	TP
CE648 / 8	FORMER CIRCLE K STOR	15510 K ST	RGA LUST	TP

MAPPED SITES SUMMARY - FOCUS MAP 8

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
CE649 / 8	FORMER CIRCLE K STOR	15510 K STREET	RGA LUST	TP
CE650 / 8	CIRCLE K #735	15510 K STREET	RGA LUST	TP
CE651 / 8	CIRCLE K CORPORATION	15510 K ST	EDR Hist Auto	TP
CE652 / 8	FORMER CIRCLE K STOR	15510 K STREET	LUST	TP
653 / 8	FIRE STATION 14	1953 HIGHWAY 58	CERS	TP
CD654 / 8	FAMILY DOLLAR INC #	2343 STATE HIGHWAY 5	FINDS, ECHO	TP
CD655 / 8	FAMILY DOLLAR INC #	2343 STATE HIGHWAY 5	RCRA NonGen / NLR	TP
CD656 / 8	FAMILY DOLLAR INC #	2343 STATE HIGHWAY 5	HAZNET, HWTS	TP
CE657 / 8	CIRCLE K #735	15510 "K" ST	UST	TP
658 / 8	RAPID LUBE AND TRUCK	2001 HIGHWAY 58	CERS TANKS, CERS	TP
CF659 / 8	MOJAVE HOSPITALITY L	2201 STATE HIGHWAY 5	HWTS	TP
CG660 / 8	FASTRIP #38	2350 HWY 58	UST	TP
CG661 / 8	#7704 FASTRIP #38	2350 HIGHWAY 58	UST	TP
CG662 / 8	#7704 FASTRIP #38	2350 HIGHWAY 58	CERS HAZ WASTE, CERS TANKS, CERS	TP
CF663 / 8		SR 58 E/O SR 14	CHMIRS	TP
CH664 / 8	HEARTLAND TRUCK STOP	2001 HWY 58	LUST, Cortese, HAZNET, CERS, HWTS	TP
665 / 8		2001 HWY 58 AND PARK	CHMIRS	TP
CH666 / 8	ANGELS TRUCK STOP	2001 HWY 58	RGA LUST	TP
CH667 / 8	PRICE SAVER INC	2001 STATE HIGHWAY 5	EDR Hist Auto	TP
CH668 / 8	RAPID LUBE AND TRUCK	2001 HIGHWAY 58	UST	TP
CH669 / 8	PRICE SAVER RAPID LU	2001 STATE HIGHWAY 5	HWTS	TP
CH670 / 8	KELLY NAZARI	2005 STATE HIGHWAY 5	HWTS	TP
CH671 / 8	RAPID LUBE	2005 STATE HIGHWAY 5	HWTS	TP
CI672 / 8	MONITORING STATION	KERN CO FIRE DEPT.,	FINDS	TP
CI673 / 8	MONITORING STATION	KERN CO FIRE DEPT.,	CERS	TP
674 / 8	FIRE STATION #14	1953 STATE HIGHWAY 5	HIST UST	TP
CH675 / 8	RIO GRANDE SOLAR	13012 MEYER ROAD	FINDS	TP
676 / 8	TEHACHAPI SPINDLE		FINDS	TP
677 / 8	KCGS - MOJAVE MICROW	1775 HIGHWAY 58	CERS	TP

Focus Map - 9 - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

SITE NAME: Bellefield	CLIENT: Stantec
ADDRESS: Bellefield	CONTACT: Alicia Jansen
CITY/STATE: Mojave CA	INQUIRY #: 6051837.2s
ZIP: 93501	DATE: 04/30/20

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
C29 / 9	MOJAVE PIT		MINES	TP
C30 / 9	MOJAVE PIT		MINES MRDS	TP
31 / 9	VIRGIN ORBIT, LLC	1223-A SABOVICH ST	CERS HAZ WASTE, CERS TANKS, CERS	TP
L79 / 9	MONITORING STATION	AIRPORT-BLDG 58	FINDS	TP
L80 / 9	MONITORING STATION	AIRPORT-BLDG 58	CERS	TP
84 / 9	COMMERCIAL AIRCRAFT	MOJAVE AIRPORT BONEY	CERS HAZ WASTE, CERS	TP
86 / 9	MOJAVE AGGREGATE PIT	P.O. BOX 31089	MINES	TP
104 / 9	MOJAVE PIT		MINES	TP
122 / 9	MILLER PIT		MINES MRDS	TP
U130 / 9	MOJAVE	UNKNOWN	CERS	TP
U131 / 9	MOJAVE	UNKNOWN	FINDS	TP
145 / 9	FORMER MARINE CORPS	MOJAVE AIRPORT	LUST, CERS	TP
Y149 / 9	MARINE CORPS AIRSTAT		FUDS	TP
Y150 / 9	MARINE CORPS AIR STA	PORTION OF THE AREA	ENVIROSTOR	TP
Y151 / 9	FIELD CARRIER ROCKET		UXO	TP
Y152 / 9	EAST KERN AIRPORT		ENVIROSTOR	TP
Y153 / 9	MCAB MOJAVE(DUP)		ENVIROSTOR	TP
202 / 9	MARINE CORPS AIR STA	1434 FLIGHTLINE	CERS	TP
AE228 / 9	XCOR AEROSPACE INCOR	1314 FLIGHT LINE	HAZNET, HWTS	TP
AE229 / 9	XCOR AEROSPACE, INC.	1314 FLIGHTLINE	FINDS	TP
AE230 / 9	OK AIRLINE SUPPORT I	1314 FLIGHTLINE BLDG	RCRA-SQG, FINDS, ECHO	TP
AF231 / 9	NORTHROP GRUMMAN (MO	1260 FLIGHT LINE, BL	FINDS, ECHO	TP
AF232 / 9	NORTHROP GRUMMAN (MO	1260 FLIGHT LINE, BL	RCRA-SQG	TP
AF233 / 9	NORTHROP GRUMMAN MOJ	1260 FLIGHT LINE BLD	HAZNET, HWTS	TP
AG235 / 9	ANTELOPE VALLEY GENE	1122 FLIGHT LINE (BL	HWTS	TP
AG236 / 9	FIRESTAR ENGINEERING	1122 FLIGHT LINE 76	FINDS	TP
AG237 / 9	FIRESTAR ENGINEERING	1122 FLIGHTLINE ST	HWTS	TP
AH238 / 9	FLIGHT RESEARCH INC	1062 FLIGHTLINE ST H	FINDS	TP
AH239 / 9	FLIGHT RESEARCH INC	1062 FLIGHT LINE HAN	HAZNET, HWTS	TP
AF240 / 9	FLIGHT TEST AEROSPAC	1224 FLIGHT LINE HAN	FINDS	TP
AF241 / 9	AVTEL SERVICES INC	1224 FLIGHT LINE	HWTS	TP
AF242 / 9	MERCY AIR SERVICES I	1220 FLIGHTLINE 60	FINDS	TP
AF243 / 9	AIR METHODS CORP DBA	1220 FLIGHT LINE	HAZNET, HWTS	TP
AF244 / 9	AIR METHODS CORP DBA	1220 FLIGHT LINE	RCRA NonGen / NLR	TP
AF245 / 9	AIR METHODS CORP DBA	1220 FLIGHT LINE	FINDS, ECHO	TP
AF246 / 9	MERCY AIR SERVICE, I	1220 FLIGHTLINE DR	CERS HAZ WASTE, CERS	TP
AO328 / 9	ORBITAL SCIENCES COR	17143 FLIGHT SYSTEMS	CERS HAZ WASTE, CERS	TP
AO329 / 9	ORBITAL SCIENCES COR	17143 FLIGHT SYSTEMS	FINDS	TP
337 / 9	FLIGHT RESEARCH INC	1062 FLIGHTLINE ST H	CERS HAZ WASTE, CERS	TP

MAPPED SITES SUMMARY - FOCUS MAP 9

Target Property:
BELLEFIELD
MOJAVE, CA 93501

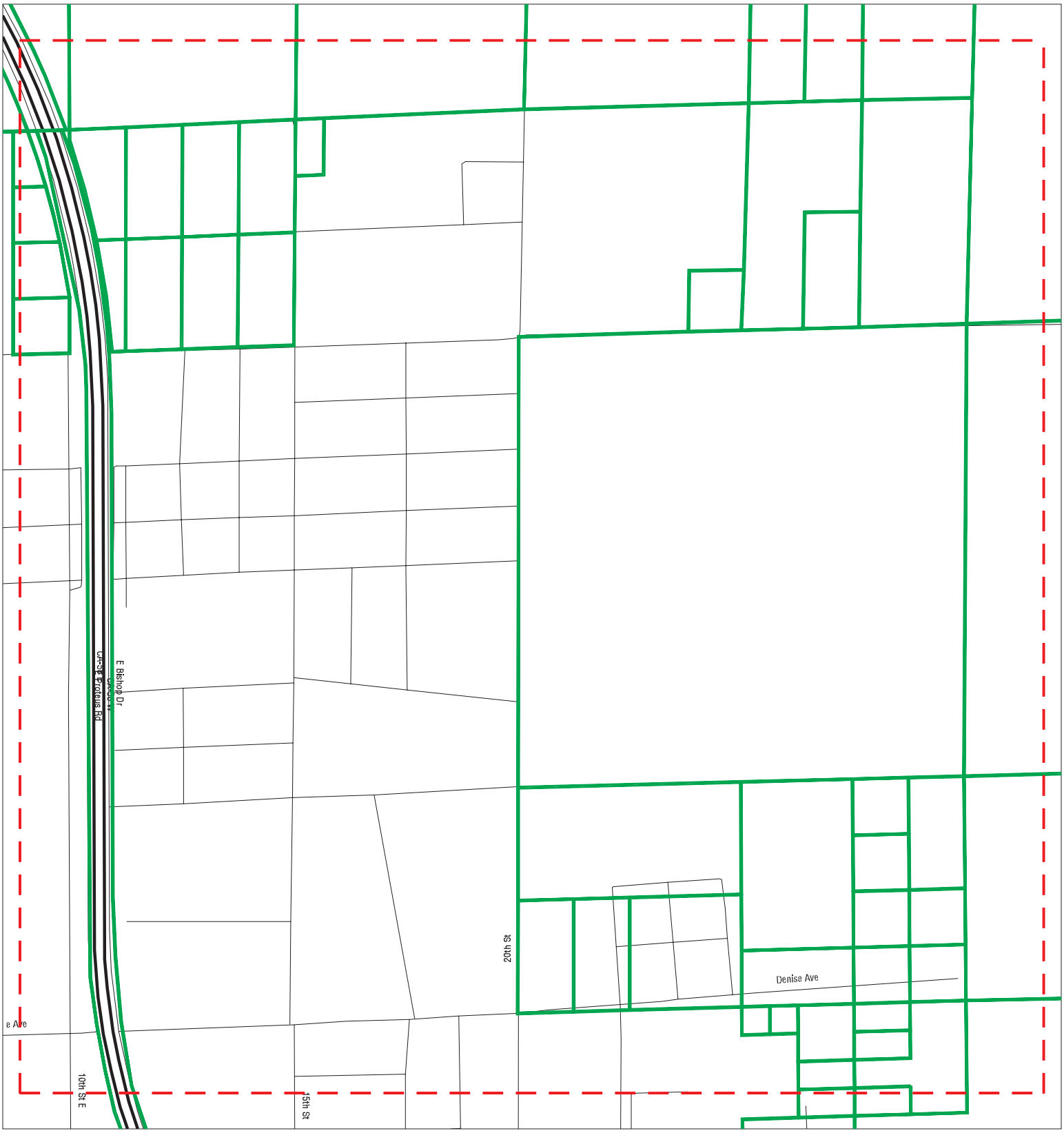
MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
AR338 / 9	TSC, LLC	1223-A SABOVICH ST	AST	TP
AR339 / 9	TSC, LLC	1223-A SABOVICH ST	CERS HAZ WASTE, CERS	TP
AU356 / 9	TSC LLC	1223A SABOVICH ST BL	FINDS, ECHO	TP
AU357 / 9	TSC LLC	1223A SABOVICH ST BL	RCRA-SQG	TP
AU358 / 9	THE SPACESHIP COMPAN	1223A SABOVICH STREE	EMI	TP
AU359 / 9	TSC LLC	1223A SABOVICH ST BL	HAZNET, HWTS	TP
AU360 / 9	THE SPACESHIP COMPAN	1223A SABOVICH STREE	FINDS	TP
AU361 / 9	TSC LLC	1223A SABOVICH ST BL	HAZNET, HWTS	TP
AU362 / 9	MITSUBISHI POWER SYS	1223 SABOVICH ST STE	HWTS	TP
AV363 / 9	RENEWABLE MANAGEMENT	1011 SABOVICH ST	HAZNET, HWTS	TP
AU365 / 9	TSCNA LLC	1223-A SABOVICH ST	FINDS	TP
AR396 / 9	DERRINGER AIRCRAFT C	1246 SABOVICH	HAZNET, HWTS	TP
AV397 / 9	ASB AVIONICS	1032 SABOVICH 101	FINDS	TP
AV398 / 9	ASB AVIONICS	1032 SABOVICH 101	CERS HAZ WASTE, CERS	TP
AV399 / 9	ASB AVIONICS LLC	1032 SABOVICH ST	HWTS	TP
AV401 / 9	TSC FAITH HANGAR	16555 SPACESHIP LAND	CIWQS	TP
AX402 / 9	KCWMD - SPECIAL WAST	17035 FINNIN ST BLDG	CERS HAZ WASTE, CERS	TP
AX414 / 9	KCWMD - SPECIAL WAST	17035 FINNIN ST BLDG	FINDS	TP
AX415 / 9	KERN COUNTY SPECIAL	17035 FINNIN STREET	FINDS	TP
BD443 / 9		16880 FLIGHT SYSTEMS	CHMIRS	TP
BD444 / 9	NORTHROP GRUMMAN SYS	16880 FLIGHT SYSTEMS	CERS HAZ WASTE, CERS	TP
BD445 / 9	AVTEL SVCS INC	16880 AVTEL DR HANGA	HAZNET, HWTS	TP
BD446 / 9	SOUTHERN CALIFORNIA	16880 FLIGHT SYSTEMS	HAZNET, HWTS	TP
BD447 / 9	KING KONA PRODUCTION	16880 LAIDLAW	HWTS	TP
BD448 / 9	NORTHROP GRUMMAN SYS	16880 FLIGHT SYSTEMS	EMI	TP
BD449 / 9	NORTHROP GRUMMAN MOJ	16880 FLIGHT SYSTEMS	HAZNET, HWTS	TP
BD450 / 9	NORTHROP GRUMMAN MOJ	16880 FLIGHT SYSTEMS	RCRA-LQG, ECHO	TP
BD451 / 9	NORTHROP GRUMMAN MOJ	16880 FLIGHT SYSTEMS	FINDS	TP
BD452 / 9	AVTEL SERVICES INC.	16880 AVTEL DR	RCRA-SQG	TP
BD453 / 9	AVTEL SERVICES INC.	16880 AVTEL DRIVE	FINDS, ECHO	TP
BD454 / 9	BAE SYSTEMS-IESI	16880 FLIGHT SYSTEMS	HAZNET, HWTS	TP
BD455 / 9	BAE SYSTEMS BLDG. 21	16880 FLIGHT SYSTEMS	AST	TP
BD456 / 9	BAE SYSTEMSNA BLDG.	16880 FLIGHT SYSTEMS	FINDS	TP
BH463 / 9	NORTHROP GRUMMAN SYS	1031 MOBLEY ST HANGA	CERS HAZ WASTE, CERS	TP
BH464 / 9	FLIGHT TEST ASSOCIAT	1031 MOBLEY HANGAR 1	HAZNET, HWTS	TP
BH465 / 9	NORTHROP GRUMMAN COR	1031 MOBLEY ST, HANG	HAZNET, HWTS	TP
BH466 / 9	NORTHROP GRUMMAN COR	1031 MOBLEY ST HANGA	RCRA-SQG, FINDS, ECHO	TP
BR558 / 9	INNOVATIVE COATINGS	1347 POOLE STREET	ECHO	TP
BR559 / 9	INNOVATIVE COATINGS	1347 POOLE STREET	EMI	TP

MAPPED SITES SUMMARY - FOCUS MAP 9

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
BR560 / 9	INCOTEC	1347 POOLE STREET	HAZNET, HWTS	TP
BR561 / 9		1347 POOLE ST	ERNS	TP
BR562 / 9	INNOVATIVE COATINGS	1347 POOLE STREET	TRIS, FINDS	TP
BR563 / 9	INCOTEC CORPORATION	1347 POOLE ST.	RCRA-LQG	TP
BR564 / 9	INNOVATIVE COATINGS	1347 POOLE STREET	EMI	TP
BR565 / 9		1347 POOLE ST	ERNS	TP
BR566 / 9		1347 POOLE ST, INCOT	CHMIRS	TP
BR567 / 9	INNOVATIVE COATINGS	1347 POOLE ST BLDG 1	CERS HAZ WASTE, CERS	TP
BR568 / 9		1347 POOLE ST.	CHMIRS	TP
BR569 / 9	INCOTEC CORPORATION	1347 POOLE STREET	HAZNET, NPDES, CERS, HWTS	TP
BR570 / 9	INCOTEC CORPORATION	1347 POOLE STREET	CIWQS	TP
BR571 / 9	INNOVATIVE COATING T	1347 POOLE ST	CERS	TP
BR572 / 9	INNOVATIVE COATINGS	1347 POOLE STREET	CHMIRS, CERS	TP
BR573 / 9	INCOTEC	1347 POOLE ST BLDG 1	HAZNET, HWTS	TP
BR582 / 9	PROGRESS RAIL SERVIC	1695 KINNICUTT RD	RCRA NonGen / NLR	TP
BR583 / 9	PROGRESS RAIL SERVIC	1695 KINNICUTT RD	CERS HAZ WASTE, CERS TANKS, HAZNET, CERS	TP
BR584 / 9	PROGRESS RAIL SERVIC	1695 KINNICUTT STREE	EMI	TP
BR585 / 9	PROGRESS RAIL SERVIC	1695 KINNICUTT RD	FINDS, ECHO	TP
BR586 / 9	RAILX WEST	1695 KINNICUTT ROAD	HAZNET, HWTS	TP
BR587 / 9	PROGRESS RAIL SERVIC	1695 KINNICUTT RD	AST	TP
BR588 / 9	PROGRESS RAIL SERVIC	1695 KINNICUTT ROAD	RCRA-SQG, FINDS, ECHO	TP
BR589 / 9	PROGRESS RAIL SVCS *	1695 KINNICUTT RD	HAZNET, HWTS	TP
BT590 / 9	FIBERSET, INC	1046 POOLE ST	FINDS, ECHO	TP
BT591 / 9	FIBERSET, INC	1046 POOLE ST	HWTS	TP
BT592 / 9	FIBERSET, INC	1046 POOLE ST	RCRA NonGen / NLR	TP
BV595 / 9	LOCATED 0.33 MILE NO	923 POOLE STREET	FINDS	TP
BV596 / 9	LOCATED 0.33 MILE NO	923 POOLE STREET	CERS	TP
628 / 9	SCALED COMPOSITES LL	555 RICCOMINI ST	CERS HAZ WASTE, CERS TANKS, HAZNET, CIWQ	TP
CB633 / 9	STRATOLAUNCH	RICCOMINI AVE & LOME	NPDES	TP
CB634 / 9	STRATOLAUNCH SYSTEMS	553 RICCOMINI AVE	RCRA-SQG	TP
CB635 / 9	SCALED COMPOSITES, L	553 RICCOMINI ST.	FINDS	TP
CB636 / 9	SCALED COMPOSITES LL	555 RICCOMINI ST	RCRA NonGen / NLR	TP
CB637 / 9	STRATOLAUNCH SYSTEMS	553 RICCOMINI AVE	FINDS, ECHO	TP
642 / 9	SCALED COMPOSITES LL	555 RICCOMINI ST	FINDS, ECHO	TP

Focus Map - 10 - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/4 1/2 Miles

SITE NAME: Bellefield	CLIENT: Stantec
ADDRESS: Bellefield	CONTACT: Alicia Jansen
CITY/STATE: Mojave CA	INQUIRY #: 6051837.2s
ZIP: 93501	DATE: 04/30/20

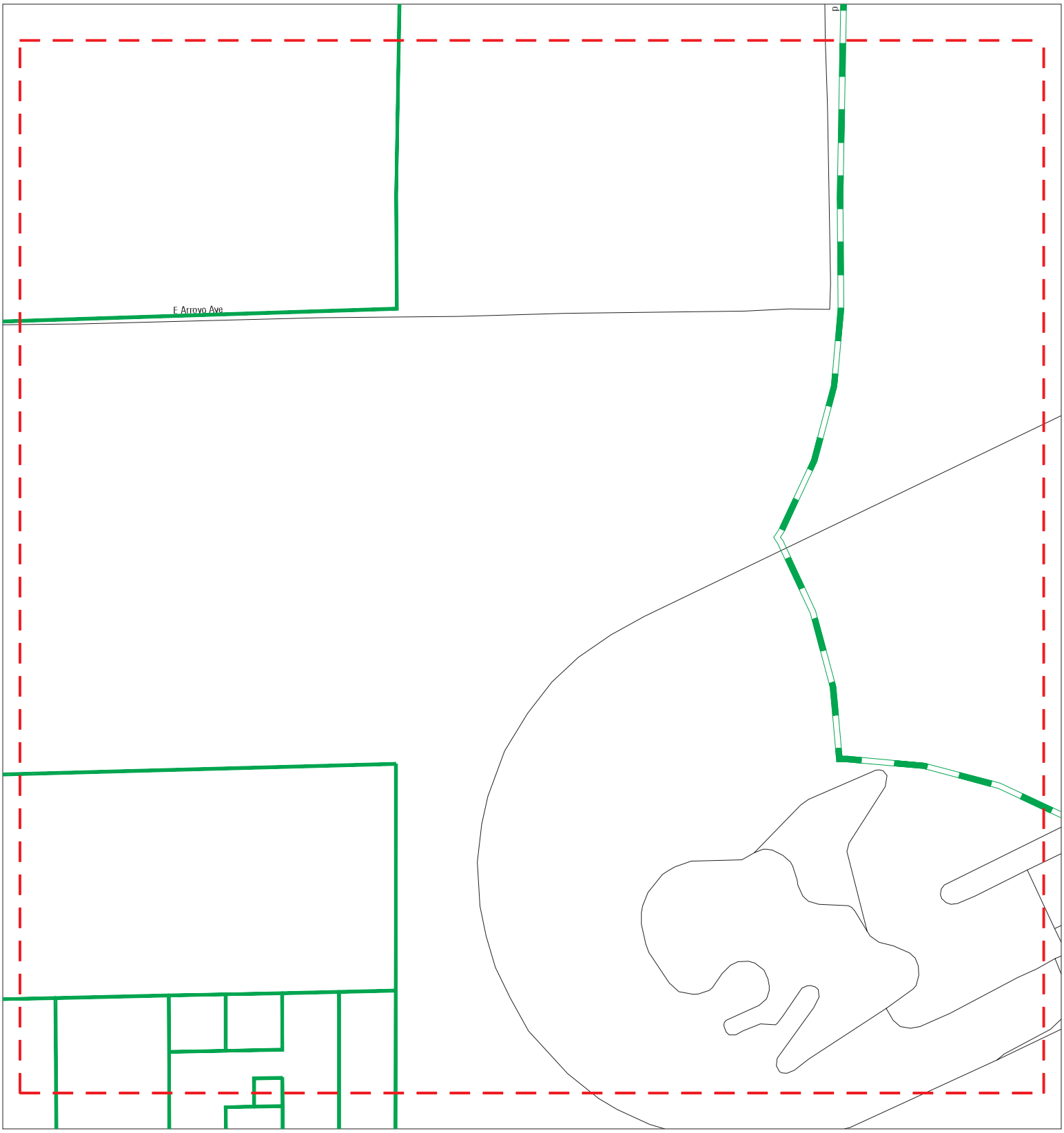
MAPPED SITES SUMMARY - FOCUS MAP 10

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 11 - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/4 1/2 Miles

SITE NAME: Bellefield ADDRESS: Bellefield CITY/STATE: Mojave CA ZIP: 93501	CLIENT: Stantec CONTACT: Alicia Jansen INQUIRY #: 6051837.2s DATE: 04/30/20

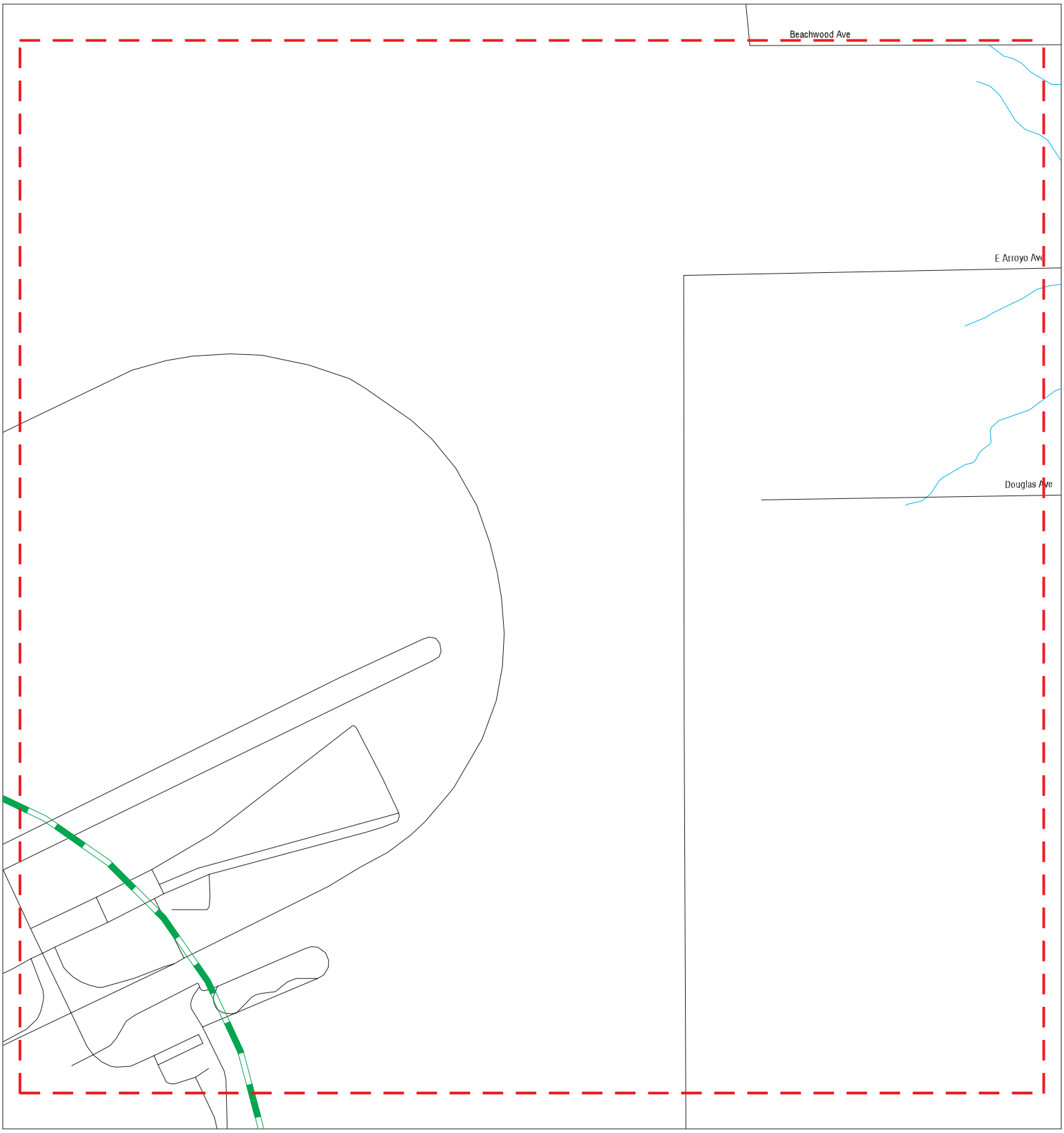
MAPPED SITES SUMMARY - FOCUS MAP 11

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 12 - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/4 1/2 Miles

SITE NAME: Bellefield ADDRESS: Bellefield CITY/STATE: Mojave CA ZIP: 93501	CLIENT: Stantec CONTACT: Alicia Jansen INQUIRY #: 6051837.2s DATE: 04/30/20

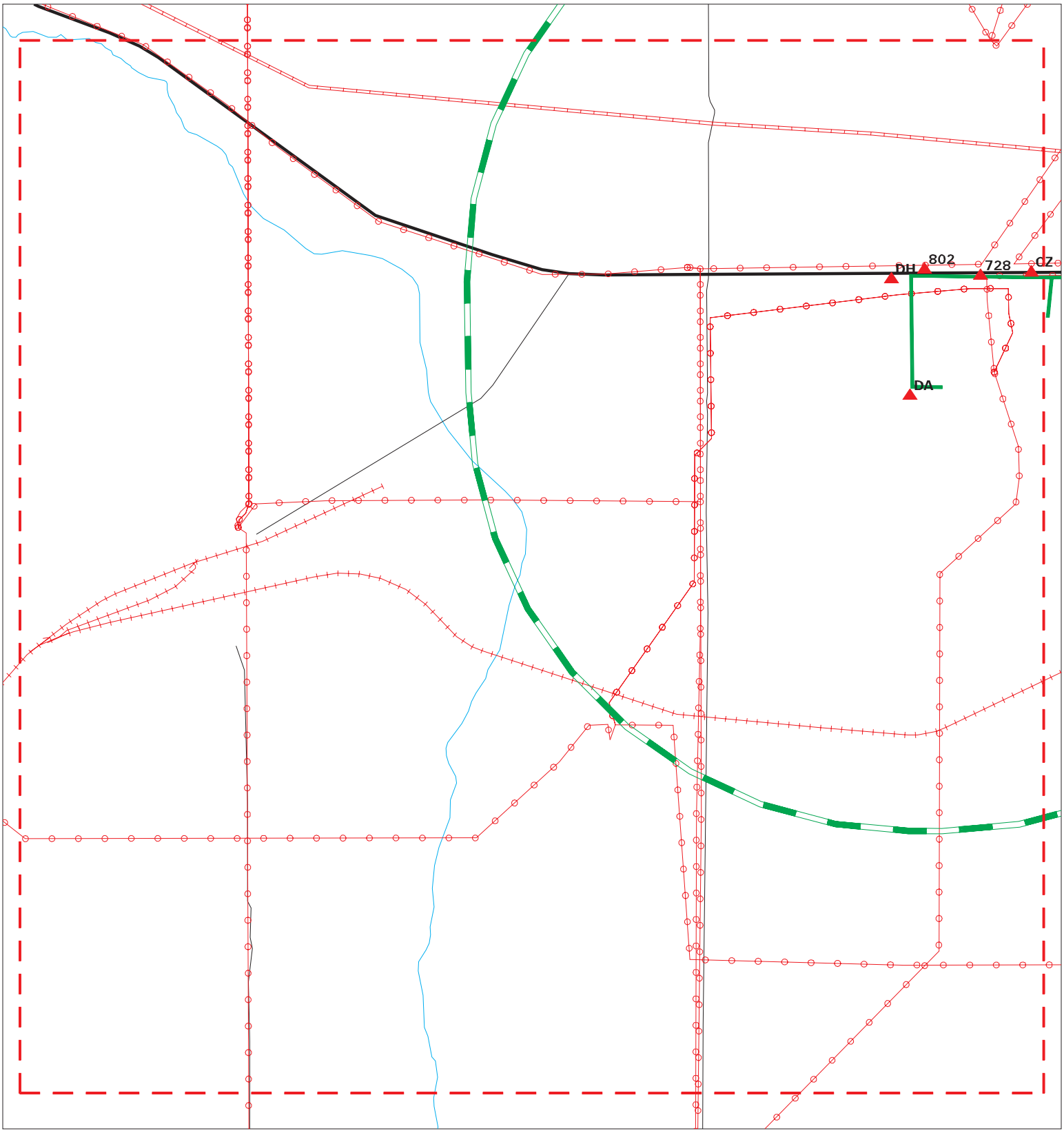
MAPPED SITES SUMMARY - FOCUS MAP 12

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 13 - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/4 1/2 Miles

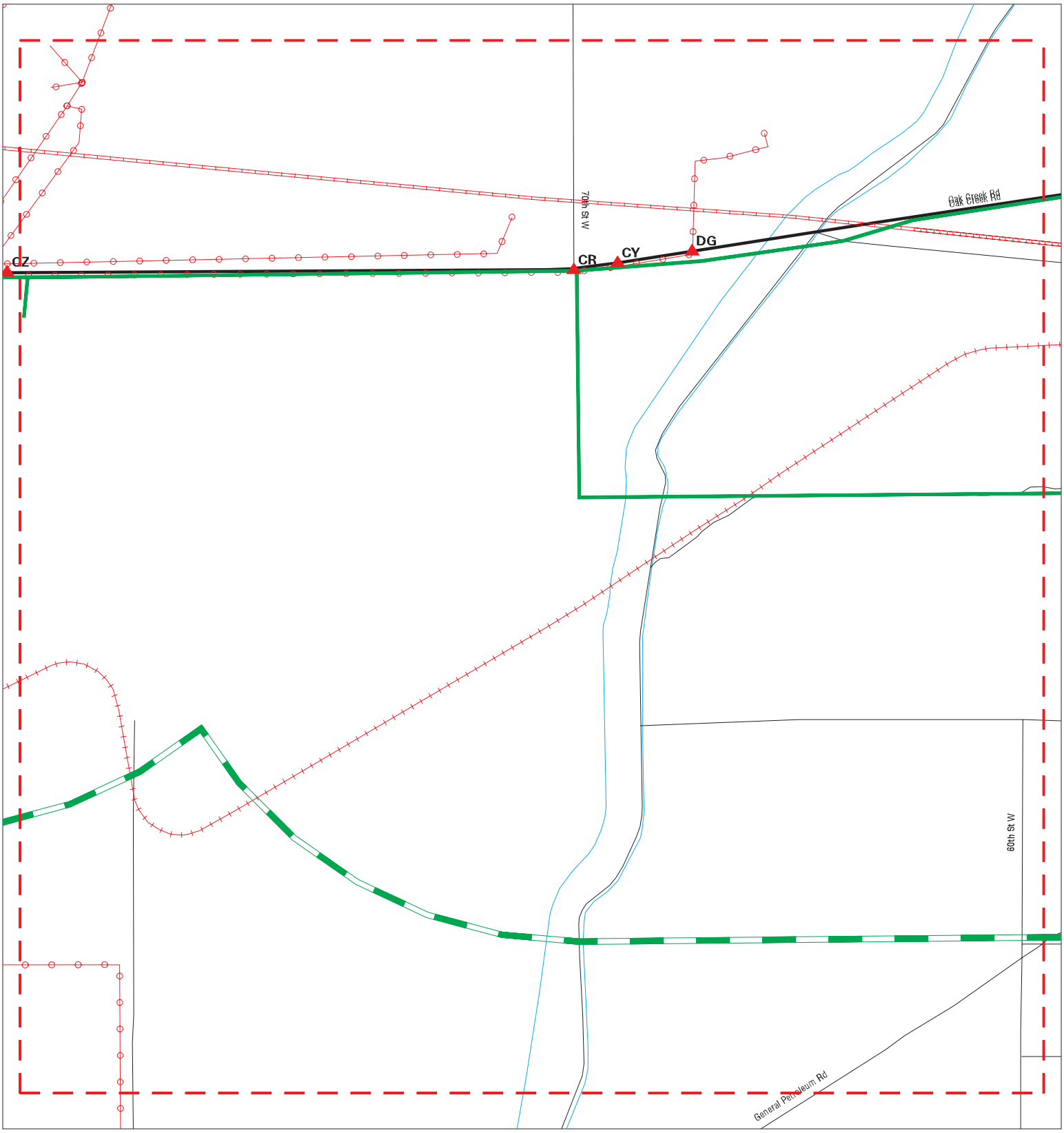
SITE NAME: Bellefield ADDRESS: Bellefield CITY/STATE: Mojave CA ZIP: 93501	CLIENT: Stantec CONTACT: Alicia Jansen INQUIRY #: 6051837.2s DATE: 04/30/20

MAPPED SITES SUMMARY - FOCUS MAP 13

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION		
728 / 13	SCE EKWRA WORK PACKA	LUP	CIWQS	TP		
CZ791 / 13	EDF - OASIS	7021 OAK CREEK RD	CERS HAZ WASTE, CERS TANKS, HAZNET, CERS	79	0.015	North
CZ792 / 13	MOJAVE 16/17/18 LLC	7021 OAK CREEK	AST	79	0.015	North
CZ793 / 13	MOJAVE 16/17/18 LLC	7021 OAK CREEK RD	AST	79	0.015	North
CZ794 / 13	EDF - OASIS	7021 OAK CREEK RD	AST	79	0.015	North
CZ795 / 13	OASIS POWER PARTNERS	7021 OAK CREEK RD	RCRA NonGen / NLR	79	0.015	North
CZ796 / 13	EDF-OASIS	7021 OAK CREEK RD	RCRA NonGen / NLR	79	0.015	North
DA797 / 13	TERRA-GEN OPERATING	8560 A OAK CREEK RD	AST	89	0.017	SSW
DA798 / 13	ALTA WIND II, LLC	8560 A OAK CREEK RD	CERS HAZ WASTE, CERS TANKS, CERS	89	0.017	SSW
802 / 13	VOYAGER WIND II/III/	8009 OAK CREEK RD	RCRA NonGen / NLR	98	0.019	North
DH822 / 13	VISTA METALS INC	9350 OAK CREEK RD	AST, CERS HAZ WASTE, CERS TANKS, HAZNET,..	234	0.044	West
DH823 / 13	CALPORTLAND COMPANY	9350 OAK CREEK RD	UST	234	0.044	West
DH824 / 13	SCREENING PLANT B	9350 OAK CREEK ROAD	US MINES	234	0.044	West
DH825 / 13	MOJAVE PLANT-CALIF P	9350 OAK CREEK ROAD	WMUDS/SWAT, CHMIRS, EMI, ENF, WDS, CIWQS..	234	0.044	West
DH826 / 13	CALIFORNIA PORTLAND	9350 OAK CREEK RD	AST	234	0.044	West
DH827 / 13	CALIFORNIA PORTLAND	9350 OAK CREEK RD.	SEMS-ARCHIVE, RCRA-SQG	234	0.044	West
DH828 / 13	MOJAVE PLANT & QUARR	9350 OAK CREEK ROAD	US MINES	234	0.044	West
DH829 / 13	SCREENING PLANT B	9350 OAK CREEK ROAD	ABANDONED MINES	234	0.044	West
DH830 / 13	VESTAS AMERICAN WIND	8560 OAK CREEK RD	RCRA NonGen / NLR	234	0.044	West
DH831 / 13	ALTA WIND II LLC	8560 OAK CREEK RD	RCRA NonGen / NLR	234	0.044	West
DH832 / 13	ALTA WIND II LLC	8560 OAK CREEK RD	RCRA NonGen / NLR	234	0.044	West
DH833 / 13	VESTAS	8560 OAK CREEK RD	CERS HAZ WASTE, CERS	234	0.044	West

Focus Map - 14 - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/4 1/2 Miles

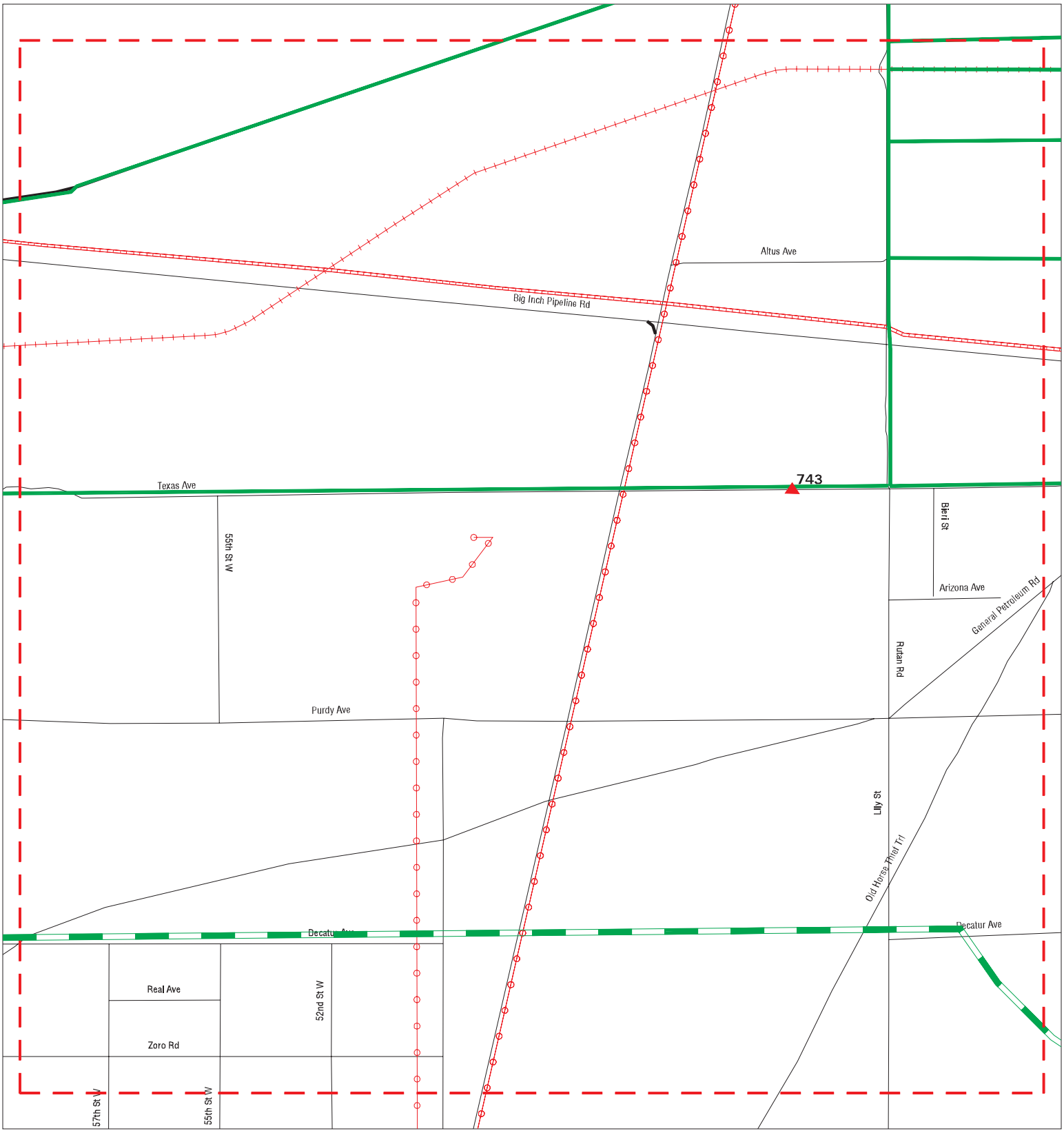
SITE NAME: Bellefield ADDRESS: Bellefield CITY/STATE: Mojave CA ZIP: 93501	CLIENT: Stantec CONTACT: Alicia Jansen INQUIRY #: 6051837.2s DATE: 04/30/20

MAPPED SITES SUMMARY - FOCUS MAP 14

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION		
CR721 / 14	RISING TREE II WIND	70TH STREET & OAK CR	FINDS, ECHO	TP		
CR722 / 14	RISING TREE I WIND F	70TH STREET & OAK CR	FINDS, ECHO	TP		
CR723 / 14	RISING TREE II WIND	70TH STREET & OAK CR	NPDES, CIWQS, CERS	TP		
CR724 / 14	RISING TREE III WIND	70TH STREET & OAK CR	NPDES, CIWQS, CERS	TP		
CR725 / 14	VOYAGER WIND I LLC	OAK CREEK ROAD AND 7	NPDES, CIWQS, CERS	TP		
CR726 / 14	TEHACHAPI ENERGY STO	OAK CREEK ROAD AND 7	NPDES, CIWQS, CERS	TP		
CR727 / 14	RISING TREE I WIND F	70TH STREET & OAK CR	NPDES, CIWQS, CERS	TP		
CY789 / 14	MITSUBISHI HEAVY IND	6737 OAK CREEK RD UN	RCRA-SQG, FINDS, ECHO	74	0.014	North
CY790 / 14	SEA WEST TEHACHAPI	6737 OAK CREEK RD	RCRA-SQG, FINDS, ECHO, HAZNET, HWTS	74	0.014	North
DG818 / 14	VESTAS AMERICAN WIND	6703 OAK CREEK RD	RCRA NonGen / NLR	143	0.027	North
DG819 / 14	BROOKFIELD RENEWABLE	6703 OAK CREEK RD	RCRA NonGen / NLR	143	0.027	North
DG820 / 14	BROOKFIELD TEHACHAPI	6703 OAK CREEK RD	AST	143	0.027	North
DG821 / 14	VESTAS AMERICAN WIND	6703 OAK CREEK RD	CERS HAZ WASTE, CERS TANKS, HAZNET, CERS	143	0.027	North

Focus Map - 15 - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/4 1/2 Miles

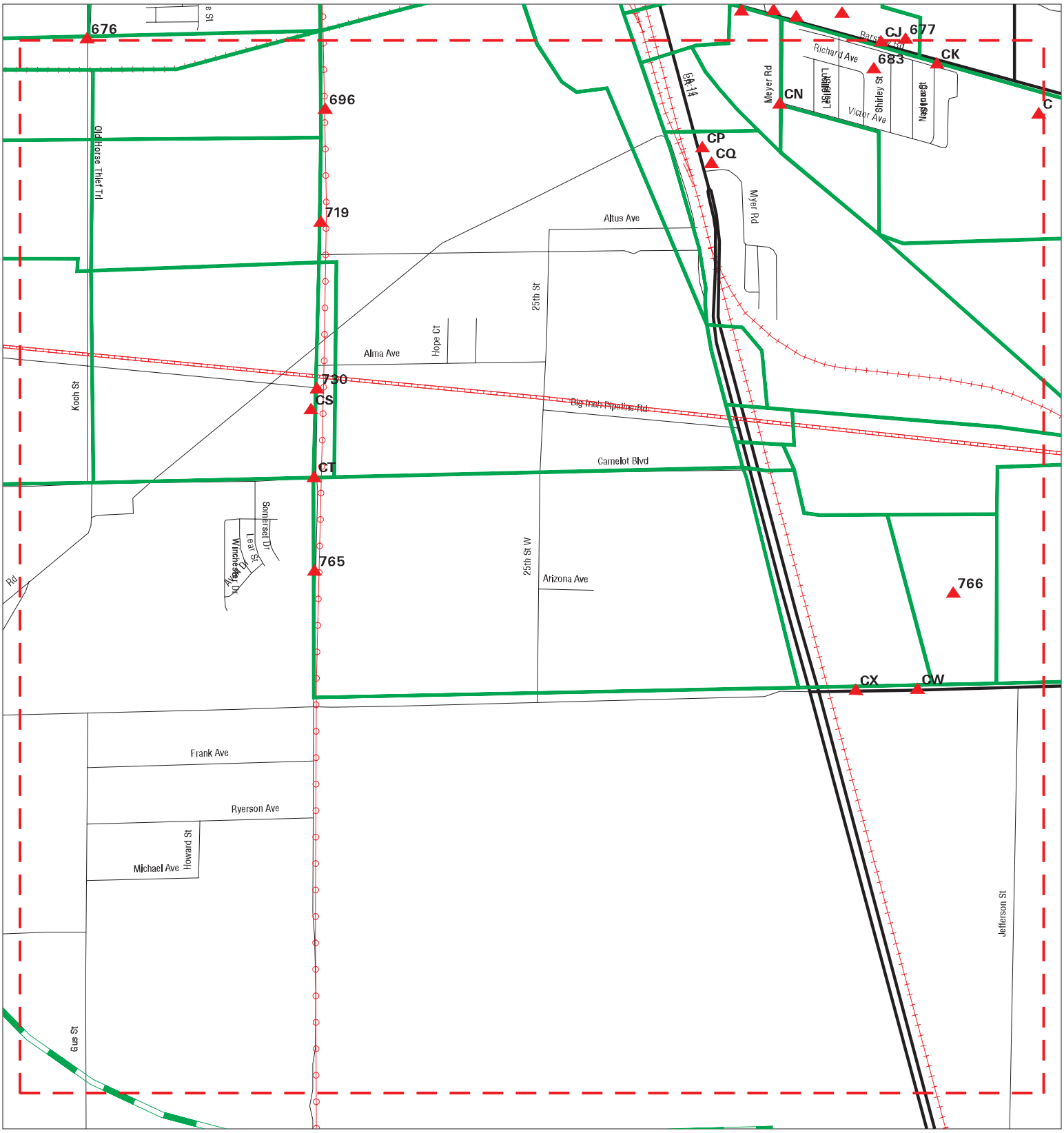
SITE NAME: Bellefield	CLIENT: Stantec
ADDRESS: Bellefield	CONTACT: Alicia Jansen
CITY/STATE: Mojave CA	INQUIRY #: 6051837.2s
ZIP: 93501	DATE: 04/30/20

MAPPED SITES SUMMARY - FOCUS MAP 15

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
743 / 15	PINYON PINES WIND I	5001 CAMELOT BLVD.	EMI	TP

Focus Map - 16 - 6051837.2s



Sites	Focus Map - Sites	Areas of Concern	
Target Property	Power Line	Dept. Defense Sites	
Search Buffer	Pipe Line	Indian Reservations BIA	
Focus Map - No Sites	National Priority List Sites		

0 1/4 1/2 Miles

SITE NAME: Bellefield ADDRESS: Bellefield CITY/STATE: Mojave CA ZIP: 93501	CLIENT: Stantec CONTACT: Alicia Jansen INQUIRY #: 6051837.2s DATE: 04/30/20

Target Property:
BELLEFIELD
MOJAVE, CA 93501

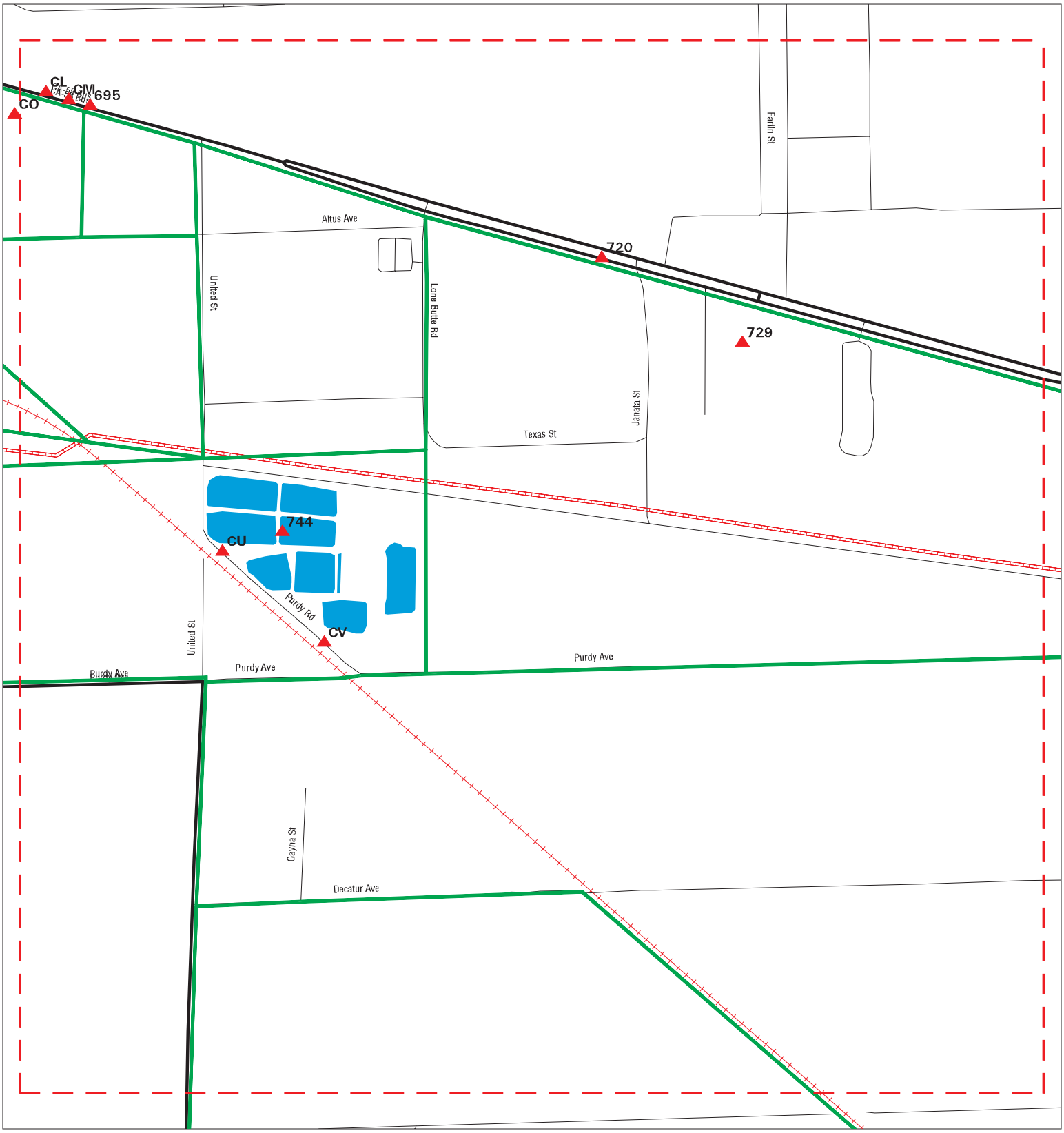
MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
CJ678 / 16	MOJAVE MAIN COURT	1773 STATE HIGHWAY 5	HWTS	TP
CJ679 / 16	MOJAVE MAIN COURT, J	1773 STATE HIGHWAY 5	HAZNET, HWTS	TP
CK680 / 16	MOJAVE BURN DUMP	2M S OF HWY 58/2M E	SEMS-ARCHIVE	TP
CK681 / 16	BOB GRAY S AUTO&TRUC	1634 STATE HIGHWAY 5	NPDES, CIWQS	TP
CK682 / 16	BOB GRAY'S AUTOWRECK	1634 STATE HIGHWAY 5	HAZNET, HWTS	TP
683 / 16		1779 RICHARD AVENUE	CDL	TP
CN694 / 16	MOJAVE RETENTION BAS	MYERS ST AND VICTOR	CIWQS	TP
696 / 16	RE CLEARWATER LLC	15200 HOLT STREET	CIWQS	TP
CO697 / 16	DESERT TRUCK SERVICE	1426 HIGHWAY 58	CERS HAZ WASTE, CERS	TP
CO698 / 16	DESERT TRUCK SERVICE	1426 STATE HIGHWAY 5	HAZNET, CERS, HWTS	TP
CO699 / 16	VERIZON WIRELESS MOJ	1426 STATE HIGHWAY 5	FINDS	TP
CO700 / 16	DESERT TRUCK SERVICE	1426 STATE HIGHWAY 5	RCRA NonGen / NLR	TP
CO701 / 16	DESERT TRUCK SERVICE	1426 STATE HIGHWAY 5	FINDS, ECHO	TP
CN702 / 16		15314 MEYER ROAD	CHMIRS	TP
CP703 / 16	CALTRANS MOJAVE MAIN	HWY 14	LUST, CERS	TP
CP704 / 16	LEONARD CONSTRUCTION	HWY 14	LUST, CERS	TP
CP705 / 16	MOJAVE MO-MART	15200 SIERRA HWY	RGA LUST	TP
CP706 / 16	MOJAVE MO-MART	15200 SIERRA HWY	LUST, HIST CORTESE, CERS	TP
CP707 / 16	MOJAVE MO-MART	15200 SIERRA HWY	FINDS	TP
CP708 / 16	MO MART MOBIL	15200 SIERRA HWY	HIST UST	TP
CP709 / 16	MO MART MOBIL	15200 SIERRA HWY	SWEEPS UST, HIST UST, CA FID UST	TP
CQ710 / 16		MOJAVE RAILROAD DEPO	CHMIRS	TP
CQ711 / 16	MOJAVE MOBIL	15190 SIERRA HWY	EDR Hist Auto	TP
CQ712 / 16	MOJAVE MOBIL	15190 SIERRA HWY	CERS HAZ WASTE, CERS TANKS, CERS	TP
CQ713 / 16	MOJAVE MOBIL	15190 SIERRA HWY	FINDS	TP
CQ714 / 16	MOJAVE MOBIL	15190 SIERRA HWY	UST	TP
CQ715 / 16	MOJAVE MOBIL	15190 SIERRA HWY.	HAZNET, HWTS	TP
CQ716 / 16	MOJAVE MOBIL	15190 SIERRA HWY	HAZNET, HWTS	TP
CQ717 / 16	MOJAVE MOBIL	15190 SIERRA HIGHWAY	EMI	TP
CQ718 / 16		MEYER RD AND HWY 14	CHMIRS	TP
719 / 16	RE YAKIMA LLC	15074 HOLT STREET	CIWQS	TP
730 / 16	PG&E PIPELINE	HOLT STREET & BIG IN	EMI	TP
CS731 / 16	PG&E	14675 HOLT STREET	HAZNET, HWTS	TP
CS732 / 16	T-1230 LOCATION A	14675 HOLT STREET	HWTS	TP
CT734 / 16	WESTERN GROWTH PROPE	14501 HOLT ST	LUST	TP
CT735 / 16	WESTERN GROWTH PROPE	14501 HOLT ST	FINDS	TP
CT736 / 16	REVERE EXTRUDERS, IN	14501 HOLT ST	LUST, SWEEPS UST, HIST UST, CA FID UST, ...	TP
CT737 / 16	STEVEN OLIVER PROPER	14501 HOLT ST	UST	TP
CT738 / 16	UNKNOWN	14501 HOLT ST	HIST CORTESE	TP

MAPPED SITES SUMMARY - FOCUS MAP 16

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
CT739 / 16	REVERE EXTRUDERS, IN	14501 HOLT ST	HAZNET, HWTS	TP
CT740 / 16	WESTERN GROWTH PROPE	14501 HOLT ST	RGA LUST	TP
CT741 / 16	UNKNOWN	14501 HOLT ST	RGA LUST	TP
CT742 / 16	GRANITE CONSTRUCTION	HOLT AND CAMELOT	HAZNET, HWTS	TP
765 / 16	NONE	14301 HOLT STREET	HIST UST	TP
766 / 16	TRICAL, INC.	1667 PURDY AVE	SSTS	TP
CW772 / 16	TRICAL MOJAVE	1667 PURDY AVE	TRIS	TP
CW773 / 16	TERMINAL STORAGE FAC	1667 PURDY AVE	CERS HAZ WASTE, CERS TANKS, CIWQS, CERS	TP
CW774 / 16	TRICAL, INC	1667 PURDY AVENUE	EMI	TP
CW775 / 16	NIKLOR CHEMICAL COMP	1667 PURDY AVENUE	RMP	TP
CW776 / 16	TRICAL,INC.	1667 PURDY AVE	RCRA-LQG, FINDS, ECHO	TP
CW777 / 16	NIKLOR CHEMICAL COMP	1667 PURDY AVENUE	ICIS	TP
CW778 / 16	ARYSTA LIFESCIENCE N	1667 PURDY AVE.	RCRA-LQG	TP
CW779 / 16	ARYSTA LIFESCIENCE N	1667 PURDY AVE	HAZNET, NPDES, CIWQS, CERS, HWTS	TP
CW780 / 16	TRICAL INC.	1667 PURDY AVENUE	RMP	TP
CW781 / 16	GREAT LAKES SOLUTION	1667 PURDY AVE	HWTS	TP
CW782 / 16	NIKLOR CHEMICAL COMP	1667 PURDY AVE	SSTS	TP
CW783 / 16	MOJAVE ASPHALT TERMI	1673 PURDY AVE	NPDES, CIWQS	TP
CX784 / 16	PARAMOUNT PETROLEUM	1873 PURDY AVENUE	FINDS	TP
CX785 / 16	PARAMOUNT PETROLEUM	1873 PURDY AVENUE	EMI	TP

Focus Map - 17 - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

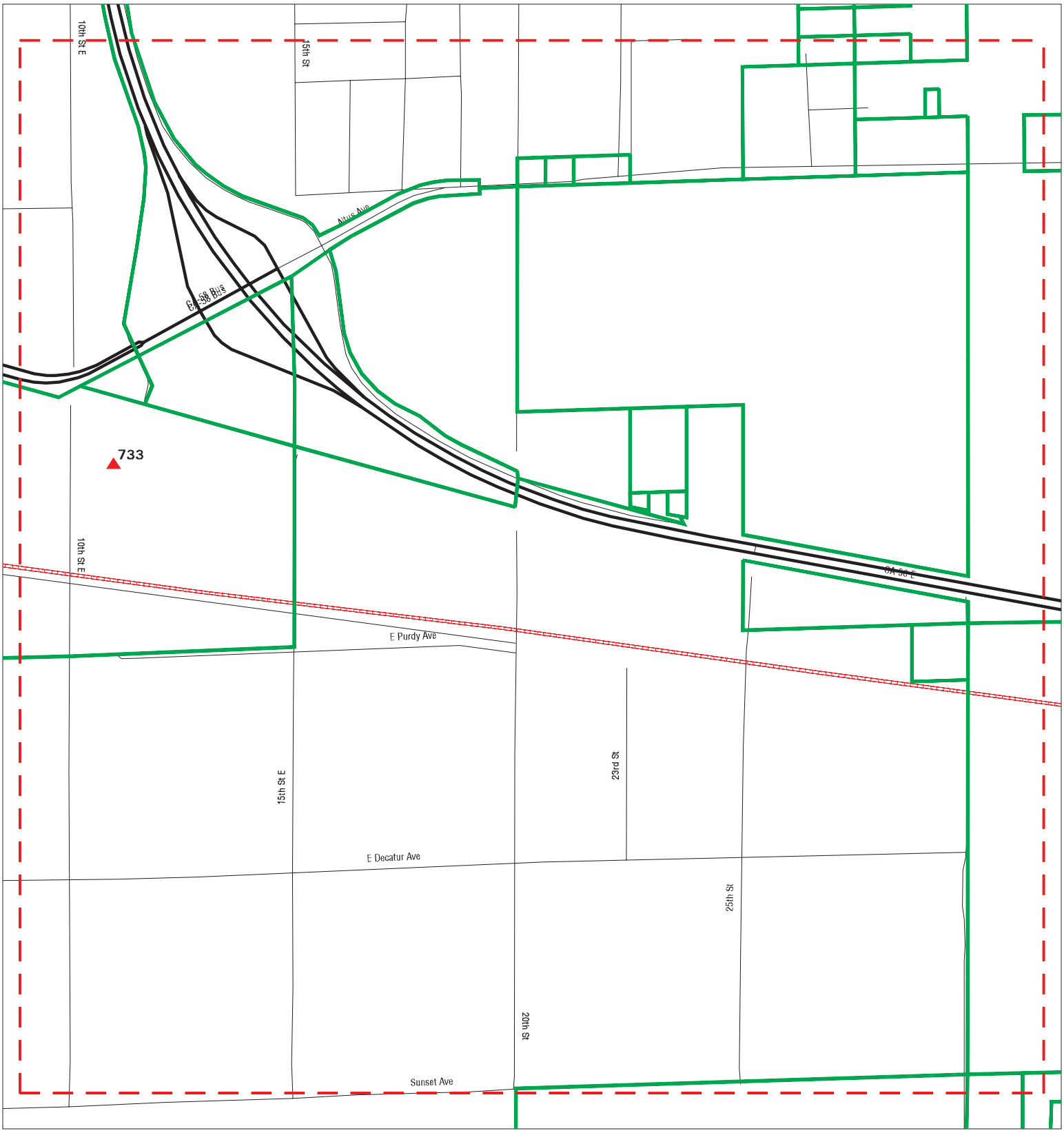
0 1/4 1/2 Miles

SITE NAME: Bellefield ADDRESS: Bellefield CITY/STATE: Mojave CA ZIP: 93501	CLIENT: Stantec CONTACT: Alicia Jansen INQUIRY #: 6051837.2s DATE: 04/30/20

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
CL684 / 17	CALIFORNIA HIGHWAY P	1365 STATE HIGHWAY 5	HAZNET, HWTS	TP
CL685 / 17	DEPARTMENT OF CALIFO	1365 STATE HIGHWAY 5	CERS TANKS, CERS	TP
CL686 / 17	CALIFORNIA HIGHWAY P	1365 HIGHWAY 58	SWEEPS UST, CA FID UST, CIWQS	TP
CL687 / 17	CALIFORNIA HIGHWAY P	1365 STATE HIGHWAY 5	FINDS, ECHO	TP
CL688 / 17	CALIFORNIA HIGHWAY P	1365 STATE HIGHWAY 5	RCRA NonGen / NLR	TP
CL689 / 17	CALIF HWY PATROL - M	1365 STATE HIGHWAY 5	UST	TP
CL690 / 17	CALIFORNIA HIGHWAY P	1365 STATE HIGHWAY 5	HIST UST	TP
CM691 / 17	CALIF HWY PATROL-MOJ	1313 STATE HIGHWAY 5	FINDS	TP
CM692 / 17	DEPARTMENT OF CALIFO	1313 STATE HIGHWAY 5	AST	TP
CM693 / 17	DEPARTMENT OF CALIFO	1313 STATE HIGHWAY 5	CERS HAZ WASTE, CERS TANKS, CERS	TP
695 / 17	ROAD MACHINEY - MOJA	1265 HIGHWAY 58 BUSI	CERS	TP
720 / 17	ANGELS TRUCK STOP	2001 58	LUST, HIST CORTESE	TP
729 / 17	MOJAVE #2 BD	NE/4,NE/4,NW/4, SEC2	SWF/LF, CERS	TP
744 / 17	MOJAVE STP	SE OF MOJAVE	ENF, WDS, WDR, CIWQS, CERS	TP
CU745 / 17	ALON ASPHALT COMPANY	1873 PURDY RD	RCRA NonGen / NLR	TP
CU746 / 17	MOJAVE ASPHALT TERMI	1873 PURDY ROAD	FINDS	TP
CU747 / 17	MOJAVE TERMINAL	1873 PURDY ROAD	FINDS, ECHO	TP
CU748 / 17	ALON ASPHALT MOJAVE	1873 PURDY ROAD	FINDS, ECHO	TP
CU749 / 17	ALON ASPHALT COMPANY	1873 PURDY RD	FINDS	TP
CU750 / 17	MOJAVE ASPHALT TERMI	1873 PURDY ROAD	ECHO	TP
CU751 / 17	MOJAVE ASPHALT TERMI	1873 PURDY ROAD	HWTS	TP
CU752 / 17	ALON ASPHALT COMPANY	1873 PURDY RD	FINDS, ECHO	TP
CU753 / 17	MOJAVE ASPHALT TERMI	1873 PURDY ROAD	RCRA-VSQG	TP
CU754 / 17	MOJAVE TERMINAL	1873 PURDY ROAD	CIWQS	TP
CU755 / 17	ALON ASPHALT COMPANY	1873 PURDY RD	HAZNET, HWTS	TP
CU756 / 17	MOJAVE TERMINAL	1873 PURDY ROAD	CERS HAZ WASTE, CERS TANKS, NPDES, CERS	TP
CU757 / 17		1873 PURDY RD, A TRA	CHMIRS	TP
CU758 / 17	TOSCO MOJAVE TERMINA	1873 PURDY RD	HAZNET, HWTS	TP
CU759 / 17		1873 PURDY RD	ERNS	TP
CU760 / 17		1873 PURDY RD	ERNS	TP
CU761 / 17	PARAMOUNT PETROLEUM	1873 PURDY RD	AST	TP
CU762 / 17		1873 PURDY ROAD	ERNS	TP
CU763 / 17	PARAMOUNT PETROLEUM	1873 PURDY RD	FINDS	TP
CU764 / 17	TOSCO MOJAVE TERMINA	1873 PURDY ROAD	RCRA-SQG, CHMIRS, FINDS, ECHO, NPDES, CI...	TP
CV767 / 17		1673 PURDY RD	RCRA NonGen / NLR	TP
CV768 / 17	WESTERN EMULSIONS IN	1673 PURDY RD	ECHO	TP
CV769 / 17	TRICAL INC.	1667 PURDY RD	RCRA-LQG, FINDS, ECHO	TP
CV770 / 17	NIKLOR CHEMICAL CO I	1667 PURDY RD	CHMIRS, NPDES, WDS, CIWQS, CERS, HWTS	TP
CV771 / 17	TRICAL INC	1667 PURDY RD	HAZNET, HWTS	TP

Focus Map - 18 - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/4 1/2 Miles

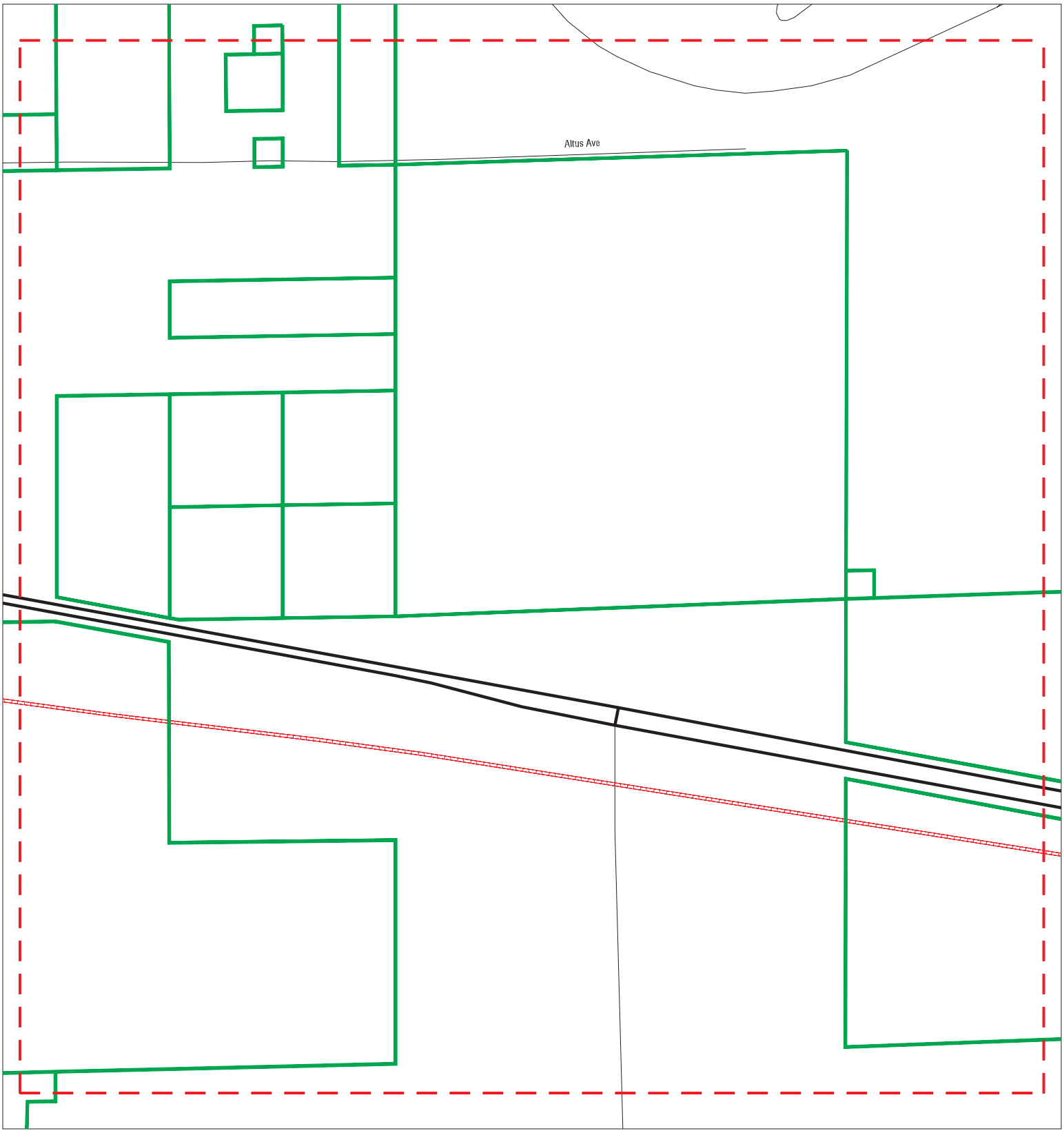
SITE NAME: Bellefield ADDRESS: Bellefield CITY/STATE: Mojave CA ZIP: 93501	CLIENT: Stantec CONTACT: Alicia Jansen INQUIRY #: 6051837.2s DATE: 04/30/20

MAPPED SITES SUMMARY - FOCUS MAP 18

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
733 / 18	UNNAMED QUARRY		MINES MRDS	TP

Focus Map - 19 - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/4 1/2 Miles

SITE NAME: Bellefield ADDRESS: Bellefield CITY/STATE: Mojave CA ZIP: 93501	CLIENT: Stantec CONTACT: Alicia Jansen INQUIRY #: 6051837.2s DATE: 04/30/20

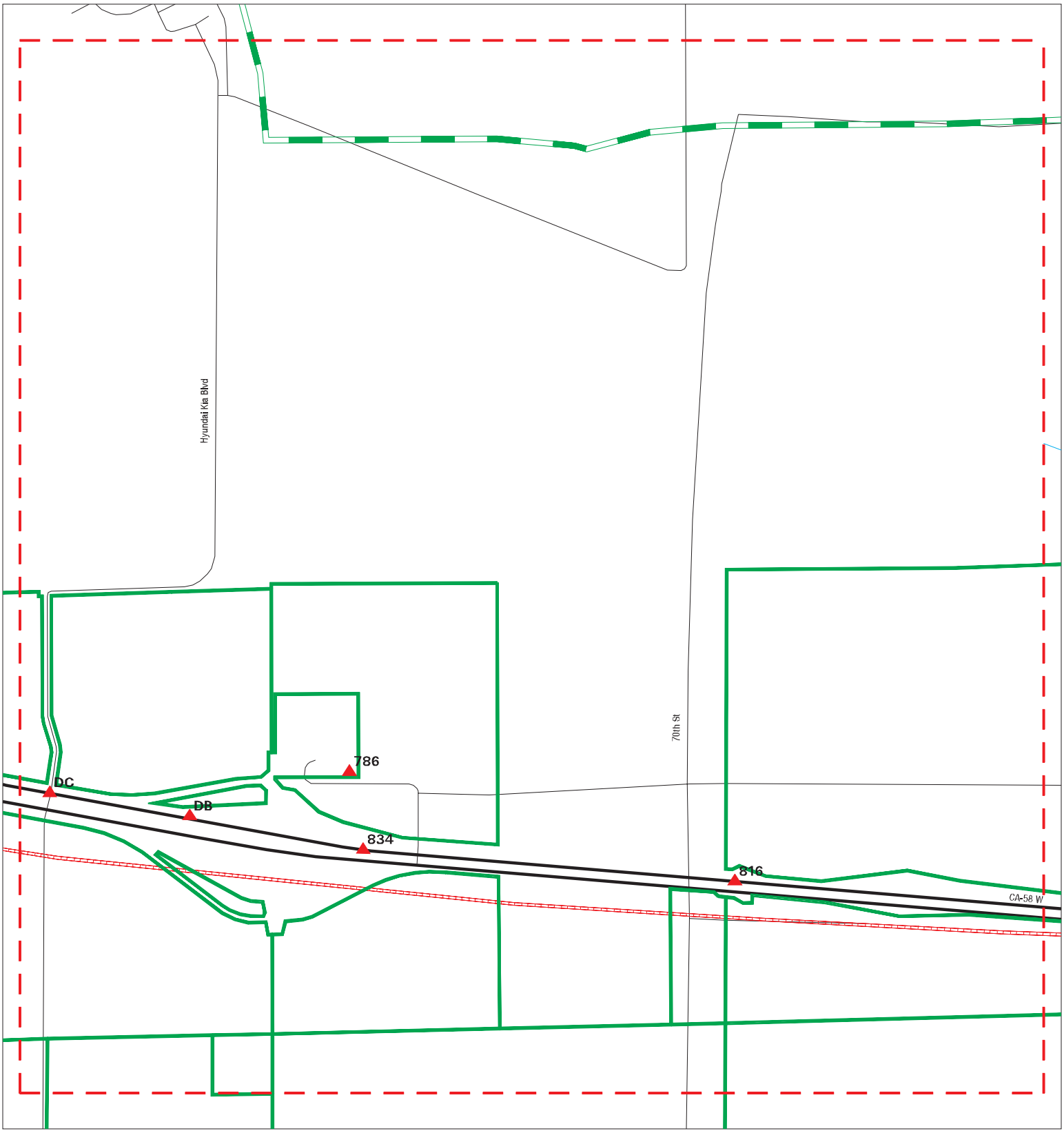
MAPPED SITES SUMMARY - FOCUS MAP 19

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 20 - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/4 1/2 Miles

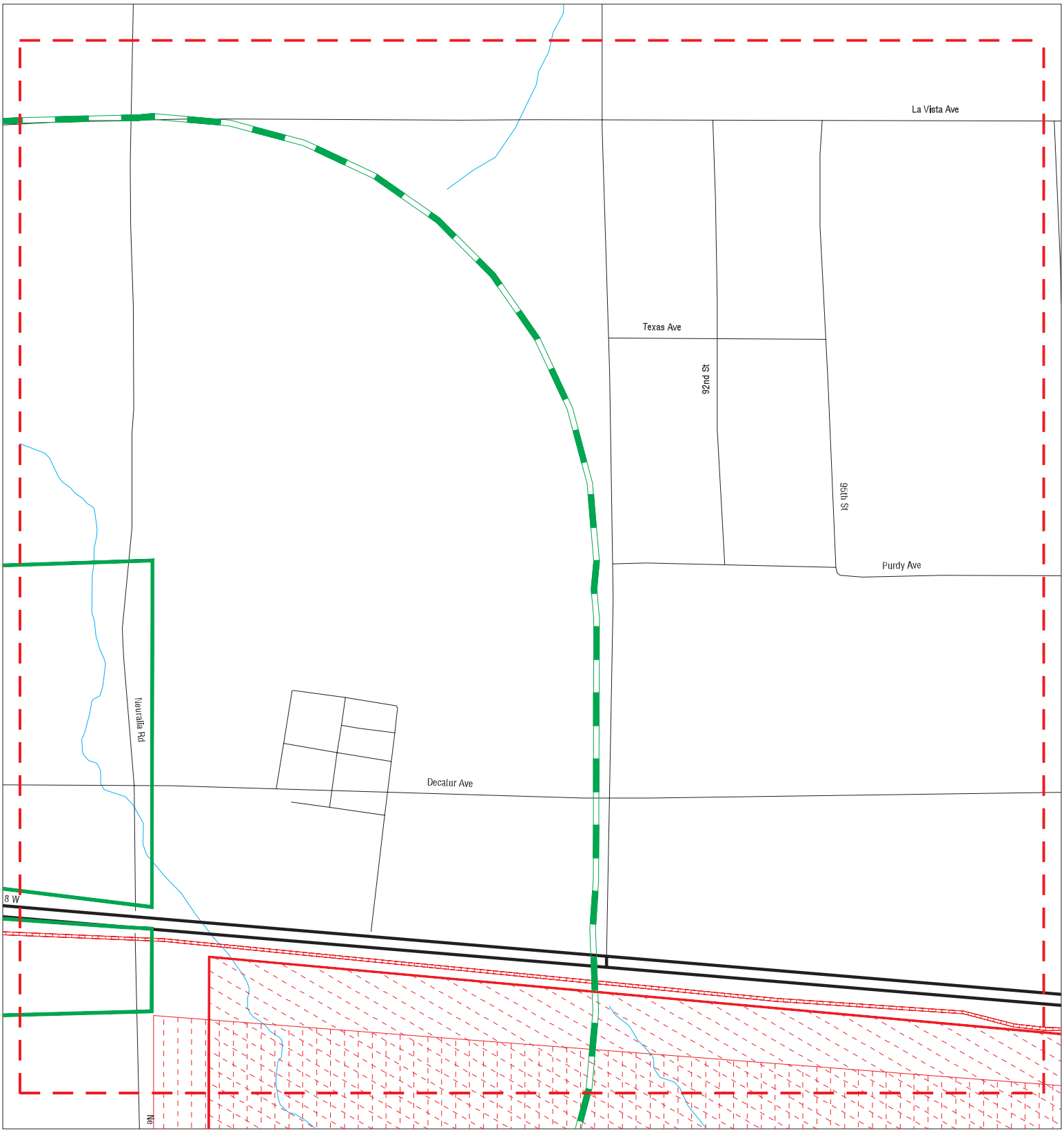
SITE NAME: Bellefield ADDRESS: Bellefield CITY/STATE: Mojave CA ZIP: 93501	CLIENT: Stantec CONTACT: Alicia Jansen INQUIRY #: 6051837.2s DATE: 04/30/20

MAPPED SITES SUMMARY - FOCUS MAP 20

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION		
786 / 20	AT AND T (CAO580)	HWY 58 9 MI E OF MOJ	UST	TP		
DB799 / 20	AT&T CORP. - SA145	6201 E HIGHWAY 58	CERS HAZ WASTE, CERS TANKS, CERS	90	0.017	South
DB800 / 20	AT&T CORP. - SA145	6201 E HIGHWAY 58	UST	90	0.017	South
DB801 / 20	AT&T CORP - SA145	6201 E HIGHWAY 58	AST	90	0.017	South
DC803 / 20	HYUNDAI KIA MOTORS	5759 HIGHWAY 58	CERS HAZ WASTE, CERS TANKS, CERS	101	0.019	SSE
DC804 / 20	HYUNDAI KIA MOTORS	5759 HWY 58	AST	101	0.019	SSE
DC805 / 20	HYUNDAI KIA MOTORS	5759 HIGHWAY 58	AST	101	0.019	SSE
DC806 / 20	HYUNDAI-KIA CALIFORN	5759 HIGHWAY 58	RCRA NonGen / NLR	101	0.019	SSE
816 / 20	AT & T MOBILITY	7089 HWY 58	RCRA NonGen / NLR	123	0.023	SSE
834 / 20	AT&T COMMUNICATIONS	6201 E HIGHWAY 58	RCRA NonGen / NLR	237	0.045	SSW

Focus Map - 21 - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/4 1/2 Miles

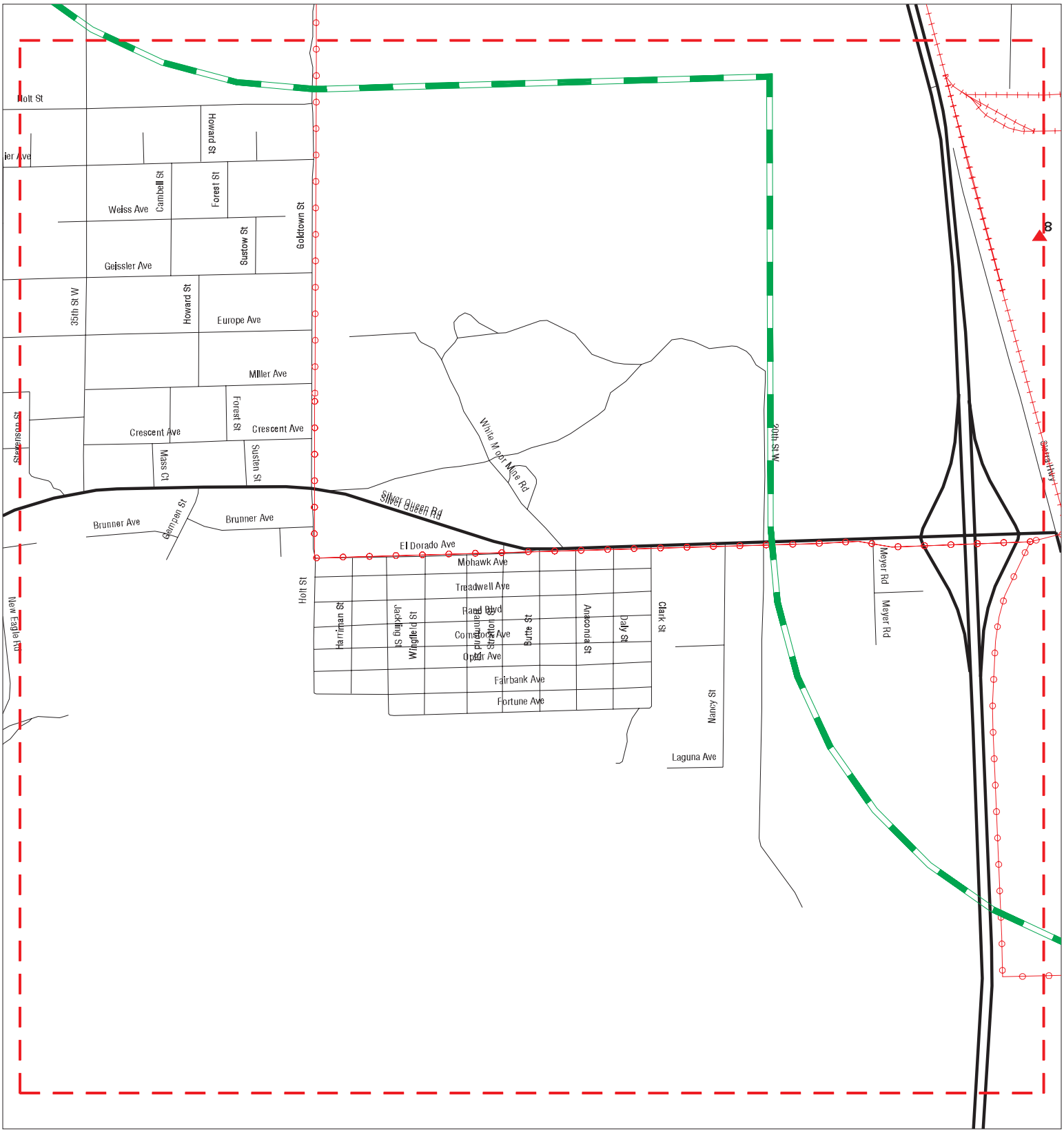
SITE NAME: Bellefield ADDRESS: Bellefield CITY/STATE: Mojave CA ZIP: 93501	CLIENT: Stantec CONTACT: Alicia Jansen INQUIRY #: 6051837.2s DATE: 04/30/20

MAPPED SITES SUMMARY - FOCUS MAP 21

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION		
Reg / Multiple	EDWARDS AIR FORCE BA		DOD	54	0.010	SSE
Reg / Multiple	EDWARDS AIR FORCE BA	5 EAST POPSON AVE BL	NPL, SEMS, CORRACTS, RCRA-TSDF, RCRA-LQG	680	0.129	East

Focus Map - 22 - 6051837.2s



Sites	Focus Map - Sites	Areas of Concern
Target Property	Power Line	Dept. Defense Sites
Search Buffer	Pipe Line	Indian Reservations BIA
Focus Map - No Sites	National Priority List Sites	

0 1/4 1/2 Miles

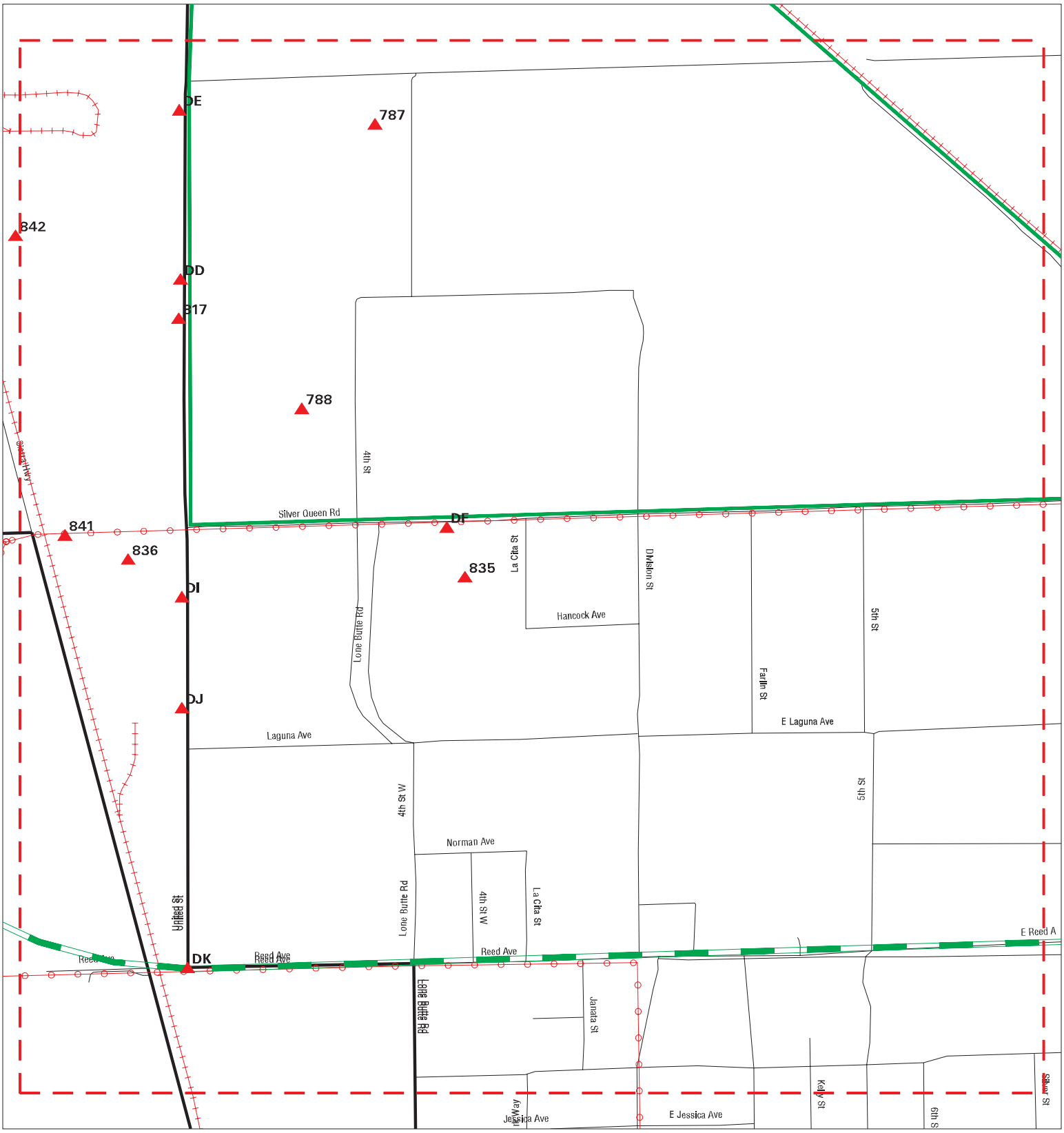
SITE NAME: Bellefield	CLIENT: Stantec
ADDRESS: Bellefield	CONTACT: Alicia Jansen
CITY/STATE: Mojave CA	INQUIRY #: 6051837.2s
ZIP: 93501	DATE: 04/30/20

MAPPED SITES SUMMARY - FOCUS MAP 22

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
842 / 22	MOJAVE PLANT NO 55	SOUTH OF MOJAVE	WMUDS/SWAT, ENF, WDS, CIWQS, CERS	2066 0.391 West

Focus Map - 23 - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/4 1/2 Miles

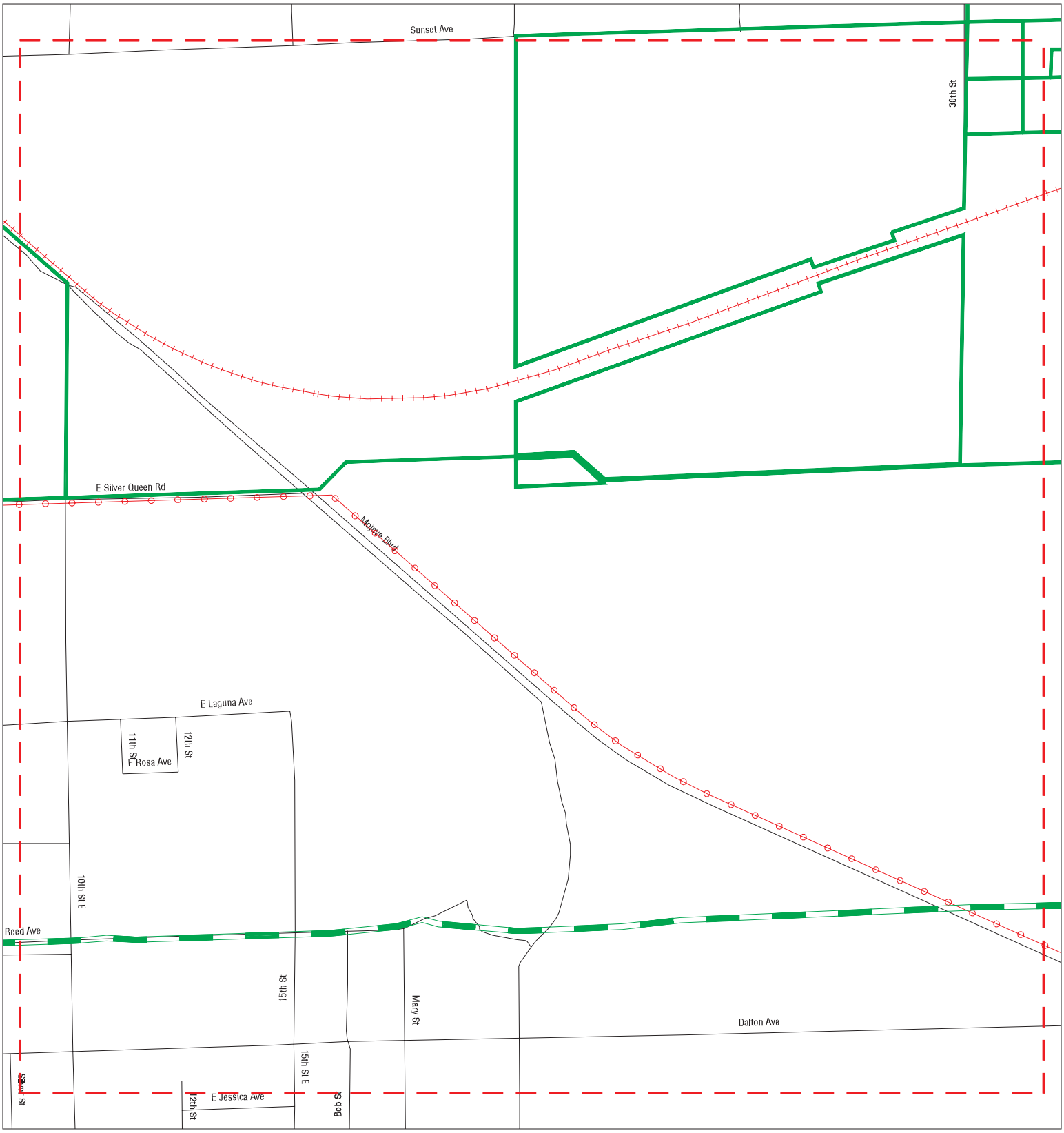
SITE NAME: Bellefield	CLIENT: Stantec
ADDRESS: Bellefield	CONTACT: Alicia Jansen
CITY/STATE: Mojave CA	INQUIRY #: 6051837.2s
ZIP: 93501	DATE: 04/30/20

MAPPED SITES SUMMARY - FOCUS MAP 23

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION		
787 / 23	CALTRANS #251		MINES MRDS	TP		
788 / 23	PRIMARY GOLD COMPANY	1/2 MI N OF SILVER Q	ENVIROSTOR	TP		
DD807 / 23	CITY SERV ONSITE LDF	12701 UNITED ST	SEMS-ARCHIVE	107	0.020	West
DD808 / 23	COLUMBIAN CHEMICAL C	12701 UNITED STREET	ENVIROSTOR, SWF/LF, LDS, CERS	107	0.020	West
DE809 / 23	PURDY COMPANY	12901 UNITED ROAD	HIST Cal-Sites, CERS	116	0.022	West
DE810 / 23	MOJAVE PLANT	12901 UNITED ROAD	HIST UST	116	0.022	West
DE811 / 23	PURDY CO OF CALIFORN	12901 UNITED RD	HIST UST, HAZNET, HWTS	116	0.022	West
DE812 / 23	THE PURDY COMPANY	12901 UNITED RD	UST	116	0.022	West
DE813 / 23	PURDY COMPANY	12901 UNITED	RESPONSE, ENVIROSTOR, DEED, Cortese, HIS...	116	0.022	West
DF814 / 23	KCPWD - MOJAVE/ROSAM	400 SILVER QUEEN RD	SWF/LF, CERS HAZ WASTE, Financial Assura...	118	0.022	South
DF815 / 23	MOJAVE-ROSAMOND SANI	400 SILVER QUEEN ROA	RCRA NonGen / NLR	118	0.022	South
817 / 23	UNITED METAL RECOVER	12403 UNITED STREET	RESPONSE, ENVIROSTOR, HIST Cal-Sites, LI...	129	0.024	West
835 / 23	MOJAVE/ROSAMOND LAND	3 MI SOUTH OF MOJAVE	WMUDS/SWAT, LDS, ENF, CIWQS, CERS	713	0.135	South
836 / 23	SILVER QUEEN JUNKYAR	BACK LOT AT 11847 UN	RESPONSE, ENVIROSTOR, HIST Cal-Sites, DE...	846	0.160	WSW
DI837 / 23	COMMODITY RESOURCE &	11847 UNITED ST	HWP	860	0.163	South
DI838 / 23	COMMODITY RESOURCES/	11847 UNITED ST	CERS HAZ WASTE, HAZNET, CERS, HWTS	860	0.163	South
DI839 / 23	COMMODITY RESOURCE &	11847 UNITED ST	RESPONSE, ENVIROSTOR, HIST Cal-Sites, DE...	860	0.163	South
DI840 / 23	COMMODITY REFINING E	11847 UNITED ST.	SEMS-ARCHIVE, RCRA NonGen / NLR	860	0.163	South
841 / 23	A & W SMELTERS AND R	SILVER QUEEN RD	HIST CORTESE	1500	0.284	West
DJ843 / 23	PRODUCTS RESEARCH CH	11601 UNITED	SEMS-ARCHIVE	2175	0.412	South
DJ844 / 23	PRC-DE SOTO INTERNAT	11601 UNITED STREET	RCRA-LQG, ENVIROSTOR, HIST Cal-Sites, EM...	2175	0.412	South
DK845 / 23	MOBILE SMELTING	UNITED STREET & REED	RESPONSE, ENVIROSTOR, HIST Cal-Sites, Co...	5263	0.997	South
DK846 / 23	COURTAULDS AEROSPACE	UNITED STREET AND RE	ENVIROSTOR, VCP	5263	0.997	South

Focus Map - 24 - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/4 1/2 Miles

SITE NAME: Bellefield ADDRESS: Bellefield CITY/STATE: Mojave CA ZIP: 93501	CLIENT: Stantec CONTACT: Alicia Jansen INQUIRY #: 6051837.2s DATE: 04/30/20

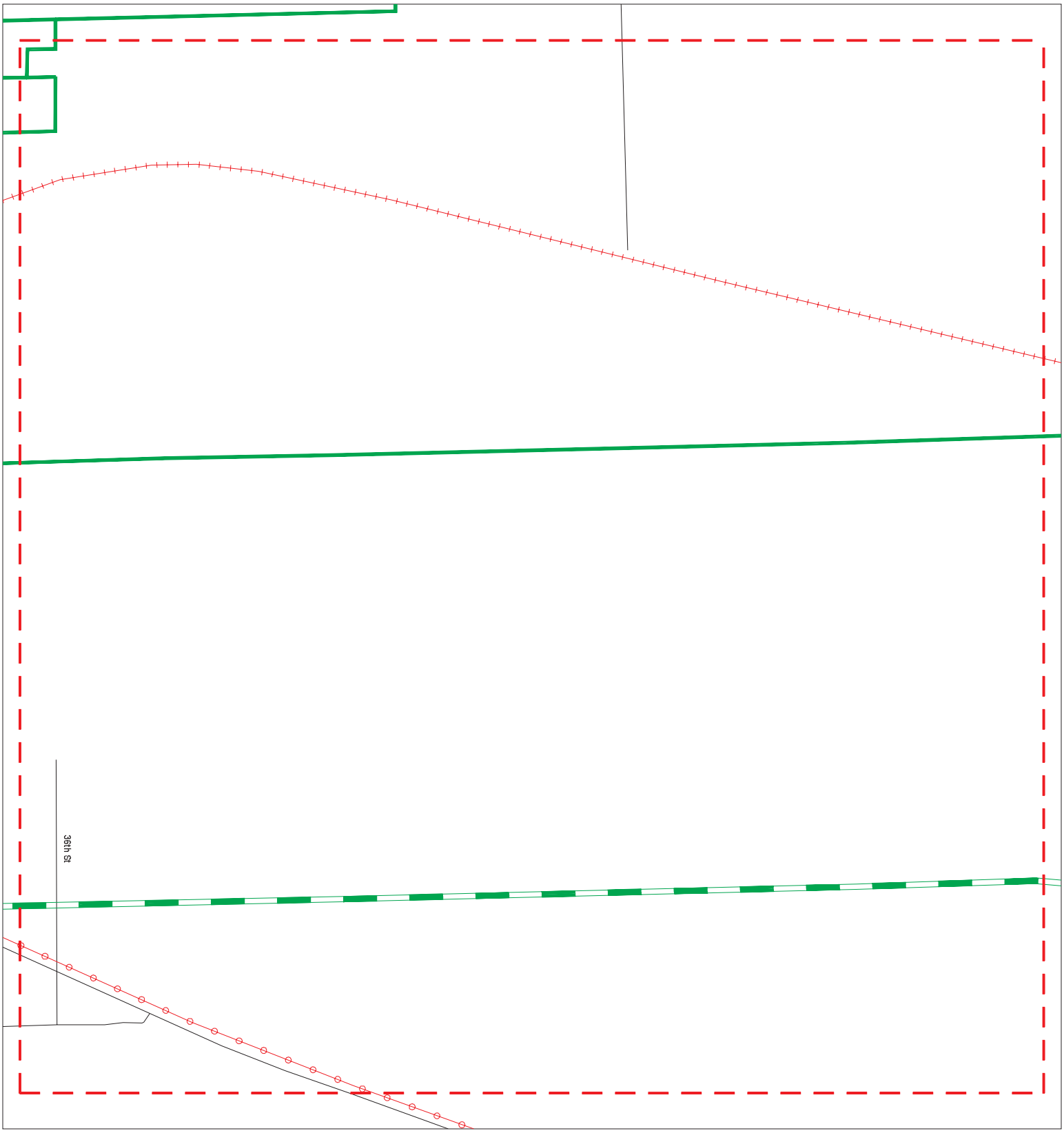
MAPPED SITES SUMMARY - FOCUS MAP 24

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 25 - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/4 1/2 Miles

SITE NAME: Bellefield ADDRESS: Bellefield CITY/STATE: Mojave CA ZIP: 93501	CLIENT: Stantec CONTACT: Alicia Jansen INQUIRY #: 6051837.2s DATE: 04/30/20

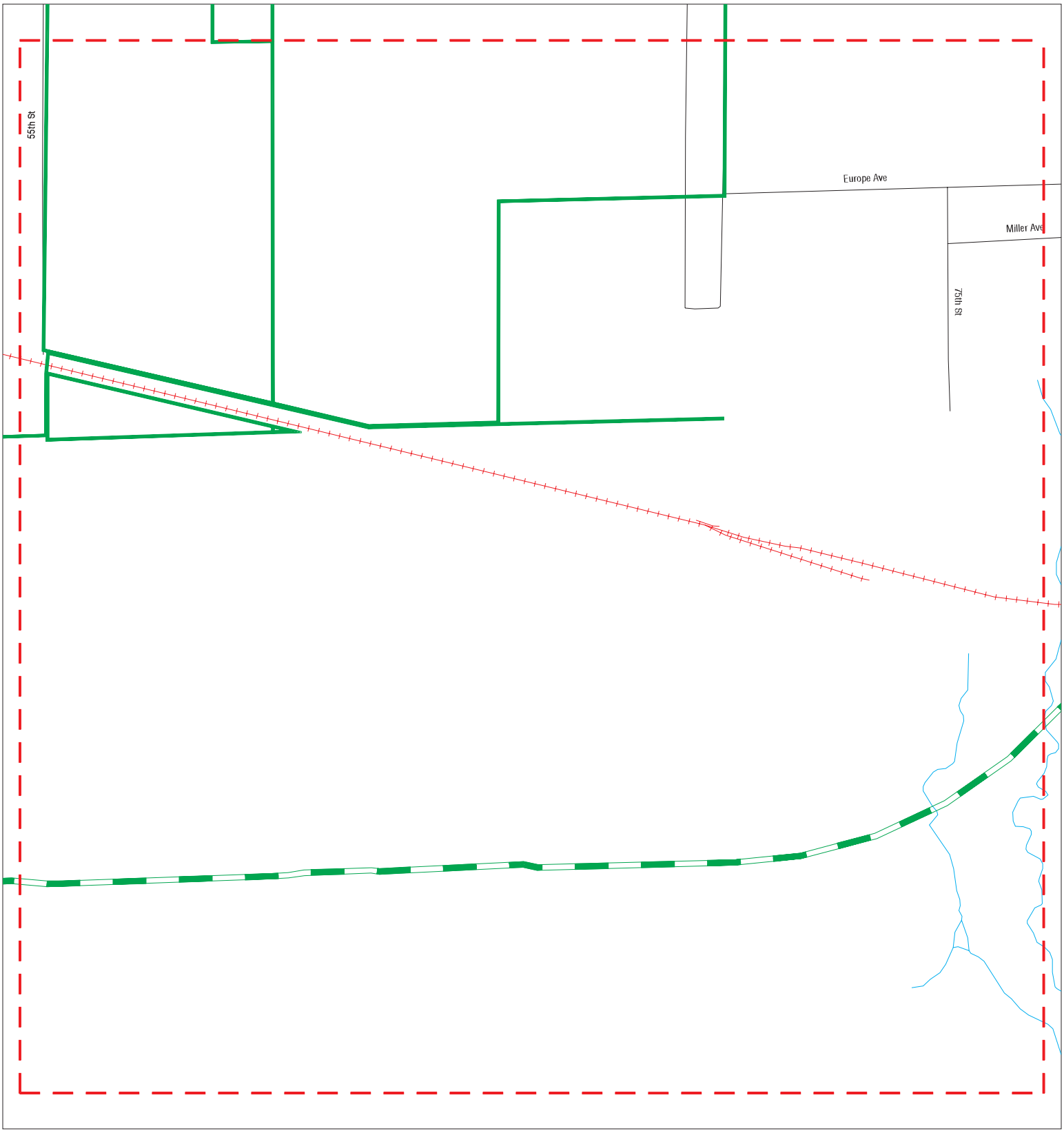
MAPPED SITES SUMMARY - FOCUS MAP 25

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 26 - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/4 1/2 Miles

SITE NAME: Bellefield ADDRESS: Bellefield CITY/STATE: Mojave CA ZIP: 93501	CLIENT: Stantec CONTACT: Alicia Jansen INQUIRY #: 6051837.2s DATE: 04/30/20

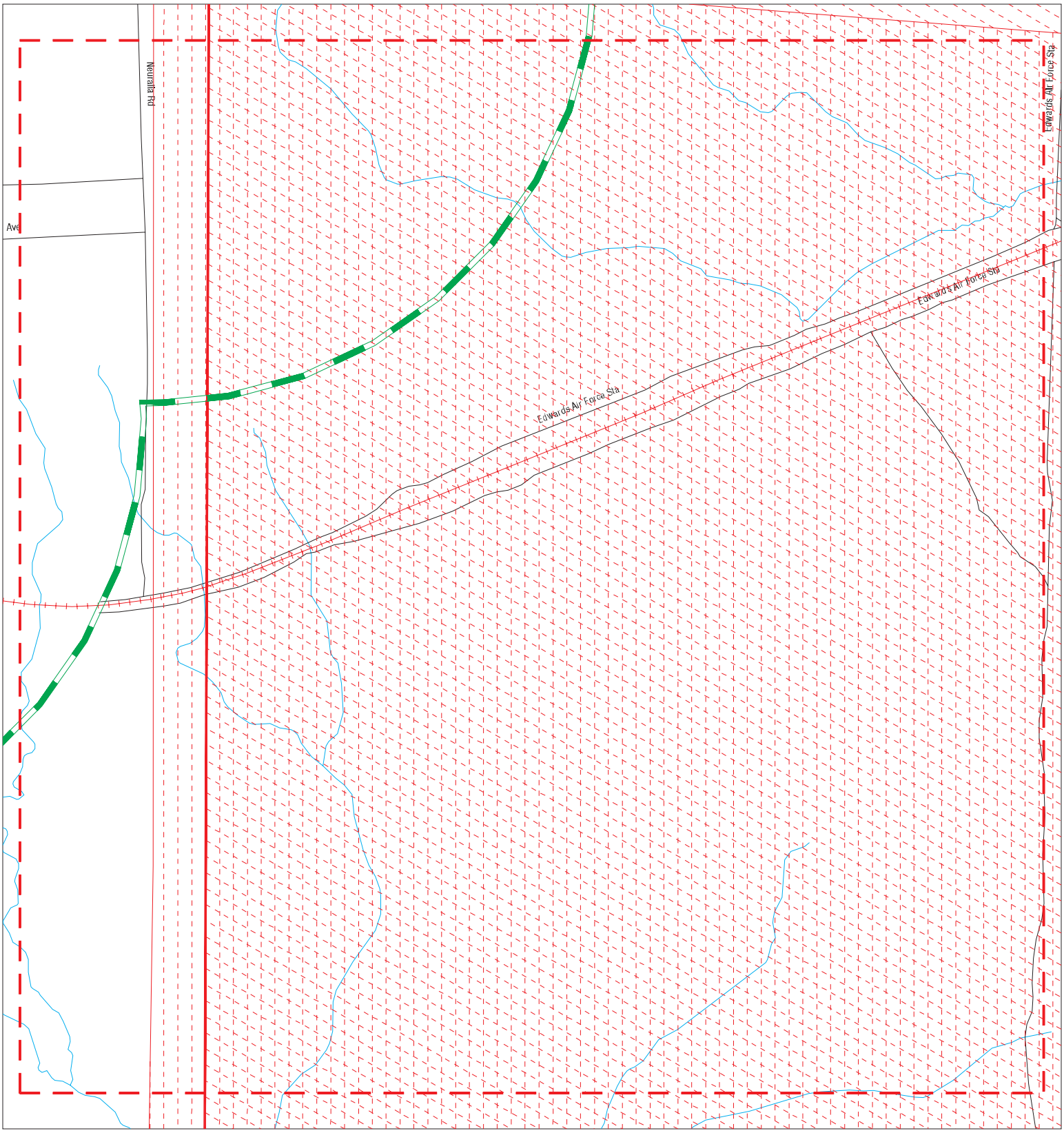
MAPPED SITES SUMMARY - FOCUS MAP 26

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 27 - 6051837.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
Pipe Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/4 1/2 Miles

SITE NAME: Bellefield	CLIENT: Stantec
ADDRESS: Bellefield	CONTACT: Alicia Jansen
CITY/STATE: Mojave CA	INQUIRY #: 6051837.2s
ZIP: 93501	DATE: 04/30/20

MAPPED SITES SUMMARY - FOCUS MAP 27

Target Property:
BELLEFIELD
MOJAVE, CA 93501

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION		
Reg / Multiple	EDWARDS AIR FORCE BA		DOD	54	0.010	SSE
Reg / Multiple	EDWARDS AIR FORCE BA	5 EAST POPSON AVE BL	NPL, SEMS, CORRACTS, RCRA-TSDF, RCRA-LQG	680	0.129	East

DOD **EDWARDS AIR FORCE BASE** **DOD** **CUSA140697**
Region **N/A**
SSE **EDWARDS AIR FORCE BASE (County), CA**
< 1/8
54 ft.

Focus Map:
21,27

DOD:

Feature 1:	Air Force DOD
Feature 2:	Not reported
Feature 3:	Not reported
URL:	Not reported
Name 1:	Edwards Air Force Base
Name 2:	Not reported
Name 3:	Not reported
State:	CA
DOD Site:	Yes
Tile name:	CAKERN

NPL **EDWARDS AIR FORCE BASE** **NPL** **1000155217**
Region **5 EAST POPSON AVE BLDG 2650** **SEMS** **CA1570024504**
East **EDWARDS AFB, CA 93524** **CORRACTS**
1/8-1/4 **RCRA-TSDF**
680 ft. **RCRA-LQG**
US ENG CONTROLS
US INST CONTROLS
ENVIROSTOR
Focus Map: **HIST Cal-Sites**
21,27 **DEED**
ROD
RAATS
PRP
ICIS
US AIRS
DOCKET HWC
ICE
PFAS

NPL:

Name:	EDWARDS AIR FORCE BASE
Address:	AFFTC EDWARDS AFB 5 EAST POPSON AVE, BLDG 2650A
City,State,Zip:	EDWARDS AFB, CA 93524
EPA ID:	CA1570024504
EPA Region:	9
Federal:	Y
Final Date:	1990-08-30 00:00:00
Site ID:	902725
Latitude:	34.949438999999998
Site Score:	33.619999999999997
Longitude:	-117.8857

NPL:

EPA ID:	CA1570024504
NPL Status:	Currently on the Final NPL
Category Description:	Depth To Aquifer-> 100 Feet
Category Value:	110
EPA ID:	CA1570024504
NPL Status:	Currently on the Final NPL
Category Description:	Distance To Nearest Population-> 0 And <= 1/4 Mile
Category Value:	10

EDWARDS AIR FORCE BASE (Continued) **1000155217**

NPL:

EPA ID:	CA1570024504
Site ID:	0902725
Site Status:	F
Federal Site:	Y
EPA Region:	09
Date Proposed:	07/14/89
Date Deleted:	Not reported
Date Finalized:	08/30/90

NPL:

EPA ID:	CA1570024504
NPL Status:	Currently on the Final NPL
Substance ID:	Not reported
Substance:	Not reported
CAS #:	Not reported
Pathway:	Not reported
Scoring:	Not reported

EPA ID:	CA1570024504
NPL Status:	Currently on the Final NPL
Substance ID:	A020
Substance:	CHROMIUM AND COMPOUNDS
CAS #:	Not reported
Pathway:	GROUND WATER PATHWAY
Scoring:	4

EPA ID:	CA1570024504
NPL Status:	Currently on the Final NPL
Substance ID:	D004
Substance:	ARSENIC
CAS #:	7440-38-2
Pathway:	GROUND WATER PATHWAY
Scoring:	3

EPA ID:	CA1570024504
NPL Status:	Currently on the Final NPL
Substance ID:	U036
Substance:	CHLORDANE
CAS #:	57-74-9
Pathway:	GROUND WATER PATHWAY
Scoring:	3

EPA ID:	CA1570024504
NPL Status:	Currently on the Final NPL
Substance ID:	U061
Substance:	DDT
CAS #:	50-29-3
Pathway:	GROUND WATER PATHWAY
Scoring:	3

EPA ID:	CA1570024504
NPL Status:	Currently on the Final NPL
Substance ID:	U077
Substance:	DICHLOROETHANE, 1,2-
CAS #:	107-06-2

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Pathway: GROUND WATER PATHWAY
Scoring: 2

EPA ID: CA1570024504
NPL Status: Currently on the Final NPL
Substance ID: U079
Substance: TRANS-DICHLOROETHYLENE, 1,2-
CAS #: 156-60-5
Pathway: GROUND WATER PATHWAY
Scoring: 2

EPA ID: CA1570024504
NPL Status: Currently on the Final NPL
Substance ID: U210
Substance: TETRACHLOROETHENE
CAS #: 127-18-4
Pathway: GROUND WATER PATHWAY
Scoring: 2

EPA ID: CA1570024504
NPL Status: Currently on the Final NPL
Substance ID: U228
Substance: TRICHLOROETHYLENE (TCE)
CAS #: 79-01-6
Pathway: GROUND WATER PATHWAY
Scoring: 2

NPL:
EPA ID: CA1570024504
Summary: Conditions at proposal July 14, 1989): Edwards Air Force Base EAFB) is in Kern, Los Angeles, and San Bernardino Counties, California, occupying approximately 800 square miles in the western portion of the Mojave Desert. The base has been i

EPA ID: CA1570024504
Summary: n operation since 1933. Its primary mission is to conduct research and development on new aircraft. EAFB is participating in the Installation Restoration Program IRP), established in 1978. Under this program, the Department of De

EPA ID: CA1570024504
Summary: fense seeks to identify, investigate, and clean up contamination from ha ardous materials. Under IRP, the Air Force has identified 21 waste areas at the facility. The Main/South Base area, at the western edge of Rogers Dry Lake, is the p

EPA ID: CA1570024504
Summary: rimary area for maintenance and refueling of aircraft. On several occasions, large amounts of fuel have been spilled in the area, and poor disposal practices have released organic solvents to the ground. Also in the area are an abandoned sanit

EPA ID: CA1570024504
Summary: ary landfill containing pesticides and heavy metals, an area where electroplating wastes were dumped, and the industrial waste pond, which contains sediments rich in heavy metals. Trichloroethylene, trans-1,2-dichloroethylene, 1,2- dichl

EDWARDS AIR FORCE BASE (Continued) **1000155217**

EPA ID: CA1570024504
Summary: oroethane, tetrachloroethylene, and methylene chloride are present in ground water underlying the Main/South Base area, according to a 1987 IRP report. EAFB s 13,800 employees obtain drinking water from wells within 3 miles of the Main/South Ba

EPA ID: CA1570024504
Summary: se area. There is no perennial surface water at EAFB. The Air Force has completed an initial assessment of the base and is now conducting a remedial investigation/feasibility study to determine the type and extent of contaminat

EPA ID: CA1570024504
Summary: ion and identify alternatives for remedial action. Status August 30, 1990): The Air Force is reviewing previous studies to determine any additional data needed to fully characteri e known waste areas. EPA, the State, and the Air F

EPA ID: CA1570024504
Summary: orce arenegotiating an Interagency Agreement under CERCLA Section 120 covering response activities at the base.

NPL:
EPA ID: CA1570024504
NPL Status: Final
Proposed Date: 07/14/1989
Final Date: 08/30/1990
Deleted Date: Not reported

NPL:
EPA ID: CA1570024504
NPL Name: EDWARDS AIR FORCE BASE

SEMS:
Site ID: 0902725
EPA ID: CA1570024504
Name: EDWARDS AIR FORCE BASE
Address: AFFTC EDWARDS AFB
Address 2: 5 EAST POPSON AVE, BLDG 2650A
City,State,Zip: EDWARDS AFB, CA 93524
Cong District: 21,23
FIPS Code: 06029
Latitude: 34.949439
Longitude: -117.885700
FF: Y
NPL: Currently on the Final NPL
Non NPL Status: Not reported

SEMS Detail:
Region: 09
Site ID: 0902725
EPA ID: CA1570024504
Site Name: EDWARDS AIR FORCE BASE
NPL: F
FF: Y

EDWARDS AIR FORCE BASE (Continued) **1000155217**

OU:	00
Action Code:	DS
Action Name:	DISCVRY
SEQ:	1
Start Date:	1980-08-01 04:00:00
Finish Date:	8/1/1980 4:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	00
Action Code:	NF
Action Name:	NPL FINL
SEQ:	1
Start Date:	1990-08-30 04:00:00
Finish Date:	8/30/1990 4:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	00
Action Code:	NP
Action Name:	PROPOSED
SEQ:	1
Start Date:	1989-07-14 04:00:00
Finish Date:	7/14/1989 4:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	00
Action Code:	HR
Action Name:	HAZRANK
SEQ:	1
Start Date:	1984-04-01 06:00:00
Finish Date:	4/1/1984 6:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	00
Action Code:	PA
Action Name:	PA
SEQ:	2
Start Date:	1986-11-01 05:00:00
Finish Date:	11/1/1986 5:00:00 AM
Qual:	L
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	02
Action Code:	LW
Action Name:	FF RI/FS
SEQ:	1
Start Date:	2004-09-29 04:00:00
Finish Date:	6/24/2009 5:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	09
Action Code:	LW
Action Name:	FF RI/FS
SEQ:	9
Start Date:	2005-08-12 04:00:00
Finish Date:	Not reported
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	08
Action Code:	LW
Action Name:	FF RI/FS
SEQ:	11
Start Date:	2005-08-18 04:00:00
Finish Date:	Not reported
Qual:	Not reported
Current Action Lead:	Fed Fac

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	11
Action Code:	LW
Action Name:	FF RI/FS
SEQ:	13
Start Date:	2004-01-31 05:00:00
Finish Date:	8/4/2008 5:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	11
Action Code:	RO
Action Name:	ROD
SEQ:	12
Start Date:	2008-08-04 05:00:00
Finish Date:	8/4/2008 5:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	11
Action Code:	LX
Action Name:	FF RD
SEQ:	12
Start Date:	2008-08-04 05:00:00
Finish Date:	9/28/2009 4:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	11
Action Code:	LY
Action Name:	FF RA
SEQ:	12
Start Date:	2008-08-04 05:00:00
Finish Date:	7/27/2011 5:00:00 AM

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	13
Action Code:	NI
Action Name:	FF FS
SEQ:	1
Start Date:	2007-07-03 04:00:00
Finish Date:	9/21/2012 5:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	13
Action Code:	RO
Action Name:	ROD
SEQ:	15
Start Date:	2012-09-21 05:00:00
Finish Date:	9/21/2012 5:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	14
Action Code:	LV
Action Name:	FF RV
SEQ:	2
Start Date:	2012-03-07 05:00:00
Finish Date:	10/6/2014 4:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	02
Action Code:	LX
Action Name:	FF RD

EDWARDS AIR FORCE BASE (Continued) **1000155217**

SEQ:	19
Start Date:	2009-06-24 05:00:00
Finish Date:	6/24/2009 5:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	02
Action Code:	LY
Action Name:	FF RA
SEQ:	19
Start Date:	2009-06-24 05:00:00
Finish Date:	11/22/2010 5:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	05
Action Code:	LV
Action Name:	FF RV
SEQ:	1
Start Date:	2009-11-20 05:00:00
Finish Date:	8/1/2011 4:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	02
Action Code:	LX
Action Name:	FF RD
SEQ:	22
Start Date:	2013-02-06 05:00:00
Finish Date:	7/25/2013 4:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y

EDWARDS AIR FORCE BASE (Continued) **1000155217**

OU:	04
Action Code:	OM
Action Name:	OM
SEQ:	3
Start Date:	2009-10-26 04:00:00
Finish Date:	Not reported
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	00
Action Code:	PA
Action Name:	PA
SEQ:	1
Start Date:	1986-10-01 04:00:00
Finish Date:	10/1/1986 4:00:00 AM
Qual:	L
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	01
Action Code:	LW
Action Name:	FF RI/FS
SEQ:	2
Start Date:	2004-07-30 04:00:00
Finish Date:	Not reported
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	04
Action Code:	LY
Action Name:	FF RA
SEQ:	5
Start Date:	2007-11-06 05:00:00
Finish Date:	10/26/2009 4:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	15
Action Code:	LX
Action Name:	FF RD
SEQ:	5
Start Date:	2009-09-16 04:00:00
Finish Date:	11/9/2010 5:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	02
Action Code:	LY
Action Name:	FF RA
SEQ:	1
Start Date:	2010-10-08 04:00:00
Finish Date:	Not reported
Qual:	IR
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	05
Action Code:	LW
Action Name:	FF RI/FS
SEQ:	5
Start Date:	2017-05-31 04:00:00
Finish Date:	Not reported
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	06
Action Code:	OM
Action Name:	OM
SEQ:	5
Start Date:	2010-08-03 05:00:00
Finish Date:	Not reported
Qual:	Not reported
Current Action Lead:	Fed Fac

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	15
Action Code:	LY
Action Name:	FF RA
SEQ:	4
Start Date:	2010-12-13 05:00:00
Finish Date:	5/12/2014 5:00:00 AM
Qual:	IR
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	02
Action Code:	RO
Action Name:	ROD
SEQ:	1
Start Date:	2009-06-24 05:00:00
Finish Date:	6/24/2009 5:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	15
Action Code:	RO
Action Name:	ROD
SEQ:	5
Start Date:	2009-09-16 04:00:00
Finish Date:	9/16/2009 4:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	04
Action Code:	LW
Action Name:	FF RI/FS
SEQ:	7
Start Date:	2004-01-31 05:00:00
Finish Date:	9/24/2007 4:00:00 AM

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	15
Action Code:	LW
Action Name:	FF RI/FS
SEQ:	4
Start Date:	2006-06-20 04:00:00
Finish Date:	9/16/2009 4:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	03
Action Code:	RO
Action Name:	ROD
SEQ:	2
Start Date:	2003-09-30 04:00:00
Finish Date:	9/30/2003 4:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	15
Action Code:	OM
Action Name:	OM
SEQ:	6
Start Date:	2014-05-12 05:00:00
Finish Date:	Not reported
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	03
Action Code:	LW
Action Name:	FF RI/FS

EDWARDS AIR FORCE BASE (Continued) **1000155217**

SEQ:	3
Start Date:	1992-12-18 05:00:00
Finish Date:	3/30/1999 5:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac
Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	04
Action Code:	LX
Action Name:	FF RD
SEQ:	3
Start Date:	2007-09-24 04:00:00
Finish Date:	6/12/2009 5:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac
Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	02
Action Code:	LX
Action Name:	FF RD
SEQ:	1
Start Date:	2009-06-24 05:00:00
Finish Date:	10/31/2013 4:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac
Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	00
Action Code:	SI
Action Name:	SI
SEQ:	1
Start Date:	1980-08-01 04:00:00
Finish Date:	4/1/1984 6:00:00 AM
Qual:	L
Current Action Lead:	Fed Fac
Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y

EDWARDS AIR FORCE BASE (Continued) **1000155217**

OU:	04
Action Code:	RO
Action Name:	ROD
SEQ:	3
Start Date:	2007-09-24 04:00:00
Finish Date:	9/24/2007 4:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	10
Action Code:	LW
Action Name:	FF RI/FS
SEQ:	6
Start Date:	2006-11-22 05:00:00
Finish Date:	Not reported
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	11
Action Code:	OM
Action Name:	OM
SEQ:	8
Start Date:	2011-07-27 05:00:00
Finish Date:	Not reported
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	14
Action Code:	LW
Action Name:	FF RI/FS
SEQ:	15
Start Date:	2018-01-25 05:00:00
Finish Date:	Not reported
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	12
Action Code:	LW
Action Name:	FF RI/FS
SEQ:	16
Start Date:	2004-01-31 05:00:00
Finish Date:	Not reported
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	07
Action Code:	LW
Action Name:	FF RI/FS
SEQ:	12
Start Date:	1996-09-30 04:00:00
Finish Date:	Not reported
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	06
Action Code:	RO
Action Name:	ROD
SEQ:	4
Start Date:	2006-09-28 04:00:00
Finish Date:	9/28/2006 4:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	06
Action Code:	LX
Action Name:	FF RD
SEQ:	4
Start Date:	2007-10-18 04:00:00
Finish Date:	2/15/2008 5:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	16
Action Code:	LW
Action Name:	FF RI/FS
SEQ:	17
Start Date:	2010-02-04 05:00:00
Finish Date:	Not reported
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	06
Action Code:	LX
Action Name:	FF RD
SEQ:	18
Start Date:	2006-09-28 04:00:00
Finish Date:	9/28/2006 4:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	17
Action Code:	LW
Action Name:	FF RI/FS
SEQ:	18
Start Date:	2005-08-12 04:00:00
Finish Date:	Not reported
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	06
Action Code:	LY
Action Name:	FF RA
SEQ:	18
Start Date:	2006-09-28 04:00:00
Finish Date:	2/15/2008 5:00:00 AM

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	06
Action Code:	LY
Action Name:	FF RA
SEQ:	3
Start Date:	2008-02-15 05:00:00
Finish Date:	8/31/2010 4:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902725
EPA ID:	CA1570024504
Site Name:	EDWARDS AIR FORCE BASE
NPL:	F
FF:	Y
OU:	06
Action Code:	LW
Action Name:	FF RI/FS
SEQ:	8
Start Date:	2003-11-11 05:00:00
Finish Date:	9/28/2006 4:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

CORRACTS:

EPA ID:	CA1570024504
EPA Region:	09
Area Name:	ENTIRE FACILITY
Actual Date:	2004-08-03 00:00:00.0
Action:	CA725YE - Current Human Exposures Under Control, Yes, Current Human Exposures Under Control has been verified
NAICS Code(s):	928110 National Security
Original schedule date:	2004-08-03 00:00:00.0
Schedule end date:	Not reported

EPA ID:	CA1570024504
EPA Region:	09
Area Name:	ENTIRE FACILITY
Actual Date:	2002-06-18 00:00:00.0
Action:	CA750YE - Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified
NAICS Code(s):	928110 National Security
Original schedule date:	2002-06-18 00:00:00.0
Schedule end date:	Not reported

EDWARDS AIR FORCE BASE (Continued) **1000155217**

EPA ID: CA1570024504
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 2000-05-22 00:00:00.0
Action: CA750IN - Migration of Contaminated Groundwater under Control, More information is needed to make a determination
NAICS Code(s): 928110
National Security
Original schedule date: 2000-05-22 00:00:00.0
Schedule end date: Not reported

EPA ID: CA1570024504
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 2000-05-22 00:00:00.0
Action: CA725IN - Current Human Exposures Under Control, More information is needed to make a determination
NAICS Code(s): 928110
National Security
Original schedule date: 2000-05-22 00:00:00.0
Schedule end date: Not reported

EPA ID: CA1570024504
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 1998-04-06 00:00:00.0
Action: CA750NO - Migration of Contaminated Groundwater under Control, Unacceptable migration of contaminated groundwater is observed or expected
NAICS Code(s): 928110
National Security
Original schedule date: 1998-04-06 00:00:00.0
Schedule end date: Not reported

EPA ID: CA1570024504
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 1998-04-06 00:00:00.0
Action: CA725NO - Current Human Exposures Under Control, Current human exposures are NOT under control
NAICS Code(s): 928110
National Security
Original schedule date: 1998-04-06 00:00:00.0
Schedule end date: Not reported

EPA ID: CA1570024504
EPA Region: 09
Area Name: OU #1
Actual Date: 1997-12-01 00:00:00.0
Action: CA650 - Stabilization Construction Completed
NAICS Code(s): 928110
National Security
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CA1570024504
EPA Region: 09

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Area Name: OU #1
Actual Date: 1996-04-01 00:00:00.0
Action: CA200 - RFI Approved
NAICS Code(s): 928110
National Security
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CA1570024504
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 1993-09-01 00:00:00.0
Action: CA070YE - RFA Determination Of Need For An RFI, RFI is Necessary
NAICS Code(s): 928110
National Security
Original schedule date: 1993-09-01 00:00:00.0
Schedule end date: Not reported

EPA ID: CA1570024504
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 1993-09-01 00:00:00.0
Action: CA050 - RFA Completed
NAICS Code(s): 928110
National Security
Original schedule date: 1993-09-01 00:00:00.0
Schedule end date: Not reported

EPA ID: CA1570024504
EPA Region: 09
Area Name: OU #1
Actual Date: 1990-09-24 00:00:00.0
Action: CA600GW - Stabilization Measures Implemented, Groundwater extraction and treatment
NAICS Code(s): 928110
National Security
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CA1570024504
EPA Region: 09
Area Name: OU #1
Actual Date: 1990-09-24 00:00:00.0
Action: CA100 - RFI Imposition
NAICS Code(s): 928110
National Security
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CA1570024504
EPA Region: 09
Area Name: OU #1
Actual Date: 1990-09-24 00:00:00.0
Action: CA600SR - Stabilization Measures Implemented, Primary measure is source removal and/or treatment
NAICS Code(s): 928110
National Security

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Original schedule date: Not reported
Schedule end date: Not reported

RCRA-TSDF:

Date form received by agency:	2018-10-19 00:00:00.0
Facility name:	EDWARDS AIR FORCE BASE
Facility address:	446 N. ROSAMOND BLVD BLDG 4916 EDWARDS, CA 93524-1130
EPA ID:	CA1570024504
Mailing address:	NORTH ROSAMOND BLVD, STE A BLDG 3735 EDWARDS, CA 93524
Contact:	D MALAMA CHOCK
Contact address:	NORTH ROSAMOND BLVD, STE A BLDG 3735 EDWARDS, CA 93524
Contact country:	US
Contact telephone:	661-277-3454
Contact email:	D_MALAMA.CHOCK@US.AF.MIL
EPA Region:	09
Land type:	Federal
Classification:	TSDF
Description:	Handler is engaged in the treatment, storage or disposal of hazardous waste
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	EDWARDS AIR FORCE BASE
Owner/operator address:	N. ROSAMOND BLVD BLDG 4916 EDWARDS, CA 93524
Owner/operator country:	US
Owner/operator telephone:	661-277-3454
Owner/operator email:	D_MALAMA.CHOCK@US.AF.MIL
Owner/operator fax:	661-277-1460
Owner/operator extension:	Not reported
Legal status:	Federal
Owner/Operator Type:	Operator
Owner/Op start date:	1950-01-01 00:00:00.
Owner/Op end date:	Not reported

Owner/operator name:	EDWARDS AIR FORCE BASE
Owner/operator address:	NORTH ROSAMOND BLVD, STE A BLDG 3735 EDWARDS, CA 93524
Owner/operator country:	US
Owner/operator telephone:	661-277-3454

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Owner/operator email: D_MALAMA.CHOCK@US.AF.MIL
Owner/operator fax: 661-277-1460
Owner/operator extension: Not reported
Legal status: Federal
Owner/Operator Type: Owner
Owner/Op start date: 1950-01-01 00:00:00.
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: Yes
Transporter of hazardous waste: No
Treater, storer or disposer of HW: Yes
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Universal Waste Summary:
Waste type: C
Accumulated waste on-site: No
Generated waste on-site: Yes

Waste type: Batteries
Accumulated waste on-site: Yes
Generated waste on-site: Not reported

Waste type: Thermostats
Accumulated waste on-site: Yes
Generated waste on-site: Not reported

Waste type: Lamps
Accumulated waste on-site: Yes
Generated waste on-site: Not reported

Waste type: E
Accumulated waste on-site: No
Generated waste on-site: Yes

Historical Generators:
Date form received by agency: 2016-02-29 00:00:00.0
Site name: EDWARDS AIR FORCE BASE
Classification: Large Quantity Generator

Date form received by agency: 2014-03-01 00:00:00.0
Site name: EDWARDS AIR FORCE BASE
Classification: Large Quantity Generator

Date form received by agency: 2012-09-11 00:00:00.0

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Site name: EDWARDS AIR FORCE BASE
Classification: Large Quantity Generator

Date form received by agency: 2010-07-13 00:00:00.0
Site name: EDWARDS AIR FORCE BASE
Classification: Large Quantity Generator

Date form received by agency: 2008-02-29 00:00:00.0
Site name: EDWARDS AIR FORCE BASE
Classification: Large Quantity Generator

Date form received by agency: 2006-02-15 00:00:00.0
Site name: EDWARDS AIR FORCE BASE
Classification: Large Quantity Generator

Date form received by agency: 2004-02-26 00:00:00.0
Site name: EDWARDS AIR FORCE BASE
Classification: Large Quantity Generator

Date form received by agency: 2002-03-29 00:00:00.0
Site name: EDWARDS AIRFORCE BASE
Classification: Large Quantity Generator

Date form received by agency: 2000-10-12 00:00:00.0
Site name: EDWARDS AIR FORCE BASE
Classification: Large Quantity Generator

Date form received by agency: 1999-03-04 00:00:00.0
Site name: EDWARDS AIR FORCE BASE
Classification: Large Quantity Generator

Date form received by agency: 1998-02-02 00:00:00.0
Site name: USAF EDWARDS AFB
Classification: Large Quantity Generator

Date form received by agency: 1996-09-01 00:00:00.0
Site name: USAF EDWARDS AFB
Classification: Large Quantity Generator

Date form received by agency: 1996-03-27 00:00:00.0
Site name: USAF EDWARDS
Classification: Large Quantity Generator

Date form received by agency: 1994-03-29 00:00:00.0
Site name: USAF FLIGHT TEST CTR EDWARDS AFB
Classification: Large Quantity Generator

Date form received by agency: 1992-04-25 00:00:00.0
Site name: EDWARDS AIR FORCE BASE
Classification: Large Quantity Generator

Date form received by agency: 1990-04-27 00:00:00.0
Site name: EDWARDS AFB/ EXPLOSIVE ORDINACE
Classification: Large Quantity Generator

Date form received by agency: 1980-08-18 00:00:00.0
Site name: USAF EDWARDS AFB

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Classification: Large Quantity Generator

Date form received by agency: 1980-08-18 00:00:00.0
Site name: USAF EDWARDS AFB
Classification: Large Quantity Generator

Hazardous Waste Summary:

. Waste code: 121
. Waste name: Alkaline solution (pH >12.5) with metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc)

. Waste code: 122
. Waste name: Alkaline solution without metals (pH > 12.5)

. Waste code: 123
. Waste name: Unspecified alkaline solution

. Waste code: 131
. Waste name: Aqueous solution (2 < pH < 12.5) containing reactive anions (azide, bromate, chlorate, cyanide, fluoride, hypochlorite, nitrite, perchlorate, and sulfide anions)

. Waste code: 132
. Waste name: Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals)

. Waste code: 133
. Waste name: Aqueous solution with 10% or more total organic residues

. Waste code: 134
. Waste name: Aqueous solution with <10% total organic residues

. Waste code: 135
. Waste name: Unspecified aqueous solution

. Waste code: 141
. Waste name: Off-specification, aged, or surplus inorganics

. Waste code: 151
. Waste name: Asbestos-containing waste

. Waste code: 162
. Waste name: Other spent catalyst

. Waste code: 171
. Waste name: Metal sludge (see 121)

. Waste code: 172
. Waste name: Metal dust (see 121) and machining waste

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 211
. Waste name: Halogenated solvents (chloroform, methyl chloride, perchloroethylene,

EDWARDS AIR FORCE BASE (Continued) **1000155217**

etc.)

. Waste code: 212
. Waste name: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)

. Waste code: 213
. Waste name: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)

. Waste code: 214
. Waste name: Unspecified solvent mixture

. Waste code: 221
. Waste name: Waste oil and mixed oil

. Waste code: 222
. Waste name: Oil/water separation sludge

. Waste code: 223
. Waste name: Unspecified oil-containing waste

. Waste code: 241
. Waste name: Tank bottom waste

. Waste code: 251
. Waste name: Still bottoms with halogenated organics

. Waste code: 252
. Waste name: Other still bottom waste

. Waste code: 261
. Waste name: Polychlorinated biphenyls and material containing PCB's

. Waste code: 271
. Waste name: Organic monomer waste (includes unreacted resins)

. Waste code: 272
. Waste name: Polymeric resin waste

. Waste code: 281
. Waste name: Adhesives

. Waste code: 291
. Waste name: Latex waste

. Waste code: 311
. Waste name: Pharmaceutical waste

. Waste code: 321
. Waste name: Sewage sludge

. Waste code: 322
. Waste name: Biological waste other than sewage sludge

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 341

EDWARDS AIR FORCE BASE (Continued) **1000155217**

. Waste name: Organic liquids (nonsolvents) with halogens

. Waste code: 342
. Waste name: Organic liquids with metals (see 121)

. Waste code: 343
. Waste name: Unspecified organic liquid mixture

. Waste code: 351
. Waste name: Organic solids with halogens

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 451
. Waste name: Degreasing sludge

. Waste code: 461
. Waste name: Degreasing sludge

. Waste code: 491
. Waste name: Unspecified sludge waste

. Waste code: 511
. Waste name: Empty pesticide containers 30 gallons or more

. Waste code: 512
. Waste name: Other empty containers 30 gallons or more

. Waste code: 513
. Waste name: Empty containers less than 30 gallons

. Waste code: 541
. Waste name: Photochemicals / photo processing waste

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: 561
. Waste name: Detergent and soap

. Waste code: 581
. Waste name: Gas scrubber waste

. Waste code: 611
. Waste name: Contaminated soil from site clean-ups

. Waste code: 612
. Waste name: Household waste

. Waste code: 614
. Waste name: Treated wood waste

. Waste code: 711
. Waste name: Liquids with cyanides > 1000 mg/l

. Waste code: 721

EDWARDS AIR FORCE BASE (Continued) **1000155217**

. Waste name: Liquids with arsenic > 500 mg/l

. Waste code: 722
. Waste name: Liquids with cadmium > 100 mg/l

. Waste code: 723
. Waste name: Liquids with chromium (VI) > 500 mg/l

. Waste code: 724
. Waste name: Liquids with lead > 500 mg/l

. Waste code: 725
. Waste name: Liquids with mercury > 20 mg/l

. Waste code: 726
. Waste name: Liquids with nickel > 134 mg/l

. Waste code: 727
. Waste name: Liquids with selenium > 100 mg/l

. Waste code: 728
. Waste name: Liquids with thallium > 130 mg/l

. Waste code: 731
. Waste name: Liquids with polychlorinated biphenyls > 50 mg/l

. Waste code: 741
. Waste name: Liquids with halogenated organic compounds > 1000 mg/l

. Waste code: 751
. Waste name: Solids or sludge with halogenated organic comp. > 1000 mg/kg

. Waste code: 791
. Waste name: Liquids with pH < 2

. Waste code: 792
. Waste name: Liquids with pH < 2 with metals

. Waste code: 801
. Waste name: Waste potentially containing dioxins

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006

EDWARDS AIR FORCE BASE (Continued) **1000155217**

. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D010
. Waste name: SELENIUM

. Waste code: D011
. Waste name: SILVER

. Waste code: D012
. Waste name: ENDRIN (1,2,3,4,10,10-HEXACHLORO-1,7-EPOXY-1,4,4A,5,6,7,8,8A-OCTAHYDRO-1,4-ENDO, ENDO-5,8-DIMETH-ANO-NAPHTHALENE)

. Waste code: D013
. Waste name: LINDANE (1,2,3,4,5,6-HEXA-CHLOROCYCLOHEXANE, GAMMA ISOMER)

. Waste code: D014
. Waste name: METHOXYCHLOR (1,1,1-TRICHLORO-2,2-BIS [P-METHOXYPHENYL] ETHANE)

. Waste code: D015
. Waste name: TOXAPHENE (C10 H10 CL8, TECHNICAL CHLORINATED CAMPHENE, 67-69 PERCENT CHLORINE)

. Waste code: D016
. Waste name: 2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)

. Waste code: D017
. Waste name: 2,4,5-TP SILVEX (2,4,5-TRICHLOROPHENOXYPROPIONIC ACID)

. Waste code: D018
. Waste name: BENZENE

. Waste code: D019
. Waste name: CARBON TETRACHLORIDE

. Waste code: D020
. Waste name: CHLORDANE

. Waste code: D021
. Waste name: CHLOROBENZENE

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: D023
. Waste name: O-CRESOL

. Waste code: D024

EDWARDS AIR FORCE BASE (Continued) **1000155217**

. Waste name: M-CRESOL

. Waste code: D025
. Waste name: P-CRESOL

. Waste code: D026
. Waste name: CRESOL

. Waste code: D027
. Waste name: 1,4-DICHLOROBENZENE

. Waste code: D028
. Waste name: 1,2-DICHLOROETHANE

. Waste code: D029
. Waste name: 1,1-DICHLOROETHYLENE

. Waste code: D030
. Waste name: 2,4-DINITROTOLUENE

. Waste code: D031
. Waste name: HEPTACHLOR (AND ITS EPOXIDE)

. Waste code: D032
. Waste name: HEXACHLOROBENZENE

. Waste code: D033
. Waste name: HEXACHLOROBUTADIENE

. Waste code: D034
. Waste name: HEXACHLOROETHANE

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: D036
. Waste name: NITROBENZENE

. Waste code: D037
. Waste name: PENTACHLOROPHENOL

. Waste code: D038
. Waste name: PYRIDINE

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

. Waste code: D040
. Waste name: TRICHLORETHYLENE

. Waste code: D041
. Waste name: 2,4,5-TRICHLOROPHENOL

. Waste code: D042
. Waste name: 2,4,6-TRICHLOROPHENOL

. Waste code: D043

EDWARDS AIR FORCE BASE (Continued) **1000155217**

. Waste name: VINYL CHLORIDE

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F004
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: CRESOLS, CRESYLIC ACID, AND NITROBENZENE; AND THE STILL BOTTOMS FROM THE RECOVERY OF THESE SOLVENTS; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F006
. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS)

EDWARDS AIR FORCE BASE (Continued) **1000155217**

ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

. Waste code: F027
. Waste name: DISCARDED UNUSED FORMULATIONS CONTAINING TRI-, TETRA-, OR PENTACHLOROPHENOL OR DISCARDED UNUSED FORMULATIONS CONTAINING COMPOUNDS DERIVED FROM THESE CHLOROPHENOLS. (THIS LISTING DOES NOT INCLUDE FORMULATIONS CONTAINING HEXACHLOROPHENE SYNTHESIZED FROM PREPURIFIED 2,4,5-TRICHLOROPHENOL AS THE SOLE COMPONENT.)

. Waste code: P001
. Waste name: 2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3% (OR) WARFARIN, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3%

. Waste code: P003
. Waste name: 2-PROPENAL (OR) ACROLEIN

. Waste code: P005
. Waste name: 2-PROPEN-1-OL (OR) ALLYL ALCOHOL

. Waste code: P012
. Waste name: ARSENIC OXIDE AS2O3 (OR) ARSENIC TRIOXIDE

. Waste code: P014
. Waste name: BENZENETHIOL (OR) THIOPHENOL

. Waste code: P027
. Waste name: 3-CHLOROPROPIONITRILE (OR) PROPANENITRILE, 3-CHLORO-

. Waste code: P028
. Waste name: BENZENE, (CHLOROMETHYL)- (OR) BENZYL CHLORIDE

. Waste code: P029
. Waste name: COPPER CYANIDE (OR) COPPER CYANIDE CU(CN)

. Waste code: P030
. Waste name: CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED

. Waste code: P031
. Waste name: CYANOGEN (OR) ETHANEDINITRILE

. Waste code: P033
. Waste name: CYANOGEN CHLORIDE (OR) CYANOGEN CHLORIDE (CN)CL

. Waste code: P037
. Waste name: 2,7:3,6-DIMETHANONAPHTH[2,3-B]OXIRENE, 3,4,5,6,9,9-HEXACHLORO-1A,2,2A,3,6,6A,7,7A-OCTAHYDRO-, (1AALPHA, 2BETA, 2AALPHA, 3BETA, 6BETA, 6AALPHA, 7BETA, 7AALPHA)- (OR) DIELDRIN

. Waste code: P047
. Waste name: 4,6-DINITRO-O-CRESOL, & SALTS (OR) PHENOL, 2-METHYL-4,6-DINITRO-, & SALTS

. Waste code: P048

EDWARDS AIR FORCE BASE (Continued) **1000155217**

. Waste name: 2,4-DINITROPHENOL (OR) PHENOL, 2,4-DINITRO-

. Waste code: P050
. Waste name: 6,9-METHANO-2,4,3-BENZODIOXATHIEPIN,6,7,8,9,10,10-HEXACHLORO-1,5,5A,6,9,9A-HEXAHYDRO-,3-OXIDE (OR) ENDOSULFAN

. Waste code: P051
. Waste name: 2,7:3,6-DIMETHANONAPHTH[2,3-B]OXIRENE, 3,4,5,6,9,9-HEXACHLORO-1A,2,2A,3,6,6A,7,7A-OCTAHYDRO-, (1AALPHA, 2BETA, 2ABETA, 3ALPHA, 6ALPHA, 6ABETA, 7BETA, 7AALPHA)- & METABOLITES (OR) ENDRIN (OR) ENDRIN, & METABOLITES

. Waste code: P056
. Waste name: FLUORINE

. Waste code: P059
. Waste name: 4,7-METHANO-1H-INDENE, 1,4,5,6,7,8,8-HEPTACHLORO-3A,4,7,7A-TETRAHYDRO- (OR) HEPTACHLOR

. Waste code: P063
. Waste name: HYDROCYANIC ACID (OR) HYDROGEN CYANIDE

. Waste code: P068
. Waste name: HYDRAZINE, METHYL- (OR) METHYL HYDRAZINE

. Waste code: P073
. Waste name: NICKEL CARBONYL (OR) NICKEL CARBONYL NI(CO)4, (T-4)-

. Waste code: P077
. Waste name: BENZENAMINE, 4-NITRO- (OR) P-NITROANILINE

. Waste code: P078
. Waste name: NITROGEN DIOXIDE (OR) NITROGEN OXIDE NO2

. Waste code: P098
. Waste name: POTASSIUM CYANIDE (OR) POTASSIUM CYANIDE K(CN)

. Waste code: P104
. Waste name: SILVER CYANIDE (OR) SILVER CYANIDE AG(CN)

. Waste code: P105
. Waste name: SODIUM AZIDE

. Waste code: U001
. Waste name: ACETALDEHYDE (I) (OR) ETHANAL (I)

. Waste code: U002
. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

. Waste code: U003
. Waste name: ACETONITRILE (I,T)

. Waste code: U004
. Waste name: ACETOPHENONE (OR) ETHANONE, 1-PHENYL-

. Waste code: U007
. Waste name: 2-PROPENAMIDE (OR) ACRYLAMIDE

EDWARDS AIR FORCE BASE (Continued) **1000155217**

. Waste code: U008
. Waste name: 2-PROPENOIC ACID (I) (OR) ACRYLIC ACID (I)

. Waste code: U009
. Waste name: 2-PROPENENITRILE (OR) ACRYLONITRILE

. Waste code: U012
. Waste name: ANILINE (I,T) (OR) BENZENAMINE (I,T)

. Waste code: U019
. Waste name: BENZENE (I,T)

. Waste code: U029
. Waste name: METHANE, BROMO- (OR) METHYL BROMIDE

. Waste code: U031
. Waste name: 1-BUTANOL (I) (OR) N-BUTYL ALCOHOL (I)

. Waste code: U034
. Waste name: ACETALDEHYDE, TRICHLORO- (OR) CHLORAL

. Waste code: U037
. Waste name: BENZENE, CHLORO- (OR) CHLOROBENZENE

. Waste code: U041
. Waste name: EPICHLOROHYDRIN (OR) OXIRANE, (CHLOROMETHYL)-

. Waste code: U042
. Waste name: 2-CHLOROETHYL VINYL ETHER (OR) ETHENE, (2-CHLOROETHOXY)-

. Waste code: U044
. Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

. Waste code: U045
. Waste name: METHANE, CHLORO- (I,T) (OR) METHYL CHLORIDE (I,T)

. Waste code: U048
. Waste name: O-CHLOROPHENOL (OR) PHENOL, 2-CHLORO-

. Waste code: U053
. Waste name: 2-BUTENAL (OR) CROTONALDEHYDE

. Waste code: U056
. Waste name: BENZENE, HEXAHYDRO- (I) (OR) CYCLOHEXANE (I)

. Waste code: U057
. Waste name: CYCLOHEXANONE (I)

. Waste code: U060
. Waste name: BENZENE, 1,1'-(2,2-DICHLOROETHYLIDENE)BIS[4-CHLORO- (OR) DDD

. Waste code: U061
. Waste name: BENZENE, 1,1'-(2,2,2-TRICHLOROETHYLIDENE)BIS[4-CHLORO- (OR) DDT

. Waste code: U066
. Waste name: 1,2-DIBROMO-3-CHLOROPROPANE (OR) PROPANE, 1,2-DIBROMO-3-CHLORO-

EDWARDS AIR FORCE BASE (Continued) **1000155217**

. Waste code: U067
. Waste name: ETHANE, 1,2-DIBROMO- (OR) ETHYLENE DIBROMIDE

. Waste code: U068
. Waste name: METHANE, DIBROMO- (OR) METHYLENE BROMIDE

. Waste code: U069
. Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER (OR) DIBUTYL PHTHALATE

. Waste code: U070
. Waste name: BENZENE, 1,2-DICHLORO- (OR) O-DICHLOROBENZENE

. Waste code: U071
. Waste name: BENZENE, 1,3-DICHLORO- (OR) M-DICHLOROBENZENE

. Waste code: U072
. Waste name: BENZENE, 1,4-DICHLORO- (OR) P-DICHLOROBENZENE

. Waste code: U074
. Waste name: 1,4-DICHLORO-2-BUTENE (I,T) (OR) 2-BUTENE, 1,4-DICHLORO- (I,T)

. Waste code: U076
. Waste name: ETHANE, 1,1-DICHLORO- (OR) ETHYLIDENE DICHLORIDE

. Waste code: U077
. Waste name: ETHANE, 1,2-DICHLORO- (OR) ETHYLENE DICHLORIDE

. Waste code: U078
. Waste name: 1,1-DICHLOROETHYLENE (OR) ETHENE, 1,1-DICHLORO-

. Waste code: U080
. Waste name: METHANE, DICHLORO- (OR) METHYLENE CHLORIDE

. Waste code: U081
. Waste name: 2,4-DICHLOROPHENOL (OR) PHENOL, 2,4-DICHLORO-

. Waste code: U084
. Waste name: 1,3-DICHLOROPROPENE (OR) 1-PROPENE, 1,3-DICHLORO-

. Waste code: U085
. Waste name: 1,2:3,4-DIEPOXYBUTANE (I,T) (OR) 2,2'-BIOXIRANE

. Waste code: U098
. Waste name: 1,1-DIMETHYLHYDRAZINE (OR) HYDRAZINE, 1,1-DIMETHYL-

. Waste code: U101
. Waste name: 2,4-DIMETHYLPHENOL (OR) PHENOL, 2,4-DIMETHYL-

. Waste code: U103
. Waste name: DIMETHYL SULFATE (OR) SULFURIC ACID, DIMETHYL ESTER

. Waste code: U108
. Waste name: 1,4-DIETHYLENEOXIDE (OR) 1,4-DIOXANE

. Waste code: U112
. Waste name: ACETIC ACID, ETHYL ESTER (I) (OR) ETHYL ACETATE (I)

EDWARDS AIR FORCE BASE (Continued) **1000155217**

. Waste code: U121
. Waste name: METHANE, TRICHLOROFLUORO- (OR) TRICHLOROMONOFLUOROMETHANE

. Waste code: U122
. Waste name: FORMALDEHYDE

. Waste code: U123
. Waste name: FORMIC ACID (C,T)

. Waste code: U128
. Waste name: 1,3-BUTADIENE, 1,1,2,3,4,4-HEXACHLORO- (OR) HEXACHLOROBUTADIENE

. Waste code: U129
. Waste name: CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1ALPHA, 2ALPHA, 3BETA, 4ALPHA, 5ALPHA, 6BETA)- (OR) LINDANE

. Waste code: U131
. Waste name: ETHANE, HEXACHLORO- (OR) HEXACHLOROETHANE

. Waste code: U133
. Waste name: HYDRAZINE (R,T)

. Waste code: U134
. Waste name: HYDROFLUORIC ACID (C,T) (OR) HYDROGEN FLUORIDE (C,T)

. Waste code: U135
. Waste name: HYDROGEN SULFIDE (OR) HYDROGEN SULFIDE H2S

. Waste code: U138
. Waste name: METHANE, IODO- (OR) METHYL IODIDE

. Waste code: U140
. Waste name: 1-PROPANOL, 2-METHYL- (I,T) (OR) ISOBUTYL ALCOHOL (I,T)

. Waste code: U144
. Waste name: ACETIC ACID, LEAD(2+) SALT (OR) LEAD ACETATE

. Waste code: U147
. Waste name: 2,5-FURANDIONE (OR) MALEIC ANHYDRIDE

. Waste code: U149
. Waste name: MALONONITRILE (OR) PROPANEDINITRILE

. Waste code: U150
. Waste name: L-PHENYLALANINE, 4-[BIS(2-CHLOROETHYL)AMINO]- (OR) MELPHALAN

. Waste code: U151
. Waste name: MERCURY

. Waste code: U152
. Waste name: 2-PROPENENITRILE, 2-METHYL- (I,T) (OR) METHACRYLONITRILE (I,T)

. Waste code: U154
. Waste name: METHANOL (I) (OR) METHYL ALCOHOL (I)

. Waste code: U159
. Waste name: 2-BUTANONE (I,T) (OR) METHYL ETHYL KETONE (MEK) (I,T)

EDWARDS AIR FORCE BASE (Continued) **1000155217**

. Waste code: U161
. Waste name: 4-METHYL-2-PENTANONE (I) (OR) METHYL ISOBUTYL KETONE (I) (OR) PENTANOL, 4-METHYL-

. Waste code: U162
. Waste name: 2-PROPENOIC ACID, 2-METHYL-, METHYL ESTER (I,T) (OR) METHYL METHACRYLATE (I,T)

. Waste code: U165
. Waste name: NAPHTHALENE

. Waste code: U169
. Waste name: BENZENE, NITRO- (OR) NITROBENZENE (I,T)

. Waste code: U170
. Waste name: P-NITROPHENOL (I,T) (OR) PHENOL, 4-NITRO-

. Waste code: U171
. Waste name: 2-NITROPROPANE (I,T) (OR) PROPANE, 2-NITRO- (I,T)

. Waste code: U172
. Waste name: 1-BUTANAMINE, N-BUTYL-N-NITROSO- (OR) N-NITROSODI-N-BUTYLAMINE

. Waste code: U182
. Waste name: 1,3,5-TRIOXANE, 2,4,6-TRIMETHYL- (OR) PARALDEHYDE

. Waste code: U184
. Waste name: ETHANE, PENTACHLORO- (OR) PENTACHLOROETHANE

. Waste code: U188
. Waste name: PHENOL

. Waste code: U194
. Waste name: 1-PROPANAMINE (I,T) (OR) N-PROPYLAMINE (I,T)

. Waste code: U196
. Waste name: PYRIDINE

. Waste code: U208
. Waste name: 1,1,1,2-TETRACHLOROETHANE (OR) ETHANE, 1,1,1,2-TETRACHLORO-

. Waste code: U209
. Waste name: 1,1,2,2-TETRACHLOROETHANE (OR) ETHANE, 1,1,2,2-TETRACHLORO-

. Waste code: U210
. Waste name: ETHENE, TETRACHLORO- (OR) TETRACHLOROETHYLENE

. Waste code: U211
. Waste name: CARBON TETRACHLORIDE (OR) METHANE, TETRACHLORO-

. Waste code: U213
. Waste name: FURAN, TETRAHYDRO-(I) (OR) TETRAHYDROFURAN (I)

. Waste code: U219
. Waste name: THIOUREA

. Waste code: U220

EDWARDS AIR FORCE BASE (Continued) **1000155217**

. Waste name: BENZENE, METHYL- (OR) TOLUENE

. Waste code: U221
. Waste name: BENZENEDIAMINE, AR-METHYL- (OR) TOLUENEDIAMINE

. Waste code: U222
. Waste name: BENZENAMINE, 2-METHYL-, HYDROCHLORIDE (OR) O-TOLUIDINE HYDROCHLORIDE

. Waste code: U223
. Waste name: BENZENE, 1,3-DIISOCYANATOMETHYL- (R,T) (OR) TOLUENE DIISOCYANATE (R,T)

. Waste code: U226
. Waste name: ETHANE, 1,1,1-TRICHLORO- (OR) METHYL CHLOROFORM

. Waste code: U227
. Waste name: 1,1,2-TRICHLOROETHANE (OR) ETHANE, 1,1,2-TRICHLORO-

. Waste code: U228
. Waste name: ETHENE, TRICHLORO- (OR) TRICHLOROETHYLENE

. Waste code: U239
. Waste name: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

. Waste code: U359
. Waste name: ETHANOL, 2-ETHOXY- (OR) ETHYLENE GLYCOL MONOETHYL ETHER

Biennial Reports:

Last Biennial Reporting Year: 2017

Annual Waste Handled:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
Amount (Lbs): 119485

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
Amount (Lbs): 5089900

Waste code: D003
Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.
Amount (Lbs): 83

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Waste code: D004
Waste name: ARSENIC
Amount (Lbs): 1315

Waste code: D005
Waste name: BARIUM
Amount (Lbs): 31611

Waste code: D006
Waste name: CADMIUM
Amount (Lbs): 39576

Waste code: D007
Waste name: CHROMIUM
Amount (Lbs): 64624

Waste code: D008
Waste name: LEAD
Amount (Lbs): 58978

Waste code: D010
Waste name: SELENIUM
Amount (Lbs): 15200

Waste code: D011
Waste name: SILVER
Amount (Lbs): 7658

Waste code: D018
Waste name: BENZENE
Amount (Lbs): 115711

Waste code: D019
Waste name: CARBON TETRACHLORIDE
Amount (Lbs): 1261

Waste code: D020
Waste name: CHLORDANE
Amount (Lbs): 0

Waste code: D022
Waste name: CHLOROFORM
Amount (Lbs): 1261

Waste code: D027
Waste name: 1,4-DICHLOROBENZENE
Amount (Lbs): 0

Waste code: D035
Waste name: METHYL ETHYL KETONE
Amount (Lbs): 31493

Waste code: D039
Waste name: TETRACHLOROETHYLENE
Amount (Lbs): 5632

Waste code: D040

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Waste name: TRICHLOROETHYLENE
Amount (Lbs): 4261

Waste code: F001
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 0

Waste code: F002
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 21669

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 5763

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 27585

Waste code: P012
Waste name: ARSENIC OXIDE AS2O3
Amount (Lbs): 0

Waste code: P105
Waste name: SODIUM AZIDE
Amount (Lbs): 0

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Waste code: U001
Waste name: ACETALDEHYDE (I)
Amount (Lbs): 0

Waste code: U002
Waste name: ACETONE (I)
Amount (Lbs): 0

Waste code: U003
Waste name: ACETONITRILE (I,T)
Amount (Lbs): 0

Waste code: U031
Waste name: 1-BUTANOL (I)
Amount (Lbs): 0

Waste code: U034
Waste name: ACETALDEHYDE, TRICHLORO-
Amount (Lbs): 0

Waste code: U041
Waste name: EPICHLOROHYDRIN
Amount (Lbs): 0

Waste code: U044
Waste name: CHLOROFORM
Amount (Lbs): 0

Waste code: U056
Waste name: BENZENE, HEXAHYDRO- (I)
Amount (Lbs): 0

Waste code: U057
Waste name: CYCLOHEXANONE (I)
Amount (Lbs): 0

Waste code: U070
Waste name: BENZENE, 1,2-DICHLORO-
Amount (Lbs): 0

Waste code: U080
Waste name: METHANE, DICHLORO-
Amount (Lbs): 0

Waste code: U122
Waste name: FORMALDEHYDE
Amount (Lbs): 0

Waste code: U128
Waste name: 1,3-BUTADIENE, 1,1,2,3,4,4-HEXACHLORO-
Amount (Lbs): 0

Waste code: U133
Waste name: HYDRAZINE (R,T)
Amount (Lbs): 7

Waste code: U134

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Waste name: HYDROFLUORIC ACID (C,T)
Amount (Lbs): 2

Waste code: U140
Waste name: ISOBUTYL ALCOHOL (I,T)
Amount (Lbs): 0

Waste code: U144
Waste name: ACETIC ACID, LEAD(2+) SALT
Amount (Lbs): 0

Waste code: U154
Waste name: METHANOL (I)
Amount (Lbs): 0

Waste code: U159
Waste name: 2-BUTANONE (I,T)
Amount (Lbs): 0

Waste code: U182
Waste name: PARALDEHYDE
Amount (Lbs): 0

Waste code: U188
Waste name: PHENOL
Amount (Lbs): 0

Waste code: U226
Waste name: ETHANE, 1,1,1-TRICHLORO-
Amount (Lbs): 0

Waste code: U228
Waste name: ETHENE, TRICHLORO-
Amount (Lbs): 0

Waste code: U239
Waste name: BENZENE, DIMETHYL- (I,T)
Amount (Lbs): 14

Corrective Action Summary:
Event date: 1984-04-01 00:00:00.0
Event: PA OR CERCLA INSPECTION

Event date: 1986-10-01 00:00:00.0
Event: LEAD AGENCY DETERMINATION

Event date: 1986-10-01 00:00:00.0
Event: PA OR CERCLA INSPECTION

Event date: 1986-11-01 00:00:00.0
Event: CA PRIORITIZATION-HIGH CA PRIORITY

Event date: 1986-11-01 00:00:00.0
Event: PA OR CERCLA INSPECTION

Event date: 1990-09-24 00:00:00.0

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Event: STABILIZATION/INTERIM MEASURES DECISION-GROUNDWATER EXTRACTION & TREATMENT

Event date: 1990-09-24 00:00:00.0
Event: STABILIZATION/INTERIM MEASURES DECISION-PRIMARY MEAS IS SOURCE REMOVL &/OR TRT

Event date: 1990-09-24 00:00:00.0
Event: INVESTIGATION IMPOSITION

Event date: 1990-09-24 00:00:00.0
Event: CMS IMPOSITION

Event date: 1991-05-01 00:00:00.0
Event: RFA COMPLETED-ASSESSMENT WAS A RFA

Event date: 1993-09-01 00:00:00.0
Event: RFA COMPLETED-ASSESSMENT WAS A RFA

Event date: 1993-09-01 00:00:00.0
Event: RFA COMPLETED

Event date: 1993-09-01 00:00:00.0
Event: DETERMINATION OF NEED FOR AN INVESTIGATION-INVESTIGATION IS NECESSARY

Event date: 1994-08-19 00:00:00.0
Event: REFERRED TO A NON-RCRA AUTHORITY-REFERRED TO CERCLA

Event date: 1994-08-19 00:00:00.0
Event: CA PRIORITIZATION-MEDIUM CA PRIORITY

Event date: 1996-04-01 00:00:00.0
Event: INVESTIGATION COMPLETE

Event date: 1997-12-01 00:00:00.0
Event: STABILIZATION CONSTRUCTION COMPLETED

Event date: 1998-04-06 00:00:00.0
Event: STABILIZATION MEASURES EVALUATION-FURTHER INVESTIGATION NECESSARY

Event date: 1998-04-06 00:00:00.0
Event: REFERRED TO A NON-RCRA AUTHORITY

Event date: 1998-04-06 00:00:00.0
Event: RELEASE TO GW CONTROLLED DETERMINATION-FACILITY DOES NOT MEET DEFINITION

Event date: 1998-04-06 00:00:00.0
Event: HUMAN EXPOSURES CONTROLLED DETERMINATION-FACILITY DOES NOT MEET DEFINITION

Event date: 1998-04-06 00:00:00.0
Event: RELEASE TO GW CONTROLLED DETERMINATION-FACILITY DOES NOT MEET DEFINITION

Event date: 1998-04-06 00:00:00.0
Event: HUMAN EXPOSURES CONTROLLED DETERMINATION-FACILITY DOES NOT MEET

EDWARDS AIR FORCE BASE (Continued) **1000155217**

DEFINITION

Event date: 2000-05-22 00:00:00.0
Event: RELEASE TO GW CONTROLLED DETERMINATION-MORE INFORMATION NEEDED

Event date: 2000-05-22 00:00:00.0
Event: RELEASE TO GW CONTROLLED DETERMINATION-MORE INFORMATION NEEDED

Event date: 2000-05-22 00:00:00.0
Event: HUMAN EXPOSURES CONTROLLED DETERMINATION-MORE INFORMATION NEEDED

Event date: 2000-05-22 00:00:00.0
Event: HUMAN EXPOSURES CONTROLLED DETERMINATION-MORE INFORMATION NEEDED

Event date: 2002-06-18 00:00:00.0
Event: RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

Event date: 2002-06-18 00:00:00.0
Event: RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

Event date: 2004-08-03 00:00:00.0
Event: HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

Event date: 2004-08-03 00:00:00.0
Event: HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: TSD - Manifest/Records/Reporting
Date violation determined: 2018-11-26 00:00:00.0
Date achieved compliance: 2018-12-04 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 2018-11-26 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: State Statute or Regulation
Date violation determined: 2018-11-26 00:00:00.0
Date achieved compliance: 2018-12-04 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 2018-11-26 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Regulation violated: Not reported
Area of violation: Universal Waste - General
Date violation determined: 2017-11-14 00:00:00.0
Date achieved compliance: 2017-11-16 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 2017-11-16 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-General
Date violation determined: 2017-11-14 00:00:00.0
Date achieved compliance: 2017-12-15 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 2017-11-16 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Imports
Date violation determined: 2017-11-14 00:00:00.0
Date achieved compliance: 2017-11-16 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 2017-11-16 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: HW Management System - Definitions
Date violation determined: 2014-11-18 00:00:00.0
Date achieved compliance: 2014-11-20 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 2014-11-20 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.10-18.B

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Area of violation: TSD - General
Date violation determined: 1994-05-04 00:00:00.0
Date achieved compliance: 1994-08-16 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1994-05-12 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 4700
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268 ALL
Area of violation: LDR - General
Date violation determined: 1994-05-04 00:00:00.0
Date achieved compliance: 1994-08-16 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1994-05-12 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 4700
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 1994-05-04 00:00:00.0
Date achieved compliance: 1994-08-16 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1994-05-12 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 4700
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 1994-05-04 00:00:00.0
Date achieved compliance: 1994-08-16 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1994-05-12 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 4700
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60
Area of violation: Generators - General

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Date violation determined: 1993-04-30 00:00:00.0
Date achieved compliance: 1993-06-15 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1993-04-29 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 2200
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.50-56.D
Area of violation: TSD - General
Date violation determined: 1993-04-30 00:00:00.0
Date achieved compliance: 1993-06-15 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1993-04-29 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 2200
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.10-18.B
Area of violation: TSD - General
Date violation determined: 1993-04-30 00:00:00.0
Date achieved compliance: 1993-06-15 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1993-04-29 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 2200
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 1992-11-08 00:00:00.0
Date achieved compliance: 1993-01-15 00:00:00.0
Violation lead agency: State
Enforcement action: NON-FINANCIAL RECORD REVIEW
Enforcement action date: 1993-04-29 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 2200
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 1992-11-08 00:00:00.0

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Date achieved compliance: 1993-01-15 00:00:00.0
Violation lead agency: State
Enforcement action: NON-FINANCIAL RECORD REVIEW
Enforcement action date: 1992-11-08 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 9000
Final penalty amount: 9000
Paid penalty amount: Not reported

Regulation violated: FR - 264.170-177.I
Area of violation: TSD - General
Date violation determined: 1991-10-10 00:00:00.0
Date achieved compliance: 1992-01-17 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1991-12-06 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.10-18.B
Area of violation: TSD - General
Date violation determined: 1991-10-10 00:00:00.0
Date achieved compliance: 1992-01-17 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1991-12-06 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 1991-10-10 00:00:00.0
Date achieved compliance: 1992-01-17 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1991-12-06 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 1991-10-10 00:00:00.0
Date achieved compliance: 1992-01-17 00:00:00.0

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1991-12-06 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.50-56.D
Area of violation: TSD - General
Date violation determined: 1991-10-10 00:00:00.0
Date achieved compliance: 1992-01-17 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1991-12-06 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.30-37.C
Area of violation: TSD - General
Date violation determined: 1991-10-10 00:00:00.0
Date achieved compliance: 1992-01-17 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1991-12-06 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 1990-10-04 00:00:00.0
Date achieved compliance: 1990-10-04 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1990-08-09 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 270
Area of violation: TSD - General
Date violation determined: 1989-08-02 00:00:00.0
Date achieved compliance: 1990-10-04 00:00:00.0
Violation lead agency: EPA

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 270
Area of violation: TSD - General
Date violation determined: 1989-08-02 00:00:00.0
Date achieved compliance: 1990-10-04 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1989-09-28 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 268.7
Area of violation: LDR - General
Date violation determined: 1989-08-02 00:00:00.0
Date achieved compliance: 1991-08-20 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1989-09-28 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 268 ALL
Area of violation: LDR - General
Date violation determined: 1989-08-02 00:00:00.0
Date achieved compliance: 1991-08-20 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1989-09-28 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 268 ALL
Area of violation: LDR - General
Date violation determined: 1989-08-02 00:00:00.0
Date achieved compliance: 1991-08-20 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 268.7
Area of violation: LDR - General
Date violation determined: 1989-08-02 00:00:00.0
Date achieved compliance: 1991-08-20 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 270
Area of violation: TSD - General
Date violation determined: 1989-01-23 00:00:00.0
Date achieved compliance: 1990-10-04 00:00:00.0
Violation lead agency: EPA
Enforcement action: FOCUSED COMPLIANCE INSPECTION
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 270
Area of violation: TSD - General
Date violation determined: 1988-03-24 00:00:00.0
Date achieved compliance: 1988-08-21 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1989-02-09 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.90-94.F
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 1988-03-24 00:00:00.0
Date achieved compliance: 1988-08-21 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: Not reported

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.90-94.F
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 1988-03-24 00:00:00.0
Date achieved compliance: 1988-08-21 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1989-02-09 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 270
Area of violation: TSD - General
Date violation determined: 1988-03-24 00:00:00.0
Date achieved compliance: 1988-08-21 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1988-08-21 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 270
Area of violation: TSD - General
Date violation determined: 1988-03-24 00:00:00.0
Date achieved compliance: 1988-08-21 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.90-94.F
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 1988-03-24 00:00:00.0
Date achieved compliance: 1988-08-21 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1988-08-21 00:00:00.0
Enf. disposition status: Not reported

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 1987-02-23 00:00:00.0
Date achieved compliance: 1987-03-25 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 270
Area of violation: TSD - General
Date violation determined: 1987-02-23 00:00:00.0
Date achieved compliance: 1987-03-25 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 1994-04-05 00:00:00.0
Evaluation: INITIAL 3008(A) COMPLIANCE
Area of violation: TSD - General
Date achieved compliance: 1994-08-16 00:00:00.0
Evaluation lead agency: State

Evaluation date: 1994-04-05 00:00:00.0
Evaluation: INITIAL 3008(A) COMPLIANCE
Area of violation: LDR - General
Date achieved compliance: 1994-08-16 00:00:00.0
Evaluation lead agency: State

Evaluation date: 1994-04-05 00:00:00.0
Evaluation: INITIAL 3008(A) COMPLIANCE
Area of violation: Generators - General
Date achieved compliance: 1994-08-16 00:00:00.0
Evaluation lead agency: State

Evaluation date: 1993-03-30 00:00:00.0
Evaluation: INITIAL 3008(A) COMPLIANCE
Area of violation: TSD - General
Date achieved compliance: 1993-06-15 00:00:00.0

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Evaluation lead agency: State

Evaluation date: 1993-03-30 00:00:00.0
Evaluation: INITIAL 3008(A) COMPLIANCE
Area of violation: Generators - General
Date achieved compliance: 1993-06-15 00:00:00.0
Evaluation lead agency: State

Evaluation date: 1992-11-08 00:00:00.0
Evaluation: INITIAL 3008(A) COMPLIANCE
Area of violation: TSD - General
Date achieved compliance: 1993-01-15 00:00:00.0
Evaluation lead agency: State

Evaluation date: 1991-08-20 00:00:00.0
Evaluation: WRITTEN INFORMAL
Area of violation: TSD - General
Date achieved compliance: 1990-10-04 00:00:00.0
Evaluation lead agency: EPA

Evaluation date: 1991-08-20 00:00:00.0
Evaluation: WRITTEN INFORMAL
Area of violation: TSD - General
Date achieved compliance: 1992-01-17 00:00:00.0
Evaluation lead agency: EPA

Evaluation date: 1991-08-20 00:00:00.0
Evaluation: WRITTEN INFORMAL
Area of violation: Generators - General
Date achieved compliance: 1992-01-17 00:00:00.0
Evaluation lead agency: EPA

Evaluation date: 1989-08-02 00:00:00.0
Evaluation: WRITTEN INFORMAL
Area of violation: TSD - General
Date achieved compliance: 1990-10-04 00:00:00.0
Evaluation lead agency: EPA

Evaluation date: 1989-08-02 00:00:00.0
Evaluation: WRITTEN INFORMAL
Area of violation: LDR - General
Date achieved compliance: 1991-08-20 00:00:00.0
Evaluation lead agency: EPA

Evaluation date: 1988-03-24 00:00:00.0
Evaluation: INITIAL 3008(A) COMPLIANCE
Area of violation: TSD IS-Ground-Water Monitoring
Date achieved compliance: 1988-08-21 00:00:00.0
Evaluation lead agency: EPA

Evaluation date: 1988-03-24 00:00:00.0
Evaluation: STATE TO EPA ADMINISTRATIVE REFERRAL
Area of violation: TSD IS-Ground-Water Monitoring
Date achieved compliance: 1988-08-21 00:00:00.0
Evaluation lead agency: EPA

Evaluation date: 1988-03-24 00:00:00.0

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Evaluation: INITIAL 3008(A) COMPLIANCE
Area of violation: TSD - General
Date achieved compliance: 1988-08-21 00:00:00.0
Evaluation lead agency: EPA

Evaluation date: 1988-03-24 00:00:00.0
Evaluation: STATE TO EPA ADMINISTRATIVE REFERRAL
Area of violation: TSD - General
Date achieved compliance: 1988-08-21 00:00:00.0
Evaluation lead agency: EPA

RCRA-LQG:
Date form received by agency: 2018-10-19 00:00:00.0
Facility name: EDWARDS AIR FORCE BASE
Facility address: 446 N. ROSAMOND BLVD BLDG 4916
EDWARDS, CA 93524-1130
EPA ID: CA1570024504
Mailing address: NORTH ROSAMOND BLVD, STE A
BLDG 3735
EDWARDS, CA 93524
Contact: D MALAMA CHOCK
Contact address: NORTH ROSAMOND BLVD, STE A BLDG 3735
EDWARDS, CA 93524
Contact country: US
Contact telephone: 661-277-3454
Contact email: D_MALAMA.CHOCK@US.AF.MIL
EPA Region: 09
Land type: Federal
Classification: TSDF
Description: Handler is engaged in the treatment, storage or disposal of hazardous waste
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:
Owner/operator name: EDWARDS AIR FORCE BASE
Owner/operator address: N. ROSAMOND BLVD BLDG 4916
EDWARDS, CA 93524
Owner/operator country: US
Owner/operator telephone: 661-277-3454
Owner/operator email: D_MALAMA.CHOCK@US.AF.MIL
Owner/operator fax: 661-277-1460
Owner/operator extension: Not reported
Legal status: Federal
Owner/Operator Type: Operator
Owner/Op start date: 1950-01-01 00:00:00.

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Owner/Op end date: Not reported

Owner/operator name: EDWARDS AIR FORCE BASE
Owner/operator address: NORTH ROSAMOND BLVD, STE A BLDG 3735
EDWARDS, CA 93524
Owner/operator country: US
Owner/operator telephone: 661-277-3454
Owner/operator email: D_MALAMA.CHOCK@US.AF.MIL
Owner/operator fax: 661-277-1460
Owner/operator extension: Not reported
Legal status: Federal
Owner/Operator Type: Owner
Owner/Op start date: 1950-01-01 00:00:00.
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: Yes
Transporter of hazardous waste: No
Treater, storer or disposer of HW: Yes
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Universal Waste Summary:
Waste type: C
Accumulated waste on-site: No
Generated waste on-site: Yes

Waste type: Batteries
Accumulated waste on-site: Yes
Generated waste on-site: Not reported

Waste type: Thermostats
Accumulated waste on-site: Yes
Generated waste on-site: Not reported

Waste type: Lamps
Accumulated waste on-site: Yes
Generated waste on-site: Not reported

Waste type: E
Accumulated waste on-site: No
Generated waste on-site: Yes

Historical Generators:
Date form received by agency: 2016-02-29 00:00:00.0
Site name: EDWARDS AIR FORCE BASE

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Classification: Large Quantity Generator

Date form received by agency: 2014-03-01 00:00:00.0
Site name: EDWARDS AIR FORCE BASE
Classification: Large Quantity Generator

Date form received by agency: 2012-09-11 00:00:00.0
Site name: EDWARDS AIR FORCE BASE
Classification: Large Quantity Generator

Date form received by agency: 2010-07-13 00:00:00.0
Site name: EDWARDS AIR FORCE BASE
Classification: Large Quantity Generator

Date form received by agency: 2008-02-29 00:00:00.0
Site name: EDWARDS AIR FORCE BASE
Classification: Large Quantity Generator

Date form received by agency: 2006-02-15 00:00:00.0
Site name: EDWARDS AIR FORCE BASE
Classification: Large Quantity Generator

Date form received by agency: 2004-02-26 00:00:00.0
Site name: EDWARDS AIR FORCE BASE
Classification: Large Quantity Generator

Date form received by agency: 2002-03-29 00:00:00.0
Site name: EDWARDS AIRFORCE BASE
Classification: Large Quantity Generator

Date form received by agency: 2000-10-12 00:00:00.0
Site name: EDWARDS AIR FORCE BASE
Classification: Large Quantity Generator

Date form received by agency: 1999-03-04 00:00:00.0
Site name: EDWARDS AIR FORCE BASE
Classification: Large Quantity Generator

Date form received by agency: 1998-02-02 00:00:00.0
Site name: USAF EDWARDS AFB
Classification: Large Quantity Generator

Date form received by agency: 1996-09-01 00:00:00.0
Site name: USAF EDWARDS AFB
Classification: Large Quantity Generator

Date form received by agency: 1996-03-27 00:00:00.0
Site name: USAF EDWARDS
Classification: Large Quantity Generator

Date form received by agency: 1994-03-29 00:00:00.0
Site name: USAF FLIGHT TEST CTR EDWARDS AFB
Classification: Large Quantity Generator

Date form received by agency: 1992-04-25 00:00:00.0
Site name: EDWARDS AIR FORCE BASE
Classification: Large Quantity Generator

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Date form received by agency: 1990-04-27 00:00:00.0
Site name: EDWARDS AFB/ EXPLOSIVE ORDINACE
Classification: Large Quantity Generator

Date form received by agency: 1980-08-18 00:00:00.0
Site name: USAF EDWARDS AFB
Classification: Large Quantity Generator

Date form received by agency: 1980-08-18 00:00:00.0
Site name: USAF EDWARDS AFB
Classification: Large Quantity Generator

Hazardous Waste Summary:

. Waste code: 121
. Waste name: Alkaline solution (pH >12.5) with metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc)

. Waste code: 122
. Waste name: Alkaline solution without metals (pH > 12.5)

. Waste code: 123
. Waste name: Unspecified alkaline solution

. Waste code: 131
. Waste name: Aqueous solution (2 < pH < 12.5) containing reactive anions (azide, bromate, chlorate, cyanide, fluoride, hypochlorite, nitrite, perchlorate, and sulfide anions)

. Waste code: 132
. Waste name: Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals)

. Waste code: 133
. Waste name: Aqueous solution with 10% or more total organic residues

. Waste code: 134
. Waste name: Aqueous solution with <10% total organic residues

. Waste code: 135
. Waste name: Unspecified aqueous solution

. Waste code: 141
. Waste name: Off-specification, aged, or surplus inorganics

. Waste code: 151
. Waste name: Asbestos-containing waste

. Waste code: 162
. Waste name: Other spent catalyst

. Waste code: 171
. Waste name: Metal sludge (see 121)

. Waste code: 172
. Waste name: Metal dust (see 121) and machining waste

EDWARDS AIR FORCE BASE (Continued) **1000155217**

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 211
. Waste name: Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.)

. Waste code: 212
. Waste name: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)

. Waste code: 213
. Waste name: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)

. Waste code: 214
. Waste name: Unspecified solvent mixture

. Waste code: 221
. Waste name: Waste oil and mixed oil

. Waste code: 222
. Waste name: Oil/water separation sludge

. Waste code: 223
. Waste name: Unspecified oil-containing waste

. Waste code: 241
. Waste name: Tank bottom waste

. Waste code: 251
. Waste name: Still bottoms with halogenated organics

. Waste code: 252
. Waste name: Other still bottom waste

. Waste code: 261
. Waste name: Polychlorinated biphenyls and material containing PCB's

. Waste code: 271
. Waste name: Organic monomer waste (includes unreacted resins)

. Waste code: 272
. Waste name: Polymeric resin waste

. Waste code: 281
. Waste name: Adhesives

. Waste code: 291
. Waste name: Latex waste

. Waste code: 311
. Waste name: Pharmaceutical waste

. Waste code: 321
. Waste name: Sewage sludge

. Waste code: 322
. Waste name: Biological waste other than sewage sludge

EDWARDS AIR FORCE BASE (Continued) **1000155217**

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 341
. Waste name: Organic liquids (nonsolvents) with halogens

. Waste code: 342
. Waste name: Organic liquids with metals (see 121)

. Waste code: 343
. Waste name: Unspecified organic liquid mixture

. Waste code: 351
. Waste name: Organic solids with halogens

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 451
. Waste name: Degreasing sludge

. Waste code: 461
. Waste name: Degreasing sludge

. Waste code: 491
. Waste name: Unspecified sludge waste

. Waste code: 511
. Waste name: Empty pesticide containers 30 gallons or more

. Waste code: 512
. Waste name: Other empty containers 30 gallons or more

. Waste code: 513
. Waste name: Empty containers less than 30 gallons

. Waste code: 541
. Waste name: Photochemicals / photo processing waste

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: 561
. Waste name: Detergent and soap

. Waste code: 581
. Waste name: Gas scrubber waste

. Waste code: 611
. Waste name: Contaminated soil from site clean-ups

. Waste code: 612
. Waste name: Household waste

. Waste code: 614
. Waste name: Treated wood waste

EDWARDS AIR FORCE BASE (Continued) **1000155217**

. Waste code: 711
. Waste name: Liquids with cyanides > 1000 mg/l

. Waste code: 721
. Waste name: Liquids with arsenic > 500 mg/l

. Waste code: 722
. Waste name: Liquids with cadmium > 100 mg/l

. Waste code: 723
. Waste name: Liquids with chromium (VI) > 500 mg/l

. Waste code: 724
. Waste name: Liquids with lead > 500 mg/l

. Waste code: 725
. Waste name: Liquids with mercury > 20 mg/l

. Waste code: 726
. Waste name: Liquids with nickel > 134 mg/l

. Waste code: 727
. Waste name: Liquids with selenium > 100 mg/l

. Waste code: 728
. Waste name: Liquids with thallium > 130 mg/l

. Waste code: 731
. Waste name: Liquids with polychlorinated biphenyls > 50 mg/l

. Waste code: 741
. Waste name: Liquids with halogenated organic compounds > 1000 mg/l

. Waste code: 751
. Waste name: Solids or sludge with halogenated organic comp. > 1000 mg/kg

. Waste code: 791
. Waste name: Liquids with pH < 2

. Waste code: 792
. Waste name: Liquids with pH < 2 with metals

. Waste code: 801
. Waste name: Waste potentially containing dioxins

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

EDWARDS AIR FORCE BASE (Continued) **1000155217**

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D010
. Waste name: SELENIUM

. Waste code: D011
. Waste name: SILVER

. Waste code: D012
. Waste name: ENDRIN
(1,2,3,4,10,10-HEXACHLORO-1,7-EPOXY-1,4,4A,5,6,7,8,8A-OCTAHYDRO-1,4-EN
DO, ENDO-5,8-DIMETH-ANO-NAPHTHALENE)

. Waste code: D013
. Waste name: LINDANE (1,2,3,4,5,6-HEXA-CHLOROCYCLOHEXANE, GAMMA ISOMER)

. Waste code: D014
. Waste name: METHOXYCHLOR (1,1,1-TRICHLORO-2,2-BIS [P-METHOXYPHENYL] ETHANE)

. Waste code: D015
. Waste name: TOXAPHENE (C10 H10 CL8, TECHNICAL CHLORINATED CAMPHENE, 67-69 PERCENT CHLORINE)

. Waste code: D016
. Waste name: 2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)

. Waste code: D017
. Waste name: 2,4,5-TP SILVEX (2,4,5-TRICHLOROPHENOXYPROPIONIC ACID)

. Waste code: D018
. Waste name: BENZENE

. Waste code: D019
. Waste name: CARBON TETRACHLORIDE

. Waste code: D020
. Waste name: CHLORDANE

. Waste code: D021
. Waste name: CHLOROBENZENE

. Waste code: D022
. Waste name: CHLOROFORM

EDWARDS AIR FORCE BASE (Continued) **1000155217**

. Waste code: D023
. Waste name: O-CRESOL

. Waste code: D024
. Waste name: M-CRESOL

. Waste code: D025
. Waste name: P-CRESOL

. Waste code: D026
. Waste name: CRESOL

. Waste code: D027
. Waste name: 1,4-DICHLOROBENZENE

. Waste code: D028
. Waste name: 1,2-DICHLOROETHANE

. Waste code: D029
. Waste name: 1,1-DICHLOROETHYLENE

. Waste code: D030
. Waste name: 2,4-DINITROTOLUENE

. Waste code: D031
. Waste name: HEPTACHLOR (AND ITS EPOXIDE)

. Waste code: D032
. Waste name: HEXACHLOROBENZENE

. Waste code: D033
. Waste name: HEXACHLOROBUTADIENE

. Waste code: D034
. Waste name: HEXACHLOROETHANE

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: D036
. Waste name: NITROBENZENE

. Waste code: D037
. Waste name: PENTACHLOROPHENOL

. Waste code: D038
. Waste name: PYRIDINE

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

. Waste code: D040
. Waste name: TRICHLORETHYLENE

. Waste code: D041
. Waste name: 2,4,5-TRICHLOROPHENOL

EDWARDS AIR FORCE BASE (Continued) **1000155217**

. Waste code: D042
. Waste name: 2,4,6-TRICHLOROPHENOL

. Waste code: D043
. Waste name: VINYL CHLORIDE

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F004
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: CRESOLS, CRESYLIC ACID, AND NITROBENZENE; AND THE STILL BOTTOMS FROM THE RECOVERY OF THESE SOLVENTS; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

EDWARDS AIR FORCE BASE (Continued) **1000155217**

. Waste code: F006
. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

. Waste code: F027
. Waste name: DISCARDED UNUSED FORMULATIONS CONTAINING TRI-, TETRA-, OR PENTACHLOROPHENOL OR DISCARDED UNUSED FORMULATIONS CONTAINING COMPOUNDS DERIVED FROM THESE CHLOROPHENOLS. (THIS LISTING DOES NOT INCLUDE FORMULATIONS CONTAINING HEXACHLOROPHENE SYNTHESIZED FROM PREPURIFIED 2,4,5-TRICHLOROPHENOL AS THE SOLE COMPONENT.)

. Waste code: P001
. Waste name: 2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3% (OR) WARFARIN, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3%

. Waste code: P003
. Waste name: 2-PROPENAL (OR) ACROLEIN

. Waste code: P005
. Waste name: 2-PROPEN-1-OL (OR) ALLYL ALCOHOL

. Waste code: P012
. Waste name: ARSENIC OXIDE AS2O3 (OR) ARSENIC TRIOXIDE

. Waste code: P014
. Waste name: BENZENETHIOL (OR) THIOPHENOL

. Waste code: P027
. Waste name: 3-CHLOROPROPIONITRILE (OR) PROPANENITRILE, 3-CHLORO-

. Waste code: P028
. Waste name: BENZENE, (CHLOROMETHYL)- (OR) BENZYL CHLORIDE

. Waste code: P029
. Waste name: COPPER CYANIDE (OR) COPPER CYANIDE CU(CN)

. Waste code: P030
. Waste name: CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED

. Waste code: P031
. Waste name: CYANOGEN (OR) ETHANEDINITRILE

. Waste code: P033
. Waste name: CYANOGEN CHLORIDE (OR) CYANOGEN CHLORIDE (CN)CL

. Waste code: P037
. Waste name: 2,7:3,6-DIMETHANONAPHTH[2,3-B]OXIRENE, 3,4,5,6,9,9-HEXACHLORO-1A,2,2A,3,6,6A,7,7A-OCTAHYDRO-, (1AALPHA, 2BETA, 2AALPHA, 3BETA, 6BETA, 6AALPHA, 7BETA, 7AALPHA)- (OR) DIELDRIN

. Waste code: P047

EDWARDS AIR FORCE BASE (Continued) **1000155217**

. Waste name: 4,6-DINITRO-O-CRESOL, & SALTS (OR) PHENOL, 2-METHYL-4,6-DINITRO-, & SALTS

. Waste code: P048
. Waste name: 2,4-DINITROPHENOL (OR) PHENOL, 2,4-DINITRO-

. Waste code: P050
. Waste name: 6,9-METHANO-2,4,3-BENZODIOXATHIEPIN,6,7,8,9,10,10-HEXACHLORO-1,5,5A,6,9,9A-HEXAHYDRO-,3-OXIDE (OR) ENDOSULFAN

. Waste code: P051
. Waste name: 2,7:3,6-DIMETHANONAPHTH[2,3-B]OXIRENE, 3,4,5,6,9,9-HEXACHLORO-1A,2,2A,3,6,6A,7,7A-OCTAHYDRO-, (1AALPHA, 2BETA, 2ABETA, 3ALPHA, 6ALPHA, 6ABETA, 7BETA, 7AALPHA)- & METABOLITES (OR) ENDRIN (OR) ENDRIN, & METABOLITES

. Waste code: P056
. Waste name: FLUORINE

. Waste code: P059
. Waste name: 4,7-METHANO-1H-INDENE, 1,4,5,6,7,8,8-HEPTACHLORO-3A,4,7,7A-TETRAHYDRO- (OR) HEPTACHLOR

. Waste code: P063
. Waste name: HYDROCYANIC ACID (OR) HYDROGEN CYANIDE

. Waste code: P068
. Waste name: HYDRAZINE, METHYL- (OR) METHYL HYDRAZINE

. Waste code: P073
. Waste name: NICKEL CARBONYL (OR) NICKEL CARBONYL NI(CO)4, (T-4)-

. Waste code: P077
. Waste name: BENZENAMINE, 4-NITRO- (OR) P-NITROANILINE

. Waste code: P078
. Waste name: NITROGEN DIOXIDE (OR) NITROGEN OXIDE NO2

. Waste code: P098
. Waste name: POTASSIUM CYANIDE (OR) POTASSIUM CYANIDE K(CN)

. Waste code: P104
. Waste name: SILVER CYANIDE (OR) SILVER CYANIDE AG(CN)

. Waste code: P105
. Waste name: SODIUM AZIDE

. Waste code: U001
. Waste name: ACETALDEHYDE (I) (OR) ETHANAL (I)

. Waste code: U002
. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

. Waste code: U003
. Waste name: ACETONITRILE (I,T)

. Waste code: U004

EDWARDS AIR FORCE BASE (Continued) **1000155217**

. Waste name: ACETOPHENONE (OR) ETHANONE, 1-PHENYL-

. Waste code: U007
. Waste name: 2-PROPENAMIDE (OR) ACRYLAMIDE

. Waste code: U008
. Waste name: 2-PROPENOIC ACID (I) (OR) ACRYLIC ACID (I)

. Waste code: U009
. Waste name: 2-PROPENENITRILE (OR) ACRYLONITRILE

. Waste code: U012
. Waste name: ANILINE (I,T) (OR) BENZENAMINE (I,T)

. Waste code: U019
. Waste name: BENZENE (I,T)

. Waste code: U029
. Waste name: METHANE, BROMO- (OR) METHYL BROMIDE

. Waste code: U031
. Waste name: 1-BUTANOL (I) (OR) N-BUTYL ALCOHOL (I)

. Waste code: U034
. Waste name: ACETALDEHYDE, TRICHLORO- (OR) CHLORAL

. Waste code: U037
. Waste name: BENZENE, CHLORO- (OR) CHLOROBENZENE

. Waste code: U041
. Waste name: EPICHLOROHYDRIN (OR) OXIRANE, (CHLOROMETHYL)-

. Waste code: U042
. Waste name: 2-CHLOROETHYL VINYL ETHER (OR) ETHENE, (2-CHLOROETHOXY)-

. Waste code: U044
. Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

. Waste code: U045
. Waste name: METHANE, CHLORO- (I,T) (OR) METHYL CHLORIDE (I,T)

. Waste code: U048
. Waste name: O-CHLOROPHENOL (OR) PHENOL, 2-CHLORO-

. Waste code: U053
. Waste name: 2-BUTENAL (OR) CROTONALDEHYDE

. Waste code: U056
. Waste name: BENZENE, HEXAHYDRO- (I) (OR) CYCLOHEXANE (I)

. Waste code: U057
. Waste name: CYCLOHEXANONE (I)

. Waste code: U060
. Waste name: BENZENE, 1,1'-(2,2-DICHLOROETHYLIDENE)BIS[4-CHLORO- (OR) DDD

. Waste code: U061

EDWARDS AIR FORCE BASE (Continued) **1000155217**

. Waste name: BENZENE, 1,1'-(2,2,2-TRICHLOROETHYLIDENE)BIS[4-CHLORO- (OR) DDT

. Waste code: U066
. Waste name: 1,2-DIBROMO-3-CHLOROPROPANE (OR) PROPANE, 1,2-DIBROMO-3-CHLORO-

. Waste code: U067
. Waste name: ETHANE, 1,2-DIBROMO- (OR) ETHYLENE DIBROMIDE

. Waste code: U068
. Waste name: METHANE, DIBROMO- (OR) METHYLENE BROMIDE

. Waste code: U069
. Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER (OR) DIBUTYL PHTHALATE

. Waste code: U070
. Waste name: BENZENE, 1,2-DICHLORO- (OR) O-DICHLOROBENZENE

. Waste code: U071
. Waste name: BENZENE, 1,3-DICHLORO- (OR) M-DICHLOROBENZENE

. Waste code: U072
. Waste name: BENZENE, 1,4-DICHLORO- (OR) P-DICHLOROBENZENE

. Waste code: U074
. Waste name: 1,4-DICHLORO-2-BUTENE (I,T) (OR) 2-BUTENE, 1,4-DICHLORO- (I,T)

. Waste code: U076
. Waste name: ETHANE, 1,1-DICHLORO- (OR) ETHYLIDENE DICHLORIDE

. Waste code: U077
. Waste name: ETHANE, 1,2-DICHLORO- (OR) ETHYLENE DICHLORIDE

. Waste code: U078
. Waste name: 1,1-DICHLOROETHYLENE (OR) ETHENE, 1,1-DICHLORO-

. Waste code: U080
. Waste name: METHANE, DICHLORO- (OR) METHYLENE CHLORIDE

. Waste code: U081
. Waste name: 2,4-DICHLOROPHENOL (OR) PHENOL, 2,4-DICHLORO-

. Waste code: U084
. Waste name: 1,3-DICHLOROPROPENE (OR) 1-PROPENE, 1,3-DICHLORO-

. Waste code: U085
. Waste name: 1,2:3,4-DIEPOXYBUTANE (I,T) (OR) 2,2'-BIOXIRANE

. Waste code: U098
. Waste name: 1,1-DIMETHYLHYDRAZINE (OR) HYDRAZINE, 1,1-DIMETHYL-

. Waste code: U101
. Waste name: 2,4-DIMETHYLPHENOL (OR) PHENOL, 2,4-DIMETHYL-

. Waste code: U103
. Waste name: DIMETHYL SULFATE (OR) SULFURIC ACID, DIMETHYL ESTER

. Waste code: U108

EDWARDS AIR FORCE BASE (Continued) **1000155217**

. Waste name: 1,4-DIETHYLENEOXIDE (OR) 1,4-DIOXANE

. Waste code: U112
. Waste name: ACETIC ACID, ETHYL ESTER (I) (OR) ETHYL ACETATE (I)

. Waste code: U121
. Waste name: METHANE, TRICHLOROFLUORO- (OR) TRICHLOROMONOFLUOROMETHANE

. Waste code: U122
. Waste name: FORMALDEHYDE

. Waste code: U123
. Waste name: FORMIC ACID (C,T)

. Waste code: U128
. Waste name: 1,3-BUTADIENE, 1,1,2,3,4,4-HEXACHLORO- (OR) HEXACHLOROBUTADIENE

. Waste code: U129
. Waste name: CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1ALPHA, 2ALPHA, 3BETA, 4ALPHA, 5ALPHA, 6BETA)- (OR) LINDANE

. Waste code: U131
. Waste name: ETHANE, HEXACHLORO- (OR) HEXACHLOROETHANE

. Waste code: U133
. Waste name: HYDRAZINE (R,T)

. Waste code: U134
. Waste name: HYDROFLUORIC ACID (C,T) (OR) HYDROGEN FLUORIDE (C,T)

. Waste code: U135
. Waste name: HYDROGEN SULFIDE (OR) HYDROGEN SULFIDE H2S

. Waste code: U138
. Waste name: METHANE, IODO- (OR) METHYL IODIDE

. Waste code: U140
. Waste name: 1-PROPANOL, 2-METHYL- (I,T) (OR) ISOBUTYL ALCOHOL (I,T)

. Waste code: U144
. Waste name: ACETIC ACID, LEAD(2+) SALT (OR) LEAD ACETATE

. Waste code: U147
. Waste name: 2,5-FURANDIONE (OR) MALEIC ANHYDRIDE

. Waste code: U149
. Waste name: MALONONITRILE (OR) PROPANEDINITRILE

. Waste code: U150
. Waste name: L-PHENYLALANINE, 4-[BIS(2-CHLOROETHYL)AMINO]- (OR) MELPHALAN

. Waste code: U151
. Waste name: MERCURY

. Waste code: U152
. Waste name: 2-PROPENENITRILE, 2-METHYL- (I,T) (OR) METHACRYLONITRILE (I,T)

EDWARDS AIR FORCE BASE (Continued) **1000155217**

. Waste code: U154
. Waste name: METHANOL (I) (OR) METHYL ALCOHOL (I)

. Waste code: U159
. Waste name: 2-BUTANONE (I,T) (OR) METHYL ETHYL KETONE (MEK) (I,T)

. Waste code: U161
. Waste name: 4-METHYL-2-PENTANONE (I) (OR) METHYL ISOBUTYL KETONE (I) (OR) PENTANOL, 4-METHYL-

. Waste code: U162
. Waste name: 2-PROPENOIC ACID, 2-METHYL-, METHYL ESTER (I,T) (OR) METHYL METHACRYLATE (I,T)

. Waste code: U165
. Waste name: NAPHTHALENE

. Waste code: U169
. Waste name: BENZENE, NITRO- (OR) NITROBENZENE (I,T)

. Waste code: U170
. Waste name: P-NITROPHENOL (I,T) (OR) PHENOL, 4-NITRO-

. Waste code: U171
. Waste name: 2-NITROPROPANE (I,T) (OR) PROPANE, 2-NITRO- (I,T)

. Waste code: U172
. Waste name: 1-BUTANAMINE, N-BUTYL-N-NITROSO- (OR) N-NITROSODI-N-BUTYLAMINE

. Waste code: U182
. Waste name: 1,3,5-TRIOXANE, 2,4,6-TRIMETHYL- (OR) PARALDEHYDE

. Waste code: U184
. Waste name: ETHANE, PENTACHLORO- (OR) PENTACHLOROETHANE

. Waste code: U188
. Waste name: PHENOL

. Waste code: U194
. Waste name: 1-PROPANAMINE (I,T) (OR) N-PROPYLAMINE (I,T)

. Waste code: U196
. Waste name: PYRIDINE

. Waste code: U208
. Waste name: 1,1,1,2-TETRACHLOROETHANE (OR) ETHANE, 1,1,1,2-TETRACHLORO-

. Waste code: U209
. Waste name: 1,1,2,2-TETRACHLOROETHANE (OR) ETHANE, 1,1,2,2-TETRACHLORO-

. Waste code: U210
. Waste name: ETHENE, TETRACHLORO- (OR) TETRACHLOROETHYLENE

. Waste code: U211
. Waste name: CARBON TETRACHLORIDE (OR) METHANE, TETRACHLORO-

. Waste code: U213

EDWARDS AIR FORCE BASE (Continued) **1000155217**

. Waste name: FURAN, TETRAHYDRO-(I) (OR) TETRAHYDROFURAN (I)

. Waste code: U219
. Waste name: THIOUREA

. Waste code: U220
. Waste name: BENZENE, METHYL- (OR) TOLUENE

. Waste code: U221
. Waste name: BENZENEDIAMINE, AR-METHYL- (OR) TOLUENEDIAMINE

. Waste code: U222
. Waste name: BENZENAMINE, 2-METHYL-, HYDROCHLORIDE (OR) O-TOLUIDINE HYDROCHLORIDE

. Waste code: U223
. Waste name: BENZENE, 1,3-DIISOCYANATOMETHYL- (R,T) (OR) TOLUENE DIISOCYANATE (R,T)

. Waste code: U226
. Waste name: ETHANE, 1,1,1-TRICHLORO- (OR) METHYL CHLOROFORM

. Waste code: U227
. Waste name: 1,1,2-TRICHLOROETHANE (OR) ETHANE, 1,1,2-TRICHLORO-

. Waste code: U228
. Waste name: ETHENE, TRICHLORO- (OR) TRICHLOROETHYLENE

. Waste code: U239
. Waste name: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

. Waste code: U359
. Waste name: ETHANOL, 2-ETHOXY- (OR) ETHYLENE GLYCOL MONOETHYL ETHER

Biennial Reports:

Last Biennial Reporting Year: 2017

Annual Waste Handled:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
Amount (Lbs): 119485

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
Amount (Lbs): 5089900

Waste code: D003

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.
Amount (Lbs): 83

Waste code: D004
Waste name: ARSENIC
Amount (Lbs): 1315

Waste code: D005
Waste name: BARIUM
Amount (Lbs): 31611

Waste code: D006
Waste name: CADMIUM
Amount (Lbs): 39576

Waste code: D007
Waste name: CHROMIUM
Amount (Lbs): 64624

Waste code: D008
Waste name: LEAD
Amount (Lbs): 58978

Waste code: D010
Waste name: SELENIUM
Amount (Lbs): 15200

Waste code: D011
Waste name: SILVER
Amount (Lbs): 7658

Waste code: D018
Waste name: BENZENE
Amount (Lbs): 115711

Waste code: D019
Waste name: CARBON TETRACHLORIDE
Amount (Lbs): 1261

Waste code: D020
Waste name: CHLORDANE
Amount (Lbs): 0

Waste code: D022
Waste name: CHLOROFORM
Amount (Lbs): 1261

Waste code: D027
Waste name: 1,4-DICHLOROBENZENE
Amount (Lbs): 0

Waste code: D035
Waste name: METHYL ETHYL KETONE

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Amount (Lbs): 31493

Waste code: D039
Waste name: TETRACHLOROETHYLENE
Amount (Lbs): 5632

Waste code: D040
Waste name: TRICHLOROETHYLENE
Amount (Lbs): 4261

Waste code: F001
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 0

Waste code: F002
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 21669

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 5763

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 27585

Waste code: P012

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Waste name: ARSENIC OXIDE AS2O3
Amount (Lbs): 0

Waste code: P105
Waste name: SODIUM AZIDE
Amount (Lbs): 0

Waste code: U001
Waste name: ACETALDEHYDE (I)
Amount (Lbs): 0

Waste code: U002
Waste name: ACETONE (I)
Amount (Lbs): 0

Waste code: U003
Waste name: ACETONITRILE (I,T)
Amount (Lbs): 0

Waste code: U031
Waste name: 1-BUTANOL (I)
Amount (Lbs): 0

Waste code: U034
Waste name: ACETALDEHYDE, TRICHLORO-
Amount (Lbs): 0

Waste code: U041
Waste name: EPICHLOROHYDRIN
Amount (Lbs): 0

Waste code: U044
Waste name: CHLOROFORM
Amount (Lbs): 0

Waste code: U056
Waste name: BENZENE, HEXAHYDRO- (I)
Amount (Lbs): 0

Waste code: U057
Waste name: CYCLOHEXANONE (I)
Amount (Lbs): 0

Waste code: U070
Waste name: BENZENE, 1,2-DICHLORO-
Amount (Lbs): 0

Waste code: U080
Waste name: METHANE, DICHLORO-
Amount (Lbs): 0

Waste code: U122
Waste name: FORMALDEHYDE
Amount (Lbs): 0

Waste code: U128
Waste name: 1,3-BUTADIENE, 1,1,2,3,4,4-HEXACHLORO-

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Amount (Lbs): 0

Waste code: U133
Waste name: HYDRAZINE (R,T)
Amount (Lbs): 7

Waste code: U134
Waste name: HYDROFLUORIC ACID (C,T)
Amount (Lbs): 2

Waste code: U140
Waste name: ISOBUTYL ALCOHOL (I,T)
Amount (Lbs): 0

Waste code: U144
Waste name: ACETIC ACID, LEAD(2+) SALT
Amount (Lbs): 0

Waste code: U154
Waste name: METHANOL (I)
Amount (Lbs): 0

Waste code: U159
Waste name: 2-BUTANONE (I,T)
Amount (Lbs): 0

Waste code: U182
Waste name: PARALDEHYDE
Amount (Lbs): 0

Waste code: U188
Waste name: PHENOL
Amount (Lbs): 0

Waste code: U226
Waste name: ETHANE, 1,1,1-TRICHLORO-
Amount (Lbs): 0

Waste code: U228
Waste name: ETHENE, TRICHLORO-
Amount (Lbs): 0

Waste code: U239
Waste name: BENZENE, DIMETHYL- (I,T)
Amount (Lbs): 14

Corrective Action Summary:
Event date: 1984-04-01 00:00:00.0
Event: PA OR CERCLA INSPECTION

Event date: 1986-10-01 00:00:00.0
Event: LEAD AGENCY DETERMINATION

Event date: 1986-10-01 00:00:00.0
Event: PA OR CERCLA INSPECTION

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Event date: 1986-11-01 00:00:00.0
Event: CA PRIORITIZATION-HIGH CA PRIORITY

Event date: 1986-11-01 00:00:00.0
Event: PA OR CERCLA INSPECTION

Event date: 1990-09-24 00:00:00.0
Event: STABILIZATION/INTERIM MEASURES DECISION-GROUNDWATER EXTRACTION & TREATMENT

Event date: 1990-09-24 00:00:00.0
Event: STABILIZATION/INTERIM MEASURES DECISION-PRIMARY MEAS IS SOURCE REMOVL &/OR TRT

Event date: 1990-09-24 00:00:00.0
Event: INVESTIGATION IMPOSITION

Event date: 1990-09-24 00:00:00.0
Event: CMS IMPOSITION

Event date: 1991-05-01 00:00:00.0
Event: RFA COMPLETED-ASSESSMENT WAS A RFA

Event date: 1993-09-01 00:00:00.0
Event: RFA COMPLETED-ASSESSMENT WAS A RFA

Event date: 1993-09-01 00:00:00.0
Event: RFA COMPLETED

Event date: 1993-09-01 00:00:00.0
Event: DETERMINATION OF NEED FOR AN INVESTIGATION-INVESTIGATION IS NECESSARY

Event date: 1994-08-19 00:00:00.0
Event: REFERRED TO A NON-RCRA AUTHORITY-REFERRED TO CERCLA

Event date: 1994-08-19 00:00:00.0
Event: CA PRIORITIZATION-MEDIUM CA PRIORITY

Event date: 1996-04-01 00:00:00.0
Event: INVESTIGATION COMPLETE

Event date: 1997-12-01 00:00:00.0
Event: STABILIZATION CONSTRUCTION COMPLETED

Event date: 1998-04-06 00:00:00.0
Event: STABILIZATION MEASURES EVALUATION-FURTHER INVESTIGATION NECESSARY

Event date: 1998-04-06 00:00:00.0
Event: REFERRED TO A NON-RCRA AUTHORITY

Event date: 1998-04-06 00:00:00.0
Event: RELEASE TO GW CONTROLLED DETERMINATION-FACILITY DOES NOT MEET DEFINITION

Event date: 1998-04-06 00:00:00.0
Event: HUMAN EXPOSURES CONTROLLED DETERMINATION-FACILITY DOES NOT MEET DEFINITION

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Event date: 1998-04-06 00:00:00.0
Event: RELEASE TO GW CONTROLLED DETERMINATION-FACILITY DOES NOT MEET DEFINITION

Event date: 1998-04-06 00:00:00.0
Event: HUMAN EXPOSURES CONTROLLED DETERMINATION-FACILITY DOES NOT MEET DEFINITION

Event date: 2000-05-22 00:00:00.0
Event: RELEASE TO GW CONTROLLED DETERMINATION-MORE INFORMATION NEEDED

Event date: 2000-05-22 00:00:00.0
Event: RELEASE TO GW CONTROLLED DETERMINATION-MORE INFORMATION NEEDED

Event date: 2000-05-22 00:00:00.0
Event: HUMAN EXPOSURES CONTROLLED DETERMINATION-MORE INFORMATION NEEDED

Event date: 2000-05-22 00:00:00.0
Event: HUMAN EXPOSURES CONTROLLED DETERMINATION-MORE INFORMATION NEEDED

Event date: 2002-06-18 00:00:00.0
Event: RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

Event date: 2002-06-18 00:00:00.0
Event: RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

Event date: 2004-08-03 00:00:00.0
Event: HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

Event date: 2004-08-03 00:00:00.0
Event: HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: TSD - Manifest/Records/Reporting
Date violation determined: 2018-11-26 00:00:00.0
Date achieved compliance: 2018-12-04 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 2018-11-26 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: State Statute or Regulation
Date violation determined: 2018-11-26 00:00:00.0
Date achieved compliance: 2018-12-04 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 2018-11-26 00:00:00.0
Enf. disposition status: Not reported

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Universal Waste - General
Date violation determined: 2017-11-14 00:00:00.0
Date achieved compliance: 2017-11-16 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 2017-11-16 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-General
Date violation determined: 2017-11-14 00:00:00.0
Date achieved compliance: 2017-12-15 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 2017-11-16 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Imports
Date violation determined: 2017-11-14 00:00:00.0
Date achieved compliance: 2017-11-16 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 2017-11-16 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: HW Management System - Definitions
Date violation determined: 2014-11-18 00:00:00.0
Date achieved compliance: 2014-11-20 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 2014-11-20 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.10-18.B
Area of violation: TSD - General
Date violation determined: 1994-05-04 00:00:00.0
Date achieved compliance: 1994-08-16 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1994-05-12 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 4700
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268 ALL
Area of violation: LDR - General
Date violation determined: 1994-05-04 00:00:00.0
Date achieved compliance: 1994-08-16 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1994-05-12 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 4700
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 1994-05-04 00:00:00.0
Date achieved compliance: 1994-08-16 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1994-05-12 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 4700
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 1994-05-04 00:00:00.0
Date achieved compliance: 1994-08-16 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1994-05-12 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Proposed penalty amount: 4700
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 1993-04-30 00:00:00.0
Date achieved compliance: 1993-06-15 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1993-04-29 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 2200
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.50-56.D
Area of violation: TSD - General
Date violation determined: 1993-04-30 00:00:00.0
Date achieved compliance: 1993-06-15 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1993-04-29 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 2200
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.10-18.B
Area of violation: TSD - General
Date violation determined: 1993-04-30 00:00:00.0
Date achieved compliance: 1993-06-15 00:00:00.0
Violation lead agency: State
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1993-04-29 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 2200
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 1992-11-08 00:00:00.0
Date achieved compliance: 1993-01-15 00:00:00.0
Violation lead agency: State
Enforcement action: NON-FINANCIAL RECORD REVIEW
Enforcement action date: 1993-04-29 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 2200

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 1992-11-08 00:00:00.0
Date achieved compliance: 1993-01-15 00:00:00.0
Violation lead agency: State
Enforcement action: NON-FINANCIAL RECORD REVIEW
Enforcement action date: 1992-11-08 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 9000
Final penalty amount: 9000
Paid penalty amount: Not reported

Regulation violated: FR - 264.170-177.I
Area of violation: TSD - General
Date violation determined: 1991-10-10 00:00:00.0
Date achieved compliance: 1992-01-17 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1991-12-06 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.10-18.B
Area of violation: TSD - General
Date violation determined: 1991-10-10 00:00:00.0
Date achieved compliance: 1992-01-17 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1991-12-06 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 1991-10-10 00:00:00.0
Date achieved compliance: 1992-01-17 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1991-12-06 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 1991-10-10 00:00:00.0
Date achieved compliance: 1992-01-17 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1991-12-06 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.50-56.D
Area of violation: TSD - General
Date violation determined: 1991-10-10 00:00:00.0
Date achieved compliance: 1992-01-17 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1991-12-06 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.30-37.C
Area of violation: TSD - General
Date violation determined: 1991-10-10 00:00:00.0
Date achieved compliance: 1992-01-17 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1991-12-06 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 1990-10-04 00:00:00.0
Date achieved compliance: 1990-10-04 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1990-08-09 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Regulation violated: F - 270
Area of violation: TSD - General
Date violation determined: 1989-08-02 00:00:00.0
Date achieved compliance: 1990-10-04 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 270
Area of violation: TSD - General
Date violation determined: 1989-08-02 00:00:00.0
Date achieved compliance: 1990-10-04 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1989-09-28 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 268.7
Area of violation: LDR - General
Date violation determined: 1989-08-02 00:00:00.0
Date achieved compliance: 1991-08-20 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1989-09-28 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 268 ALL
Area of violation: LDR - General
Date violation determined: 1989-08-02 00:00:00.0
Date achieved compliance: 1991-08-20 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1989-09-28 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 268 ALL

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Area of violation: LDR - General
Date violation determined: 1989-08-02 00:00:00.0
Date achieved compliance: 1991-08-20 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 268.7
Area of violation: LDR - General
Date violation determined: 1989-08-02 00:00:00.0
Date achieved compliance: 1991-08-20 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 270
Area of violation: TSD - General
Date violation determined: 1989-01-23 00:00:00.0
Date achieved compliance: 1990-10-04 00:00:00.0
Violation lead agency: EPA
Enforcement action: FOCUSED COMPLIANCE INSPECTION
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 270
Area of violation: TSD - General
Date violation determined: 1988-03-24 00:00:00.0
Date achieved compliance: 1988-08-21 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1989-02-09 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.90-94.F
Area of violation: TSD IS-Ground-Water Monitoring

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Date violation determined: 1988-03-24 00:00:00.0
Date achieved compliance: 1988-08-21 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.90-94.F
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 1988-03-24 00:00:00.0
Date achieved compliance: 1988-08-21 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1989-02-09 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 270
Area of violation: TSD - General
Date violation determined: 1988-03-24 00:00:00.0
Date achieved compliance: 1988-08-21 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1988-08-21 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 270
Area of violation: TSD - General
Date violation determined: 1988-03-24 00:00:00.0
Date achieved compliance: 1988-08-21 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.90-94.F
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 1988-03-24 00:00:00.0

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Date achieved compliance: 1988-08-21 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: 1988-08-21 00:00:00.0
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 1987-02-23 00:00:00.0
Date achieved compliance: 1987-03-25 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 270
Area of violation: TSD - General
Date violation determined: 1987-02-23 00:00:00.0
Date achieved compliance: 1987-03-25 00:00:00.0
Violation lead agency: EPA
Enforcement action: COMPLIANCE EVALUATION INSPECTION ON-SITE
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 1994-04-05 00:00:00.0
Evaluation: INITIAL 3008(A) COMPLIANCE
Area of violation: TSD - General
Date achieved compliance: 1994-08-16 00:00:00.0
Evaluation lead agency: State

Evaluation date: 1994-04-05 00:00:00.0
Evaluation: INITIAL 3008(A) COMPLIANCE
Area of violation: LDR - General
Date achieved compliance: 1994-08-16 00:00:00.0
Evaluation lead agency: State

Evaluation date: 1994-04-05 00:00:00.0
Evaluation: INITIAL 3008(A) COMPLIANCE
Area of violation: Generators - General
Date achieved compliance: 1994-08-16 00:00:00.0
Evaluation lead agency: State

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Evaluation date: 1993-03-30 00:00:00.0
Evaluation: INITIAL 3008(A) COMPLIANCE
Area of violation: TSD - General
Date achieved compliance: 1993-06-15 00:00:00.0
Evaluation lead agency: State

Evaluation date: 1993-03-30 00:00:00.0
Evaluation: INITIAL 3008(A) COMPLIANCE
Area of violation: Generators - General
Date achieved compliance: 1993-06-15 00:00:00.0
Evaluation lead agency: State

Evaluation date: 1992-11-08 00:00:00.0
Evaluation: INITIAL 3008(A) COMPLIANCE
Area of violation: TSD - General
Date achieved compliance: 1993-01-15 00:00:00.0
Evaluation lead agency: State

Evaluation date: 1991-08-20 00:00:00.0
Evaluation: WRITTEN INFORMAL
Area of violation: TSD - General
Date achieved compliance: 1990-10-04 00:00:00.0
Evaluation lead agency: EPA

Evaluation date: 1991-08-20 00:00:00.0
Evaluation: WRITTEN INFORMAL
Area of violation: TSD - General
Date achieved compliance: 1992-01-17 00:00:00.0
Evaluation lead agency: EPA

Evaluation date: 1991-08-20 00:00:00.0
Evaluation: WRITTEN INFORMAL
Area of violation: Generators - General
Date achieved compliance: 1992-01-17 00:00:00.0
Evaluation lead agency: EPA

Evaluation date: 1989-08-02 00:00:00.0
Evaluation: WRITTEN INFORMAL
Area of violation: TSD - General
Date achieved compliance: 1990-10-04 00:00:00.0
Evaluation lead agency: EPA

Evaluation date: 1989-08-02 00:00:00.0
Evaluation: WRITTEN INFORMAL
Area of violation: LDR - General
Date achieved compliance: 1991-08-20 00:00:00.0
Evaluation lead agency: EPA

Evaluation date: 1988-03-24 00:00:00.0
Evaluation: INITIAL 3008(A) COMPLIANCE
Area of violation: TSD IS-Ground-Water Monitoring
Date achieved compliance: 1988-08-21 00:00:00.0
Evaluation lead agency: EPA

Evaluation date: 1988-03-24 00:00:00.0
Evaluation: STATE TO EPA ADMINISTRATIVE REFERRAL
Area of violation: TSD IS-Ground-Water Monitoring

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Date achieved compliance: 1988-08-21 00:00:00.0
Evaluation lead agency: EPA

Evaluation date: 1988-03-24 00:00:00.0
Evaluation: INITIAL 3008(A) COMPLIANCE
Area of violation: TSD - General
Date achieved compliance: 1988-08-21 00:00:00.0
Evaluation lead agency: EPA

Evaluation date: 1988-03-24 00:00:00.0
Evaluation: STATE TO EPA ADMINISTRATIVE REFERRAL
Area of violation: TSD - General
Date achieved compliance: 1988-08-21 00:00:00.0
Evaluation lead agency: EPA

SIte:
Name: EDWARDS AIR FORCE BASE
Address: AFFTC EDWARDS AFB
Address 2: 5 EAST POPSON AVE, BLDG 2650A
City,State,Zip: EDWARDS AFB, CA 93524
Event Code: Not reported
Action Taken Date: 09/30/2012
EPA ID: CA1570024504
Site ID: 0902725
Action Name: RECORD OF DECISION
Action ID: 015
Operable Unit: 13
Action Completion Date: 09/21/2012
Contaminated Media: Debris
Engineering Control: Disposal
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported

Media:
Engineering Control: Disposal
EPA ID: CA1570024504
Contaminated Media: Debris
Site ID: 0902725
Action ID: 001
Action Completion Date: 06/24/2009
Operable Unit: 02
Action Name: RECORD OF DECISION
Action Taken Date: 09/30/2009
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported

Engineering Control: Excavation
EPA ID: CA1570024504
Contaminated Media: Debris
Site ID: 0902725
Action ID: 001
Action Completion Date: 06/24/2009
Operable Unit: 02
Action Name: RECORD OF DECISION
Action Taken Date: 09/30/2009

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Recycling
EPA ID:	CA1570024504
Contaminated Media:	Debris
Site ID:	0902725
Action ID:	001
Action Completion Date:	06/24/2009
Operable Unit:	02
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2009
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Air Sparging: Oxygen Enhancement
EPA ID:	CA1570024504
Contaminated Media:	Free-phase NAPL
Site ID:	0902725
Action ID:	001
Action Completion Date:	06/24/2009
Operable Unit:	02
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2009
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Bioremediation (in situ)
EPA ID:	CA1570024504
Contaminated Media:	Free-phase NAPL
Site ID:	0902725
Action ID:	001
Action Completion Date:	06/24/2009
Operable Unit:	02
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2009
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Biosparging
EPA ID:	CA1570024504
Contaminated Media:	Groundwater
Site ID:	0902725
Action ID:	001
Action Completion Date:	06/24/2009
Operable Unit:	02
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2009
Event Code:	Not reported

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Carbon Adsorption
EPA ID:	CA1570024504
Contaminated Media:	Groundwater
Site ID:	0902725
Action ID:	001
Action Completion Date:	06/24/2009
Operable Unit:	02
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2009
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Chemical Oxidation, (N.O.S)
EPA ID:	CA1570024504
Contaminated Media:	Groundwater
Site ID:	0902725
Action ID:	001
Action Completion Date:	06/24/2009
Operable Unit:	02
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2009
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Enhanced In-Situ Bioremediation: Oxygen Addition
EPA ID:	CA1570024504
Contaminated Media:	Groundwater
Site ID:	0902725
Action ID:	001
Action Completion Date:	06/24/2009
Operable Unit:	02
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2009
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Extraction
EPA ID:	CA1570024504
Contaminated Media:	Groundwater
Site ID:	0902725
Action ID:	001
Action Completion Date:	06/24/2009
Operable Unit:	02
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2009
Event Code:	Not reported
Contact Name:	Not reported

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Hydraulic Control
EPA ID:	CA1570024504
Contaminated Media:	Groundwater
Site ID:	0902725
Action ID:	001
Action Completion Date:	06/24/2009
Operable Unit:	02
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2009
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	In-Situ Chemical Oxidation (ISCO)
EPA ID:	CA1570024504
Contaminated Media:	Groundwater
Site ID:	0902725
Action ID:	001
Action Completion Date:	06/24/2009
Operable Unit:	02
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2009
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Monitoring
EPA ID:	CA1570024504
Contaminated Media:	Groundwater
Site ID:	0902725
Action ID:	001
Action Completion Date:	06/24/2009
Operable Unit:	02
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2009
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Recovery Wells
EPA ID:	CA1570024504
Contaminated Media:	Groundwater
Site ID:	0902725
Action ID:	001
Action Completion Date:	06/24/2009
Operable Unit:	02
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2009
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Event:	Not reported

Engineering Control:	Reinjection
EPA ID:	CA1570024504
Contaminated Media:	Groundwater
Site ID:	0902725
Action ID:	001
Action Completion Date:	06/24/2009
Operable Unit:	02
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2009
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	No Action
EPA ID:	CA1570024504
Contaminated Media:	Soil
Site ID:	0902725
Action ID:	001
Action Completion Date:	06/24/2009
Operable Unit:	02
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2009
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Cap
EPA ID:	CA1570024504
Contaminated Media:	Solid Waste
Site ID:	0902725
Action ID:	001
Action Completion Date:	06/24/2009
Operable Unit:	02
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2009
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Monitoring
EPA ID:	CA1570024504
Contaminated Media:	Solid Waste
Site ID:	0902725
Action ID:	001
Action Completion Date:	06/24/2009
Operable Unit:	02
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2009
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Engineering Control:	Operations & Maintenance (O&M)
EPA ID:	CA1570024504
Contaminated Media:	Solid Waste
Site ID:	0902725
Action ID:	001
Action Completion Date:	06/24/2009
Operable Unit:	02
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2009
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Surface Drainage Control
EPA ID:	CA1570024504
Contaminated Media:	Solid Waste
Site ID:	0902725
Action ID:	001
Action Completion Date:	06/24/2009
Operable Unit:	02
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2009
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	No Action
EPA ID:	CA1570024504
Contaminated Media:	Groundwater
Site ID:	0902725
Action ID:	002
Action Completion Date:	09/30/2003
Operable Unit:	03
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2003
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Monitoring
EPA ID:	CA1570024504
Contaminated Media:	Groundwater
Site ID:	0902725
Action ID:	003
Action Completion Date:	09/24/2007
Operable Unit:	04
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2007
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	No Action

EDWARDS AIR FORCE BASE (Continued) **1000155217**

EPA ID:	CA1570024504
Contaminated Media:	Soil
Site ID:	0902725
Action ID:	003
Action Completion Date:	09/24/2007
Operable Unit:	04
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2007
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	In-Situ Chemical Oxidation (ISCO)
EPA ID:	CA1570024504
Contaminated Media:	Groundwater
Site ID:	0902725
Action ID:	004
Action Completion Date:	09/28/2006
Operable Unit:	06
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2006
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Monitoring
EPA ID:	CA1570024504
Contaminated Media:	Groundwater
Site ID:	0902725
Action ID:	004
Action Completion Date:	09/28/2006
Operable Unit:	06
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2006
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	No Action
EPA ID:	CA1570024504
Contaminated Media:	Soil
Site ID:	0902725
Action ID:	004
Action Completion Date:	09/28/2006
Operable Unit:	06
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2006
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	No Action
EPA ID:	CA1570024504

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Contaminated Media:	Soil
Site ID:	0902725
Action ID:	005
Action Completion Date:	09/16/2009
Operable Unit:	15
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2009
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Monitoring
EPA ID:	CA1570024504
Contaminated Media:	Solid Waste
Site ID:	0902725
Action ID:	005
Action Completion Date:	09/16/2009
Operable Unit:	15
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2009
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Operations & Maintenance (O&M)
EPA ID:	CA1570024504
Contaminated Media:	Solid Waste
Site ID:	0902725
Action ID:	005
Action Completion Date:	09/16/2009
Operable Unit:	15
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2009
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Revegetation
EPA ID:	CA1570024504
Contaminated Media:	Solid Waste
Site ID:	0902725
Action ID:	005
Action Completion Date:	09/16/2009
Operable Unit:	15
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2009
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Soil Cover
EPA ID:	CA1570024504
Contaminated Media:	Solid Waste

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Site ID:	0902725
Action ID:	005
Action Completion Date:	09/16/2009
Operable Unit:	15
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2009
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Surface Drainage Control
EPA ID:	CA1570024504
Contaminated Media:	Solid Waste
Site ID:	0902725
Action ID:	005
Action Completion Date:	09/16/2009
Operable Unit:	15
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2009
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Disposal
EPA ID:	CA1570024504
Contaminated Media:	Debris
Site ID:	0902725
Action ID:	012
Action Completion Date:	08/04/2008
Operable Unit:	11
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2008
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Engineering Control, (N.O.S.)
EPA ID:	CA1570024504
Contaminated Media:	Debris
Site ID:	0902725
Action ID:	012
Action Completion Date:	08/04/2008
Operable Unit:	11
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2008
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Monitoring
EPA ID:	CA1570024504
Contaminated Media:	Debris
Site ID:	0902725

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Action ID:	012
Action Completion Date:	08/04/2008
Operable Unit:	11
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2008
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Operations & Maintenance (O&M)
EPA ID:	CA1570024504
Contaminated Media:	Debris
Site ID:	0902725
Action ID:	012
Action Completion Date:	08/04/2008
Operable Unit:	11
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2008
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Disposal
EPA ID:	CA1570024504
Contaminated Media:	Soil
Site ID:	0902725
Action ID:	012
Action Completion Date:	08/04/2008
Operable Unit:	11
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2008
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Excavation
EPA ID:	CA1570024504
Contaminated Media:	Soil
Site ID:	0902725
Action ID:	012
Action Completion Date:	08/04/2008
Operable Unit:	11
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2008
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Impermeable Barrier
EPA ID:	CA1570024504
Contaminated Media:	Soil
Site ID:	0902725
Action ID:	012

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Action Completion Date:	08/04/2008
Operable Unit:	11
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2008
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	No Further Action
EPA ID:	CA1570024504
Contaminated Media:	Soil
Site ID:	0902725
Action ID:	012
Action Completion Date:	08/04/2008
Operable Unit:	11
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2008
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Operations & Maintenance (O&M)
EPA ID:	CA1570024504
Contaminated Media:	Soil
Site ID:	0902725
Action ID:	012
Action Completion Date:	08/04/2008
Operable Unit:	11
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2008
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Disposal
EPA ID:	CA1570024504
Contaminated Media:	Debris
Site ID:	0902725
Action ID:	015
Action Completion Date:	09/21/2012
Operable Unit:	13
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2012
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Recycling
EPA ID:	CA1570024504
Contaminated Media:	Debris
Site ID:	0902725
Action ID:	015
Action Completion Date:	09/21/2012

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Operable Unit:	13
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2012
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Monitoring
EPA ID:	CA1570024504
Contaminated Media:	Groundwater
Site ID:	0902725
Action ID:	015
Action Completion Date:	09/21/2012
Operable Unit:	13
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2012
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Natural Attenuation
EPA ID:	CA1570024504
Contaminated Media:	Groundwater
Site ID:	0902725
Action ID:	015
Action Completion Date:	09/21/2012
Operable Unit:	13
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2012
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Monitoring
EPA ID:	CA1570024504
Contaminated Media:	Landfill Gas
Site ID:	0902725
Action ID:	015
Action Completion Date:	09/21/2012
Operable Unit:	13
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2012
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Consolidate
EPA ID:	CA1570024504
Contaminated Media:	Solid Waste
Site ID:	0902725
Action ID:	015
Action Completion Date:	09/21/2012
Operable Unit:	13

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2012
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Evapotranspiration Cover
EPA ID:	CA1570024504
Contaminated Media:	Solid Waste
Site ID:	0902725
Action ID:	015
Action Completion Date:	09/21/2012
Operable Unit:	13
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2012
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Surface Drainage Control
EPA ID:	CA1570024504
Contaminated Media:	Solid Waste
Site ID:	0902725
Action ID:	015
Action Completion Date:	09/21/2012
Operable Unit:	13
Action Name:	RECORD OF DECISION
Action Taken Date:	09/30/2012
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Other, (N.O.S.)
EPA ID:	CA1570024504
Contaminated Media:	Groundwater
Site ID:	0902725
Action ID:	001
Action Completion Date:	09/27/2012
Operable Unit:	02
Action Name:	ROD Amendment
Action Taken Date:	09/30/2012
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Disposal
EPA ID:	CA1570024504
Contaminated Media:	Soil
Site ID:	0902725
Action ID:	001
Action Completion Date:	09/27/2012
Operable Unit:	02
Action Name:	ROD Amendment

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Action Taken Date:	09/30/2012
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Excavation
EPA ID:	CA1570024504
Contaminated Media:	Soil
Site ID:	0902725
Action ID:	001
Action Completion Date:	09/27/2012
Operable Unit:	02
Action Name:	ROD Amendment
Action Taken Date:	09/30/2012
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Sampling
EPA ID:	CA1570024504
Contaminated Media:	Soil
Site ID:	0902725
Action ID:	001
Action Completion Date:	09/27/2012
Operable Unit:	02
Action Name:	ROD Amendment
Action Taken Date:	09/30/2012
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Surface Drainage Control
EPA ID:	CA1570024504
Contaminated Media:	Soil
Site ID:	0902725
Action ID:	001
Action Completion Date:	09/27/2012
Operable Unit:	02
Action Name:	ROD Amendment
Action Taken Date:	09/30/2012
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Disposal
EPA ID:	CA1570024504
Contaminated Media:	Solid Waste
Site ID:	0902725
Action ID:	001
Action Completion Date:	09/27/2012
Operable Unit:	02
Action Name:	ROD Amendment
Action Taken Date:	09/30/2012

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Excavation
EPA ID:	CA1570024504
Contaminated Media:	Solid Waste
Site ID:	0902725
Action ID:	001
Action Completion Date:	09/27/2012
Operable Unit:	02
Action Name:	ROD Amendment
Action Taken Date:	09/30/2012
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Physical Separation
EPA ID:	CA1570024504
Contaminated Media:	Solid Waste
Site ID:	0902725
Action ID:	001
Action Completion Date:	09/27/2012
Operable Unit:	02
Action Name:	ROD Amendment
Action Taken Date:	09/30/2012
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Engineering Control:	Recycling
EPA ID:	CA1570024504
Contaminated Media:	Solid Waste
Site ID:	0902725
Action ID:	001
Action Completion Date:	09/27/2012
Operable Unit:	02
Action Name:	ROD Amendment
Action Taken Date:	09/30/2012
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

US INST CONTROLS:

Name:	EDWARDS AIR FORCE BASE
Address:	AFFTC EDWARDS AFB
Address 2:	5 EAST POPSON AVE, BLDG 2650A
City,State,Zip:	EDWARDS AFB, CA 93524
EPA ID:	CA1570024504
Site ID:	0902725
Action Name:	RECORD OF DECISION
Action ID:	001

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Operable Unit:	02
Action Completion Date:	06/24/2009
Actual Date:	09/30/2009
Contaminated Media:	Groundwater
Institutional Control:	Building, Demolition, or Excavation Regulation
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Name:	EDWARDS AIR FORCE BASE
Address:	AFFTC EDWARDS AFB
Address 2:	5 EAST POPSON AVE, BLDG 2650A
City,State,Zip:	EDWARDS AFB, CA 93524
EPA ID:	CA1570024504
Site ID:	0902725
Action Name:	RECORD OF DECISION
Action ID:	001
Operable Unit:	02
Action Completion Date:	06/24/2009
Actual Date:	09/30/2009
Contaminated Media:	Groundwater
Institutional Control:	Groundwater use/well drilling regulation
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Name:	EDWARDS AIR FORCE BASE
Address:	AFFTC EDWARDS AFB
Address 2:	5 EAST POPSON AVE, BLDG 2650A
City,State,Zip:	EDWARDS AFB, CA 93524
EPA ID:	CA1570024504
Site ID:	0902725
Action Name:	RECORD OF DECISION
Action ID:	001
Operable Unit:	02
Action Completion Date:	06/24/2009
Actual Date:	09/30/2009
Contaminated Media:	Soil
Institutional Control:	Building, demolition, or excavation regulation
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Name:	EDWARDS AIR FORCE BASE
Address:	AFFTC EDWARDS AFB
Address 2:	5 EAST POPSON AVE, BLDG 2650A
City,State,Zip:	EDWARDS AFB, CA 93524
EPA ID:	CA1570024504
Site ID:	0902725
Action Name:	RECORD OF DECISION
Action ID:	001
Operable Unit:	02
Action Completion Date:	06/24/2009
Actual Date:	09/30/2009

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Contaminated Media: Solid Waste
Institutional Control: Access Restriction, Fencing
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported

Name: EDWARDS AIR FORCE BASE
Address: AFFTC EDWARDS AFB
Address 2: 5 EAST POPSON AVE, BLDG 2650A
City,State,Zip: EDWARDS AFB, CA 93524
EPA ID: CA1570024504
Site ID: 0902725
Action Name: RECORD OF DECISION
Action ID: 001
Operable Unit: 02
Action Completion Date: 06/24/2009
Actual Date: 09/30/2009
Contaminated Media: Solid Waste
Institutional Control: Building, demolition, or excavation regulation
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported

Name: EDWARDS AIR FORCE BASE
Address: AFFTC EDWARDS AFB
Address 2: 5 EAST POPSON AVE, BLDG 2650A
City,State,Zip: EDWARDS AFB, CA 93524
EPA ID: CA1570024504
Site ID: 0902725
Action Name: RECORD OF DECISION
Action ID: 001
Operable Unit: 02
Action Completion Date: 06/24/2009
Actual Date: 09/30/2009
Contaminated Media: Solid Waste
Institutional Control: Groundwater Use/Well Drilling Regulation
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported

Name: EDWARDS AIR FORCE BASE
Address: AFFTC EDWARDS AFB
Address 2: 5 EAST POPSON AVE, BLDG 2650A
City,State,Zip: EDWARDS AFB, CA 93524
EPA ID: CA1570024504
Site ID: 0902725
Action Name: RECORD OF DECISION
Action ID: 003
Operable Unit: 04
Action Completion Date: 09/24/2007
Actual Date: 09/30/2007
Contaminated Media: Groundwater
Institutional Control: Base use plan change
Event Code: Not reported

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported

Name: EDWARDS AIR FORCE BASE
Address: AFFTC EDWARDS AFB
Address 2: 5 EAST POPSON AVE, BLDG 2650A
City,State,Zip: EDWARDS AFB, CA 93524
EPA ID: CA1570024504
Site ID: 0902725
Action Name: RECORD OF DECISION
Action ID: 003
Operable Unit: 04
Action Completion Date: 09/24/2007
Actual Date: 09/30/2007
Contaminated Media: Groundwater
Institutional Control: Covenant
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported

Name: EDWARDS AIR FORCE BASE
Address: AFFTC EDWARDS AFB
Address 2: 5 EAST POPSON AVE, BLDG 2650A
City,State,Zip: EDWARDS AFB, CA 93524
EPA ID: CA1570024504
Site ID: 0902725
Action Name: RECORD OF DECISION
Action ID: 003
Operable Unit: 04
Action Completion Date: 09/24/2007
Actual Date: 09/30/2007
Contaminated Media: Groundwater
Institutional Control: Groundwater use/well drilling regulation
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported

Name: EDWARDS AIR FORCE BASE
Address: AFFTC EDWARDS AFB
Address 2: 5 EAST POPSON AVE, BLDG 2650A
City,State,Zip: EDWARDS AFB, CA 93524
EPA ID: CA1570024504
Site ID: 0902725
Action Name: RECORD OF DECISION
Action ID: 003
Operable Unit: 04
Action Completion Date: 09/24/2007
Actual Date: 09/30/2007
Contaminated Media: Groundwater
Institutional Control: Notices to State Regulators Before Changes in Land Ownership
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Name:	EDWARDS AIR FORCE BASE
Address:	AFFTC EDWARDS AFB
Address 2:	5 EAST POPSON AVE, BLDG 2650A
City,State,Zip:	EDWARDS AFB, CA 93524
EPA ID:	CA1570024504
Site ID:	0902725
Action Name:	RECORD OF DECISION
Action ID:	003
Operable Unit:	04
Action Completion Date:	09/24/2007
Actual Date:	09/30/2007
Contaminated Media:	Soil Gas
Institutional Control:	Building, Demolition, or Excavation Regulation
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Name:	EDWARDS AIR FORCE BASE
Address:	AFFTC EDWARDS AFB
Address 2:	5 EAST POPSON AVE, BLDG 2650A
City,State,Zip:	EDWARDS AFB, CA 93524
EPA ID:	CA1570024504
Site ID:	0902725
Action Name:	RECORD OF DECISION
Action ID:	003
Operable Unit:	04
Action Completion Date:	09/24/2007
Actual Date:	09/30/2007
Contaminated Media:	Soil Gas
Institutional Control:	Easement
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Name:	EDWARDS AIR FORCE BASE
Address:	AFFTC EDWARDS AFB
Address 2:	5 EAST POPSON AVE, BLDG 2650A
City,State,Zip:	EDWARDS AFB, CA 93524
EPA ID:	CA1570024504
Site ID:	0902725
Action Name:	RECORD OF DECISION
Action ID:	003
Operable Unit:	04
Action Completion Date:	09/24/2007
Actual Date:	09/30/2007
Contaminated Media:	Soil Gas
Institutional Control:	Land Use Restriction
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Name:	EDWARDS AIR FORCE BASE
Address:	AFFTC EDWARDS AFB
Address 2:	5 EAST POPSON AVE, BLDG 2650A

EDWARDS AIR FORCE BASE (Continued) **1000155217**

City,State,Zip: EDWARDS AFB, CA 93524
EPA ID: CA1570024504
Site ID: 0902725
Action Name: RECORD OF DECISION
Action ID: 004
Operable Unit: 06
Action Completion Date: 09/28/2006
Actual Date: 09/30/2006
Contaminated Media: Groundwater
Institutional Control: Covenant
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported

Name: EDWARDS AIR FORCE BASE
Address: AFFTC EDWARDS AFB
Address 2: 5 EAST POPSON AVE, BLDG 2650A
City,State,Zip: EDWARDS AFB, CA 93524
EPA ID: CA1570024504
Site ID: 0902725
Action Name: RECORD OF DECISION
Action ID: 004
Operable Unit: 06
Action Completion Date: 09/28/2006
Actual Date: 09/30/2006
Contaminated Media: Groundwater
Institutional Control: Deed Notices
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported

Name: EDWARDS AIR FORCE BASE
Address: AFFTC EDWARDS AFB
Address 2: 5 EAST POPSON AVE, BLDG 2650A
City,State,Zip: EDWARDS AFB, CA 93524
EPA ID: CA1570024504
Site ID: 0902725
Action Name: RECORD OF DECISION
Action ID: 004
Operable Unit: 06
Action Completion Date: 09/28/2006
Actual Date: 09/30/2006
Contaminated Media: Groundwater
Institutional Control: Groundwater use/well drilling regulation
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported

Name: EDWARDS AIR FORCE BASE
Address: AFFTC EDWARDS AFB
Address 2: 5 EAST POPSON AVE, BLDG 2650A
City,State,Zip: EDWARDS AFB, CA 93524
EPA ID: CA1570024504
Site ID: 0902725

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Action Name:	RECORD OF DECISION
Action ID:	005
Operable Unit:	15
Action Completion Date:	09/16/2009
Actual Date:	09/30/2009
Contaminated Media:	Solid Waste
Institutional Control:	Access Restriction, Fencing
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Name:	EDWARDS AIR FORCE BASE
Address:	AFFTC EDWARDS AFB
Address 2:	5 EAST POPSON AVE, BLDG 2650A
City,State,Zip:	EDWARDS AFB, CA 93524
EPA ID:	CA1570024504
Site ID:	0902725
Action Name:	RECORD OF DECISION
Action ID:	005
Operable Unit:	15
Action Completion Date:	09/16/2009
Actual Date:	09/30/2009
Contaminated Media:	Solid Waste
Institutional Control:	Land Use Restriction
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Name:	EDWARDS AIR FORCE BASE
Address:	AFFTC EDWARDS AFB
Address 2:	5 EAST POPSON AVE, BLDG 2650A
City,State,Zip:	EDWARDS AFB, CA 93524
EPA ID:	CA1570024504
Site ID:	0902725
Action Name:	RECORD OF DECISION
Action ID:	012
Operable Unit:	11
Action Completion Date:	08/04/2008
Actual Date:	09/30/2008
Contaminated Media:	Debris
Institutional Control:	Building, demolition, or excavation regulation
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

Name:	EDWARDS AIR FORCE BASE
Address:	AFFTC EDWARDS AFB
Address 2:	5 EAST POPSON AVE, BLDG 2650A
City,State,Zip:	EDWARDS AFB, CA 93524
EPA ID:	CA1570024504
Site ID:	0902725
Action Name:	RECORD OF DECISION
Action ID:	012
Operable Unit:	11

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Action Completion Date: 08/04/2008
Actual Date: 09/30/2008
Contaminated Media: Debris
Institutional Control: Zoning regulation
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported

Name: EDWARDS AIR FORCE BASE
Address: AFFTC EDWARDS AFB
Address 2: 5 EAST POPSON AVE, BLDG 2650A
City,State,Zip: EDWARDS AFB, CA 93524
EPA ID: CA1570024504
Site ID: 0902725
Action Name: RECORD OF DECISION
Action ID: 012
Operable Unit: 11
Action Completion Date: 08/04/2008
Actual Date: 09/30/2008
Contaminated Media: Soil
Institutional Control: Building, demolition, or excavation regulation
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported

Name: EDWARDS AIR FORCE BASE
Address: AFFTC EDWARDS AFB
Address 2: 5 EAST POPSON AVE, BLDG 2650A
City,State,Zip: EDWARDS AFB, CA 93524
EPA ID: CA1570024504
Site ID: 0902725
Action Name: RECORD OF DECISION
Action ID: 012
Operable Unit: 11
Action Completion Date: 08/04/2008
Actual Date: 09/30/2008
Contaminated Media: Soil
Institutional Control: Zoning regulation
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported

Name: EDWARDS AIR FORCE BASE
Address: AFFTC EDWARDS AFB
Address 2: 5 EAST POPSON AVE, BLDG 2650A
City,State,Zip: EDWARDS AFB, CA 93524
EPA ID: CA1570024504
Site ID: 0902725
Action Name: RECORD OF DECISION
Action ID: 015
Operable Unit: 13
Action Completion Date: 09/21/2012
Actual Date: 09/30/2012
Contaminated Media: Debris

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Institutional Control: Institutional Controls, (N.O.S.)
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported

Name: EDWARDS AIR FORCE BASE
Address: AFFTC EDWARDS AFB
Address 2: 5 EAST POPSON AVE, BLDG 2650A
City,State,Zip: EDWARDS AFB, CA 93524
EPA ID: CA1570024504
Site ID: 0902725
Action Name: RECORD OF DECISION
Action ID: 015
Operable Unit: 13
Action Completion Date: 09/21/2012
Actual Date: 09/30/2012
Contaminated Media: Groundwater
Institutional Control: Institutional Controls, (N.O.S.)
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported

Name: EDWARDS AIR FORCE BASE
Address: AFFTC EDWARDS AFB
Address 2: 5 EAST POPSON AVE, BLDG 2650A
City,State,Zip: EDWARDS AFB, CA 93524
EPA ID: CA1570024504
Site ID: 0902725
Action Name: RECORD OF DECISION
Action ID: 015
Operable Unit: 13
Action Completion Date: 09/21/2012
Actual Date: 09/30/2012
Contaminated Media: Landfill Gas
Institutional Control: Institutional Controls, (N.O.S.)
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported

Name: EDWARDS AIR FORCE BASE
Address: AFFTC EDWARDS AFB
Address 2: 5 EAST POPSON AVE, BLDG 2650A
City,State,Zip: EDWARDS AFB, CA 93524
EPA ID: CA1570024504
Site ID: 0902725
Action Name: RECORD OF DECISION
Action ID: 015
Operable Unit: 13
Action Completion Date: 09/21/2012
Actual Date: 09/30/2012
Contaminated Media: Solid Waste
Institutional Control: Access Restriction, Fencing
Event Code: Not reported
Contact Name: Not reported

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Contact Telephone:	Not reported
Event:	Not reported

Name:	EDWARDS AIR FORCE BASE
Address:	AFFTC EDWARDS AFB
Address 2:	5 EAST POPSON AVE, BLDG 2650A
City,State,Zip:	EDWARDS AFB, CA 93524
EPA ID:	CA1570024504
Site ID:	0902725
Action Name:	RECORD OF DECISION
Action ID:	015
Operable Unit:	13
Action Completion Date:	09/21/2012
Actual Date:	09/30/2012
Contaminated Media:	Solid Waste
Institutional Control:	Institutional Controls, (N.O.S.)
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported

ENVIROSTOR:

Name:	EDWARDS AIR FORCE BASE - IR/MMRP
Address:	470 SQ MI; 60 MI NE OF LOS ANGELES, CA
City,State,Zip:	EDWARDS, CA 93523
Facility ID:	15970001
Status:	Active
Status Date:	05/01/1986
Site Code:	100052
Site Type:	Federal Superfund
Site Type Detailed:	Open Base
Acres:	300800
NPL:	YES
Regulatory Agencies:	SMBRP, RWQCB 6V - Lahontan, US EPA
Lead Agency:	US EPA
Program Manager:	Kevin Depies
Supervisor:	Peter Bailey
Division Branch:	Cleanup Legacy Landfills
Assembly:	36
Senate:	16
Special Program:	DSMOA
Restricted Use:	YES
Site Mgmt Req:	NONE SPECIFIED
Funding:	DERA
Latitude:	34.90604
Longitude:	-117.8825
APN:	NONE SPECIFIED
Past Use:	AIRCRAFT MAINTENANCE, FUEL - AIRCRAFT STORAGE/ REFUELING, AIRCRAFT MAINTENANCE, RESEARCH - OTHER, AIRCRAFT MAINTENANCE, AIRFIELD OPERATIONS, RESEARCH - OTHER, AEROSPACE ROCKET TESTING/LAUNCH, FUEL - AIRCRAFT STORAGE/ REFUELING, AEROSPACE ROCKET TESTING/LAUNCH, RESEARCH - AEROSPACE, LANDFILL - CONSTRUCTION, LANDFILL - DOMESTIC, LANDFILL - HAZARDOUS WASTE, FUEL - AIRCRAFT STORAGE/ REFUELING, AIRCRAFT MAINTENANCE, FUEL - AIRCRAFT STORAGE/ REFUELING, AEROSPACE ROCKET TESTING/LAUNCH, AEROSPACE ROCKET TESTING/LAUNCH, RESEARCH - AEROSPACE, DEGREASING FACILITY, JET FUEL STORAGE/REFUELING, AIRCRAFT MAINTENANCE, AIRCRAFT MAINTENANCE, AIRFIELD OPERATIONS, DEGREASING

EDWARDS AIR FORCE BASE (Continued) **1000155217**

FACILITY, DEGREASING FACILITY, ABOVE GROUND STORAGE TANKS, AEROSPACE MANUFACTURING/MAINTENANCE, AEROSPACE ROCKET TESTING/LAUNCH, AIRCRAFT MAINTENANCE, AIRFIELD OPERATIONS, FUEL - AIRCRAFT STORAGE/ REFUELING, AIRCRAFT MAINTENANCE, RESEARCH - CHEMICAL, AEROSPACE MANUFACTURING/MAINTENANCE, FUEL - AIRCRAFT STORAGE/ REFUELING, AEROSPACE ROCKET TESTING/LAUNCH, AIRFIELD OPERATIONS, RESEARCH - CHEMICAL, AEROSPACE MANUFACTURING/MAINTENANCE, AEROSPACE ROCKET TESTING/LAUNCH, RESEARCH - CHEMICAL, RESEARCH - CHEMICAL, DEGREASING FACILITY, AIRCRAFT MAINTENANCE, AIRFIELD OPERATIONS, FUEL - AIRCRAFT STORAGE/ REFUELING, JET FUEL STORAGE/REFUELING, AEROSPACE MANUFACTURING/MAINTENANCE, AEROSPACE ROCKET TESTING/LAUNCH, AEROSPACE MANUFACTURING/MAINTENANCE, AEROSPACE ROCKET TESTING/LAUNCH, AEROSPACE ROCKET TESTING/LAUNCH, DEGREASING FACILITY, FUEL - AIRCRAFT STORAGE/ REFUELING, AIRCRAFT MAINTENANCE, FUEL - AIRCRAFT STORAGE/ REFUELING, DEGREASING FACILITY, AIRCRAFT MAINTENANCE, AEROSPACE ROCKET TESTING/LAUNCH, AIRCRAFT MAINTENANCE, LANDFILL - HAZARDOUS WASTE, OPEN BURN/OPEN DETONATION, RESEARCH - AEROSPACE, RESEARCH - CHEMICAL, AEROSPACE ROCKET TESTING/LAUNCH, RESEARCH - AEROSPACE, AEROSPACE ROCKET TESTING/LAUNCH, RESEARCH - AEROSPACE, WASTE - INDUSTRIAL WASTE LINE, LANDFILL - HAZARDOUS WASTE, AEROSPACE ROCKET TESTING/LAUNCH, AEROSPACE MANUFACTURING/MAINTENANCE, AEROSPACE ROCKET TESTING/LAUNCH, AIRFIELD OPERATIONS, FIRE TRAINING AREAS

Potential COC: Benzene Benzene Tetrachloroethylene (PCE TPH-JET FUEL 1,1-Dichloroethane 1,2-Dichloroethane (EDC Ethylbenzene 1,1,2,2-Tetrachloroethane Toluene 1,2,4-Trimethylbenzene Xylenes Benzene Methylene chloride Trichloroethylene (TCE Explosives (UXO, MEC Explosives (UXO, MEC Explosives (UXO, MEC Perchlorate Polynuclear aromatic hydrocarbons (PAHs Trichloroethylene (TCE N-Nitrosodimethylamine Methyl tertbutyl ether (MTBE Perchlorate Tetrachloroethylene (PCE Trichloroethylene (TCE Vinyl chloride 1,2-Dichloroethylene (cis 1,4-Dioxane N-Nitrosodimethylamine Perchlorate Perchlorate Polychlorinated biphenyls (PCBs Polychlorinated biphenyls (PCBs Polynuclear aromatic hydrocarbons (PAHs Polynuclear aromatic hydrocarbons (PAHs Polynuclear aromatic hydrocarbons (PAHs Tetrachloroethylene (PCE Carbon tetrachloride Polynuclear aromatic hydrocarbons (PAHs Trichloroethylene (TCE 1,2-Dichloroethylene (cis 1,2-Dichloroethylene (trans Tetrachloroethylene (PCE Trichloroethylene (TCE Tetrachloroethylene (PCE N-Nitrosodimethylamine TPH-gas TPH-JET FUEL TPH-JET FUEL Trichloroethylene (TCE 1,2-Dichloroethylene (cis 1,2-Dichloroethylene (trans Benzene Tetrachloroethylene (PCE 1,1,1-Trichloroethane (TCA 1,1,2-Trichloroethane 1,1-Dichloroethane 1,1-Dichloroethylene 1,2,4-Trimethylbenzene 1,2-Dichloroethane (EDC 1,2-Dichloroethylene (cis 1,3,5-Trimethylbenzene 1,4-Dichlorobenzene 1,4-Dioxane Benzene Chloromethane (methyl chloride Ethylbenzene Methyl tertbutyl ether (MTBE Methylene chloride N-Nitrosodimethylamine Naphthalene Tetrachloroethylene (PCE Toluene Trichloroethylene (TCE Xylenes Trichloroethylene (TCE Trichloroethylene (TCE Trichloroethylene (TCE Trichloroethylene (TCE Aluminum Barium and compounds Beryllium and compounds Naphthalene Antimony and compounds Arsenic Molybdenum Nickel Antimony and compounds Cadmium and compounds Lead Mercury and compounds Nickel Antimony and compounds Cadmium and compounds Ethylbenzene Lead Manganese and compounds Polychlorinated biphenyls (PCBs Toluene Xylenes Zinc Beryllium and compounds Beryllium and compounds Beryllium and compounds Chromium III Chromium VI Cobalt Iron Mercury and compounds Thallium and compounds Vanadium and compounds Zinc Chromium III Chromium VI Copper and compounds Iron

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Lead Nickel Perchlorate Selenium Zinc 1,2-Dichloroethane (EDC Benzene Trichloroethylene (TCE 1,2-Dichloroethane (EDC 1,4-Dichlorobenzene Chloroform Hexachlorobutadiene Nickel Trichloroethylene (TCE 1,2-Dichloroethane (EDC 1,2-Dichloroethylene (cis Benzene Tetrachloroethylene (PCE Trichloroethylene (TCE Vinyl chloride 1,1-Dichloroethylene 1,2-Dichloroethylene (cis Acetone Aluminum Antimony and compounds Arsenic Barium and compounds Beryllium and compounds Bis(2-ethylhexyl)phthalate (DEHP) Cadmium and compounds Chromium III Chromium VI Cobalt Copper and compounds Dieldrin Dimethyl phthalate Endrin Ethylbenzene Fluorine (soluble fluoride Iron Lead Mercury and compounds Methylene chloride Molybdenum Nickel Selenium Silver Toluene Trichloroethylene (TCE Vanadium and compounds Zinc n-Propylbenzene 1,1-Dichloroethylene 1,2-Dichloroethylene (cis 1,2-Dichloroethylene (trans 2,6-Dinitrotoluene (also see Dinitrotoluene mixture Acetone Barium and compounds Benz[a]anthracene Benzo[a]pyrene Benzo[b]fluoranthene Bis(2-ethylhexyl)phthalate (DEHP) Bromomethane (Methyl bromide Cadmium and compounds Chloromethane (methyl chloride Chromium III Chromium VI Chrysene Cobalt Copper and compounds Fluoranthene Indeno[1,2,3-cd]pyrene Iron Manganese and compounds Mercury and compounds Methylene chloride Molybdenum Nickel Nitrate Pyrene Tetrachloroethylene (PCE Thallium and compounds Toluene Trichloroethylene (TCE Vinyl chloride Xylenes Zinc 1,2-Dichloroethylene (cis Benzene Trichloroethylene (TCE 1,1,2-Trichloroethane 1,2-Dibromoethane (EDB Benzene Cadmium and compounds Tetrachloroethylene (PCE Trichloroethylene (TCE 1,1,2-Trichloroethane 1,2-Dibromoethane (EDB Benzene Cadmium and compounds Tetrachloroethylene (PCE Trichloroethylene (TCE 1,2,4-Trimethylbenzene Acetone Beryllium and compounds Bromodichloromethane Bromoform (tribromomethane Chloroform Cobalt Dibromochloromethane Mercury and compounds Trichloroethylene (TCE Xylenes 1,2,4-Trimethylbenzene 1,2-Dichloroethane (EDC 1,2-Dichloroethylene (cis Benzene Ethylbenzene Naphthalene Toluene Trichloroethylene (TCE Vinyl chloride Xylenes 39105 39106

Confirmed COC: Polynuclear aromatic hydrocarbons (PAHs Tetrachloroethylene (PCE Carbon tetrachloride Benzene Methylene chloride Trichloroethylene (TCE Chloroform Cobalt Dibromochloromethane Mercury and compounds Xylenes 1,2,4-Trimethylbenzene Trichloroethylene (TCE Acetone Beryllium and compounds Bromodichloromethane Bromoform (tribromomethane Benzene Cadmium and compounds 1,2-Dibromoethane (EDB 1,1,2-Trichloroethane Tetrachloroethylene (PCE Trichloroethylene (TCE Benzene Cadmium and compounds 1,2-Dibromoethane (EDB 1,1,2-Trichloroethane Tetrachloroethylene (PCE Trichloroethylene (TCE Chromium III Chromium VI Cobalt Mercury and compounds Vanadium and compounds Zinc Iron Thallium and compounds Benzene 1,2-Dichloroethylene (cis Trichloroethylene (TCE Chloroform 1,4-Dichlorobenzene 1,2-Dichloroethane (EDC Nickel Hexachlorobutadiene Trichloroethylene (TCE Endrin Lead Arsenic Cadmium and compounds Chromium III Chromium VI Cobalt Copper and compounds 1,1-Dichloroethylene 1,2-Dichloroethylene (cis Dieldrin Mercury and compounds Methylene chloride Molybdenum Nickel Vanadium and compounds Zinc Dimethyl phthalate Ethylbenzene Fluorine (soluble fluoride Iron n-Propylbenzene Selenium Toluene Silver Trichloroethylene (TCE Acetone Aluminum Antimony and compounds Barium and compounds Beryllium and compounds Bis(2-ethylhexyl)phthalate (DEHP) Benzene Ethylbenzene Xylenes 1,1,2,2-Tetrachloroethane 1,2,4-Trimethylbenzene Tetrachloroethylene (PCE 1,1-Dichloroethane 1,2-Dichloroethane (EDC Toluene TPH-JET FUEL Lead Cadmium and

EDWARDS AIR FORCE BASE (Continued) **1000155217**

compounds Manganese and compounds Xylenes Zinc Ethylbenzene Toluene Polychlorinated biphenyls (PCBs Antimony and compounds Lead Perchlorate Chromium III Chromium VI Copper and compounds Nickel Zinc Iron Selenium Polychlorinated biphenyls (PCBs Benzene Benzene 1,2-Dichloroethane (EDC 1,2-Dichloroethylene (cis Tetrachloroethylene (PCE Trichloroethylene (TCE Vinyl chloride Benzene 1,2-Dichloroethane (EDC Trichloroethylene (TCE Trichloroethylene (TCE Tetrachloroethylene (PCE Trichloroethylene (TCE 30003-NO 30022-NO 3002501-NO 30027-NO 30195-NO 30196-NO Beryllium and compounds No Contaminants found Trichloroethylene (TCE Polynuclear aromatic hydrocarbons (PAHs Polynuclear aromatic hydrocarbons (PAHs No Contaminants found Tetrachloroethylene (PCE N-Nitrosodimethylamine No Contaminants found No Contaminants found Trichloroethylene (TCE Naphthalene Aluminum Barium and compounds Beryllium and compounds TPH-gas TPH-JET FUEL Perchlorate Perchlorate Explosives (UXO, MEC Perchlorate Polynuclear aromatic hydrocarbons (PAHs Trichloroethylene (TCE N-Nitrosodimethylamine Methyl tertbutyl ether (MTBE Benzene Chloromethane (methyl chloride 1,4-Dichlorobenzene 1,1-Dichloroethane 1,2-Dichloroethane (EDC 1,1-Dichloroethylene 1,2-Dichloroethylene (cis Methylene chloride N-Nitrosodimethylamine Xylenes 1,4-Dioxane Ethylbenzene Naphthalene Toluene 1,1,2-Trichloroethane 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene Tetrachloroethylene (PCE 1,1,1-Trichloroethane (TCA Trichloroethylene (TCE Benzene 1,2-Dichloroethane (EDC 1,2-Dichloroethylene (cis Xylenes Ethylbenzene Naphthalene Toluene 1,2,4-Trimethylbenzene Trichloroethylene (TCE Vinyl chloride Trichloroethylene (TCE Lead Cadmium and compounds Mercury and compounds Nickel Antimony and compounds Cadmium and compounds Chloromethane (methyl chloride Chromium III Chromium VI Cobalt Copper and compounds 1,1-Dichloroethylene 1,2-Dichloroethylene (cis 1,2-Dichloroethylene (trans Manganese and compounds Mercury and compounds Methylene chloride Molybdenum Nickel Nitrate Xylenes Zinc 2,6-Dinitrotoluene (also see Dinitrotoluene mixture Iron Benz[a]anthracene Benzo[b]fluoranthene Benzo[a]pyrene Chrysene Fluoranthene Indeno[1,2,3-cd]pyrene Pyrene Thallium and compounds Toluene Tetrachloroethylene (PCE Trichloroethylene (TCE Vinyl chloride Acetone Barium and compounds Bis(2-ethylhexyl)phthalate (DEHP) Bromomethane (Methyl bromide Arsenic Molybdenum Nickel Antimony and compounds Explosives (UXO, MEC No Contaminants found Beryllium and compounds Beryllium and compounds Polychlorinated biphenyls (PCBs 30011-NO Polynuclear aromatic hydrocarbons (PAHs Trichloroethylene (TCE 1,2-Dichloroethylene (cis 1,2-Dichloroethylene (trans Methyl tertbutyl ether (MTBE Perchlorate Tetrachloroethylene (PCE 30027-NO Vinyl chloride 1,2-Dichloroethylene (cis 1,4-Dioxane N-Nitrosodimethylamine 39105 39106

Potential Description: OTH, SOIL, OTH, OTH, SOIL, OTH, SOIL, SURFW, OTH, SOIL, SURFW, SOIL, OTH, SOIL, OTH, OTH, SOIL, OTH, SOIL, SOIL, SOIL, SOIL, OTH, OTH, SOIL, OTH, OTH, SOIL, OTH, SOIL, IA, OTH, SOIL, SV, OTH, SOIL, SOIL, IA, OTH, SOIL, SV, SV, IA, OTH, OTH, SOIL, OTH, SOIL, OTH, SOIL, OTH, SOIL, OTH, SOIL, OTH, SOIL, SOIL, SOIL, SOIL, SOIL, OTH, SOIL, OTH, SOIL, SV, IA

Alias Name: EDWARDS AFB
Alias Type: Alternate Name
Alias Name: CA1570024504
Alias Type: EPA Identification Number
Alias Name: 110033616120
Alias Type: EPA (FRS #)

EDWARDS AIR FORCE BASE (Continued) **1000155217**

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EDWARDS AIR FORCE BASE (Continued) **1000155217**

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EDWARDS AIR FORCE BASE (Continued) **1000155217**

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EDWARDS AIR FORCE BASE (Continued) **1000155217**

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EDWARDS AIR FORCE BASE (Continued) **1000155217**

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EDWARDS AIR FORCE BASE (Continued) **1000155217**

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EDWARDS AIR FORCE BASE (Continued) **1000155217**

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EDWARDS AIR FORCE BASE (Continued) **1000155217**

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Alias Type:	GeoTracker Global ID
Alias Name:	DOD100115300
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100115400
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100115500
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100115600
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100115700
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100115800
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100115900
Alias Type:	GeoTracker Global ID

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Alias Name:	DOD100116000
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100116100
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100116200
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100116300
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100116400
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100116500
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100116600
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100116700
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Alias Name:	DOD100116800
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100116900
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100117000
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100117100
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100117200
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100117300
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100117400
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100117500
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100117600
Alias Type:	GeoTracker Global ID
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Alias Type:	GeoTracker Global ID
Alias Name:	DOD100117900
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Alias Name:	DOD100118000
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Alias Name:	DOD100118100
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Alias Name:	DOD100118200
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100118300
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Alias Name:	DOD100118400
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100118500
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100118600
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100118700
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100118800

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Alias Type:	GeoTracker Global ID
Alias Name:	DOD100118900
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100119000
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100119100
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100119200
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100119300
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Alias Name:	DOD100119400
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Alias Name:	DOD100119800
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Alias Name:	DOD100119900
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Alias Type:	GeoTracker Global ID
Alias Name:	DOD100120100
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Alias Name:	DOD100120200
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Alias Name:	DOD100120300
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Alias Name:	DOD100120400
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Alias Name:	DOD100120600
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Alias Name:	DOD100120700
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Alias Name:	DOD100120800
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Alias Name:	DOD100120900
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Alias Type:	GeoTracker Global ID
Alias Name:	DOD100121400
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100121500
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100121600
Alias Type:	GeoTracker Global ID

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Alias Name:	DOD100121700
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100121800
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100121900
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100122000
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100122100
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100122200
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Alias Name:	DOD100122400
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Alias Name:	DOD100122700
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100122800
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Alias Name:	DOD100123100
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Alias Name:	DOD100123700
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Alias Name:	DOD100123800
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Alias Name:	DOD100123900
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Alias Name:	DOD100124000
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100124100
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100124200
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100124300
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100124400
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100124500

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Alias Type:	GeoTracker Global ID
Alias Name:	DOD100124600
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100124700
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100124800
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100124900
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100125000
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100125100
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Alias Name:	DOD100125200
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Alias Type:	GeoTracker Global ID
Alias Name:	DOD100127100
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100127200
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100127300
Alias Type:	GeoTracker Global ID

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Alias Name:	DOD100127400
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100127500
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100127600
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100127700
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Alias Type:	GeoTracker Global ID
Alias Name:	DOD100130000
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100130100
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100130200

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Alias Type:	GeoTracker Global ID
Alias Name:	DOD100130300
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100130400
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100130500
Alias Type:	GeoTracker Global ID
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Alias Name:	DOD100130700
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Alias Name:	DOD100133200
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100133300
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100133400
Alias Type:	GeoTracker Global ID

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Alias Name:	DOD100133500
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100133600
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100133700
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100133800
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Alias Name:	DOD100134000
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Alias Name:	DOD100134100
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Alias Name:	DOD100134200
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Alias Name:	DOD100136400
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100136500
Alias Type:	GeoTracker Global ID
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Alias Type:	GeoTracker Global ID
Alias Name:	DOD100136700

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Alias Type:	GeoTracker Global ID
Alias Name:	DOD100136800
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100136900
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100137000
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100137100
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100137200
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100137300
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100137400
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100137500
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100137600
Alias Type:	GeoTracker Global ID
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Alias Name:	DOD100137900
Alias Type:	GeoTracker Global ID
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Alias Name:	DOD100138200
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Alias Name:	DOD100139300
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100139600
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100139700
Alias Type:	GeoTracker Global ID

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Alias Name: DOD100139800
Alias Type: GeoTracker Global ID
Alias Name: DOD100139900
Alias Type: GeoTracker Global ID
Alias Name: DOD100140000
Alias Type: GeoTracker Global ID
Alias Name: DOD100140100
Alias Type: GeoTracker Global ID
Alias Name: DOD100140200
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Alias Name: DOD100140300
Alias Type: GeoTracker Global ID
Alias Name: DOD100140400
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Alias Name: DOD100142300
Alias Type: GeoTracker Global ID
Alias Name: DOD100142400
Alias Type: GeoTracker Global ID
Alias Name: DOD100142500
Alias Type: GeoTracker Global ID
Alias Name: DOD100142600

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Alias Type:	GeoTracker Global ID
Alias Name:	DOD100142700
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100142800
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100142900
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100143000
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100143100
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100143200
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Alias Name:	DOD100143300
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Alias Name:	DOD100145200
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100145300
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100145400
Alias Type:	GeoTracker Global ID

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Alias Name:	DOD100145500
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100145600
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100145700
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100145800
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Alias Name:	DOD100147500
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Alias Name:	DOD100147600
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Alias Type:	GeoTracker Global ID
Alias Name:	T0602900808
Alias Type:	GeoTracker Global ID
Alias Name:	T0602900809
Alias Type:	GeoTracker Global ID
Alias Name:	T0602900810

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Alias Type:	GeoTracker Global ID
Alias Name:	T0602900813
Alias Type:	GeoTracker Global ID
Alias Name:	T0602900819
Alias Type:	GeoTracker Global ID
Alias Name:	T0602900828
Alias Type:	GeoTracker Global ID
Alias Name:	T0602900857
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Alias Name:	T0602900859
Alias Type:	GeoTracker Global ID
Alias Name:	T0602900862
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Alias Name:	T0602900863
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Alias Type:	GeoTracker Global ID
Alias Name:	T0602900897
Alias Type:	GeoTracker Global ID
Alias Name:	T0602900900
Alias Type:	GeoTracker Global ID
Alias Name:	T0602900901
Alias Type:	GeoTracker Global ID

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Alias Name: T0602900904
Alias Type: GeoTracker Global ID
Alias Name: T0602900905
Alias Type: GeoTracker Global ID
Alias Name: T0602900906
Alias Type: GeoTracker Global ID
Alias Name: T0602900907
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Alias Name: T0602900908
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EDWARDS AIR FORCE BASE (Continued) **1000155217**

Alias Type:	GeoTracker Global ID
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Alias Name:	T10000001943
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Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	4A - AFRL Area
Completed Sub Area Name:	Site 13
Completed Document Type:	Monitoring Report
Completed Date:	06/14/2016
Comments:	Site 13 Landfill Annual Compliance Monitoring Report for 2015

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Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Site 13
Completed Document Type: Monitoring Report
Completed Date: 03/12/2015
Comments: Site 13 Landfill Annual Compliance Monitoring Report for 2013

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 86
Completed Document Type: Remedial Action Implementation Workplan
Completed Date: 10/14/2016
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 03/16/2017
Comments: Site Inspection Workplan (UFP-QAPP) for Aqueous Film Forming Foam Usage (PFCs/PFAS) at EAFB

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Enforceable Schedule
Completed Date: 09/12/2016
Comments: 2016 Update to the FFA Schedule

Completed Area Name: 4A - AFRL Arroyos
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/28/2017
Comments: AFRL Arroyos 2015 GWM Report

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Well Completion Report
Completed Date: 05/02/2017
Comments: Sites 17, 19, 51, 58, and 66 Cone Penetration Test Investigation and Site 58 Well Installation Report

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Monitoring Report
Completed Date: 04/13/2017
Comments: Site 25 Groundwater Monitoring Report for 2015

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Plan
Completed Date: 10/11/2016
Comments: OU 1/8 Groundwater Monitoring Sampling Plan for 2016. 2016 is an "off year" for sampling; however the RPMs agreed that data was needed from a select group of wells to provide data for the upcoming FS. The wells selected for sampling were agreed upon in the July 2016 RPM meeting.

Completed Area Name: 4/9 Mars Blvd Sites
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

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Completed Date: 04/03/2017
Comments: Mars Blvd Sites 2015 GWM Report

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Plan
Completed Date: 10/06/2016
Comments: OU 1/8 2016 Groundwater Monitoring Sampling Plan. A select list of wells will be sampled, agreed upon by the Air Force and regulators during the July 2016 RPM meeting. These data will be used to augment the pending OU 1/8 Feasibility Study.

Completed Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 12/28/2016
Comments: Sites 81 and 102 NTCRA Pre-Design Survey Field Activities Letter Report. This report summarizes further site characterization which will be used to finalize the planned "removal action".

Completed Area Name: 4/9 - South AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 04/03/2009
Comments: This document presents the work to be peformed to monitor the remedies presented in the OUs 4/9 South AFRL Record of Decision. DTSC worked closely with the document development; all of DTSC concerns have been addressed.

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 5
Completed Document Type: Monitoring Report
Completed Date: 04/17/2006
Comments: DTSC concurred with annual monitoring report and recommendations for continued operation.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Site 285
Completed Document Type: Monitoring Report
Completed Date: 03/17/2006
Comments: Concur with Recommendation to continue operation and monitoring.

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Site 312
Completed Document Type: Remedial Investigation Workplan
Completed Date: 04/17/2006
Comments: DTSC concurred with workplan.

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Site 37
Completed Document Type: Treatability Study Report
Completed Date: 04/17/2006
Comments: DTSC final concur letter.

Completed Area Name: 9 - Air Force Research Lab - East
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

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Completed Date: 12/21/2005
Comments: DTSC concurred without comment

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 272
Completed Document Type: Remedial Investigation Workplan
Completed Date: 07/13/2006
Comments: Document not reviewed by DTSC. Work proceeded without DTSC comments.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Base / Site Management Plan
Completed Date: 03/28/2006
Comments: December 2005 Submittal of July-Sept. 2005 Strategy and Status Report

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 66
Completed Document Type: Removal Action Completion Report
Completed Date: 04/26/2006
Comments: DTSC concurred with final Site 66 Treatability Study Report for the Dual Extraction System without comment. SVE System removed 114907 lbs of hydrocarbons before being shut down in February 2005. 4017 lbs were removed during Pilot from vapor and free product.

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Site 36
Completed Document Type: Removal Action Completion Report
Completed Date: 05/15/2005
Comments: The former Wastewater Holding Tank and piping, Building 8525 were removed in Aug. 2004. Approximatley 10 cubic yards of perchlorate contaminated soil was removed from beneath the tank for off-site disposal. Residual perchlorate is the only constituent of concern in the soil. Groundwater contains TCE, PCE, DCE, NDMA, and perchlorate. The groundwater will be managed under the OU-4/9 AFRL Arroyos area and Site 162.

Completed Area Name: 4A - AFRL Arroyos
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 08/03/2007
Comments: Final document concurrence letter sent 8/3/07.

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Site 37
Completed Document Type: Removal Action Completion Report
Completed Date: 05/01/2000
Comments: Construction complete for the Groundwater Extraction and Treatement System (GETS) at Site 37. Primary Chemical of Concern is PCE. Extraction system began operation on 1/25/1999, and consists of groundwater extraction, liquid phase GAC, and discharge to the sewer.

Completed Area Name: 6 - Operable Unit 6, NASA Dryden
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 02/16/2008
Comments: DTSC concured with Final Remedial Action Phase 2 Work Plan for OU 6 and finds it acceptable for the Remedial Design to implement Phase 2

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of the Remedial Action selected by the September 2006 Record of Decision for Edwards AFB OU 6

Completed Area Name: 6 - Operable Unit 6, NASA Dryden
Completed Sub Area Name: Not reported
Completed Document Type: Remedy Constructed: Operating Properly & Successfully
Completed Date: 04/24/2009
Comments: This report documents the first part of Phase II of the implementation of the groundwater cleanup remedy. Phase I was the implementation of a managed Land Use Control program. Phase II comprises the injection and monitoring of chemical oxidants into groundwater. Results are encouraging as VOCs were reduced in portions of the plume. Follow-up injection/monitoring will be performed later in 2009.

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 09/19/2006
Comments: Public comment period for OU 2 Proposed Plan.

Completed Area Name: 4A - AFRL Arroyos
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/03/2007
Comments: Final document concurrence letter sent 8/3/07.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 08/03/2007
Comments: The Final OU 5/10 North Base Human Health Risk Assessment document was received by DTSC on 5/9/2007, after resolution of comments submitted by DTSC's risk assessor. Of the 14 sites carried forward into the RI phase and evaluated in this document, 12 sites exceeded the residential scenario benchmarks of 1 x 10-6 cancer risk or a noncancer Hazard Index of 1.

Completed Area Name: Military Munitions Response Program (MMRP) - Basewide
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment/Site Inspection Report (PA/SI)
Completed Date: 08/03/2007
Comments: Phase I Report recommends further investigation for 14 areas: AL 500 - Main Base Closed Range, AL 501 - South Base Ordnance Ranges, North and South; AL 502 - North Base Ordnance Ranges, North and South; AL 503 - Gates Range Areas, North, South, and West; AL 504, 7th AAF Bombing and Gunnery Range; AL 505, Edwards Off-Base Adjacent Areas 1, 2, 3, 4, and 5.

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 3
Completed Document Type: Feasibility Study Report
Completed Date: 10/02/2008
Comments: DTSC accepted the final Site 3 Main Base Inactive Landfill FS. Four alternative were evaluated with combinations of Land Use Controls, Monitored Natural Attenuation, Evapotranspirative Cover, Stormwater Control, and Waste Consolidation.

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Completed Area Name: 8 - Operable Unit 8, Northwest Main Base
Completed Sub Area Name: Not reported
Completed Document Type: Feasibility Study Report
Completed Date: 10/12/2009
Comments: Not reported

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 10/22/2008
Comments: The Final OU 7 RI Report covers 8 sites that moved past the PA/SI phase. Of the 8 sites, 4 sites (Sites 267, 269, 272, and 293) require no further action after review and agreement by the RPMs. Four sites (Sites 3, 280, 294, and 339) will continue on into the Feasibility Study phase.

Completed Area Name: 7 - Operable Unit 7, Basewide Misc. - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Feasibility Study Report
Completed Date: 01/11/2010
Comments: This is the FS for Sites 280, 294, and 339. The Air Force has evaluated clean-up remedies for the contamination in soil at these sites. DTSC has identified some potential human health risk assessment procedure issues and will work with the Air Force to resolve these.

Completed Area Name: 6 - Operable Unit 6, NASA Dryden
Completed Sub Area Name: Not reported
Completed Document Type: Record of Decision
Completed Date: 10/19/2006
Comments: The OU-6 ROD addresses six sites (N1, N2, N3, N4, N7, and AOC N14). The selected remedy OU6 Soils for all six sites is No Action. The risks associated with the soils were all within the acceptable risk range. Three of the sites (N2, N3, and N7) are the origin of the OU wide commingled groundwater plume. The groundwater contaminants are chlorinated solvents (TCE, cis-1,2 DCE, TCA, etc) and aromatic hydrocarbons (BTEX). The selected remedy for the groundwater is Land Use Controls to prevent exposure, In Situ Chemical Oxidation for chlorinated hydrocarbons, Enhanced Natural Attenuation for aromatic hydrocarbons, and monitored natural attenuation (plume containment) for the dissolved plume. DTSC signed the Declaration page on 10/19/06 and forwarded signature page to Water Board who provided the final signature on 12/28/06.

Completed Area Name: 4/9 - South AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Feasibility Study Report
Completed Date: 03/03/2006
Comments: On March 3, 2006, DTSC concurred with the Final Focused Feasibility Study to support a Technical Impracticability Evaluation/ Containment Zone Application for the South Air Force Research Laboaratory (AFRL) in OU 4 and OU 9. Due to the presence of pure phase trichloroethene (TCE) and tetrachloroethene (PCE) in fractured bedrock at depths exceeding 250 feet, the Focused Feasibility Study recommends requesting a technical impracticability waiver for meeting the cleanup standard of the Maximum Contaminant Level for drinking water (MCL) and applies for a Containment Zone under the State Water Code.

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Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Not reported
Completed Document Type: Record of Decision
Completed Date: 08/04/2009
Comments: This ROD documents the cleanup action for groundwater for Sites 5, 14, 76, and 86; and the soil cleanup action for Site 29. The remedy to clean up groundwater at combined Sites 5 and 14 is the implementation of in-situ biotreatment to destroy floating free product, injection of chemical reagents to remediate dissolved chlorinated solvents, the continued operation of the Site 14 extraction/treatment system, and the implementation of Land Use Controls to limit potential human exposure. The remedy to clean up groundwater at Sites 76 and 86 is to inject chemical reagents and in-situ biological components, and implement LUCs to limit potential human exposure. The remedy to clean up soil at Site 29 is to remove surface debris, grade the site and install a cover which will contain a soil erosion stabilizer agent, enhance the stormwater management system, install fencing, and implement LUCs. Groundwater monitoring will be performed in perpetuity or until sites are cleaned. DTSC signed the ROD on 7/8/09.

Completed Area Name: 426
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 08/06/2004
Comments: RA - S426 -- No Further Action recommendation following the completion of a removal action at Site 426 in OU-7, documented in the Site Interim Removal Action Report, March 2004. Site 426 is an historic WWII Chemical Warfare Material Storage Yard near dormitories where investigation delineated four possible "trenches." An excavation removal action conducted in 2002 identified no hazardous contaminants, only four sets of concrete "rails" which were removed.

Completed Area Name: 4/9 - South AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Record of Decision
Completed Date: 09/26/2007
Comments: Selected Remedy included a waiver of the Drinking Water Cleanup Standard and implementation of land use controls and a "Containment Zone." High Concentrations of TCE and PCE exist in fractured bedrock. Feasibility Study justified a technical impracticability waiver for aquifer clean up. Soil and Groundwater will have land use controls and will be monitored to ensure contaiminants do not migrate past the "Containment Zone." Final ROD document delivered 9/5/2007. Approval signatures from Air Force, USEPA, DTSC, and RWQCB provided on 9/11, 9/24, 9/26, and 10/1/2007 respectively.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Not reported
Completed Document Type: Feasibility Study Report
Completed Date: 10/21/2008
Comments: DTSC has concurred with finalizing the FS allowing OU 1 to move to the Proposed Plan stage. Thirty six of the 48 sites have been categorized as "No Further Action" either because contamination was not found or the contamination was petroleum-only (which moves these sites to the jurisdiction of the Kern County Health Dept under RWQCB authority). Site 45 has been sufficiently remediated and assigned

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NFA. As only VOCs are contaminants of concern, the remaining 11 sites have been grouped into the "North Plume/Site 19 Plume", the "South Plume" and the "Site 44 Plume". Remedial alternatives were designed around the remediation of these three plumes.

Completed Area Name: 6 - Operable Unit 6, NASA Dryden
Completed Sub Area Name: Not reported
Completed Document Type: Feasibility Study Report
Completed Date: 10/15/2004
Comments: This FS summarizes the backgrounds, plume characteristics, and remedial action alternatives evaluated for sites recommended for remedial action within Operable Unit 6 (OU-6). The report includes preliminary cleanup goals, technical approach comparisons, and cost comparisons of applicable remedial alternatives. Sites in OU-6 are not currently used for residential purposes, nor is such use anticipated; therefore, the FS focuses on industrial use considerations. The preferred alternative recommended for the Proposed Plan is Source Control and Hydrologic Control with Groundwater Monitoring.

Completed Area Name: OU-3 Basewide Homestead Wells
Completed Sub Area Name: Not reported
Completed Document Type: Record of Decision
Completed Date: 11/06/2003
Comments: RAP - OU3 -- The U.S. Environmental Protection Agency, the U.S. Air Force, and the State of California have selected No-Action as the remedy for Edwards AFB Operable Unit (OU)3. OU3 is defined as the basewide water wells and originally include 660 potential well sites determined from historical records and archival research. Initial site investigations determined that eight of the 660 wells were suspected as potential contaminant pathways to groundwater and were retained in OU3 for further evaluation. Subsequent investigations determined that none of the eight wells retained in OU3 had contributed to any groundwater contamination and, furthermore, no soil contamination was found in the vicinity of any of the wells.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: S172
Completed Document Type: Operations and Maintenance Report
Completed Date: 06/30/2003
Comments: OM - S172 -- In January 2000, the Air Force implemented an interim removal action (IRA) consisting of soil vapor extraction (SVE) at Site 172, the outdoor waste sump at Building 8595 in Operable Uit 4, Air Force Research Laboratory. The primary objective of the IRA at Site 172 is to remove contaminant mass and reduce the further migration of volatile organic compounds (VOCs) from contaminated soil into the Site 37 groundwater plume. The SVE system operated with one well initially; two more wells were added in August 2000. Four additional extraction wells were connected to the system, which was brought on line September 12, 2002, extracting vapor from seven wells. The cumulative mass of contaminants removed during the reporting period was 472 pounds. Vapor flow rates averaged approximately 42 standard cubic feet per minute (scfm) during January to August 2002, and 84 scfm during September to December 2002 following expansion of the well field from three to seven wells. The SVE operating cost for the year 2002, excluding labor, was $95,172.

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Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Site 133
Completed Document Type: Removal Action Completion Report
Completed Date: 06/27/2003
Comments: RA - S133 -- Construction of the Groundwater Exttraction Treatment System was completed between 01/09 and 04/18/2001 with testing of the system during the week of 04/23/2001 and startup on 04/30/2001. The system includes three groundwater extraction wells and an aboveground treatment system that uses liquid-phase granular activated carbon to remove volatile organic compounds (VOCs) in the extracted groundwater prior to discharge to the Air Force Research Laboratory (AFRL) sewage treatment plant. The system is designed for a maximum capacity of 50 gallons per minute (gpm); however, the volume of water extracted is limited by a discharge permit to 20 gpm.

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Removal Action Completion Report
Completed Date: 05/13/2003
Comments: RA - STE25 -- This report summarizes the operational maintenance and system sampling data collected during the period from December 28, 2001 through July 1, 2002 for the Site 25 Groundwater Extraction and Treatment System (GETS), in Operable Unit No. 8. During the reporting period, approximately 4,483,000 gallons of groundwater were extracted and treated by the Site 25 GETS at an average folwrate of 19.9 gallons per minute. 20.5 pounds (lbs.) of trichloroethene (TCE) were removed from treated groundwater. As of July 1, 2002, the GETS removed a cumulative total of 28.7. lbs. of TCE from treated groundwater. The treatment system effluent is discharged to the base sanitary sewer under an industrial wastewater discharge permit issued by Edwards Air Force Base (AFB).

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL32
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 06/28/2002
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL31
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 06/28/2002
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL30
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 06/28/2002
Comments: PEA - PRL30 -- No Further Investigation (NFI) documents signed by the Edwards Air Force Base Remedial Project Managers for Operable Unit 7 - Basewide Miscellaneous Area of Concern (AOC) Number 400. The NFI determination for this site-specific action means that the AOC has been adequately investigated and that the results justify the determination. PEA - PRL31 -- No Futher Investigation (NFI) documents signed by the Edwards Air Force Base Remedial Project Managers for Operable Unit 1 - Main Base Flight Line Site Number 65. The NFI determination for this site-specific action means that the Site has

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been adequately investigated and that the results justify the determination. PEA - PRL32 -- No Further Investigation (NFI) documents signed by the Edwards Air Force Base Remedial Project Managers for Operable Unit 2 - Ould South Base Site Number 96. The NFI determination for this site-specific action means that this Site has been adequately investigated and that the results justify the determination.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL29
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 03/29/2002
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL28
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 03/29/2002
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL27
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 03/29/2002
Comments: PEA - PRL27 -- No Further Investigation (NFI) documents signed by the Edwards Air Force Base Remedial Project Manager for Operable Unit 4- Air Force Research Laboratory Site Number 146 and for Operable Unit 9 - East Air Force Research Laboratory Site Number 376. The NFI determination for these site-specific actions means that these Sites have been adequately investigated and that the results justify the determination. PEA - PRL28 -- No Further Investigation (NFI) documents signed by the Edwards Air Force Base Remedial Project Manager for Operable Unit 7 - Basewide Miscellaneous Site Number 353 and Area of Concern (AOC) Numbers 268,368 and 371. The NFI determination for these site-specific actions means that these Sites/AOCs have been adequately investigated and that the results justify the determination. PEA - PRL29 -- No Further Investigation (NFI) documents signed by the Edwards Air Force Base Remedial Project Manager for Operable Unit 4 - Air Force Research Laboratory Site Number 7 and 146, and Area of Concern (AOC) Number 167 and 174. The NFI determination for these site-specific actions means that these Sites/AOCs have been adequately investigated and that the results justify the determination.

Completed Area Name: 426
Completed Sub Area Name: Not reported
Completed Document Type: *Action Memorandum (if <$1M)
Completed Date: 10/11/2001
Comments: RAW - S426 -- RAP of Edwards Air Force Base operable unit 7, site 426, includes both the Engineering Evaluation/Cost Analysis and Action Memorandum. The selected remedy for the chemical warfare site is containment excavation.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL26
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 12/13/2001

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Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL25
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 12/13/2001
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL24
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 12/13/2001
Comments: PEA - PRL24 - Preliminary Endangerment Assessment (PEA) of Edwards Air Force Base, Operable Unit 4, sites 7 and 174 and area of concern 167, determined that these sites and of concern pose no environmental or Human Health Threat. This document administratively removes these sites from further investigation. PEA - PRL25 -- Preliminary Endangerment Assessment (PEA) Edwards Air Force Base, Operable Unit 7, Sites 295, 434, 435, 436 441 and area of concern 457, determined that these sites and area of concern pose no Environmental or Human Health Threat. This document administratively removes these sites from further investigation. PEA - PRL26 -- Preliminary Endangerment Assessment (PEA) Edwards Air Force Base, Operable Unit 9, Site 179, determined that this site poses no environmental or Human Health Threat. This document administratively removes this site from further investigation.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL23
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 09/17/2001
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL22
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 09/17/2001
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL21
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 09/17/2001
Comments: PEA - PRL21 -- Concurrence provided on PEA equivalent document for OU7, AOCs 261, 262, 263, 264, and 265. PEA - PRL22 -- Concurrence provided on PEA equivalent document for OU10, Site 279. PEA - PRL23 -- Concurrence provided on PEA equivalent document for OU2, AOCs 458, 459, and 460.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL20
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 06/11/2001
Comments: PEA - PRL20 -- Concurrence provided on PEA equivalent documents for OU-5 sites 229, 235, 236, 238, 348, and 349 and AOCs 187, 190-192, 230, 246, 251, 253, 281, 283, 287, 288, 403, 420 423.

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Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL19
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 06/08/2001
Comments: PEA - PRL19 -- concurrence provided on PEA equivalent document for OU4, Site 186.

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: *Action Memorandum (if <$1M)
Completed Date: 12/04/2000
Comments: RAW - STE25 -- Concurrance on the proposed interim removal action to treat groundwater contaminated with tetrachloroethylene and N-Nitrosodimethylamine. Extracted groundwater will be treated by carbon absorption and discharged to EAFB's sanitary sewer.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL18
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 03/15/2001
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL17
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 03/15/2001
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL16
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 03/15/2001
Comments: PEA - PRL16 -- Concurrence provided on PEA equivalent documents for Operable Unit #4, Site 150 and Area of Concern 168. PEA - PRL17 -- Concurrence provided on PEA equivalent documents for Operable Unit #7 Sites 4 and 34 and Areas of Concern 388 and 394. PEA - PRL18 -- Concurrence provided on PEA equivalent documents for Operable Unit #8,Site 2.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL15
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 02/07/2001
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL14
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 02/07/2001
Comments: PEA - PRL14 -- Concurrence provided on PEA equivalent documents for Operable Unit #10, Area of Concern 243. PEA - PRL15 -- Concurrence provided on PEA equivalent documents for Operable Unit #1, Sites 46, 55 and 366.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL13
Completed Document Type: Preliminary Endangerment Assessment Report

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Completed Date: 02/08/2001
Comments: PEA - PRL13 -- Concurrence provided on PEA equivalent documents for Operable Unit #4, Site 12 and Areas of Concern 121, 155 and 164.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: STE18
Completed Document Type: * Remedial or Removal Design
Completed Date: 08/02/1999
Comments: DES - STE18 -- Approval of dual extraction system design for interim removal action to treat TCE contaminated soil and groundwater.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL12
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 04/21/2000
Comments: PEA -- Concurrance provided on PEA equivalent documents for OU-3, sites 30,412,413,414, and 415.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL11
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 01/05/2000
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL10
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 01/05/2000
Comments: PEA - PRL10 -- Concurrance provided on PEA equivalent documents for OU-4, areas of concern 122, 141, 170, and 171. PEA - PRL11 -- Concurrance provided on PEA equivalent document for OU-5, area of concern 233.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL9
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 09/29/1999
Comments: PEA - PRL9 -- Concurrence provided on PEA equivalent documents for OU-2, Sites 105, 109, 111, and 364.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL8
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 09/29/1999
Comments: PEA - PRL8 -- Concurrence provided on PEA equivalent documents for OU-3, Sites 409, 410, 411, and 416.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL7
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 02/26/1999
Comments: PEA - PRL7 -- Concurrance provided on PEA - equivalent documents for OU-10 sites 228, 232, and 256.

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: S223
Completed Document Type: * Remedial or Removal Design

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Completed Date: 02/02/1999
Comments: DES - S223 -- Design for installing, operating and evaluating the SVE and air sparging systems at Site 223 in OU-2.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SIT14
Completed Document Type: * Remedial or Removal Design
Completed Date: 02/01/1999
Comments: DES - SIT14 -- Design for installing, operating, and evaluating the groundwater extraction and treatment system at Site 14 in OU-2.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: B8595
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 01/28/1999
Comments: PEA - B8595 -- Investigation and closure of AOC's 170-172 in Building 8595 in OU-4.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL6
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 10/01/1998
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SRAM
Completed Document Type: Removal Action Completion Report
Completed Date: 08/03/1998
Comments: RA - SRAM -- Time critical removal action taken to destroy short range attack missile motor.

Completed Area Name: 6 - Operable Unit 6, NASA Dryden
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Plan
Completed Date: 04/27/1999
Comments: OM - OU-6 -- APPROVAL OF THE O&M PLAN FOR OU-6 SITES, N2, N3 AND N7.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: S133
Completed Document Type: *Action Memorandum (if <$1M)
Completed Date: 10/17/2000
Comments: RAW - S133 -- The proposed Interim Removal Action consists of the extraction of groundwater contaminated with solvents, primarily trichloroethlyene, and treatment by liquid phase granular activated carbon. Treated effluent will be discharged to the Base's sanitary sewer system. A total of 43,200 gallons per day of groundwater will be extracted and treated.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL5
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 10/01/1998
Comments: PEA - PRL5 -- EAFB has adequately investigated the OU-5 NASA Jet Propulsion laboratory PRL Sites 195, 200, 201, 243, 289 and 350 (collectively, PRL5). DTSC finds that the documents are equivalent to a PEA document. PEA - PRL6 -- EAFB has adequately investigated the OU-2 Old South Base PRL Sites 75, 77, 89, 95, 97 and 99

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(collectively, PRL6). DTSC finds that the documents are equivalent to a PEA document.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL4
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 07/29/1998
Comments: PEA - PRL4 -- Edwards AFB has adequately investigated the OU-2 Old South Base PRL sites 72, 73, 78, 79, 84, 87, 98, 100, 101, 104, 290, 291 and 417 (collectively, PRL4) DTSC finds that the documents are equivalent to a PEA document.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PRL1
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 12/12/1996
Comments: Not reported

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: S223
Completed Document Type: Removal Action Completion Report
Completed Date: 06/01/1999
Comments: RA - S223 -- Implementation of a SVE/Air sparging system to remediate fuel contaminated soil and groundwater.

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 14
Completed Document Type: Removal Action Completion Report
Completed Date: 06/11/1999
Comments: RA - SIT14 -- Implementation of a GW extraction/treatment system to remediate TCE contaminated GW. System implemented consists of 4 extraction wells and an above ground treatment system using carbon adsorption.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SIT29
Completed Document Type: Removal Action Completion Report
Completed Date: 06/04/1998
Comments: RA - SIT29-- Removal action consisted of fencing the site for access restriction and conducting long - term groundwater monitoring.

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: S223
Completed Document Type: *Action Memorandum (if <$1M)
Completed Date: 05/07/1998
Comments: RAW - Site 223 -- Petroleum hydrocarbon contamination in soil and groundwater will be treated using soil vapor extraction/vapor treatment for soils and air sparging for groundwater. Monitoring of the system will also be required.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SIT14
Completed Document Type: *Action Memorandum (if <$1M)
Completed Date: 05/07/1998
Comments: RAW - SITE14 -- Groundwater at Site 14 contaminated with petroleum hydrocarbon, volatile organics, and semi-volatile organcis will be treated via extraction and treatment by liquid-phase granular

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activated carbon adsoption, then reinjected into the groundwater aquifer

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SIT29
Completed Document Type: *Action Memorandum (if <$1M)
Completed Date: 05/07/1998
Comments: RAW - SIT29 -- The South Base abandoned landfill has been fenced and will be monitored.

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Not reported
Completed Document Type: Feasibility Study Report
Completed Date: 02/09/2006
Comments: The FS evaluated alternatives for each site in Operable Unit 2 - South Base. The preferred remedial alternatives for each site are summarized below: Sites 5/14 Contaminant Plume In-situ treatment of the commingled fuel and solvent contamination in groundwater with the maintenance of plume containment, long-term monitoring, and institutional controls. Pilot testing will be conducted to evaluate the appropriate method for in-situ treatment. Sites 76 and 86 Active groundwater restoration through the use of in-situ treatment and institutional controls for groundwater contaminated with trichloroethylene. Pilot testing will be conducted to evaluate the appropriate method for in-situ treatment. Site 29 Removal of recently emplaced surface debris, institutional controls, storm water controls, and long-term monitoring for the two former landfill areas. Site 69 Removal and on-base waste disposal of buried and surface debris from the Old South Base North Landfill. Excavated materials will be consolidated within the Main Base active landfill. Sites 81 and 102 Removal and off-site treatment or recycling for skeet target fragments from two former skeet ranges located in the Old South Base area.

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 5
Completed Document Type: Removal Action Completion Report
Completed Date: 12/10/1997
Comments: The Dual Extraction System at the source area of the Sites 5 and 14 plume is in place and operational. The system addresses "Hot Spot" soil and groundwater contamination from leaking USTs.

Completed Area Name: MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 06/30/1997
Comments: RA Site 7 & AOC 167. Beryllium soil contamination consolidated in an on-site waste management unit. Site is capped and revegetated and its location recorded in the Base Comprehensive Plan.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 16
Completed Document Type: Removal Action Completion Report
Completed Date: 06/30/1997
Comments: SIT16 DES Removal Action Completion - Initial operation of the Dual Extraction System began on March 18, 1997. The system is considered to be fully operational for long term use. The DES is extracting soil

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vapor and groundwater contaminated with JP-4 from the Building 1820 JP-4 Fuel Spill.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SIT45
Completed Document Type: Removal Action Completion Report
Completed Date: 05/22/1997
Comments: Not reported

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 5
Completed Document Type: *Action Memorandum (if >$1M)
Completed Date: 06/30/1997
Comments: RAP, OU-2 Site 5/15 Source Area Action Memorandum. Dual Phase Extraction selected for VOC and Fuel contamination in soil and groundwater.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SIT18
Completed Document Type: Remedial Action Plan
Completed Date: 05/29/1997
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SIT16
Completed Document Type: Remedial Action Plan
Completed Date: 09/30/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SIT45
Completed Document Type: Remedial Action Plan
Completed Date: 09/30/1996
Comments: Not reported

Completed Area Name: MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 09/30/1996
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Participation Plan / Community Relations Plan
Completed Date: 05/31/1994
Comments: PPP - DTSC approved a Public Participation Plan (revision) for Edwards Air Force Base.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 16
Completed Document Type: Removal Action Completion Report
Completed Date: 01/30/1993
Comments: Not reported

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report

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Completed Date: 01/30/1993
Comments: RA (OU1BV): Removal of JP-4 fuel in the vadose zone by injection of air underground to provide oxygen to native bacteria which feed on petroleum hydrocarbons. This process is being employed at Site 16 - Fuel Spill and at Site 21 - Jet Engine test cell facility. RA (OU1FP): Installation, development and activation of six scavenger pumps to remove free product from the groundwater surface at Site 16.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 01/30/1992
Comments: RA (OU1PR): Construction of a new JP-4 jet fuel pipeline to replace existing pipeline from fuel tank farm to flight line (4.5 miles) with double-walled pipe and leak detectors. No contaminated soil was removed with this action.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Participation Plan / Community Relations Plan
Completed Date: 04/30/1991
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 02/10/1987
Comments: Site Screening Done.

Completed Area Name: 6 - Operable Unit 6, NASA Dryden
Completed Sub Area Name: Not reported
Completed Document Type: Proposed Plan
Completed Date: 06/01/2005
Comments: No significant public comments received.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 58
Completed Document Type: Removal Action Workplan
Completed Date: 03/25/2005
Comments: This IRA Work plan includes additional characterization to delineate free product jet fuel and installation of a Vapor Extraction System to remediate soil and groundwater and removal of free product.

Completed Area Name: 4/9 - South AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 06/23/2005
Comments: Final approval letter sent.

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 11/09/2004
Comments: Final RI Report

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site CWM-A

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Completed Document Type: Feasibility Study Report
Completed Date: 09/14/2007
Comments: Site 442 CWM concurrence letter sent 9/14/07.

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site CWM-A
Completed Document Type: Remedial Investigation Report
Completed Date: 08/04/2006
Comments: Final Report received 7/10/2006. Originally 27 sites/AOCs. RPMs agreed that 24 sites and 2 AOCs posed minimal risk to human health and environment due to CWM-related contamination and were either NFA or administratively closed under CERCLA in the Site Inspection phase. DTSC concurrance on Final document by email 8/4/2006. Two sites, Site 426 and Site 442, to be carried forward.

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site CWM-A
Completed Document Type: Proposed Plan
Completed Date: 05/01/2008
Comments: Final version received 5/1/2008. Public comment period ended 6/16/2008.

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site CWM-A
Completed Document Type: Record of Decision
Completed Date: 09/25/2009
Comments: This ROD is for the Chemical Warfare Materiel Operable Unit, where miscellaneous former chemical warfare materials were buried in several waste cells at Sites 442-1, -2, and -3. Chemical wastes are not thought to be present in these waste cells, but as a safety precaution, no invasive sampling was performed. Furthermore, the suspected materials are believed to have degraded since disposal. However, as a precaution, a protective remedy was selected. The selected remedy includes grading to redirect surface drainage to limit infiltration, an envirotranspiration surface cap, long term monitoring and land use controls. This ROD also selects "No Further Action" for Site 426 which was once thought to contain chemical warfare materials.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 10/22/2008
Comments: DTSC concurrence on "Final" Operable Unit 5/10 RI Summary Report. 87 sites were identified within OU 5/10, the sites were classified into the following categories: 35 sites were removed from the CERCLA process as requiring No Further Investigation following the PA/SI phase; 15 sites were removed from the CERCLA process on the condition that contaminated soil or groundwater be addressed as part of remedial actions for Site 282 or 285; 23 sites were removed from the CERCLA process as petroleum only sites. Fourteen sites (Sites 1, 231, 233, 239, 240, 242, 274, 275, 278, 279[soil only], 282[groundwater only], 285, 287[groundwater only], and 422[groundwater only]) were evaluated in this document and will continue on through the FS.

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Not reported

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Completed Document Type: Proposed Plan
Completed Date: 06/28/2006
Comments: DTSC concurred with the OU2 Proposed Plan concurrence letter. Air Force proposes the following remedies for groundwater at Sites 5, 14, 76, and 86; soil and debris at sites 29, 29, 69, 81, and 102; and NFA remedies at the last four sites, Sites 78, 79, 96, and Area of Concern (AOC) 417

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Not reported
Completed Document Type: Feasibility Study Report
Completed Date: 10/25/2006
Comments: DTSC concurrence with the OU-4/9 Soil and Debris Sites Feasibility Study Report. Preferred remedial alternatives include: Site 36 - Land Use Controls only (vehicle gate, warning signs, and land use restrictions. Site 312 - clean closure of the site to residential use standards, off-site disposal of excavated soil and concrete. Site 318 - Land Use Controls. Sites 6 and 113 - Expand existing LUCs and install additional fencing. Site 115 - expand existing LUCs and backfill silos with clean soil and cap with concrete.

Completed Area Name: 4/9 - South AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Proposed Plan
Completed Date: 03/28/2006
Comments: EPA and DTSC concurred with final version of the OU-4 AFRL Proposed Plan.

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Not reported
Completed Document Type: Proposed Plan
Completed Date: 08/03/2007
Comments: Final document concurrence letter sent 8/3/07. No Further Action proposed for Sites 7, 26, 150, 153, 166, 172, 329, and 396, AOCs 170 and 171. Actions required for Sites 13, 36, 167, 312, 318, 6 and 113, and 115. Actions include continued groundwater monitoring, fencing, LUCs to prohibit residential uses and restrict industrial/construction uses.

Completed Area Name: 4/9 - Soil and Debris Sites
Completed Sub Area Name: Not reported
Completed Document Type: Record of Decision
Completed Date: 09/04/2008
Comments: Final ROD addresses the soil and debris media at 16 sites and two areas of concern (AOCs) located within OUs 4 and 9 and also the groundwater medium at Sites 6 and 113. Further Action required for the following sites: OU4 (Sites 13, 36, 167, 312, and 318), OU9 (Sites 6, 113, and 115). Interim remedial actions have reduced formerly high contaminant concentrations to levels acceptable for unrestricted use at Sites or AOCs 7, 26, 153, 166, 170, 171, 172, and 396. These sites will be Certified. No further action determinations were made for Sites 150 and 329 where contaminants were below unrestricted use levels.

Completed Area Name: 4A - AFRL Arroyos
Completed Sub Area Name: Not reported
Completed Document Type: Feasibility Study Report

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Completed Date: 01/15/2009
Comments: This Focused Feasibility Study supports a technical impracticability (TI) evaluation and designation of a containment zone (CZ) for groundwater plumes at Sites 162 and 461 at the Air Force Research Lab, Edwards AFB. Chemicals of Concern are present in fractured bedrock at levels that pose an unacceptable risk to human health and the environment, however this FS concludes that it is impracticable to remove the COCs and recommends measures to prevent exposure to contaminated soil and groundwater.

Completed Area Name: 9 - Air Force Research Lab - East
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 02/08/2006
Comments: DTSC concurrence with Final document, no letter sent. Of the 46 original sites in OU-9, 36 sites have been excluded from the CERCLA process and the 10 remaining sites are recommended for remedial action. 29 Sites were recommended for NFA in the Site Inspection Phase, 6 are managed under the UST program, and 1 site remains active. The 10 remaining sites include: Sites 6 and 113 (Abandoned Mine Shafts used for propellant waste disposal) contain waste left in place that is unsafe to investigate, and eight groundwater plumes at sites 27, 115, 116, 125, 127, 178, 321, and 325.

Completed Area Name: 8 - Operable Unit 8, Northwest Main Base
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 06/07/2006
Comments: DTSC concurred with RI Summary Report. Site Inspection phase eliminated nine sites from the CERCLA process as NFA. Eight sites are recommended for Feasibility Study.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 04/30/2008
Comments: Concurrence on Final document delayed due to workload and higher priority document reviews by DTSC and Fish and Game.

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 04/30/2008
Comments: Concurrence on Final version of document delayed due to heavy workload and higher priority document reviews by DTSC and Fish and Game.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Inventory Project Report (INPR)
Completed Date: 06/05/1990
Comments: Not reported

Completed Area Name: 4/9 - South AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Pilot Study/Treatability Workplan
Completed Date: 11/20/2008

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Comments: This addendum to the OUs 4/9 Workplan provides a summary of information to-date and outlines additional work to be performed for the bioremediation pilot study for the cleanup of plumes in the Arroyos portion of the South AFRL at EAFB.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Site 282
Completed Document Type: Treatability Study Workplan
Completed Date: 01/06/2009
Comments: Comments to Draft Workplan rec'd 8/20/08 were provided on 9/20/08. The Final workplan was received 11/6/08 and approved on 1/6/09.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 01/16/2009
Comments: This document is the first phase ecological screening evaluation of the sites listed in the title. Site 233, and AOCs 284 and 287 have moved on to the next phase of evaluation while the remaining sites are considered no action for ecological issues.

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 3
Completed Document Type: Proposed Plan
Completed Date: 01/25/2010
Comments: This is the proposed plan for the Air Force's proposed remedy for Site 3 in OU 7. The Air Force proposes a remedy that includes consolidation of some of the landfill cells, capping the cells using an "evapotranspiration cover", and conducting monitored attenuation monitoring. Additionally, land use covenents will be applied to the site.

Completed Area Name: 4A - AFRL Arroyos
Completed Sub Area Name: Not reported
Completed Document Type: Proposed Plan
Completed Date: 09/23/2009
Comments: Document summarizes the investigation/feasibility study, and proposes the clean up remedy of the TCE/perchlorate/other VOC groundwater contamination at the Arroyos which is in OUs 4/9 along the northwestern side of the Edwards Air Force Research Laboratory. The proposed remedy is to apply a "Containment Zone" of the contaminated aquifer and if applicable, in the distant future institute active remediation if/when the plume(s) reach the alluvial aquifer.

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 3
Completed Document Type: Well Installation Workplan
Completed Date: 01/29/2009
Comments: This document provides the details for addressing data gaps identified in the FS. Work to be performed includes the installation of downgradient monitoring wells, and landfill soil gas monitoring wells. Draft final and comment resolution handled electronically. DTSC concurred with the final changes; all comments have been addressed. No final concurrence letter needed or sent.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 16

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Completed Document Type: Well Decommissioning Workplan
Completed Date: 02/04/2009
Comments: Document presents the results of the 2007-2008 annual monitoring of the Site 16 (OU 1) SVE system. DTSC comments on the draft were adequately addressed. No concurrence letter on the final document needed or sent.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 19
Completed Document Type: Treatability Study Report
Completed Date: 01/02/2009
Comments: Documents the status of the Site 19 Bioremediation Treatment Study.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 04/02/2009
Comments: This document presents the ecological risk assessments for Sites 233 and 284. DTSC and DFG concurs.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 04/02/2009
Comments: The ecological risk assessment for Site 233, AOC 284, and AOC 287 have been reviewed and accepted by DTSC and DFG. No formal concurrence letter needed or sent.

Completed Area Name: 4/9 - South AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/02/2009
Comments: Document provides the results of the 2007-2008 annual groundwater monitoring perfomred at the AFRL (OUs 4/9. All of DTSC comments on the draft document were addressed; no concurrence letter on the final needed or sent.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Site 285
Completed Document Type: Monitoring Report
Completed Date: 01/21/2009
Comments: This document presents the results of the 2007-2009 annual groundwater monitoring and groundwater extraction system performance for site 285 at Operable Units 5 and 10. DTSC has reviewed and concurs with the final document; no concurrence letter needed or sent. Not reported

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/09/2009
Comments: Report provides the results of the annual groundwater monitoring for Operable Units 5 & 10 at EAFB. No final concurrence letter required or sent.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Not reported

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Completed Document Type: Design/Implementation Workplan
Completed Date: 02/25/2009
Comments: This document presents a sampling plan for data the Air Force will use for designing the planned remedial systems at OU 1. The AF recognizes that without a signed ROD, the remedies have not yet been selected.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 09/02/2009
Comments: Documents the proposed installation of various monitoring wells at Sites 282, 285, and AOC 287 at OUs 5/10 at EAFB

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 58
Completed Document Type: Monitoring Report
Completed Date: 09/16/2009
Comments: Not reported

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 16
Completed Document Type: Pilot Study/Treatability Workplan
Completed Date: 01/06/2010
Comments: This workplan is for the study of in-situ bioremediation groundwater treatment at Site 16.

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Monitoring Report
Completed Date: 08/24/2009
Comments: This report presents the results of the December 2007 through November 2008 monitoring of the Site 25 Groundwater and Extraction Treatment System. This includes the monitoring of the VOC groundwater plume.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 18
Completed Document Type: Monitoring Report
Completed Date: 06/09/2009
Comments: Documents the results of the annual monitoring of the Site 18 Dual Phase Extraction System. DTSC concurs, no concurrence letter required. Not reported

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Site 172
Completed Document Type: Monitoring Report
Completed Date: 06/17/2009
Comments: This report presents the results of the 2008 soil vapor monitoring at Site 172

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 19
Completed Document Type: Well Completion Report
Completed Date: 06/10/2009
Comments: Report was issued as final. DTSC provided input via comment letter.

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Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 29
Completed Document Type: Monitoring Report
Completed Date: 09/10/2009
Comments: Not reported

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Treatability Study Workplan
Completed Date: 12/07/2009
Comments: This document comprises the workplan to conduct a chem-ox treatability study at Site 25. Chemical oxidents will be leached into the subsurface via infiltration galleries in an attempt to assess the viability of using this method to reduce the amount of VOCs in groundwater. DTSC reviewed and concurred with the responses to DTSC comments on the draft document. There was no draft final issued; DTSC concurs with the final document.

Completed Area Name: 4/9 - Soil and Debris Sites
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Implementation Workplan
Completed Date: 10/08/2009
Comments: This Remedial Action Work Plan (RAWP) focuses on implementation of the remedial actions selected in the Soil and Debris Sites ROD. This RAWP outlines soil excavation, confirmation soil sampling, and/or groundwater well installation at Sites 13, 36, 167, 312, and 318. This RAWP also includes standard operating procedures in a Sampling and Analysis Plan and a Quality Assurance Project Plan (QAPP).

Completed Area Name: 6 - Operable Unit 6, NASA Dryden
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Implementation Workplan
Completed Date: 05/18/2010
Comments: This workplan outlines the installation of additional wells for the remedial action to clean up groundwater at Operable Unit 6.

Completed Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/02/2009
Comments: Not reported

Completed Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Pilot/Treatability Study Report
Completed Date: 11/03/2009
Comments: Report presents the results of the second phase of the In-Situ Chem Oxidation Treatability Study and the 2008 groundwater monitoring program. Chem ox treatment is reducing VOC concentrations in groundwater. More applications are forthcoming.

Completed Area Name: 8 - Operable Unit 8, Northwest Main Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Well Installation Workplan
Completed Date: 08/30/2010
Comments: Workplan for obtaining background levels for arsenic and nitrate

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Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/25/2009
Comments: This is the comprehensive 2007 annual groundwater monitoring report for 2007. DTSC has concurred; no concurrence letter required.

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 76
Completed Document Type: Design/Implementation Workplan
Completed Date: 10/20/2010
Comments: Not reported

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 3
Completed Document Type: Feasibility Study Report
Completed Date: 01/07/2010
Comments: This documents the results of the data gaps investigation (additional monitoring wells and groundwater and soil gas (via previously installed permanent vapor wells)sampling to support the FS. Also included was an update to the VOC degradation study and a greater level of details on cleanup alternative cost estimates than was provided in the FS. At DTSC concurrence, no draft final was prepared and instead the Air Force worked with DTSC to address all of DTSC comments on the draft document.

Completed Area Name: 4/9 - South AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 10/12/2009
Comments: This report documents the installation and initial monitoring of wells for the South AFRL remedial action. DTSC has identified one potential issue (that of adequate downgradient control for Site 120) which will be addressed by the Air Force.

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 86
Completed Document Type: Remedial Action Implementation Workplan
Completed Date: 11/12/2010
Comments: Document presents the plan to perform the remedy (groundwater cleanup) at Site 86.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Site 231
Completed Document Type: Engineering Evaluation / Cost Analysis - Time Critical
Completed Date: 05/10/2010
Comments: This EE/CA presents the case for conducting a Non-Time (subsequently changed to a "Time") Critical Removal Action for lead-contaminated soil at Site 231 in OU 5/10. It will be performed via a "scoop and haul" method with an Air Force goal of achieving a "no further action" designation for this site.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Site 242
Completed Document Type: Engineering Evaluation / Cost Analysis - Time Critical
Completed Date: 05/11/2010
Comments: This EE/CA presents the case for conducting a Non-Time Critical

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Removal Action for PCB-contaminated soil at Site 242 in OU 5/10. It will be performed via a "scoop and haul" method with an Air Force goal of achieving a "no further action" designation for this site.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Site 231
Completed Document Type: Other Report
Completed Date: 09/20/2011
Comments: This Action Memorandum provides the administratively required justification for completing the lead-impacted soil removal action at Site 231

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Well Installation Workplan
Completed Date: 04/28/2010
Comments: This workplan provides for the installation of monitoring wells at the referenced sites to fill data gaps for the Air Force to proceed to the Feasibility Study.

Completed Area Name: 4/9 AFRL Misc. Documents
Completed Sub Area Name: Not reported
Completed Document Type: Well Completion Report
Completed Date: 03/01/2010
Comments: Report provides the results from the 2008 installation of monitoring wells forthe AFRL Arroyos and Northeast AFRL plumes. Additional wells are needed and a workplan to install these additional wells is under DTSC review.

Completed Area Name: 4/9 - South AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Well Installation Workplan
Completed Date: 02/18/2010
Comments: Provides the Purpose, data quality objectives, and schedule for the next phase (referred to as the "Eco" phase)of wells to be installed at the South AFRL to monitor the plume extents and meet the ROD requirements.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Not reported
Completed Document Type: Well Installation Workplan
Completed Date: 05/10/2010
Comments: This workplan is for the installation of monitoring wells to address selected data gaps for the groundwater plumes in OU 1. In April 2010 DTSC participated in a technical workgroup meeting to resolve comments and select final well locations.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Site 285
Completed Document Type: Monitoring Report
Completed Date: 12/02/2009
Comments: This report summarizes the annual (04/08-04/09) operations and monitoring for Site 285 at OUs 5/10. DTSC did not review.

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

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Completed Date: 12/22/2009
Comments: Report provides the results of the 2008 annual groundwater monitoring for the Arroyos, Northeast AFRL, and South AFRL at OUs 4/9

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 08/02/2010
Comments: Develops background groundwater concentrations for Nitrate, selected anions, and TDS.

Completed Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Implementation Workplan
Completed Date: 10/06/2010
Comments: Workplan to initiate in-situ chemical oxidation of VOCs in groundwater at Sites 5 and 14 in Operable Unit 2.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/19/2010
Comments: Provides the results of the August 2008-April 2009 Groundwater Monitoring Program for combined Operable Units 5 and 10.

Completed Area Name: Multiple OUs - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Well Installation Workplan
Completed Date: 05/18/2010
Comments: Workplan to install monitoring wells to address groundwater data gaps at the Northeast AFRL and a few of the Mars. Blvd. sites. Does not address all identified data gaps; there will be a future separate workplan for those data gaps.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 01/26/2011
Comments: Workplan to assess the VIP at Sites 16 and 18.

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Site 333A
Completed Document Type: Pilot/Treatability Study Report
Completed Date: 10/01/2010
Comments: Presents the results of the treatability study for groundwater at site 333. Injection of substrate resulted in degradation of primary contaminants to secondary contaminants (1,2-DCE) where degradation stalled even after bioaugmentation was applied. AF has agreed to continue monitoring to see if contaminant degradation continues.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 58
Completed Document Type: Monitoring Report
Completed Date: 07/26/2010
Comments: Provides the results of the Nov ’08 through Oct ’09 SVE operations.

Completed Area Name: 2 - Operable Unit 2, South Base

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Completed Sub Area Name: Site 29
Completed Document Type: Other Report
Completed Date: 10/25/2010
Comments: This document presents the results of the surface debris removal and subsurface investigation to delineate the extent of and identify the general contents of the buried debris at Site 29. It was meant to feed into the remedial design. However, the results show that only limited innocuous (generally concrete, bottls, cans, etc.) are present. As a result, the Air Force turned this document into an FS addendum and added an evaluation of removing the buried debris.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 18
Completed Document Type: Monitoring Report
Completed Date: 08/12/2010
Comments: Annual monitoring report for the OU 1, Site 18 Dual-phase extraction system for the remediation of VOCs in soil and groundwater.

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 3
Completed Document Type: Record of Decision
Completed Date: 09/21/2012
Comments: After significant delay due to unacceptable changes made by the Air Force (AFCEE) in the draft final revision 1 and revision 2, and subsequent negotiation and modifications, the Federal Facility Agreement signatories agreed to finalize and sign the ROD in September 2012. This is a former municipal landfill that contains some (estimated to be small) amount of hazardous wastes that have resulted in a small VOC groundwater plume undergoing natural biodegradation. The remedy is to consolidate some of the more distant waste cells into a cell in the main portion of the landfill, apply land use controls restricting building on and in the vicinity of the landfill, conduct further studies of the bedrock aquifer, and monitor the continued degradation of the VOCs in groundwater.

Completed Area Name: Military Munitions Response Program (MMRP) - Basewide
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 05/15/2010
Comments: This report is the equivalent of a Remedial Investigation for military munitions for areas where the Air Force has identified as "closed" and no longer will be used for range operations. DTSC has reviewed and generally concurred with the results. In an August 2009 meeting, DTSC identified the need for further action in four areas.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 58
Completed Document Type: Quality Assurance Workplan
Completed Date: 12/03/2010
Comments: Presents the workplan to install an SVE system at OU 1 Site 58.

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 14
Completed Document Type: Monitoring Report
Completed Date: 08/30/2010
Comments: DTSC reviewed the draft annual groundwater monitoring report, and no comments and concurred with finalization.

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 06/21/2010
Comments: This workplan describes the plan for collecting and analyzing soil samples in source areas at OU 1. The data will be used in developing potential remedial designs which will be finalized in the Record of Decision

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Site 282
Completed Document Type: Pilot/Treatability Study Report
Completed Date: 09/22/2010
Comments: Reports the status of the treatability study for groundwater at Site 282. DTSC disagrees with the conclusion that the process in not viable for treating groundwater at Site 282 and has conveyed this in a letter on the final document.

Completed Area Name: Multiple OUs - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Treatability Study Report
Completed Date: 10/01/2010
Comments: Presents the results of the Treatability Study for GW contamination at Sites 162, 177, and 325. Study shows that these processess are technically feasible for contaminant clean up and they will be evaluated in the FS as part of remedy option evaluations.

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 11/10/2010
Comments: Provides the remedial design for the remedy for Site 442.

Completed Area Name: 4A - AFRL Arroyos
Completed Sub Area Name: Not reported
Completed Document Type: Well Installation Workplan
Completed Date: 08/09/2010
Comments: Workplan to install wells to address data gaps and provide data to support proposed remedy in the draft Arroyos ROD.

Completed Area Name: Military Munitions Response Program (MMRP) - Basewide
Completed Sub Area Name: Not reported
Completed Document Type: Engineering Evaluation / Cost Analysis - Time Critical
Completed Date: 08/19/2010
Comments: Finalized on 8/19/2010. Some sites will move to either an FS or will undergo removal actions via and Engineering Evaluation/Cost Analysis.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/31/2010
Comments: This is the annual GW monitoring report for the period listed in the title. DTSC has concurred w/the final.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan

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Completed Date: 07/19/2010
Comments: Work plan on strategy to determine basewide determination of nitrate, seltected anions, and TDS. No new field work proposed; will comprise the analyses of existing data. DTSC did not review; deferred review to the other regulatory agencies.

Completed Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 03/05/2011
Comments: Documents the work to conduct an assessment of the presence of lead shot and skeet fragments at Sites 81 and 102

Completed Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 03/05/2011
Comments: Presents the plan for conducting grid sieving of shallow soil to assess presence of skeet fragments and lead shot in soil at the two sites.

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 29
Completed Document Type: Removal Action Completion Report
Completed Date: 07/27/2010
Comments: This report documents the removal of 94,000 cubic yards of waste debris at Site 29 in Operable Unit 2. Wastes were segregated and either transported to recycling facilities or waste disposal facilities depending upon classification. Action will result in "clean closure" of this site.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Site 285
Completed Document Type: Monitoring Report
Completed Date: 12/01/2010
Comments: Provides the 4/09-4/10 final report for the Site 285 Groundwater Extraction system

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Site 231
Completed Document Type: Site Characterization Workplan
Completed Date: 09/13/2010
Comments: Workplan to install collect shallow soil gas samples, soil samples, groundwater samples, and install wells for risk screening purposes and source characterization.

Completed Area Name: 8 - Operable Unit 8, Northwest Main Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/02/2011
Comments: Annual monitoring report for OU 8 sites

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 02/04/2011
Comments: Not reported

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Completed Area Name: 4/9 AFRL Misc. Documents
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/14/2011
Comments: Presents the 2009 annual groundwater monitoring results at various AFRL sites.

Completed Area Name: 4/9 - South AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/07/2012
Comments: Provides the results of the vapor intrusion sampling and assessment of the South AFRL. There is potential indication of low risk to selected buildings. Because of the transitory nature of soil vapor in the subsurface, the Air Force will conduct an additional monitoring round for the next South AFRL Five Year Review. There is an approximate 5x10-6 risk to occupants of Building 8595. To mitigate, the Air Force has agreed to continue to operate the SVE system to "break" the vapor pathway to the building.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 02/18/2011
Comments: Presents the strategy for sampling wells to identify nitrate sources at Edwards AFB

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/19/2011
Comments: 2009 Annual Monitoring Results for OU 1

Completed Area Name: 4/9 - Soil and Debris Sites
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 07/01/2011
Comments: Provides the results of the remedial action for the OUs 4 & 9 Soil and Debris Sites ROD. Action is complete for Sites 36, 6, and 113, but per DTSC and EPA comments the AF has agreed that a ROD Amendment is needed for Site 312 as they were unable to remove all the PCB-impacted soil.

Completed Area Name: 4/9 - Northeast AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 04/08/2011
Comments: Workplan to conduct an aquifer test in the Northeast AFRL for assessing aquifer parameters for future modeling updates.

Completed Area Name: Military Munitions Response Program (MMRP) - Basewide
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 10/13/2010
Comments: Provides the Phase II MMRP investigation of various areas of the base. Conclusions are that several areas will be designated as "No Further Action" while additional areas (AL504, AL505-2), and AL505-4)

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will undergo Feasibility Study (with required data gaps work) or a removal action via the EE/CA process.

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 29
Completed Document Type: Proposed Plan
Completed Date: 01/18/2011
Comments: Proposed plan to explain the change in the remedy for Site 29. Plan now is to excavate for clean closure.

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 12/20/2010
Comments: PERA for select OU 7 Sites at EAFB.

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 339
Completed Document Type: Site Characterization Workplan
Completed Date: 12/20/2011
Comments: Workplan to fill data gaps at Site 339 so the site can move to the ROD stage.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 08/01/2011
Comments: Site Characterization and Plume Delineation Work Plan to fill data gaps at OUs 5/10 Sites 231, 240/241, 275, 282, 285, and 422.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation / Feasibility Study
Completed Date: 04/01/1996
Comments: 1996 Operable Unit 1 RI Report. Note, there is a subsequent (2004) supplemental OU 1 RI report

Completed Area Name: 4/9 - Northeast AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 08/30/2014
Comments: Rather than send a letter on the final report, DTSC will provide any needed input in comments on the Draft Northeast AFRL FS as this modeling report is incorporated into the FS

Completed Area Name: 6 - Operable Unit 6, NASA Dryden
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 05/23/2011
Comments: Provides the results of the final phase of the groundwater remedy treatment. Information will be used in the pending 5-year review of the OU 6 ROD remedy.

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Well Installation Workplan
Completed Date: 08/01/2011

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Comments: Well installation and geophysics survey to fill data gaps for Feasibility Study.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Site 231
Completed Document Type: Removal Action Completion Report
Completed Date: 08/01/2011
Comments: Documents the results of the (mostly lead) soil contamination cleanup of Site 231 at OUs 5/10

Completed Area Name: Military Munitions Response Program (MMRP) - Basewide
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 02/10/2012
Comments: Workplan to conduct a surface clearance of military munitions for 2 offsite areas adjacent to the base and one-site area at EAFB.

Completed Area Name: 4/9 - Soil and Debris Sites
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 06/01/1995
Comments: Presents the background levels for various inorganics in soil and bedrock at the AFRL area.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 12/30/2011
Comments: Results of the aquifer tests and associated model update for OU 5/10 sites

Completed Area Name: 4/9 - Northeast AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 08/22/2011
Comments: Workplan to assist in groundwater flow model projections

Completed Area Name: 8 - Operable Unit 8, Northwest Main Base
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/07/2011
Comments: Not reported

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 58
Completed Document Type: Monitoring Report
Completed Date: 07/29/2011
Comments: Annual monitoring report for Site 58 SVE system

Completed Area Name: Military Munitions Response Program (MMRP) - Basewide
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 02/10/2012
Comments: Action Memo justifying the reason for the non-time critical action for MMRP clearance at surface for 5 parcels.

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels

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Completed Sub Area Name: Site 25
Completed Document Type: Monitoring Report
Completed Date: 01/10/2012
Comments: Site 25 GETS Annual Groundwater Monitoring Report for 2010. Annual monitoring report for the Site 25 Groundwater Extraction Treatment System. DTSC has reiterated a request for the Air Force to restart the GETS system.

Completed Area Name: 4/9 - Northeast AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 05/24/2012
Comments: Workplan to collect data and assess the vapor intrusion pathway at occupied buildings in the Northeast AFRL and Mars Blvd sites in OUs 4/9

Completed Area Name: 8 - Operable Unit 8, Northwest Main Base
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 12/19/2011
Comments: Workplan to fill data gaps at Site 61, 299, and 301. FS will be updated pending receipt of the data acquired from this work.

Completed Area Name: 4A - AFRL Arroyos
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 04/13/2012
Comments: Provides the workplan for collecting data and assessing the vapor intrusion pathway for occupied buildings at the Arroyos

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 16
Completed Document Type: Pilot/Treatability Study Report
Completed Date: 01/24/2012
Comments: Site 16 In Situ Bioremediation Study Status Report

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 14
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/13/2011
Comments: Annual report documenting the status of the Site 14 groundwater extraction system. System is operating as planned; however sidegradient and downgradient extent of TCE plume is still undefined. AF is conducting a monitoring well installation program to define the extent of the plume.

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 29
Completed Document Type: Record of Decision - Amendment
Completed Date: 10/16/2012
Comments: Record of Decision Amendment to change the remedy to a "Clean Closure" from the prior remedy of capping and land use covenants.

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 10/28/2011

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Comments: Workplan to perform Tracer Test to assess bedrock aquifer fracture zone for modeling and groundwater monitoring.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 12/29/2011
Comments: Characterization of the Vapor Intrusion Pathway at two selected buildings at Sites 16 and 18. Data indicate low risk to building occupants.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/09/2011
Comments: OU 5/10 AGMR

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Site 285
Completed Document Type: Monitoring Report
Completed Date: 01/30/2012
Comments: Annual Monitoring Report for the Site 285 Groundwater Extraction System

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 18
Completed Document Type: Monitoring Report
Completed Date: 12/23/2011
Comments: 2010 Annual report on the Site 18 Groundwater and vapor extraction system

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Pilot/Treatability Study Report
Completed Date: 12/23/2011
Comments: Final report for the ISCO treatability study at Site 25. Results are mixed; some trouble getting delivery of the chemical to the contaminated groundwater. Final decision is to continue to monitor to see if ISCO eventually makes it to the contaminated zone.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Quality Assurance Workplan
Completed Date: 05/17/2012
Comments: This is the revised Basewide QAPP which includes updated standard operating procedures for field and analytical work at Edwards AFB.

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/30/2012
Comments: AGMR for 2010 Groundwater Monitoring at the Arroyos, NE AFRL, and South AFRL.

Completed Area Name: 4/9 Mars Blvd Sites
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

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Completed Date: 10/03/2012
Comments: OU 4 & 9 Mars Blvd Sites 2009 & 2010 Annual GWM Reports and 2011 Sampling Plan. Originally, one document, subsequently broken into 3 documents when finalized.

Completed Area Name: 4/9 - South AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Well Completion Report
Completed Date: 03/22/2012
Comments: Provides the well installation information and initial sampling data for monitoring wells installed in 2010-2011 as part of the remedial design. Data will be used for the upcoming five-year review report.

Completed Area Name: Operable Unit 4/9
Completed Sub Area Name: Not reported
Completed Document Type: Well Completion Report
Completed Date: 04/04/2012
Comments: Presents the results of the installation of new monitoring wells at the AFRL Arroyos, Northeast AFRL, and Mars Blvd. Results in a revision to the Conceptual Site Model. The most significant change is at the Arroyos by moving the alluvium/bedrock aquifer transition several hundred feet closer to Leuhman Ridge.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 01/09/2012
Comments: This document provides the over-arching basewide conceptual site model for environmental contamination (including geology and hydrology) at the base and the relationship of on-base environmental issues to potential off-base occupants and water users.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Site 285
Completed Document Type: Operations and Maintenance Plan
Completed Date: 06/01/2012
Comments: Updated sampling plan for the OU 5/10 Groundwater Extraction Treatment System.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Site 285
Completed Document Type: Operations and Maintenance Manual
Completed Date: 06/01/2012
Comments: Updated O&M manual for the Site 285 Groundwater Extraction and Treatment System.

Completed Area Name: 6 - Operable Unit 6, NASA Dryden
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 03/01/2003
Comments: OU 6 HHRA Report

Completed Area Name: 4/9 - South AFRL
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Reports
Completed Date: 09/19/2012
Comments: First Five Year Review for the South AFRL ROD. Air Force agrees to

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accelerate the groundwater monitoring program due to new predictions of plumes moving faster than thought during the ROD plus the need for further assessment of the Vapor Intrusion Pathway at Sites 37 and 133.
Not reported

Completed Area Name: 8 - Operable Unit 8, Northwest Main Base
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 03/01/2006
Comments: Ecological risk assessment for Sites 25, 61, 257, and 301 at OU 8

Completed Area Name: 8 - Operable Unit 8, Northwest Main Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 04/24/2008
Comments: Presents the results of the Site 299 and 301 RI investigation addendum.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 01/28/2013
Comments: OU 1 2011 Groundwater Modeling Report: Although EAFB finalized this document, there remains significant disagreements in the conceptual site model and associated assumptions/inputs used for this model. EAFB felt that these issues would not be resolved and chose to close out their contract and issue a final document. Rather than outright reject or consider the document incomplete, DTSC will factor outstanding issues into future decision-making for OU 1.

Completed Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 11/01/2008
Comments: HHRA Addendum for OU 2 Sites

Completed Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 06/01/2003
Comments: OU 2 HHRA

Completed Area Name: 4/9 - South AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/07/2012
Comments: Presents the status of the long-term monitoring of the South AFRL Remedy. Activities included LUC and groundwater monitoring, and SVE which was turned off in 2010. The shut-down of the SVE is compliant with the remedy which allows the Air Force to adjust systems as needed to optimize the remedy.

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Plan
Completed Date: 06/21/2012
Comments: 2012 groundwater monitoring plan for the OU 4/9 Northeast and South

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AFRL areas.

Completed Area Name: 6 - Operable Unit 6, NASA Dryden
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Plan
Completed Date: 04/02/2012
Comments: Not reported

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Site Characterization Report
Completed Date: 08/20/2012
Comments: Workplan to conduct the vapor intrusion pathway assessment for the two occupied buildings down slope from Site 25, and overlying the Site 25 groundwater plume.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 58
Completed Document Type: Monitoring Report
Completed Date: 08/09/2012
Comments: Annual monitoring report for the OU 1 Site 58 SVE system

Completed Area Name: 4A - AFRL Arroyos
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Plan
Completed Date: 06/12/2012
Comments: Sampling plan (schedule) for June 2012 groundwater monitoring at the AFRL Arroyos.

Completed Area Name: 4/9 - Northeast AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 09/27/2012
Comments: DTSC and Air Force remain in disagreement with certain elements of the Conceptual Site Model and resulting interpretation of the aquifer test. This needs to be considered when the Air Force conducts modeling and designs remedial systems for the Northeast AFRL

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 58
Completed Document Type: Removal Action Workplan
Completed Date: 06/25/2012
Comments: Addendum to the workplan for Site 58 operations

Completed Area Name: 8 - Operable Unit 8, Northwest Main Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/25/2012
Comments: 2011 AGMR and 2012 Sampling Plan for OU 8 Groundwater Program

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 09/26/2012
Comments: Presents the status of the ISCO injection portion of the remedy to remediate the Site 5/14 Groundwater Contaminant Plume

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Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Not reported
Completed Document Type: Well Completion Report
Completed Date: 10/05/2012
Comments: Report that presents the results of the wells installed from 9/10-8/11
Not reported

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 18
Completed Document Type: Monitoring Report
Completed Date: 10/01/2012
Comments: Annual monitoring report for the Site 18 Dual Extraction System. No significant issues.

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 11/13/2012
Comments: Test to assess aquifer parameters in bedrock in the area where the Northeast AFRL plume is projected to migrate from bedrock to the alluvial aquifer.

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Site 172
Completed Document Type: Monitoring Report
Completed Date: 08/31/2010
Comments: Site 172 Soil Vapor Extraction System Annual Operations Report for 2009

Completed Area Name: 6 - Operable Unit 6, NASA Dryden
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 04/15/2009
Comments: Final Report

Completed Area Name: 8 - Operable Unit 8, Northwest Main Base
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 06/21/2007
Comments: Final HHRA Addendum for OU8

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Monitoring Report
Completed Date: 12/20/2010
Comments: This is the 2009 Annual Groundwater Monitoring Report for Site 25.

Completed Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 10/16/2012
Comments: In response to regulatory concerns, the Air Force has developed this Workplan to assess the vertical extent of skeet fragments and lead shot in gridded areas where vertical extent is undefined.

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Not reported

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Completed Document Type: Design/Implementation Workplan
Completed Date: 04/08/2013
Comments: This document presents the updated sampling plan for Sites 5/14, 76, and 86. Also included are changes to the standard operating procedures for sampling and analyses.

Completed Area Name: 6 - Operable Unit 6, NASA Dryden
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 03/12/2013
Comments: DTSC Comments on Draft Final OU6 VISP & RA WP submitted to Air Force

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 18
Completed Document Type: Operations and Maintenance Plan
Completed Date: 01/28/2013
Comments: Workplan for the 2012-2013 operation of the DES system and the monitoring of groundwater contamination at Site 18.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Not reported
Completed Document Type: Pilot Study/Treatability Workplan
Completed Date: 10/18/2012
Comments: Plan to conduct an enhanced in-situ biogeochemical transormation of VOCs pilot study at Site 19

Completed Area Name: 4/9 - Soil and Debris Sites
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Reports
Completed Date: 08/05/2013
Comments: OU 4/9 Soils and Debris Sites Five Year Review Report

Completed Area Name: 6 - Operable Unit 6, NASA Dryden
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan Amendment
Completed Date: 04/10/2013
Comments: OU6 Remedial Action Workplan has been finalized.

Completed Area Name: 4/9 Mars Blvd Sites
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/19/2013
Comments: 2011 Annual GWM Report OU 4/9 Mars Blvd Sites 6, 27, 39, 113, 115, 116, 118, 125, 127, 178, 321, 333, and 338

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Quality Assurance Workplan
Completed Date: 02/29/2008
Comments: Updated Basewide Quality Assurance Project Plan includes the Basewide FSP and SAP

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Not reported
Completed Document Type: Feasibility Study Report
Completed Date: 07/31/2007
Comments: Data gaps sampling report to obtain additional data for selected

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sites to finalize the FS

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 5
Completed Document Type: Remedial Investigation Workplan
Completed Date: 05/17/2013
Comments: OU 2 Site 5 Remedial Investigation Workplan to investigate the source of the carbon tetrachloride detected in groundwater downgradient from Site 5. Plan is to conduct a soil vapor survey and groundwater sampling of existing wells to locate the CT source.

Completed Area Name: 4/9 Mars Blvd Sites
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Plan
Completed Date: 04/18/2013
Comments: 2012 Annual Groundwater Monitoring Sampling QAPP Plan. Provides the plan for sampling groundwater in 2012 at the Mars Boulevard Sites.

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 339
Completed Document Type: Feasibility Study Report
Completed Date: 06/20/2013
Comments: Report finalized by AF, but DTSC has documented concerns to be addressed prior to ROD

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 14
Completed Document Type: Design/Implementation Workplan
Completed Date: 12/26/2012
Comments: This is a "letter" workplan addendum for relatively minor remediation system and monitoring modifications.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Plan
Completed Date: 03/06/2013
Comments: Final 2012 GWMSP Submitted. No further comments.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Plan
Completed Date: 10/16/2012
Comments: This document provides the groundwater sampling plan for 2012 at OU 5/10

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Site 312
Completed Document Type: Record of Decision w/ESD
Completed Date: 07/16/2013
Comments: This Explanation of Significant Difference from the (Soils and Debris Sites) ROD is to document the remedy change for Site 312, an active transformer station on Leuhman Ridge. Because of impacts to the EAFB "Mission", the transformer could be shut down for only a specific period of time for the soil excavation remedy. Air Force attempted "clean closure" but was unable to remove PCB contaminated soil from a small area below the concrete pad and a small area below the adjoining asphalt area. Concentrations of PCBs in soil remaining at

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the site are above residential cleanup levels necessitating a land use covenant restricting residential use and warning workers of the presence of potentially impacted covered soil.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 07/01/2004
Comments: This is an update to the 1996 RI report. It incorporates new data acquired since the prior RI report was published.

Completed Area Name: 6 - Operable Unit 6, NASA Dryden
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/01/2013
Comments: Not reported

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Well Installation Workplan
Completed Date: 03/29/2013
Comments: Not reported

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Not reported
Completed Document Type: Feasibility Study Report
Completed Date: 08/02/2013
Comments: RI/FS Addendum: Site Characterization and Plume Delineation Data Summary Report. Presents the results of data gaps by conducting soil vapor sampling and installing/sampling additional monitoring wells.

Completed Area Name: 8 - Operable Unit 8, Northwest Main Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 09/26/2013
Comments: Remedial Investigation Summary Report Addendum for Sites 61, 299, and 301. DTSC has reviewed and accepts the final document which details the data gaps investigation work at the three OU 8 groundwater plume sites.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Site 285
Completed Document Type: Monitoring Report
Completed Date: 04/05/2013
Comments: Site 285 Groundwater Extraction and Treatment System O&M Report for September 2011-September 2012. Presents the O&M activities (including extraction well sampling) for the GETS to remediate perchlorate in groundwater at Site 285.

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 08/22/2013
Comments: AFRL Arroyos, Northeast AFRL, and Mars Blvd Well Installation Report for 2011-2012

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.

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Completed Sub Area Name: Site 442
Completed Document Type: Design/Implementation Workplan
Completed Date: 01/31/2014
Comments: Soil Gas Sampling Workplan, OU 7, Chemical Warfare Material Site 442, Areas 1, 2, and 3. Sampling is needed pursuant to the ROD to ensure protectiveness of possible chemical release from these CWM landfills.

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 06/14/2013
Comments: Geophysical Surveys to Delineate the Spring Fault and GW Transition from Bedrock to Alluvial Aquifer, Arroyos and NE AFRL Areas

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 12/01/2012
Comments: Revised/updated RAB Charter and Bylaws approved by the RAB in 2012. Primary changes made to meetings (reduced from four to two per year) and incorporation of social media (Facebook) for communications.

Completed Area Name: 4A - AFRL Arroyos
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 02/13/2013
Comments: Meeting to Develop Workplan for Arroyos Data Gaps. This meeting was held on 2/13/13; DTSC (and other regulatory agencies) provided input and added ideas on the Air Force's plans to address Arroyos and Northeast AFRL data gaps.

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 29
Completed Document Type: Remedial Action Implementation Workplan
Completed Date: 07/25/2013
Comments: Site 29 Remedial Action Work Plan. Presents the workplan to remove the contaminated soil and debris at Site 29.

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Monitoring Report
Completed Date: 08/06/2013
Comments: Site 25 GETS Biennial Groundwater Monitoring Report-January 2011 to December 2012. Air Force did not issue a draft final. DTSC identified problems with the final and on 8/6/13 issued a draft comment letter.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 07/16/2013
Comments: Workplan for Vapor Intrusion Assessment at (high priority buildings at) OU's 1, 4/9, 5/10, and 8

Completed Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Engineering Evaluation / Cost Analysis - Time Critical
Completed Date: 10/16/2014

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Comments: Sites 81 and 102 EE/CA for Removal of Lead Shot and Skeet Fragments. Selected "removal action" will actually be a cap consisting of crushed concrete and areas with soil/vegetation to allow for limited habitat restoration.

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 442
Completed Document Type: Operations and Maintenance Plan
Completed Date: 09/13/2013
Comments: OU 7 Chemical Warfare Material Site 442 O&M Plan for Cap

Completed Area Name: 4/9 - South AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Plan
Completed Date: 11/11/2013
Comments: South AFRL 2013 Ground Water Sampling Workplan. DTSC disagrees with the number of wells to be sampled; however the Air Force is planning a more comprehensive sampling event in 2014 essentially deferring DTSC concerns.

Completed Area Name: 4A - AFRL Arroyos
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/24/2013
Comments: Arroyos 2012 Groundwater Monitoring Report

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/12/2013
Comments: OU 5/10 Annual Groundwater Monitoring Report for April-December 2012. Air Force did not address all of DTSC comments on the draft document. Issues will need to be tracked for future relevant documents.

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 442
Completed Document Type: Remedial Action Completion Report
Completed Date: 08/27/2013
Comments: Site 442 Remedial Action Completion Report-Remedial Design and Construction. Air Force did not give DTSC adequate time to review the changes in the draft final and the response to comments on the draft report; however a review of the final shows that DTSC concerns on the draft report were addressed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Participation Plan / Community Relations Plan
Completed Date: 03/21/2014
Comments: Community Involvement Plan 2014 update to the Community Relations Plan Not reported

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 58
Completed Document Type: Monitoring Plan
Completed Date: 09/03/2013
Comments: Site 58 Soil Vapor Extraction QAPP Letter Addendum No. 3

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Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 76
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/30/2013
Comments: Replacement pages recieved from AF

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 86
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/30/2013
Comments: Final Replacement Pages submitted by AF

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 09/23/2013
Comments: Basewide Subsurface Nitrate Characterization QAPP (Workplan), OUs 1, 4/9, 7, and 8

Completed Area Name: 8 - Operable Unit 8, Northwest Main Base
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/18/2014
Comments: OU 8 - 2012 Annual Groundwater Monitoring Report for Sites 61, 257, 299, and 301. DTSC reviewed the final and determined that all comments were adequately addressed.

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Remedial Investigation Report
Completed Date: 04/03/2014
Comments: OU 8 Site 25 Remedial Investigation Report Addendum. Presents the results of additional geophysics and well installation to characterize the site.

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 11/22/2013
Comments: OU 4 & 9 2012 Annual Groundwater Monitoring Report for Northeast and South AFRL

Completed Area Name: 4A - AFRL Arroyos
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 06/29/2014
Comments: Report of 2012 and 2013 Sampling to Evaluate Vapor Intrusion Pathway at the AFRL Arroyos. Outstanding issues were identified in DTSC's 6/30/14 Contingent Concurrence letter. DTSC will work with the Air Force to address outstanding issues. The Arroyos ROD will be the venue for addressing the issues

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Site 285
Completed Document Type: Monitoring Plan
Completed Date: 12/26/2013
Comments: OU 5/10 Site 285 GETS QAPP Adddendum. Update to the Site 285

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groundwater treatment plant sampling/monitoring program.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Plan
Completed Date: 04/05/2014
Comments: Basewide Groundwater Monitoring SAP, Vol 1-Long Term Monitoring Optimization Work Plan.

Completed Area Name: 6 - Operable Unit 6, NASA Dryden
Completed Sub Area Name: Not reported
Completed Document Type: Quality Assurance Workplan
Completed Date: 03/06/2014
Comments: Electronic copy recieved 28 March 2014

Completed Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Implementation Workplan
Completed Date: 10/31/2013
Comments: DTSC Provided email stating no further comments

Completed Area Name: 4/9 - Soil and Debris Sites
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 05/31/2013
Comments: Soils and Debris Sites 2013 Land Use Control Inspection Report

Completed Area Name: 8 - Operable Unit 8, Northwest Main Base
Completed Sub Area Name: Not reported
Completed Document Type: Well Installation Workplan
Completed Date: 09/16/2013
Comments: Sites 61, 299, and 301 Well Installation Letter Workplan Addednum to the RI Workplan Addendum. Workplan to install additional wells at the three sites to address identified data gaps.

Completed Area Name: 9 - Air Force Research Lab - East
Completed Sub Area Name: Site 125
Completed Document Type: Site Characterization Report
Completed Date: 08/22/2013
Comments: Site 125 Results of 2013 Well Installation Letter Report. This "addendum" to the OU 4/9 2011-2012 Well Installation Report (WIR) was finalized as an appendix to the WIR.

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Not reported
Completed Document Type: Well Installation Workplan
Completed Date: 06/23/2014
Comments: Well Installation Workplan-OU 4 Arroyos & South AFRL. Air Force and regulators collaboratively selected well locations. Note however, DTSC has informed the Air Force that these wells may not be sufficient for providing adequate South AFRL and Aroryos plume control Not reported

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 58
Completed Document Type: Monitoring Report
Completed Date: 01/23/2014

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Comments: Site 58 Annual Monitoring Report for the Soil Vapor Extraction System Nov '11 through Oct '12.

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 442
Completed Document Type: 5 Year Review Reports
Completed Date: 12/20/2014
Comments: Chemical Warfare Material First Five-Year Review Report. DTSC concurred with (via signing the signature page of) the final Report

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Enforceable Schedule
Completed Date: 10/10/2013
Comments: 2013 Update to the FFA Schedule

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Site 312
Completed Document Type: Remedial Action Completion Report
Completed Date: 01/23/2014
Comments: Site 312 Addendum to the Soil and Debris Sites Remedial Action Completion Report. This report documents the remedy for the Site 312 ESD which changed the remedy from "clean closure" to Land Use Controls to protect potential receptors from a small amount of PCB-contaminated soil below the asphalt near the Site 312 transformer. Not reported

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 18
Completed Document Type: Monitoring Report
Completed Date: 02/21/2014
Comments: OU 1 Site 18 Annual Monitoring Report November 2011 through October 2012

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 14
Completed Document Type: Operations and Maintenance Manual
Completed Date: 04/14/2014
Comments: OU2, Site 14 GETS O&M Manual

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 86
Completed Document Type: Operations and Maintenance Manual
Completed Date: 04/14/2014
Comments: OU2, Site 86 O&M Manual

Completed Area Name: 4A - AFRL Arroyos
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 02/17/2014
Comments: OU 4 Arroyos Phase 2 Geophysical Survey Work Plan to Delineate Bedrock Topography and Transition to Alluvial Aquifer. DTSC believes that a reflection survey rather than the proposed refraction survey would be better at identifying the transition zone. AF cited budgetary reasons, but also attempted to make a technical case that the goals will be attained using the porposed refraction survey.

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Completed Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/24/2014
Comments: Final OU2 Sites 5/14 Annual RASR received on 24 June 2014

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Remedial Investigation Workplan
Completed Date: 06/23/2012
Comments: Letter Addendum to the Site 25 RI/FS Work Plan Addendum. Workplan to install 7 additional monitoring wells.

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 442
Completed Document Type: Operations and Maintenance Report
Completed Date: 06/16/2014
Comments: Site 442 Annual Remedial Action Status Report March 2013 to October 2013

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Remedial Investigation Report
Completed Date: 08/01/2014
Comments: Site 25 VIP Investigation Summary Report, Buildings 4824 and 4870. Air Force finalized this document on 8/1/14 without resolving selected critical issues. DTSC will carry these issues forward into the FS

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 58
Completed Document Type: Removal Action Workplan Amendment
Completed Date: 06/23/2014
Comments: Site 58 Letter Addendum No. 4 to the QAPP

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 05/28/2016
Comments: Vapor Intrusion Assessment for 11 Selected Buildings at OUs 1, 5/10, and 8, Round 1 Sampling.

Completed Area Name: 4/9 Mars Blvd Sites
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/02/2014
Comments: 2012 Annual Groundwater Monitoring Report for "Mars Blvd" Sites 6, 27, 39, 113, 115, 116, 118, 125, 127, 178, 321, 333, AND 338

Completed Area Name: 9 - Air Force Research Lab - East
Completed Sub Area Name: Site 125
Completed Document Type: Remedial Investigation Workplan
Completed Date: 06/02/2014
Comments: 2014 Letter Addendum to the 2010 Well Installation Work Plan For Sites in the Northeast AFRL and Mars Blvd. This addendum, although officially part of the 2010 Well Installation Workplan, is tied directly to the 2013 Letter Addendum to the 2010 Well Installation

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Workplan. This 2013 addendum was inserted as Appendix F.1 to the 2010 Workplan. The conclusion of the 2014 Letter Addendum is there was no need to install well 125-MW27, contrary to the original purpose of this addendum which was to install 125-MW27. However groundwater sampling conducted subsequent to the draft of this Workplan Addendum showed that 125-MW27 is not needed (at this time).

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 3
Completed Document Type: Remedial Action Implementation Workplan
Completed Date: 08/27/2014
Comments: Geophysical Survey WP to Assess Site 3 Potential Preferential Pathways Affecting GW Flow and Contaminant Transport

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 5
Completed Document Type: Remedial Investigation Report
Completed Date: 11/03/2014
Comments: OU2, Site 5, Remedial Investigation Report will be complted by June 30.

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 76
Completed Document Type: Remedial Action Completion Report
Completed Date: 08/12/2014
Comments: Report title changed to Remedial Action Construction Progress Report

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 86
Completed Document Type: Remedial Action Completion Report
Completed Date: 08/11/2014
Comments: Report Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Plan
Completed Date: 01/20/2015
Comments: Basewide 2014 Groundwater Monitoring Plan-OU1/8, OU4/9, OU5/10 and Site 25

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Site 285
Completed Document Type: Monitoring Report
Completed Date: 10/16/2014
Comments: Site 285 GETS Annual Operation and Maintenance (10/12-9/13) Report

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 18
Completed Document Type: Monitoring Report
Completed Date: 08/14/2014
Comments: OU 1 Site 18 Annual O&M Report November 2012 through October 2013

Completed Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Implementation Workplan
Completed Date: 09/08/2014
Comments: Final OU2, Sites 5/14, 76 and 86 RAWP Addendum, Update 1

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Completed Area Name: 6 - Operable Unit 6, NASA Dryden
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 05/27/2016
Comments: See previous note regarding replacement of this document with Vapor Intrusion Investigation Report Addendum dated May 2016.

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/12/2014
Comments: Report of 2012 and 2013 Sampling to Evaluate VIP at the Northeast AFRL and Mars Blvd Sites. On 8/12/14 DTSC provided a draft letter to the Air Force outlining outstanding issues for this report; issues that will be carried through to the FS.

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 538
Completed Document Type: Preliminary Assessment/Site Inspection Report (PA/SI)
Completed Date: 02/17/2015
Comments: OU 3 Site 538 Preliminary Assessment/Site Inspection Report (PA/SI). DTSC has determined that further evaluation on the source of TCE in monitoring well 13-MW33 (Site 538) is warranted. Air Force agrees and this will be part of the South AFRL Remedial Action Workplan Version 2 scheduled for late 2015.

Completed Area Name: 4A - AFRL Arroyos
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 07/01/2014
Comments: OU 4/9 Arroyos Phase 2 Geophysical Survey Report

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 10/04/2014
Comments: Non-Time Critical Removal Action MMRP Surface Clearance, Munitions Sites AL504, AL505-2, and AL505-4. This document was issued only as a final report; it comprises a summary of activities and field documentation of the surface clearance actions for the above listed munitions sites.

Completed Area Name: 4/9 - Soil and Debris Sites
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 08/12/2014
Comments: AFRL Soil and Debris Sites Annual LUC Inspection and Maintenance Report Addendum May-December 2013. DTSC has reviewed and concurs with the document. No letter is required for this document issued as final.
Not reported

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/17/2015
Comments: OU 1 GWM and Sampling Report for 2012

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Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Soil Vapor Extraction Monitoring Report
Completed Date: 09/05/2012
Comments: OU 4&9 Site 37 Building 8595 SVE System Reactivation and Sampling Memorandum

Completed Area Name: Military Munitions Response Program (MMRP) - Basewide
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 08/14/2015
Comments: Remedial Investigation Workplan for Munitions Response Sites AL501A, AL504, AL505-2, and AL505-4. This document is the plan for conducting subsurface reconnaissance of areas of potential buried munitions.

Completed Area Name: Military Munitions Response Program (MMRP) - Basewide
Completed Sub Area Name: Not reported
Completed Document Type: Quality Assurance Workplan
Completed Date: 08/14/2015
Comments: MMRP Site Insepction QAPP: Supplemental Comprehensive Site Evaluation Phase II for Munitions Response Sites AL505-3 and AL505-5

Completed Area Name: 4/9 - South AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/01/2015
Comments: South AFRL 2013 Annual Groundwater Monitoring Report

Completed Area Name: 8 - Operable Unit 8, Northwest Main Base
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/15/2015
Comments: OU 8 Sites 61, 299, and 301 Annual Groundwater Monitoring Report for 2013

Completed Area Name: Military Munitions Response Program (MMRP) - Basewide
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 10/06/2014
Comments: MMRP After Action Report Non-time Critical Removal Action-surface Clearance MRS's AL 504, AL 505-2, and AL 505-4. This document is a compilation of field and laboratory forms documenting the surface clearance removal performed in 2014.

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 86
Completed Document Type: Operations and Maintenance Report
Completed Date: 02/05/2015
Comments: Final Version of OU2 Site 86 ARASR

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Not reported
Completed Document Type: Feasibility Study Workplan
Completed Date: 07/20/2015
Comments: OU 5/10 Feasibility Study Workplan. This Workplan documents addition work to be completed to address data gaps at selected OU 5/10 sites. Not being addressed are additional data gaps identified previously by

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the regulators in comments on the draft and draft final Feasibility Study. The Air Force intends to address these regulator-identified data gaps in a future workplan.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 58
Completed Document Type: Monitoring Report
Completed Date: 03/31/2015
Comments: Site 58 Annual Monitoring Report for the Soil Vapor Extraction System Nov '12 through Oct '13

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 76
Completed Document Type: Monitoring Report
Completed Date: 03/04/2015
Comments: Final Site 76 RASR Submitted by AF

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 3
Completed Document Type: Remedial Action Implementation Workplan
Completed Date: 04/16/2016
Comments: Site 3 Remedial Action Workplan Volumes I and II

Completed Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 02/09/2015
Comments: Sites 81 and 102 Action Memorandum, Non-time Critical Removal Action. DTSC concurs with the proposed action

Completed Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Implementation Workplan
Completed Date: 06/17/2015
Comments: Final RAWP Addendum for OU2 Sites 76, 86 and 5/14

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 07/10/2015
Comments: Addendum to Workplan for Vapor Intrusion Assessment at (high priority buildings at) OU's 1, 4/9, 5/10, and 8. DTSC is on record disagreeing with the workplan not including subslab vapor sampling.

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 3
Completed Document Type: Monitoring Plan
Completed Date: 09/11/2015
Comments: Site 3 Pre-Design Groundwater and Landfill Gas 2015 Sampling Plan. This "plan" is actually a one-page memorandum describing sampling strategy for the Site 3 Landfill Gas.

Completed Area Name: 4A - AFRL Arroyos
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/12/2015
Comments: AFRL Arroyos 2013 GWM Report. DTSC reviewed and finds the final

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report acceptable.

Completed Area Name: 4/9 - Northeast AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/22/2015
Comments: OU 4/9 Northeast AFRL 2013 GWM Report

Completed Area Name: 7 - Operable Unit 7, Basewide Misc. - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 09/01/2015
Comments: Final document issued by AF on 9/1/2015

Completed Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/28/2015
Comments: Final document received by DTSC.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 58
Completed Document Type: Technical Report
Completed Date: 06/01/2015
Comments: Not reported

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 18
Completed Document Type: Monitoring Report
Completed Date: 05/11/2015
Comments: Site 18 DES Annual O&M Report November 2013-October 2014. DTSC has expressed concern about the system being shut down for a lengthy period of time (the AF shut it down in 2013 to conduct nearby soil vapor sampling as part of a vapor intrusion investigation). The AF has responded that they restart the system monthly as part of routine O&M activities.

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 5
Completed Document Type: Site Characterization Workplan
Completed Date: 08/19/2015
Comments: Change pages from DF to Final received from Air Force.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Site 285
Completed Document Type: Monitoring Report
Completed Date: 06/24/2015
Comments: Site 285 GETS Annual Operation and Maintenance (10/13-9/14) Report

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Site 37
Completed Document Type: Operations and Maintenance Report
Completed Date: 08/03/2015
Comments: Site 37 SVE O&M and Building 8595 Vapor Intrusion Monitoring Report for 2013. Note that DTSC disagrees with conclusions regarding VI screening numbers and the recommendation to no longer sample subslab VI wells

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Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Plan
Completed Date: 12/16/2015
Comments: Long-term Monitoring Optimization Volume II-Operable Units 1/8 GWM Sampling and Analysis Plan. There remain some important issues that will need to be resolved as part of the joint Air force-Regulator working group that will evaluate the 2015 groundwater monitoring data and make recommendations for future monitoring needs.

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 442
Completed Document Type: Operations and Maintenance Report
Completed Date: 06/08/2015
Comments: Site 442 Annual (Nov 2013 to Oct 2014) Remedial Action Status Report

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 86
Completed Document Type: Operations and Maintenance Report
Completed Date: 05/28/2015
Comments: Final Version of Site 86 ARASR - 11/12-9/14 Submitted by AF on May 28, 2015.

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 5
Completed Document Type: Remedial Investigation Workplan
Completed Date: 06/04/2015
Comments: AF submitted Interim Draft Final & RTCs. Comments minor. AF approved to finalize document.

Completed Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Well Installation Workplan
Completed Date: 06/22/2015
Comments: Final document received on 06/22/2015

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 58
Completed Document Type: Monitoring Report
Completed Date: 06/26/2015
Comments: Annual SVE Report, DTSC expressed a desire for the SVE system (currently shut-down) to remain available for being turned on at a future a date if needed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 02/28/2016
Comments: OU 1, 4/9, 7, and 8 Subsurface Nitrate Characteization Report. Outstanding issue remain; DTSC is relying on the RWQCB to continue to work these issues with the Air Force

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Well Installation Workplan
Completed Date: 08/18/2015
Comments: OU 1/8 Well Installation Workplan

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Completed Area Name: 4/9 - South AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Implementation Workplan
Completed Date: 07/30/2016
Comments: South AFRL Remedial Action Workplan Version 2.0

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 76
Completed Document Type: Operations and Maintenance Report
Completed Date: 07/20/2015
Comments: Not reported

Completed Area Name: 4/9 AFRL Misc. Documents
Completed Sub Area Name: Not reported
Completed Document Type: Well Completion Report
Completed Date: 07/02/2015
Comments: South & NE AFRL and Mars Blvd Sites Well Installation Report. DTSC had no comments on the draft report.

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Well Completion Report
Completed Date: 01/19/2016
Comments: Site 25 Remedial Investigation Report Addendum No. 2

Completed Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 08/21/2015
Comments: Final document received by DTSC.

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Monitoring Plan
Completed Date: 10/30/2015
Comments: Site 25 Letter Addendum to the Basewide GW Monitoring UFP-QAPP, 2015 Interim GW Monitoring Plan

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 3
Completed Document Type: Remedial Action Implementation Workplan
Completed Date: 10/08/2016
Comments: Site 3 Remedial Action Workplan Volume III. This provides the long term monitoring program for the Site 3 Landfill remedy.

Completed Area Name: 4/9 AFRL Misc. Documents
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Plan
Completed Date: 07/23/2015
Comments: OU 4/9 Interim Groundwater Monitoring Plan for 2015-Letter Addendum to the Basewide GWM Plan

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/01/2016
Comments: OU 5/10 Annual Groundwater Monitoring Report for 2014

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Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Site 37
Completed Document Type: Operations and Maintenance Report
Completed Date: 06/30/2016
Comments: Site 37 SVE O&M and Building 8595 Vapor Intrusion Monitoring Report for 2014. DTSC has reviewed the final report; there remain outstanding disagreements described in the Responses to Comments table in Appendix E. No letter issued on the final, but DTSC will ensure raised issues are factored into the review of the subsequent 2015 monitoring report.

Completed Area Name: 4A - AFRL Arroyos
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/15/2016
Comments: AFRL Arroyos 2014 GWM Report

Completed Area Name: 4/9 Mars Blvd Sites
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/06/2016
Comments: Sites 6 and 113 Groundwater Monitoring Report for 2014

Completed Area Name: 4/9 Mars Blvd Sites
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/23/2016
Comments: Mars Blvd Sites 2014 GWM Report. DTSC identified a laboratory QA/QC issue where PCE concentrations appeared "depressed" compared to historical results.

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Monitoring Report
Completed Date: 07/19/2016
Comments: Site 25 Biennial Groundwater Monitoring Report 2013-2014

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Site 13
Completed Document Type: Operations and Maintenance Plan
Completed Date: 11/09/2015
Comments: Site 13 Landfill 2015 Post Closure Maintenance and Monitoring Plan. This site is undergoing post-closure monitoring under the Kern County Health Department; DTSC will review the status as part of the South AFRL Five Year Reviews.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 03/11/2014
Comments: US Fish and Wildlife 03/11/14 Biological Opinion

Completed Area Name: 4/9 - South AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/30/2016
Comments: South AFRL 2014 Annual Groundwater Monitoring Report

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Completed Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 06/06/2016
Comments: Sites 81 and 102 Supplemental Workplan

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 442
Completed Document Type: Operations and Maintenance Report
Completed Date: 06/16/2016
Comments: Site 442 Annual Remedial Action Stutus Report November 2014 - September 2015

Completed Area Name: 4/9 - Northeast AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/21/2016
Comments: OU 4/9 Northeast AFRL 2014 GWM Report

Completed Area Name: Multiple OUs - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 12/09/2016
Comments: OB/OD Sites 39 and 270 Remedial Investigation Workplan

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 76
Completed Document Type: Monitoring Report
Completed Date: 07/20/2016
Comments: Completed

Completed Area Name: 4/9 - Soil and Debris Sites
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Implementation Workplan
Completed Date: 05/16/2016
Comments: Soil and Debris Sites RAWP Addendum 1 (Site 13 Vapor Monitoring)

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 86
Completed Document Type: Monitoring Report
Completed Date: 07/15/2016
Comments: Not reported

Completed Area Name: 4/9 - Soil and Debris Sites
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 02/27/2016
Comments: OU 4/9 Soil and Debris Sites Land Use Controls Inspection/Maintenance Report for 2015. Document issued as final. DTSC reviewed; no comment letter required or distributed by DTSC.

Completed Area Name: 9 - Air Force Research Lab - East - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/18/2016
Comments: Sites 6 and 113 Groundwater Monitoring Report for 2015

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Completed Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 09/16/2016
Comments: Completed

Completed Area Name: 4/9 Mars Blvd Sites
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/07/2017
Comments: Sites 6 and 113 Groundwater Monitoring Report for 2016

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 442
Completed Document Type: Operations and Maintenance Report
Completed Date: 04/12/2017
Comments: Site 442 Annual Remedial Action Status Report October 2015 - September 2016

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 86
Completed Document Type: Monitoring Report
Completed Date: 06/30/2017
Comments: Final OU2, Site 86 ARASR issued on June 30, 2017 but DTSC did not receive a copy until 1/12/2018.

Completed Area Name: 4/9 - South AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/17/2017
Comments: OU 4/9 South AFRL 2015 Annual Groundwater Monitoring Report

Completed Area Name: 4/9 - Northeast AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/17/2017
Comments: OU 4/9 Northeast AFRL 2015 GWM Report

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 76
Completed Document Type: Monitoring Report
Completed Date: 08/18/2017
Comments: Final OU2 Site 76 ARASR, Oct 2015 - Sept 2016

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/26/2017
Comments: OU 1/8 GWM and Sampling Report for 2015

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Monitoring Plan
Completed Date: 04/30/2018
Comments: Basewide GWM Sampling and Analysis Plan-Volume V, Site 25 Long-Term Monitoring Optimization Plan

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Completed Area Name: 4/9 - Soil and Debris Sites
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 03/14/2017
Comments: Soil and Debris Sites 2016 Land Use Controls Inspection and Maintenance Report

Completed Area Name: 4/9 - South AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 02/15/2017
Comments: South AFRL 2016 Land Use Controls Inspection and Maintenance Report. DTSC has reviewed and has no comments.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Site 285
Completed Document Type: Monitoring Report
Completed Date: 06/28/2017
Comments: Site 285 O&M Report for the Period 10/16 through 09/17

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Site 37
Completed Document Type: Monitoring Report
Completed Date: 11/09/2017
Comments: Site 37 SVE O&M and Building 8595 Vapor Intrusion Monitoring Report for 2016

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Technical Report
Completed Date: 12/24/2019
Comments: Site 25 Nitrate/Mineral Source Area Evaluation Tech Memo

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Site 37
Completed Document Type: Monitoring Report
Completed Date: 01/03/2020
Comments: Site 37 SVE O&M and Building 8595 Vapor Intrusion Monitoring Report for 2018

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 12/26/2019
Comments: Expanded Site Inspection of Aqueous Film Forming Foam Usage Workplan

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 442
Completed Document Type: Remedial Action Implementation Workplan
Completed Date: 07/24/2019
Comments: Soil Gas Sampling Workplan Addendum, OU 7, Chemical Warfare Material Site 442, Areas 1, 2, and 3

Completed Area Name: 4/9 - South AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 03/30/2018

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Comments: Letter Addendum to the 2016 South AFRL Well Installation Report, Well 13-MW52

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 3
Completed Document Type: Operations and Maintenance Report
Completed Date: 02/11/2019
Comments: Site 3 Annual Remedial Action Status Report, October 2016 through September 2017

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Remedial Investigation Workplan
Completed Date: 08/03/2018
Comments: Site 25 USGS Long-Screen Wells Evaluation Workplan. Although this document wasn't provided in final form until August 3, 2018, it was actually finalized by the USGS in late April or early May 2018. DTSC input was informal and provided via a very accelerated review schedule.

Completed Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Implementation Workplan
Completed Date: 04/20/2018
Comments: Document has been finalized.

Completed Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 01/29/2019
Comments: Sites 81 and 102 Removal Action Workplan

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Plan
Completed Date: 10/08/2019
Comments: Basewide GWM SAP Volume IV Long-Term Monitoring Optimization

Completed Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/21/2018
Comments: Final OU2 Sites 5/14 Annual Remedial Action Status Report submitted by Air Force on 9/21/18.

Completed Area Name: 4/9 - South AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/24/2018
Comments: Site 37 SVE O&M and Building 8595 Vapor Intrusion Monitoring Report for 2017

Completed Area Name: 4/9 - Soil and Debris Sites
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 07/16/2018
Comments: Soil and Debris Sites 2017 LUC Inspection and Maintenance Report.

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DTSC reviewed and had no comments.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Not reported
Completed Document Type: Well Completion Report
Completed Date: 06/15/2018
Comments: Letter Report Abandonment and Replacement of OU 1 Wells. DTSC reviewed and had no comments.

Completed Area Name: 6 - Operable Unit 6, NASA Dryden
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 06/21/2018
Comments: OU 6 NASA Annual 2017 Land Use Control Report

Completed Area Name: 4/9 Mars Blvd Sites
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/20/2018
Comments: Mars Blvd Sites 2016 Groundwater Monitoring Report

Completed Area Name: 6 - Operable Unit 6, NASA Dryden
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 05/31/2019
Comments: Final OU6 NASA Land Use Restriction Report

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 86
Completed Document Type: Monitoring Report
Completed Date: 12/24/2019
Comments: No Final DTSC letter needed.

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Technical Workplan
Completed Date: 08/16/2019
Comments: Site 25 Tracer Injection Workplan

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 442
Completed Document Type: 5 Year Review Workplan
Completed Date: 07/24/2019
Comments: 2019 Soil Gas Sampling Workplan for Site 442

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Site 285
Completed Document Type: Monitoring Report
Completed Date: 01/03/2020
Comments: Site 285 Groundwater Monitoring Report for 2018

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 18
Completed Document Type: Monitoring Report
Completed Date: 04/08/2019
Comments: Final Report

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Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 442
Completed Document Type: Operations and Maintenance Report
Completed Date: 06/25/2019
Comments: Site 442 Annual Remedial Action Stutus Report, October 2017 - September 2018

Completed Area Name: 4/9 Mars Blvd Sites
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/17/2019
Comments: Sites 6 and 113 Groundwater Monitoring Report for 2018

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Enforceable Schedule
Completed Date: 01/15/2019
Comments: Based on RPM discussions in the November 2018 RPM meeting, the 1st Qtr Update to the FFA schedule was finalized on 1/15/19

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Not reported
Completed Document Type: Well Installation Workplan
Completed Date: 07/09/2019
Comments: Technical Memorandum for Site 25 Leading Edge Well Installation

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 5
Completed Document Type: Well Completion Report
Completed Date: 03/29/2019
Comments: Document issued only as Final by Air Force

Completed Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/18/2019
Comments: Final version of document submitted by Air Force on 12/18/2019.

Completed Area Name: 4/9 - Soil and Debris Sites
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 05/29/2019
Comments: Soil and Debris Sites 2018 Land Use Controls Inspection and Maintenance Report. DTSC has reviewed and concurs with the report.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Site 285
Completed Document Type: Monitoring Report
Completed Date: 04/17/2018
Comments: Site 285 Groundwater Monitoring Report for 2017

Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 3
Completed Document Type: Remedial Action Completion Report
Completed Date: 01/31/2019
Comments: Site 3 Interim Remedial Action Completion Report, Landfill Cap Construction

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Completed Area Name: 7 - Operable Unit 7, Basewide Misc.
Completed Sub Area Name: Site 442
Completed Document Type: Operations and Maintenance Report
Completed Date: 07/23/2018
Comments: Site 442 Annual Remedial Action Stutus Report, October 2016 - September 2017

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 5
Completed Document Type: Removal Action Workplan Amendment
Completed Date: 04/20/2018
Comments: Document completed.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 18
Completed Document Type: Monitoring Report
Completed Date: 05/10/2018
Comments: Site 18 DES Annual O&M Report November 2016-October 2017

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 76
Completed Document Type: Monitoring Report
Completed Date: 08/06/2018
Comments: Final OU2 Site 76 ARASR. Laboratory reports (Appendix D.2, PDF 3/3) not uploaded due to size limitation.

Completed Area Name: 4/9 - Soil and Debris Sites
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/13/2018
Comments: Sites 6 and 113 Groundwater Monitoring Report for 2017

Completed Area Name: 6 - Operable Unit 6, NASA Dryden
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Plan
Completed Date: 04/02/2019
Comments: Final OU6 Groundwater SAP received by DTSC on 2 April 2019.

Completed Area Name: 4/9 - Soil and Debris Sites
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Reports
Completed Date: 05/09/2019
Comments: Not reported

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Site Characterization Report
Completed Date: 09/26/2018
Comments: Site 25 Updated Cross Sections and 2016 Groundwater Level Contour Maps Technical Memorandum

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Site Characterization Workplan
Completed Date: 06/22/2018
Comments: Site 25 Phase II Geophysical Survey Work Plan.

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Well Installation Workplan
Completed Date: 04/06/2017
Comments: Site 25 Plume Leading Edge Monitoring Well Installation Letter Workplan. To install wells to define the leading edge of the Site 25 TCE plume.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 18
Completed Document Type: Monitoring Report
Completed Date: 09/26/2017
Comments: Site 18 DES Annual O&M Report November 2014-October 2016

Completed Area Name: 6 - Operable Unit 6, NASA Dryden
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 06/02/2017
Comments: Final Letter Workplan for OU6 Groundwater Plume Delineation received on 6/1/2017.

Completed Area Name: 7 - Operable Unit 7, Basewide Misc. - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Feasibility Study Report
Completed Date: 11/07/2018
Comments: Final FS Report Addendum, OU7 Sites 272, 280, 293 and 339 received on 2 October 2018.

Completed Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/14/2017
Comments: Final OU2 Sites 5/14 Groundwater Contaminant Plume, ARASR, Oct 2015 through Sept 2016 received on 12/14/17.

Completed Area Name: 4/9 - South AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/01/2018
Comments: Final OU4/9 South AFRL Annual Groundwater Monitoring Report

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Site Characterization Workplan
Completed Date: 06/30/2017
Comments: Site 25 Source Area Soil Gas Sampling Workplan. Workplan to collect soil vapor from the well casings above source area groundwater monitoring wells to obtain recent soil vapor information from the Site 25 source area.

Completed Area Name: 4A - AFRL Arroyos
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/01/2018
Comments: AFRL Arroyos 2016 Groundwater Monitoring Report

Completed Area Name: 4/9 Mars Blvd Sites

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/12/2018
Comments: Sites 6 and 113 Groundwater Monitoring Report for 2017

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Site Characterization Workplan
Completed Date: 08/10/2017
Comments: Letter Workplan for Indoor Air Sampling at NASA Buildings 4857 and 4876. DTSC had minor comments on the draft which were addressed by the Air Force in the final report.

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 86
Completed Document Type: Removal Action Workplan
Completed Date: 07/19/2017
Comments: Decision Rule updated for use in future Site 86 documents.

Completed Area Name: 7 - Operable Unit 7, Basewide Misc. - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation / Feasibility Study
Completed Date: 03/15/2019
Comments: Final Supplemental RI/FS Report, OU7 Sites 267, 269 and 294.

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Site Characterization Workplan
Completed Date: 10/12/2017
Comments: Site 25 Additional GW Sampling for Nitrate/Minerals and Source Area Evaluation Letter Workplan

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 5
Completed Document Type: Remedial Investigation Workplan
Completed Date: 11/07/2017
Comments: Completed

Completed Area Name: 6 - Operable Unit 6, NASA Dryden
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/28/2017
Comments: Document completed

Completed Area Name: Multiple OUs - MULTIPLE SITES
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation / Feasibility Study
Completed Date: 11/01/2019
Comments: While the Air Force titled this document a Remedial Investigation Report, they now are considering it a Site Inspection Report. DTSC has concluded that risks for Site 39 are below action levels and concur with a No Further Action for this site. For Site 270, the site qualifies for NFA for chemical contamination; however the Air Force never completed a subsurface investigation for MEC that may have been derived from Site 270 activities because the site is in the active PIRA bombing range. The Air Force will maintain active range health protections (restricting on-site access) and will conduce a munitions

EDWARDS AIR FORCE BASE (Continued) **1000155217**

investigation should the site ever become deactivated from the range operations.

Completed Area Name: 4/9 - Northeast AFRL
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/27/2018
Comments: OU 4/9 Northeast AFRL 2016 GWM Report

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 05/25/2018
Comments: Site Inspection for Aqueous Film Forming Foam (PFAS/PFOA) Potential Release Areas

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Monitoring Report
Completed Date: 10/19/2018
Comments: Site 25 Groundwater Monitoring Report for 2016

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 07/23/2018
Comments: Groundwater Monitoring Well Installation Report, Sites 17, 19, and 66 (for GW plume extent characterization)

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 03/14/2018
Comments: Site 25 Letter Report Indoor Air Sampling Buildings 4857 and 4876

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 86
Completed Document Type: Monitoring Report
Completed Date: 08/06/2018
Comments: Final OU2 Site 86 ARASR. All documents uploaded except Apdx C.2, Laboratory Reports.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Site 285
Completed Document Type: Monitoring Report
Completed Date: 04/02/2018
Comments: Site 285 GETS Annual Operation and Maintenance (10/16-9/17) Report

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Site Characterization Workplan
Completed Date: 03/18/2018
Comments: Site 25 Soil Gas Sampling Results Summary and Permeability Test Letter Work Plan

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 5

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Completed Document Type: Remedial Investigation Report
Completed Date: 09/13/2018
Comments: Report completed.

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Treatability Study Workplan
Completed Date: 11/06/2018
Comments: Site 25 Source Area Subsurface Permeability and SVE Treatability Study Letter Workplan

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Enforceable Schedule
Completed Date: 10/12/2018
Comments: 2018 Update to the FFA Schedule

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 04/22/2019
Comments: Work Plan for Vapor Intrusion Assessment at Buildings 1808, 1810, 1820, 1830, 3500, and 4221

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Plan
Completed Date: 10/12/2018
Comments: OU 1/8 2018 Interim GWM Sampling and Analysis Plan

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 11/01/2017
Comments: Site 25 Slug Test Technical Memorandum, issued as a final document (no draft version distributed)

Completed Area Name: 8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Completed Sub Area Name: Site 25
Completed Document Type: Remedial Investigation Workplan
Completed Date: 06/27/2019
Comments: Site 25 Integrated Workplan Memorandum for High-Resolution Characterization

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 5
Completed Document Type: Technical Report
Completed Date: 03/29/2019
Comments: Final Version included as Attachment 1 to Site 5 CT Plume Delineation Well Construction Completion Report (29 March 2019).

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Enforceable Schedule
Completed Date: 10/10/2019
Comments: 2019 Update to the FFA Schedule

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 11/23/2019
Comments: Evaluation of Long-Screen Wells influence on water level (potentiometric surface) contouring. DTSC provided input in comments on the 2017 OU 1/8 GMR.

Completed Area Name: 6 - Operable Unit 6, NASA Dryden
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 10/19/2006
Comments: OU-6 ROD included Land Use Controls to prevent exposure to groundwater during cleanup. Extraction of groundwater for use other than monitoring is prohibited.

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 09/26/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Federal Facility Agreement
Completed Date: 10/31/1990
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 08/24/1981
Comments: Facility Identified: EPA Superfund Notification List.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Federal Facility Agreement
Completed Date: 09/25/1990
Comments: Not reported

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Site 21
Completed Document Type: Correspondence
Completed Date: 05/18/2017
Comments: Because of the evidence of a CERCLA hazardous substances release, ty agreement between the RPMs, Site 21 has been transferred from the Air Force's Compliance Restoration Program ("Fuels Program") back to the CERCLA program.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment/Site Inspection Report (PA/SI)
Completed Date: 06/01/2016
Comments: Preliminary Assessment Report for Perfluorinated Compounds at EAFB. This report was issued as a final and provided to DTSC only electronically. The Air Force verbalized a request for DTSC input to prepare for the Site Inspection/Investigation scheduled for 2016

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Completed Area Name: 8 - Operable Unit 8, Northwest Main Base
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 01/15/2010
Comments: Pre-Design Investigation Work Plan, sites 226, 257, and 299. DTSC concurred with the work; however some of our comments may not have been adequately addressed. These includes questions regarding the background value being used for arsenic, the location of the proposed upgradient well at Site 257 and vertical contaminant groundwater control at Site 299.

Completed Area Name: 5/10 - Operable Units 5 and 10, North Base
Completed Sub Area Name: Site 285
Completed Document Type: Monitoring Report
Completed Date: 08/26/2016
Comments: Site 285 GETS Annual Operation and Maintenance (10/14-9/15) Report

Completed Area Name: 4/9 AFRL Misc. Documents
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Plan
Completed Date: 12/12/2016
Comments: Groundwater Sampling and Analyses Plan Volume III, OU 4/9 Long-Term Monitoring Optimization

Completed Area Name: 2 - Operable Unit 2, South Base
Completed Sub Area Name: Site 76
Completed Document Type: Removal Action Workplan
Completed Date: 10/14/2016
Comments: Completed

Completed Area Name: 6 - Operable Unit 6, NASA Dryden
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/30/2016
Comments: This document was submitted as a Final in accordance with agreement with AF made in 2011. There are not Draft or Draft Final versions associated with this document.

Completed Area Name: 6 - Operable Unit 6, NASA Dryden
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 09/21/2016
Comments: Completed. Included in OU6 Second Five-Year Review Report.

Completed Area Name: 8 - Operable Unit 8, Northwest Main Base
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 06/22/2016
Comments: 2010 Well Installation Technical Memorandum for Sites 226, 257, and 299. Because of DTSC's limited resources, this report was not reviewed. However, it is a low priority document essentially just documenting the results of the well installation activities and therefor not requiring review.

Completed Area Name: 8 - Operable Unit 8, Northwest Main Base
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Completed Date: 06/12/2017
Comments: 2013 Well Installation Technical Memorandum for Sites 61, 299, and 301. Provides the details of data gaps wells that were installed in 2013.

Completed Area Name: 4A - AFRL Area
Completed Sub Area Name: Site 37
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/20/2016
Comments: Site 37 SVE O&M and Building 8595 Vapor Intrusion Monitoring Report for 2015

Completed Area Name: 6 - Operable Unit 6, NASA Dryden
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Reports
Completed Date: 09/22/2016
Comments: EPA submitted concurrence letter.

Completed Area Name: 1 - Operable Unit 1, Main Base Flightline
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 10/11/2016
Comments: Operable Units 1/8 2016 Groundwater Monitoring Schedule

Future Area Name: 5/10 - Operable Units 5 and 10, North Base
Future Sub Area Name: Not reported
Future Document Type: Record of Decision
Future Due Date: 2024
Future Area Name: 4A - AFRL Arroyos
Future Sub Area Name: Not reported
Future Document Type: Record of Decision
Future Due Date: 2021
Future Area Name: 5/10 - Operable Units 5 and 10, North Base
Future Sub Area Name: Not reported
Future Document Type: Proposed Plan
Future Due Date: 2023
Future Area Name: 4/9 - Northeast AFRL
Future Sub Area Name: Not reported
Future Document Type: Proposed Plan
Future Due Date: 2023
Future Area Name: 4/9 - Northeast AFRL
Future Sub Area Name: Not reported
Future Document Type: Feasibility Study Report
Future Due Date: 2023
Future Area Name: 4/9 Mars Blvd Sites
Future Sub Area Name: Not reported
Future Document Type: Feasibility Study Report
Future Due Date: 2023
Future Area Name: 7 - Operable Unit 7, Basewide Misc.
Future Sub Area Name: Not reported
Future Document Type: Proposed Plan
Future Due Date: 2024
Future Area Name: 2 - Operable Unit 2, South Base
Future Sub Area Name: Site 5
Future Document Type: Feasibility Study Report
Future Due Date: 2020
Future Area Name: PROJECT WIDE

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Future Sub Area Name:	Not reported
Future Document Type:	Site Characterization Report
Future Due Date:	2021
Future Area Name:	1 - Operable Unit 1, Main Base Flightline
Future Sub Area Name:	Not reported
Future Document Type:	Feasibility Study Report
Future Due Date:	2021
Future Area Name:	8 - 25 Operable Unit - 8 - Site 25 Exotic Fuels
Future Sub Area Name:	Site 25
Future Document Type:	Feasibility Study Report
Future Due Date:	2020
Future Area Name:	2 - Operable Unit 2, South Base - MULTIPLE SITES
Future Sub Area Name:	Not reported
Future Document Type:	Record of Decision
Future Due Date:	2021
Future Area Name:	6 - Operable Unit 6, NASA Dryden
Future Sub Area Name:	Not reported
Future Document Type:	5 Year Review Reports
Future Due Date:	2021
Future Area Name:	6 - Operable Unit 6, NASA Dryden
Future Sub Area Name:	Not reported
Future Document Type:	Design/Implementation Workplan
Future Due Date:	2022
Future Area Name:	4/9 - South AFRL
Future Sub Area Name:	Not reported
Future Document Type:	Record of Decision w/ESD
Future Due Date:	2020
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Certification
Future Due Date:	2025
Schedule Area Name:	7 - Operable Unit 7, Basewide Misc.
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Record of Decision
Schedule Due Date:	12/31/2019
Schedule Revised Date:	08/03/2025
Schedule Area Name:	2 - Operable Unit 2, South Base
Schedule Sub Area Name:	Site 5
Schedule Document Type:	Proposed Plan
Schedule Due Date:	08/15/2018
Schedule Revised Date:	11/02/2021
Schedule Area Name:	4/9 - South AFRL
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Record of Decision w/ESD
Schedule Due Date:	03/30/2019
Schedule Revised Date:	09/14/2020
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Site Characterization Report
Schedule Due Date:	07/01/2017
Schedule Revised Date:	Not reported
Schedule Area Name:	Military Munitions Response Program (MMRP) - Basewide
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Site Characterization Report
Schedule Due Date:	03/31/2018
Schedule Revised Date:	02/28/2020
Schedule Area Name:	4/9 - South AFRL

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Schedule Sub Area Name: Not reported
Schedule Document Type: 5 Year Review Reports
Schedule Due Date: 11/30/2018
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: 5 Year Review Reports
Schedule Due Date: 10/24/2019
Schedule Revised Date: 01/29/2020
Schedule Area Name: 1 - Operable Unit 1, Main Base Flightline
Schedule Sub Area Name: Site 16
Schedule Document Type: Site Characterization Report
Schedule Due Date: 06/12/2019
Schedule Revised Date: 05/28/2020
Schedule Area Name: 7 - Operable Unit 7, Basewide Misc.
Schedule Sub Area Name: Site 3
Schedule Document Type: Operations and Maintenance Report
Schedule Due Date: 12/20/2019
Schedule Revised Date: Not reported
Schedule Area Name: 2 - Operable Unit 2, South Base
Schedule Sub Area Name: Site 29
Schedule Document Type: Record of Decision w/ESD
Schedule Due Date: 12/30/2018
Schedule Revised Date: 01/30/2020
Schedule Area Name: Military Munitions Response Program (MMRP) - Basewide
Schedule Sub Area Name: Not reported
Schedule Document Type: Remedial Investigation / Feasibility Study
Schedule Due Date: 05/30/2019
Schedule Revised Date: 03/15/2020
Schedule Area Name: 2 - Operable Unit 2, South Base - MULTIPLE SITES
Schedule Sub Area Name: Not reported
Schedule Document Type: Operations and Maintenance Plan
Schedule Due Date: 06/29/2020
Schedule Revised Date: Not reported

Calsite:
Name: EDWARDS AIR FORCE BASE
Address: 470 SQ MI; 60 MI NE OF LOS ANGELES, CA
City: EDWARDS
Region: SACRAMENTO
Facility ID: 15970001
Facility Type: OPEN
Type: OPEN MILITARY BASE
Branch: NO
Branch Name: OMF-NORTHERN CALIF
File Name: Not reported
State Senate District: 05011986
Status: ANNUAL WORKPLAN (AWP) - ACTIVE SITE
Status Name: ANNUAL WORKPLAN - ACTIVE SITE
Lead Agency: DEPT OF TOXIC SUBSTANCES CONTROL
NPL: Listed
SIC Code: 97
SIC Name: NATIONAL SECURITY/INTERNATIONAL AFFAIRS
Access: Not reported
Cortese: Not reported
Hazardous Ranking Score: Not reported
Date Site Hazard Ranked: Not reported

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Groundwater Contamination:	Confirmed
Staff Member Responsible for Site:	JOKANE
Supervisor Responsible for Site:	Not reported
Region Water Control Board:	LN
Region Water Control Board Name:	LAHONTAN
Lat/Long Direction:	Not reported
Lat/Long (dms):	0 0 0 / 0 0 0
Lat/long Method:	Not reported
Lat/Long Description:	MEASURED FROM CENTER POINT OF RUNWAY
State Assembly District Code:	34
State Senate District Code:	18
Facility ID:	15970001
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	OU10
Proposed Budget:	0
AWP Completion Date:	07012007
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	15970001
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	OU9
Proposed Budget:	0
AWP Completion Date:	07012007
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0

EDWARDS AIR FORCE BASE (Continued) **1000155217**

For Residential Reuse:	0
Unknown Type:	0
Facility ID:	15970001
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	OU9
Proposed Budget:	0
AWP Completion Date:	07012006
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	15970001
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	OU8
Proposed Budget:	0
AWP Completion Date:	07012007
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	15970001
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	OU8
Proposed Budget:	0
AWP Completion Date:	07012006
Revised Due Date:	Not reported

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	15970001
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	OU7
Proposed Budget:	0
AWP Completion Date:	12312006
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	15970001
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	OU5
Proposed Budget:	0
AWP Completion Date:	07012007
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	15970001
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	OU5
Proposed Budget:	0
AWP Completion Date:	07012006
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	15970001
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	OU4
Proposed Budget:	0
AWP Completion Date:	06302006
Revised Due Date:	08302005
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	15970001

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	S426
Proposed Budget:	0
AWP Completion Date:	08062004
Revised Due Date:	Not reported
Comments Date:	08062004
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	15970001
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	OU1
Proposed Budget:	0
AWP Completion Date:	12012005
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	15970001
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	OU6
Proposed Budget:	0
AWP Completion Date:	09302004
Revised Due Date:	Not reported
Comments Date:	10152004
Est Person-Yrs to complete:	0
Estimated Size:	Not reported

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	15970001
Activity:	OM
Activity Name:	OPERATION & MAINTENANCE
AWP Code:	S172
Proposed Budget:	0
AWP Completion Date:	06302003
Revised Due Date:	Not reported
Comments Date:	06302003
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	15970001
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	S133
Proposed Budget:	0
AWP Completion Date:	06272003
Revised Due Date:	Not reported
Comments Date:	06272003
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	15970001
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	STE25
Proposed Budget:	0
AWP Completion Date:	05132003
Revised Due Date:	Not reported
Comments Date:	05132003
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	15970001
Activity:	PEA
Activity Name:	PRELIMINARY ENDANGERMENT ASSESSMENT
AWP Code:	PRL32
Proposed Budget:	0
AWP Completion Date:	06282002
Revised Due Date:	Not reported
Comments Date:	06282002
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	15970001
Activity:	PEA
Activity Name:	PRELIMINARY ENDANGERMENT ASSESSMENT
AWP Code:	PRL31

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Proposed Budget:	0
AWP Completion Date:	06282002
Revised Due Date:	Not reported
Comments Date:	06282002
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	15970001
Activity:	PEA
Activity Name:	PRELIMINARY ENDANGERMENT ASSESSMENT
AWP Code:	PRL30
Proposed Budget:	0
AWP Completion Date:	06282002
Revised Due Date:	Not reported
Comments Date:	06282002
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	15970001
Activity:	PEA
Activity Name:	PRELIMINARY ENDANGERMENT ASSESSMENT
AWP Code:	PRL29
Proposed Budget:	0
AWP Completion Date:	03292002
Revised Due Date:	Not reported
Comments Date:	03292002
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	15970001
Activity:	PEA
Activity Name:	PRELIMINARY ENDANGERMENT ASSESSMENT
AWP Code:	PRL28
Proposed Budget:	0
AWP Completion Date:	03292002
Revised Due Date:	Not reported
Comments Date:	03292002
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	15970001
Activity:	PEA
Activity Name:	PRELIMINARY ENDANGERMENT ASSESSMENT
AWP Code:	PRL27
Proposed Budget:	0
AWP Completion Date:	03292002
Revised Due Date:	Not reported
Comments Date:	03292002
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0

EDWARDS AIR FORCE BASE (Continued) **1000155217**

For Residential Reuse:	0
Unknown Type:	0
Facility ID:	15970001
Activity:	RAW
Activity Name:	REMOVAL ACTION WORKPLAN
AWP Code:	S426
Proposed Budget:	0
AWP Completion Date:	10112001
Revised Due Date:	Not reported
Comments Date:	10112001
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	15970001
Activity:	PEA
Activity Name:	PRELIMINARY ENDANGERMENT ASSESSMENT
AWP Code:	PRL26
Proposed Budget:	0
AWP Completion Date:	12132001
Revised Due Date:	Not reported
Comments Date:	12132001
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	15970001
Activity:	PEA
Activity Name:	PRELIMINARY ENDANGERMENT ASSESSMENT
AWP Code:	PRL25
Proposed Budget:	0
AWP Completion Date:	12132001
Revised Due Date:	Not reported

EDWARDS AIR FORCE BASE (Continued) **1000155217**

Comments Date:	12132001
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	15970001
Activity:	PEA
Activity Name:	PRELIMINARY ENDANGERMENT ASSESSMENT
AWP Code:	PRL24
Proposed Budget:	0
AWP Completion Date:	12132001
Revised Due Date:	Not reported
Comments Date:	12132001
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	15970001
Activity:	PEA
Activity Name:	PRELIMINARY ENDANGERMENT ASSESSMENT
AWP Code:	PRL23
Proposed Budget:	0
AWP Completion Date:	09172001
Revised Due Date:	Not reported
Comments Date:	09172001
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported