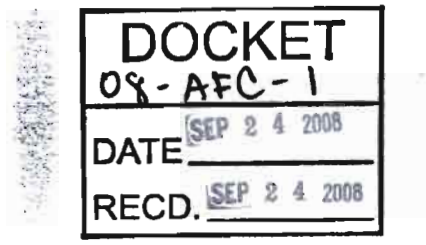
Avenal Power Center, LLC
500 Dallas Street, Level 31
Houston, TX 77002

September 24, 2008



Mr. Christopher Meyer
Project Manager
c/o Dockets Unit, 4th Floor
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

Ref: Response to California Energy Commission
Data Request Set 2 (# 75-94) for Avenal Energy (08-AFC-1)

Dear Mr. Meyer:

Please find enclosed one original, twelve paper copies, and one CD of the Avenal Power Center, LLC responses to the California Energy Commission Staff's data requests 75-94 for Avenal Energy (08-AFC-1). Electronic copies, along with proof of service declaration, are being concurrently sent to each of the individuals on the attached proof of service list.

We appreciate staff's responsiveness to our extension request for the due date of this submittal on account of our corporate headquarters in Houston being impacted by Hurricane Ike, and we look forward to working with CEC staff to answer any remaining questions for the licensing of this project. For the record, we have attached staff's internal correspondence related to our extension request.

If you have questions regarding the enclosed responses, please call Joe Stenger at (805) 528-6868, or Jim Rexroad at (713) 275-6147.

Sincerely,

Benjamin Preston
Vice President
Avenal Power Center, LLC

Enclosure:

Response to Data Requests 75 to 94 (1 original, 12 paper copies, 1 CD)

Attachments:

September 16/17, 2008 CEC Staff E-Mail Correspondence
Proof of Service

cc. Jim Rexroad, Avenal Power Center, LLC
Service List

From: Eric Knight [mailto:Eknight@energy.state.ca.us]
Sent: Wednesday, 17 September 2008 11:41 AM
To: MIchelle Woods
Cc: Tracey Gilliland
Subject: Re: Avenal Data Requests

No problem; that's understandable.

Eric Knight, Manager
Siting & Docket Office
Energy Facilities Siting Division
California Energy Commission
1516 Ninth Street, MS-15
Sacramento, CA 95814
tel: 916.653.1850
fax: 916.654.3882

>>> MIchelle Woods 9/16/2008 1:38 PM >>>
Hi Eric,

Macquarie Cook Power Inc has a Houston headquarters and had to close for several days because of hurricane Ike. As a result, the data responses for Avenal may be delayed until September 26th. Please let me know if you have any concerns.

Michelle Woods
California Energy Commission
(916) 654-3836
(916) 654-3882 FAX
mwoods@energy.state.ca.us

Avenal Energy AFC
(08-AFC-1)
Response to Data Requests 75-94

Technical Area: Air Quality
Author: Brewster Birdsall

BACKGROUND

Offset Package –California Energy Commission (CEC) staff has not received the updated offset strategy and package of emission reductions credits (ERCs) that the applicant agreed to provide in response to Data Request Set 1 (#4), dated June 20, 2008. The applicant should provide the update of Application for Certification (AFC) Appendix-6.2-5 and confirm that the proposed mitigation matches the offset proposal currently shown in the Preliminary Determination of Compliance (PDOC) released by San Joaquin Valley Air Pollution Control District (SJVAPCD) on July 16, 2008.

DATA REQUEST

75. Please confirm whether the offsets proposed as mitigation are the same as the offset proposal shown in Section VIII of the SJVAPCD Preliminary Determination of Compliance, or provide details of how the offset package has changed.

RESPONSE

The offset proposal described on pages 38-47 of Section VIII in the PDOC is correct except for the following arithmetic corrections (shown in **bold** font) that will be included in the Final DOC:

- The offset values shown on pages 39-40 are correct, except that the arithmetic for the totals shown at the bottom of the table on page 40 should be as follows:
  - 1st Quarter: 83,78**5** lbs/qtr
  - 2nd Quarter: 78,14**9** lbs/qtr
  - 3rd Quarter: 170,0**30** lbs/qtr
  - 4th Quarter: 80,2**73** lbs/qtr
  - Total Annual: 412, 2**3**7 lbs/qtr

- Consistent arithmetic corrections of the offset values on page 41 are as follows:
  - Available ERCs from certificates C-899-2, C-902-2, N-720-2, N-722-2, N-726-2, N-728-2, S-2814-2, and S-2321-2:
    - 1st Quarter: 83,78**5** lbs/qtr
    - 2nd Quarter: 78,14**9** lbs/qtr
    - 3rd Quarter: 170,0**30** lbs/qtr
    - 4th Quarter: 80,2**73** lbs/qtr

- 3rd qtr. ERCs applied to 1st qtr. ERCs:
  - 1st Quarter: 16,87**0** lbs/qtr
  - 2nd Quarter: 0 lbs/qtr
  - 3rd Quarter: -16,87**0** lbs/qtr
  - 4th Quarter: 0 lbs/qtr
- 3rd qtr. ERCs applied to 2nd qtr. ERCs:
  - 1st Quarter: 0 lbs/qtr
  - 2nd Quarter: 22,50**7** lbs/qtr
  - 3rd Quarter: -22,50**7** lbs/qtr
  - 4th Quarter: 0 lbs/qtr
- 3rd qtr. ERCs applied to 4th qtr. ERCs:
  - 1st Quarter: 0 lbs/qtr
  - 2nd Quarter: 0 lbs/qtr
  - 3rd Quarter: -20,38**3** lbs/qtr
  - 4th Quarter: 20,38**3** lbs/qtr
- Remaining ERCs from certificates S-2321-2:
  - 1st Quarter: 0 lbs/qtr
  - 2nd Quarter: 0 lbs/qtr
  - 3rd Quarter: 9,6**1**4 lbs/qtr
  - 4th Quarter: 0 lbs/qtr

- The offset values shown on page 42 are correct, except that the arithmetic for the totals shown at the bottom of the second table on page 42 should be as follows:
  - 1st Quarter: 60,88**8** lbs/qtr
  - 2nd Quarter: 61,88**9** lbs/qtr
  - 3rd Quarter: 61,02**5** lbs/qtr
  - 4th Quarter: 61,99**5** lbs/qtr
  - Total Annual: 245,7**9**7 lbs/qtr

- The Volatile Organic Compounds (VOC) offset values shown on page 43 are correct. The Particulate Matter of 10 Micrograms or Less in Diameter (PM_{10}) offset values require the following minor arithmetic corrections:
  - PM_{10}SSPE2 = 161,5**50** lb/yr
  - Offsets =[(161,5**50** – (2) – (3) – 29,200 + 0) x DOR]
    = 132,34**5** lb/yr x DOR
  - Offsets =[(132,34**5** lb/yr ÷ 4qtr/year) * DOR
    = 33,08**6.25** lb/yr x DOR

- The PM_{10} offset values shown on page 44 require the following minor arithmetic corrections:
  - $PM_{1st\ Qtr}$ = 33,08**6.25** lbs of PM10 * DOR
  - $PM_{2nd\ Qtr}$ = 33,08**6.25** lbs of PM10 * DOR
  - $PM_{3rd\ Qtr}$ = 33,08**6.25** lbs of PM10 * DOR
  - $PM_{4th\ Qtr}$ = 33,08**6.25** lbs of PM10 * DOR
  - Offsets =132,34**5** lb/year x 1.5
    = 198,51**8** lb/year
  - The arithmetic for the totals shown in the first table on page 44 should be as follows:
    - 1st Quarter: 49,6**30** lb/qtr
    - 2nd Quarter: 49,62**9** lb/qtr
    - 3rd Quarter: 49,62**9** lb/qtr
    - 4th Quarter: 49,6**30** lb/qtr
    - Total Annual: 198,51**8** lb/year
  - The arithmetic for the totals shown in the second table on page 44 should be as follows:
    - 1st Quarter: 126,13**2** lb/qtr
    - 2nd Quarter: 45,25**8** lb/qtr
    - 3rd Quarter: 94,4**52** lb/qtr
    - 4th Quarter: 125,8**81** lb/qtr

- The offset values shown on pages 45-46 are correct.

- The nitrogen oxides (NOx) offset values in the first bulleted paragraph should be corrected as follows:
  - 1st Quarter: 6**7,103.75** lb
  - 2nd Quarter: 6**7,103.75** lb
  - 3rd Quarter: 6**7,103.75** lb
  - 4th Quarter: 6**7,103.75** lb

- The VOC offset values in the second bulleted paragraph should be corrected as follows:
  - 1st Quarter: 12,294**.75** lb
  - 2nd Quarter: 12,294**.75** lb
  - 3rd Quarter: 12,294**.75** lb
  - 4th Quarter: 12,294**.75** lb

BACKGROUND

Equivalency of Emission Reductions -- CEC staff is concerned that the integrity of the proposed mitigation may be adversely affected by the SJVAPCD's annual equivalency demonstration required by SJVAPCD Rule 2201, Section 7. This rule requires the SJVAPCD to demonstrate that ERCs used by the project, a new major source, are

surplus at the time of use. The applicant's proposed mitigation includes ERCs issued between 1991 and 2002, and some of the ERCs may be subject to discounting at the time of use under Rule 2201, Section 7. The Draft Staff Report issued by SJVAPCD on July 29, 2008 for revising Rule 2201 indicates that the SJVAPCD will likely fail to demonstrate equivalency for NOx this year because surplus NOx credits may make up less than 10 percent of the total banked credits in the SJVAPCD.[1] If the applicant's ERCs are discounted, or if they are not representative of real or surplus reductions, then CEC staff may need to identify additional mitigation for the project. The applicant should describe whether its proposed mitigation represents real and surplus emission reductions.

DATA REQUEST

76. Please describe whether any of the offsets proposed for mitigation would be subject to discounting at the time of use or subject to discounting under Rule 2201, Section 7.

RESPONSE

Based on the Applicant's understanding of the SJVAPCD rules, as long as the Final Determination of Compliance (FDOC) is issued prior to any failure of the equivalency system, the offsets proposed by the Applicant for mitigation would not be subject to discounting at time of use or subject to any other discounting. Discussions with the SJVAPCD during the permitting process confirmed that the "at time of use" requirement does not apply as long as the FDOC is issued prior to any failure of the equivalency system. Further, the SJVAPCD has noted that they do not expect to fail the equivalency demonstration for 2008. The comment period for the PDOC has closed, and the Applicant believes the FDOC will be issued some time this year. Therefore, no discounting of the proposed offsets is expected or proposed.

DATA REQUEST

77. Please demonstrate that the offsets proposed for mitigation are representative of real and surplus reductions, taking into account possible discounting under Rule 2201, Section 7. This information should verify that the quantity of real and surplus reductions in the proposed mitigation strategy, after discounting, would be sufficient to mitigate the project's impacts.

[1] SJVAPCD, Draft Staff Report, Draft Amendments to Rule 2201 (New and Modified Stationary Source Review Rule) and Rule 2530 (Federally Enforceable Potential to Emit). Prepared by Carlos Garcia, Senior Air Quality Engineer. Dated: July 29, 2008.

RESPONSE

The modeling and analysis contained in AFC Section 6.2 and supplemented in the AFC supplemental filing dated March 27, 2008, and Data Responses 1-5 provide a detailed analysis of the required mitigation for the proposed project. The determination of adequacy of the proposed offsets to mitigate project impacts is incorporated in the analysis conducted by the SJVAPCD for Determination of Compliance. The SJVAPCD issued the PDOC on July 15, 2008, providing the results of that analysis. The PDOC confirmed that the proposed offsets provide all necessary mitigation for potential air quality impacts of the proposed project. Additionally, as noted in the response to Data Request 76, the SJVAPCD has noted that as long as the FDOC is issued prior to any failure of an annual equivalency demonstration, no discounting of the proposed offsets is required. Because the SJVAPCD, as a function of the issuance of the PDOC, has determined that the proposed offsets, as presented by the Applicant, mitigate the potential air quality impacts of the proposed project, further analysis of the offsets would be unnecessarily duplicative of the SJVAPCD permitting process. A more detailed analysis of the adequacy of the proposed offsets is contained in the PDOC issued July 15, 2008.

Technical Area: Cultural Resources
Author: Beverly E. Bastian

BACKGROUND

The applicant's response to previous staff Data Request 19, dated June 20, 2008, indicated that a geotechnical study is expected to be completed in late 2008 or early 2009. Staff believes that this planned research presents an opportunity for the applicant to reduce the amount of archaeological monitoring that staff would recommend in the conditions for certification that would accompany a decision from the CEC to permit the proposed project. If the applicant were to provide factual field data on the archaeological character of the undisturbed geological deposits that underlie the portions of the proposed project area that will be subject to project disturbance, then staff would have a more objective basis for scaling back the standard archaeological monitoring requirements. If this possibility interests the applicant, staff recommends that a professional geoarchaeologist participate in the proposed geotechnical study and collect the data needed for an analysis of the potential for buried archaeological deposits at the proposed Avenal Energy plant site. ("Professional geoarchaeologist" means a person who is able to demonstrate the completion of graduate-level coursework in geoarchaeology, Quaternary science', or a related discipline.)

Involving a geoarchaeologist in the planned geotechnical study is strictly voluntary. Staff offers two options below for this participation. The greater involvement the geoarchaeologist has in the geotechnical study, the more likely that the resulting cultural resources information would either reduce the project's archaeological monitoring requirements or focus them more efficiently and cost effectively than would otherwise be possible.

DATA REQUESTS

78. Please choose one of the following options for the participation of a geoarchaeologist in the planned geotechnical study at the Avenal Energy site.

    a. Please provide a professional geoarchaeologist the opportunity to observe, in the field, the removal of any sediment cores by the geotechnicians, to examine the cores, in the field or a laboratory, for physical and chemical indices of human activity, and, where feasible, to collect chronometric dating samples from the cores. At least one of the cores should be drilled to a depth that exceeds, by approximately one meter, the deepest construction excavations planned for the project. Prior to the field work, the geoarchaeologist should conduct background research on the geology and geomorphology of the Avenal Energy project area to be able to place the stratigraphic units observed in the cores into a meaningful local sequence. The geoarchaeologist should write a brief letter report for staff that describes the fieldwork and the stratigraphic units

observed, that estimates the probable age of those units, that interprets the depositional history of the units, and that assesses the likelihood that the units contain buried archaeological deposits.

b. Or, please have a trench excavated to the specifications of a professional geoarchaeologist in the part of the proposed project site where project excavations are expected to extend to the greatest depth. Prior to the field work, the geoarchaeologist should conduct background research on the geology and geomorphology of the Avenal Energy project area to be able to place the stratigraphic units observed in the trench into a meaningful local sequence. Have the geoarchaeologist record reasonably detailed written descriptions of the lithostratigraphic and pedostratigraphic units in one profile of the trench. The recordation of that profile should include a measured drawing of the profile, a profile photograph with a metric scale and north arrow, and the screening of a small sample (three 5-gallon buckets) of sediment from the major lithostratigraphic or pedostratigraphic units in the profile, or from two arbitrary levels in the profile, through ~-inch hardware cloth. Soil humate samples for dating the profile's stratigraphic sequence should also be collected, as appropriate. Have the soil humate samples assayed at a professional radiocarbon laboratory, per the geoarchaeologist's instructions, and have the results provided to the geoarchaeologist. The geoarchaeologist should write a brief letter report for staff that describes the fieldwork and the stratigraphic units observed, estimates the probable age·of those units, interprets the depositional history of the units, and assesses the likelihood that the units contain buried archaeological deposits.

RESPONSE

The Applicant will provide a geoarchaeologist the opportunity to observe the removal of sediment cores during planned geotechnical work in accordance with option “a,” provided that the work does not substantially modify the scope or schedule of the geotechnical study and testing. However, the Applicant believes that this additional survey provides a substantially more detailed pre-construction survey than is justified based on the results of several literature reviews and several site surveys, none of which have provided any indication of the presence of cultural resources on lands that will be disturbed by the project, as described in detail in AFC Section 6.7 and accompanying appendices. Therefore, the Applicant believes that, should the results of the sediment cores result in no new material evidence of cultural or prehistoric remains at the site, the proposed monitoring during project construction should be limited to excavations in areas more than 1,000 feet from a sediment core location or more than 75 feet below grade, unless and until artifacts are found. For the option “a” geoarchaeological work, chemical indices will be tested only if soils suspected of being culturally modified are found, in which case testing for pH and

phosphates will occur in such soils, as well as soils suspected to be culturally sterile to provide a basis to compare and contrast these chemical parameters.

BACKGROUND

Staff has identified the Tesla-Midway 230-kV transmission line (currently known as the Gates-Arco-Midway 230-kV transmission line) in the vicinity of the proposed Avenal Energy as potentially eligible for the California Register of Historical Resources under Criterion 1, and staff has evaluated the integrity of design and integrity of materials of this resource as sufficient to convey its historical significance. Staff, however, needs to evaluate its integrity of setting, which may have been impaired by the past addition of two 500-kV transmission lines in the older line's right-of-way. Staff also needs an evaluation of the potential impact of the project's new 230-kV transmission line, proposed to run close and parallel to the Tesla-Midway 230-kV transmission line, on its integrity of setting.

Additionally, the 2006 cultural resources updated report indicates that the proposed project's 230-kV transmission line would require the raising of two existing transmission line towers of the old Tesla-Midway 230-kV transmission line to facilitate interconnection at the Gates Substation (Pacific Legacy 2006, p. 5). Staff needs clarification of this as a potential project impact to the integrity of design of two of the Tesla-Midway 230-kV transmission line towers.

RESPONSE TO BACKGROUND

The Tesla-Midway 230-kV transmission line in the vicinity of the proposed Avenal Energy project has been evaluated by a qualified historian in response to CEC Staff data requests. Both the current Project and a previously proposed project at the same location have evaluated this transmission line and determined that the transmission line in question does not meet the criteria for a historic resource. A summary of the Applicant's review of previous analysis is included here for reference.

In a response to a CEC request for the construction date of the Tesla-Midway 230-kV electrical transmission line and the source for this information from a previously proposed project at the same location, the following was provided:

"The owner and operator of the line is Pacific Gas & Electric (PG&E). Per contact with Ms. Michelle Johnston, PG&E Manager of Interconnection Services, the original date for the Tesla (Tracy)-Midway (Bakersfield) 230-kV line is 1948. However, based on evaluations by Duke Energy's Electric Transmission System Engineering consultant, Mr. William Stephenson, the original Midway-Tesla 230-kV line has been significantly modified several times since it was constructed. By the early 1950s the Panoche substation was added when Moss Landing Units 4 & 5 were constructed. By the mid 1950s the Gates substation was added when Morro Bay Units were

placed into service. By the mid 1960s the original line was again sectionalized to connect the new Los Banos 230-kV constructed in conjunction with another generation project, the Moss Landing Unit 6 & 7 additions. Major modifications performed on this line during the 1970s include the following: (1) the line was reconductored in part or in whole, due to electric system reliability needs; (2) portions of the line have been removed from the 230-kV system and are now used at 115-kV; (3) with removal of portions of the line to a 115-kV service level, portions of the remaining original two 230-kV circuits were modified to a "parallel" circuit through a single breaker at the Gates substation; and (4) the line was modified to loop into the new ARCO substation (see AFC Figure 2.4-2). This "loop-in" was completed via a new double circuit 230-kV line (7.29 miles in length, total of 14.58 circuit miles) from the new ARCO substation to the point of interconnection with the existing Midway-Gates 230-kV line to form two new lines: the Midway-ARCO and the ARCO-Gates 230-kV lines. In addition two 500-kV lines were added next to the line in the same right-of-way. Collectively, the changes to the Tesla-Midway line since its original construction in 1948 are substantial modifications to the physical characteristics of the line originally put into service."[2]

The CEC requested an evaluation of the eligibility of the electrical transmission line for the California Register of Historical Resources (CEQA Section 15064.5, (a)(3)(A)-(D) from an applicant for a previously proposed project in the same location and the response provided was as follows:

"The owner and operator of the line is PG&E. As described in the previous response (see above), the original Tesla-Midway line has been substantially modified and upgraded over its useful operating life. Furthermore, the California Independent System Operator (CAISO) and PG&E separately identified the need to perform necessary upgrades on the existing Midway-ARCO and ARCO-Gates 230-kV lines to maintain reliability on the existing transmission grid. When Path 15 is upgraded by adding a 500-kV line between Gates and Los Banos, the Midway-Gates 230-kV line must be upgraded as well to get the benefits of the new Gates to Los Banos 500-kV line. This work is scheduled to be completed by October 2004. Duke Avenal has not heard of any concern, local or otherwise, related to historic resource preservation of high voltage power lines along the Interstate 5 corridor on or in the vicinity of the Avenal Energy Project. When Duke Avenal evaluates the reasons for the changes to the Tesla-Midway lines over the past 50 years, those changes are largely related to new generation additions. It does not appear necessary or

[2] February 25, 2002 Responses to California Energy Commission January 24, 2002 Data Requests on the Avenal Energy Project (01-AFC-20), Data Request No. 35.

appropriate to perform an evaluation of the eligibility of this transmission segment for the California Register of Historical Resources (see Exhibits 36-1, 36-2 and 36-3)."[3]

The CEC requested additional information on the transmission lines from an applicant for a previously proposed project in the same location and the response provided was as follows:

"On February 25, 2002 Duke Avenal provided responses to CEC Staff Data Requests 35 and 36 regarding evaluation of the eligibility of the existing 230-kV transmission lines for the California Register of Historic Resources. Duke Avenal's technical expert determined that the transmission lines in question do not meet a historic resource test.

PG&E is the owner and operator of the Midway-ARCO-Gates 230-kV line. As described in the above response, the original Tesla-Midway line has been substantially modified and upgraded over its useful operating life. Furthermore, the CAISO and PG&E separately identified the need to perform necessary upgrades on the existing Midway-ARCO and ARCO-Gates 230-kV lines to maintain reliability on the existing transmission grid. When Path 15 is upgraded by adding a 500-kV line between Gates and Los Banos, the Midway-Gates 230-kV line must be upgraded as well to get the benefits of the new Gates to Los Banos 500-kV line. The Path 15 work is scheduled for completion in 2004. Duke Avenal has not heard of any concern, local or otherwise, related to historic resource preservation of high voltage power lines along the Interstate 5 corridor on or in the vicinity of the Avenal Energy Project. When Duke Avenal evaluates the reasons for the changes to the Tesla-Midway lines over the past 50 years, those changes are largely related to new generation additions.

After further careful review and consideration, Duke Avenal believes it does not appear necessary to perform additional evaluation of the eligibility of this transmission segment for the California Register of Historical Resources and we would like CEC Staff concurrence to that effect."[4]

In the current Project's AFC Appendix 6.7.1 Part 2, a cultural resources report prepared by Pacific Legacy in September of 2006 further evaluated the Gates-Arco 230-kV transmission line. The Pacific Legacy 2006 report also references the data responses provided by an applicant for a previously proposed project at the same location (these responses by the previous applicant have been reprinted above).

[3] February 25, 2002 Responses to California Energy Commission January 24, 2002 Data Requests on the Avenal Energy Project (01-AFC-20), Data Request No. 36. The referenced Exhibits from this data response 36 are provided herein as Exhibit 80-1.

[4] June 28, 2002 Responses to California Energy Commission May 29, 2002 Third Set of Data Requests on the Avenal Energy Project (01-AFC-20), data response No. 161.

Pacific Legacy's report also states that "the 230-kV transmission line and Gates substation have existed in their current configuration only since the completion of Path 15 upgrade work in the last few years"(Pacific Legacy 2006, p.5; see AFC Appendix 6.7-1 Part 2). This 2006 Pacific Legacy report also references the Los Banos-Gates Transmission Project in the California Public Utilities Final SEIR (March 5, 2002) which does not appear to even consider the electrical transmission system as a cultural resource. The 2006 Pacific Legacy report concludes that "the transmission system in the area does not have adequate integrity to be a potentially significant resource."[5]

In the current project's June 2008 Responses to CEC Data Requests, the project had a qualified architectural historian conduct additional research on the Gates Substation and the Gates-Arco-Midway 230-kV transmission line and document and evaluate the Gates Substation and the Gates-Arco-Midway 230-kV transmission line for eligibility under the criteria of the California Register of Historical Resources and the National Register of Historic Places using California Department of Parks & Recreation (DPR) 523 A (Primary Record) and B (Building, Structure, Object Record) forms which were submitted to the CEC as part of the June 2008 Responses, more specifically, the response to Data Request No. 17. Following are excerpts from the submitted DPR 523 B forms for the Gates Substation and the Gates-Arco-Midway 230-kV Transmission Line.

Gates Substation

"Little historical information was identified for the PG&E Gates Substation which would support a statement of significance or eligibility under the criteria of the National Register of Historic Places or the California Register of Historical Resources. No information was identified to associate the facility with an important historical event (NR-A/CR-1), or a significant person (NR-B/CR-2), and from the public right-of-way the facility does not appear to contain any buildings or structures which appear to employ, embody, or represent distinctive styles of architecture or engineering features, and the property was not identified as representing innovative technology with respect to electrical transmission and distribution facilities (NR-C/CR-3); additionally no information was identified to support the assertion that the Gates Substation would be likely to yield additional information which could be considered important in history."[6]

[5] Pacific Legacy, 2006. Letter report to TRC: *Avenal Energy Project, Fresno and Kings Counties*. This report was provided to CEC as Appendix 6.7-1 in the AFC.

[6] Wendy L. Tinsley & Urbana Preservation & Planning, Department of Parks & Recreation 523 B Form for the Gates Substation, May 2008. Prepared in Response to CEC Data Request 17 for the Avenal Energy project.

Gates-Arco-Midway 230kV Transmission Line

"The Gates-Arco-Midway Transmission Line (GAM-TL) was initially installed by the Pacific Gas & Electric Company in 1948, making the 70-mile alignment at least sixty years of age. Previous environmental review documents and a Federal Record of Decision published for the 'Path 15' project in 2001 disclose that sections of the original GAM-TL were 115-kV with other sections installed to carry a capacity of 230-kV. Use of 115-kV technology in transmission lines occurred as early as the 1910s; by the 1920s voltages were reported at 220-kV. Thus installation of the 115-kV / 230-kV GAM-TL in 1948 would not be considered historically significant or technologically innovative within the context of electrical engineering or voltage & electrical transmission technology. Documented modifications at the GAM-TL which were approved in 2001 as part of the 'Path 15' project consisted of upgrading and reconfiguring approximately 24 miles of the original span from 115-kV to 230-kV. The 'Path 15' project was completed in December 2004, indicating that the approved modifications to the line were completed, making at least 24 miles of the GAM-TL approximately four years of age. The GAM-TL does not appear to be eligible for inclusion on the National Register of Historic Places or the California Register of Historical Resources as it was not found to be directly associated with any important events or patterns of events (NR-A/CR-1), or important persons (NR-B/CR/2), and perhaps most important for the evaluation of significance for electrical transmission properties, the GAM-TL does not reflect an innovative or technologically advanced application of electricity during the decade it was installed (NR-C/CR-3) and the line would not appear to yield any additional information which may be considered significant with respect to the history of the San Joaquin Valley or as a contribution to the historic context of electrical transmission lines and engineering technology (NR-D/CR-4)."[7]

In addition to the intensive-level documentation and eligibility evaluations prepared using the DPR 523 Forms as part of the response to Data Request No. 17, the current Applicant also provided a number of references related to the Path 15 upgrades with its objection to Data Request 16 in the June 2008 Data Responses.

CEC Staff refers to the Gates-Arco-Midway 230-kV transmission lines as "potentially eligible for the California Register under Criterion 1," however, no information was provided by CEC Staff to substantiate such a determination including, but not limited to:

[7] Wendy L. Tinsley & Urbana Preservation & Planning, Department of Parks & Recreation 523 B Form for the Gates-Arco-Midway 230 kV Transmission Line, May 2008. Prepared in Response to CEC Data Request 17 for the Avenal Energy project.

- The specific context, theme, and significant event which staff identified the transmission line as having a direct association with;
- The extent of the assertion of significance with respect to exact or approximate boundaries;
- The period of significance identified by staff; and
- An integrity analysis to substantiate that the asserted significance is intact such that the transmission line, in its current form and configuration, still physically conveys the significance identified by staff.

Additionally based on information included within Federal Register Volume 66, Number 245 (*Record of Decision*, page 65700) an approximate 24.4 mile section of the 70 mile Gates-Arco-Midway 230-kV transmission line situated between the Gates Substation to the north and the Midway Substation to the south was altered from its prior design and materials via reconfiguration and reconductoring activities undertaken as part of the Path 15 project completed in December 2004, making approximately 34 percent of the sixty-year old transmission line only four years of age. Further, PG&E recently provided the Applicant with details of the modifications made to both the Gates-Arco-Midway 230-kV line and towers as part of the Path 15 project completed in 2004. These modifications included: installation of top cage extension (16 feet by 6 inches) with peak on 2G and 3G towers; installation of insulator and hardware assembly to top cross-arms; transfer of top phase conductor to new top cross-arm position, middle conductor to existing top, and bottom conductor to existing middle position, leaving bottom cross-arms; and installation of shunts on all conductor splices.[8]

The Applicant continues to believe that the data provided for this Project, as well as during the CEC process for a previously proposed project at the same location, provides substantial technical and historical information to determine the Tesla-Midway 230-kV transmission line is not of historical significance and no further review of potential eligibility for the California Register of Historical Resources is appropriate, including an impact analysis specific to the setting aspect of integrity.

DATA REQUEST

79. Please provide a drawing or photograph comparing the towers of the Tesla-Midway 230-kV transmission line towers, the newer 500-kV transmission line towers, and project's proposed new 230-kV transmission line monopoles, showing them to scale vertically and in their actual horizontal spatial relationship, looking north. Please indicate, also, the outer edges of the right-of-way (ROW).

[8] Communication between Pacific Gas & Electric Company and the Applicant, September 18, 2008.

RESPONSE

Exhibit 79-1 provides a photo-depiction of the proposed new 230-kV transmission line poles, the existing 230-kV towers and the existing 500-kV towers. The inset map to the photo-depiction shows the relationship of the towers and poles to the existing PG&E ROW and the proposed Avenal Energy ROW. As shown in the inset map to Exhibit 79-1, the existing PG&E ROW is 400 feet wide and the centerline of the existing 230-kV towers is 50 feet inside east edge of the ROW. The proposed Avenal Energy ROW will be adjacent to and east of the existing PG&E ROW and will be 120 feet wide with the poles in the approximate center of the 120-foot wide ROW. The photo-depiction and the inset represent the closest that the proposed 230-kV poles could be to the existing towers, with all the three existing towers and the proposed poles approximately in a line. Because the interval between towers along the existing 230-kV line is approximately 1,100 feet, and the interval between poles along the proposed 230-kV line will be approximately 800 feet, few if any of the new poles would occur adjacent to the existing towers as shown in the worst-case photo-depiction.

80. Please have a qualified architectural historian evaluate the impact of the project's proposed new 230-kV transmission lines on the integrity of setting of the Tesla-Midway 230-kV transmission line.

RESPONSE

Setting is one of seven aspects of integrity defined by the National Park Service in *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*. Integrity is the ability of a property to physically convey its significance. The seven aspects of integrity are location, design, setting, materials, workmanship, feeling, and association. According to *National Register Bulletin 15*:

"Integrity is based on significance: why, where, and when a property is important. Only after significance is fully established can you proceed to the issue of integrity. The steps of assessing integrity are:

- Define the essential physical features that must be present for a property to represent its significance.
- Determine whether the essential physical features are visible enough to convey their significance.
- Determine whether the property needs to be compared with similar properties, and,
- Determine, based on the significance and essential features, which aspects of integrity are particularly vital to the property being nominated and if they are present.

Ultimately, the question of integrity is answered by whether or not the property retains the identity for which it is significant."[9]

According to *National Register Bulletin 15* "setting is the physical environment of a historic property." Whereas location refers to the specific place where a property was built or an event occurred, setting refers to the character of the place in which the property played its historical role. It involves how, not just where, the property is situated and its relationship to surrounding features and open space.

Setting often reflects the basic physical conditions under which a property was built and the functions it intended to serve. In addition, the way in which a property is positioned in its environment can reflect the designer's concept of nature and aesthetic preferences.

"The physical features that constitute the setting of a historic property can be either natural or manmade…these features and their relationships should be examined not only within the exact boundaries of the property, but also between the property and its surroundings."[10]

The setting analysis was completed through comparison of a current photograph showing the typical view of a section of the Gates-Arco-Midway 230-kV transmission line that spans through the proposed project area with a photo-depiction of the same view which includes the addition of new 230-kV poles installed in the proposed ROW adjacent to the east side of the existing PG&E ROW. The photo-depiction used for the purposes of comparison is identified as Exhibit 79-1. Regional maps and aerial photographs of the transmission line alignment, plans for the proposed 230-kV line as described in the AFC, and the response developed for Data Request 79 were also considered.

Installation of new 230-kV towers adjacent to the existing PG&E ROW containing the existing 230-kV and 500-kV transmission towers would not appear to alter the existing setting or visual characteristics of the transmission line which has been altered through upgrades and installation of new lines and towers from the 1970s forward. Installation of additional towers or replacement of existing towers would be consistent with the current appearance and development features of the transmission line within the vicinity of the proposed project area.[11]

[9] United States Interior Department – National Park Service, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation* (1990 as revised) 45.

[10] Ibid.

[11] "This response was prepared by Wendy L. Tinsley, a qualified architectural historian and Principal of Urbana Preservation and Planning, who also performed the evaluation of the transmission line and prepared the related

81. Please provide details of the proposed raising of two of the Tesla-Midway 230-kV transmission line towers, including methods and materials planned, anticipated new height, any changes to foundations, and any changes to other structural elements of these towers.

RESPONSE

The specifics of the project's currently proposed interconnection at the Gates Substation will be wholly decided by PG&E. In a Facilities Study previously performed by CAISO/PG&E two existing towers were to be raised to allow the proposed interconnection to tie in flat. Until the CAISO/PG&E prepares a Facilities Study for this specific project, it is uncertain whether PG&E would still anticipate needing to raise two towers of the Gates-Arco 230-kV line to allow Avenal Energy to bring the generation tie line in a flat configuration. The Applicant will suggest that if the Avenal-Gates line requires the crossing of existing towers, that PG&E request the Project's new 230-kV poles be made taller or shorter to accommodate the existing lines. Ultimately the specific transmission system upgrade (beyond those directly involved in the Avenal to Gates line) design will be decided by PG&E and the CAISO and would comply with all Federal, State and local requirements and be permitted under separate California Public Utilities Commission (CPUC) guidelines.

82. Please have project engineers discuss the feasibility of the avoidance of the potential project impacts to these two towers represented by this proposed "raising." For example, consider the possibility of making the analogous monopoles of the project's proposed new 230-kV transmission lines taller or shorter so no changes would have to be made to the old towers.

RESPONSE

See Response No.81

BACKGROUND

The AFC did not include some details concerning the construction of the project's proposed 230-kV transmission line that staff needs to evaluate all potential impacts to cultural resources. Staff needs more detailed information on the pull sites and access roads that would be needed to build the proposed transmission line.

DPR 523 forms pursuant to CEC Data Request No. 17 submitted to the CEC for the Avenal Energy project in June of 2008. Ms. Tinsley's resume is included in Attachment C.3 of the March 2008 AFC Supplement."

DATA REQUESTS

83.

a. On a map, please show any existing access roads that are available for use in constructing the proposed new 230-kV transmission line.

b. If no access roads are available for use in constructing the proposed new 230-kV transmission line, on the same map, please show the number and location of new access roads that would have to be cleared and graded, including new roads to each tower location, if any. Also, please provide an estimate of the extent of the area around the new roads where ground disturbance would occur as a result of the clearing and grading activities.

c. On the same map, please provide the number and location of the pull sites that Avenal Power expects to use to install the conductors of the proposed new 230-kV transmission line. Also, please provide an estimate of the extent of the area around the pull sites where ground disturbance would occur as a result of the installation activities.

RESPONSE

Exhibit 83-1 shows the alignment of existing roads that are available for use during construction of the proposed transmission line. The transmission line traverses farm and orchard lands that are 100 percent disturbed. Portions of the transmission line alignment are accessible from Avenal Cutoff Road, Jayne Avenue, and Lassen Avenue, all paved public roads. In addition, an extensive network of unpaved roads is available through the farmlands and orchards including roads on the boundaries of every quarter section, and some quarter sections are further dissected by one or more farm roads. These roads are shown in Exhibit 83-1 and can be seen in the aerial photographs in AFC Figures 2.1-3B, 2.1-5A and 2.1-5B. There will be no need for new roads to be graded for transmission line construction.

Spacing between the new 230-kV line poles will typically be approximately 800 feet. During construction, a 60 foot by 60 foot (3,600 square feet) area around each pole will be required to install the pole foundation and to assemble the pole. As part of final transmission line design, pole locations will be placed preferably at the edges of fields and within existing disturbance areas to minimize disturbances. If feasible, larger staging areas near pole locations could be used to minimize impacts within fields. The Applicant estimates conductor installation trucks will be located at each turning pole where the conductor will dead end on the turning pole and one-third and two-thirds of the length along the NW line segment that parallels the PG&E right of way. Final pull sites will be determined during final design and will be chosen to use existing farm roads and other previously disturbed locations to the extent practical to minimize disturbances. Preliminary locations are shown in Exhibit 83-1.

As identified in updated Table 2.3-7 provided in Exhibit 83-2, each of the structures will require approximately 3,600 square feet of temporary disturbance (total of 3.6 acres). Permanent average disturbance of 1,200 square feet per structure will be required (total of 1.2 acres). Temporary ground disturbance as a result of the pull sites is included in the approximate temporary disturbance of 3.6 acres.

SUPPLEMENTAL DISTURBANCE INFORMATION

To confirm the temporary and permanent disturbances associated with minor changes requested by the CEC and other agencies, the Applicant has updated the site layout shown in AFC Figure 2.3-12 showing temporary construction disturbance. The updated Figure 2.3-12 is provided in Exhibit 83-3. The updated Table 2.3-7 in Exhibit 83-2 reflects the updated layout. The updated layout includes a new temporary emergency staging area that the Applicant has added at the suggestion of the Kings County Fire Marshall for use by City and County emergency response teams, if needed, during construction. This emergency staging area will only be a disturbance during construction. All disturbance areas have been conservatively estimated (i.e., maximum potential disturbance numbers have been used).

BACKGROUND

AFC Figure 1.5-3A shows a preferred natural gas pipeline route and an alternative natural gas pipeline route. To identify and evaluate all proposed project impacts on cultural resources, staff needs to know if Avenal Power is still considering both of these alternatives.

DATA REQUEST

84. Please explain whether the project description includes two alternative natural gas line routes between the proposed project site and the Kettleman Compressor Station.

RESPONSE

There were two alternative natural gas line routes identified in the AFC to provide flexibility for the exact location PG&E ultimately decided to have the Project interconnect. Based on recent discussions with PG&E, the alternate gas pipeline route shown in the AFC will be used. The final configuration of the gas pipeline is shown in revised AFC Figure 2.1-1A provided in Exhibit 84-1. The gas line will follow the route identified in the AFC as the “alternate gas pipeline route.” It will run within the right of way for Avenal Cutoff Road and turn south along 34 ½ Avenue before crossing under Plymouth Avenue and tying into PG&E’s existing gas pipeline on the south side of the PG&E’s Kettleman compressor station.

BACKGROUND

Avenal Power proposes to install security fencing surrounding the project site, including the storm water evaporation pond (AvenaI2008f, exh. 7-2; dwg. A3DV01-0-SK-0-SI.PL-05). To identify and evaluate all proposed project impacts on cultural resources, staff needs a more detailed description of ground disturbance possibly associated with the installation of this fencing.

DATA REQUEST

85. Please describe the kind of security fencing proposed and the extent and depth of ground disturbance associated with its installation.

RESPONSE

Security fencing will consist of 7 foot high chain link fencing topped with barbed wire. Fence line posts will be spaced on 10 feet centers and encased in 12 inch diameter concrete footings extending 42 inches into the ground. A motorized gate will be provided at the main access entrance road with a small concrete pad for the motor. Power for the motor will be provided through underground electrical conduit that will run adjacent to the access road. Gate post footings may be as large as 24 inches in diameter extending as much as 6 feet below grade level. The security fence will include lighting mounted on poles at appropriate intervals. Electrical conduit for the security lighting will be feed underground from a lighting panel(s).

BACKGROUND

In AFC Figures 2.3-9 and 2.3-11, some features that look like rock concentrations are shown at the east corner of the plant site and to the west of the storm water evaporation basin. These features are not labeled on the figures, but appear to represent something that would be constructed by the project. To identify and evaluate all proposed project impacts on cultural resources, staff needs to know what these features are and if there would be any ground disturbance possibly associated with them.

DATA REQUEST

86. Please identify the features in AFC Figures 2.3-9 and 2.3-11 that look like rock concentrations and that appear to represent something that would be constructed by the project. Describe the extent and depth of ground disturbance, if any, associated with them.

RESPONSE

The rock features depicted in AFC Figures 2.3-9 and 2.3-11 represent rock riprap. Rock riprap is an 18 to 24 inch thick layer of large diameter (12-inch typical) rock used to dissipate the energy of the flow at the outlets from the V-ditches to prevent

erosion. The rock riprap would be embedded into the ground by approximately 18 inches.

BACKGROUND

Avenal Power is proposing to construct a storm sewer system consisting of ditches, culverts, inlets, and underground pipes that would collect storm water runoff and direct it to an on-site storm water holding basin for dissipation via percolation or evaporation (Avenal 2008b, App. 2.0, pp. 2-1-6-2-1-7). The AFC provides few details of this proposed system. To identify and evaluate all proposed project impacts on cultural resources, staff needs a more detailed description of this system and any ground disturbance possibly associated with its construction.

DATA REQUESTS

87. Please provide a detailed description of the proposed storm water drainage system, including the ditches, culverts, inlets, and underground pipes. Please provide the extent and depths of excavations required to install this system.

RESPONSE

The Site conceptual grading and drainage plan is provided in Exhibit 7-2 (Revised AFC Figure 2.3-9) submitted to CEC in the Response to Data Requests 1-74 in June 2008. As shown in that Exhibit, the majority of the site is undeveloped and will not require any new drainage controls to be constructed. Outside the area of the Power Generation Facility footprint, site drainage controls will be limited to shallow V-ditches on the upgradient side of the primary and secondary access roads. These ditches will be less than 2 feet in depth and will be located adjacent to the edge of the roads. Within the power block and storm water basin area, drainage controls will be constructed as described in following paragraphs.

The Power Generation Facility footprint as defined in Exhibit 83-2 and shown in Exhibit 7-2 includes the power block area and the storm water retention basin. Within the Power Generation Facility footprint, storm water drainage controls will be constructed as a part of site grading. A V-ditch will be constructed at the upgradient edge of the power block footprint as shown in Exhibit 7-2 to direct run-off around the Power Generation Facility. This perimeter V-ditch will have two culvert crossings where it flows under the site access road and emergency access road. These culvert locations are called out in Exhibit 7-2. Rock riprap will be provided at the two discharge points for this V-ditch as shown in Exhibit 7-2. Relative to the elevation of the power block, the cut depth for the V-ditches will be approximately 7 feet along the northwest and southeast sides of the power block.

Inside the power block, a separate drainage system will be provided to manage storm water. This system will include catch basins in yard areas and underground piping to convey runoff to the storm water retention pond. These drainage systems

will be located entirely within the Power Generation Facility footprint as defined in Exhibit 83-2 and shown in Exhibit 7-2. Where Exhibit 25-1 (submitted to CEC in the Response to Data Requests 1-74 in June 2008) shows the power block rough grade elevation to be on cut, construction of these drainage systems may require approximately four feet of additional excavation compared to the cut depths shown in Exhibit 7-2. Where the power block rough grade elevation is shown to be on four feet or more of fill, installation of these systems will not affect excavation depth.

The storm water retention basin is part of the storm water drainage control system for runoff from the power block area, and will require cut depths of as much as five feet as shown in Exhibit 25-1.

All of the storm water drainage facilities will be within the locations shown for long-term facilities in Exhibit 7-2 and Exhibit 83-2. All of these areas have been surveyed for cultural resources and no cultural resources have been found.

88. Please provide a map showing the location of these drainage system features on and adjacent to the proposed plant site.

RESPONSE

Please see Exhibit 7-2 (Revised AFC Figure 2.3-9) submitted to CEC in the Response to Data Requests 1-74 in June 2008 and accompanying discussion in Response 87 above.

Technical Area: Waste Management
Author: Casey Weaver

BACKGROUND

The Phase I Environmental Site Assessment (ESA) did not include an evaluation of project linear elements. Project construction will take place along these alignments. It is important for both worker safety and environmental protection that potentially hazardous conditions be evaluated and mitigation (avoidance) be considered prior to initiation of construction activity. Additionally, should disposal of construction derived waste be needed, assurance of the acceptance of the waste by a suitable disposal facility should be secured.

The applicant is proposing a new eight-mile-230-kV transmission line interconnection and two alternative alignments for a 16-inch-diameter underground natural gas pipeline. A Phase I ESA needs to be conducted for the entire length of both proposed natural gas line alignments and the length of the proposed transmission line interconnection.

DATA REQUEST

89. Please provide a Phase I ESA, completed in accordance with ASTM E1527-05, for both proposed alignments of the 16-inch diameter underground natural gas pipeline corridor and the approximately eight-mile-long 230-kV transmission line interconnection route.

RESPONSE

The requested Phase I ESA is provided in Exhibit 89-1. The Applicant notes that the proposed transmission interconnection line is expected to be 6.4 miles in length (see AFC Section 1.5-3). Based on the results of this Phase I ESA, the Applicant agrees to avoid installation of a tower foundation or conducting any other ground disturbing work in the area known as the Carberry Farms Headquarters.

Technical Area: Water Resources
Author: Casey Weaver

BACKGROUND

Avenal Energy proposes to obtain a back-up water supply for the project from agricultural wells located on an adjacent parcel owned by John A. Kochergen Properties, Inc. Annual consumption of the proposed project is estimated to be 20 acre feet. As the backup supply will be used on a temporary/emergency basis, project use of backup water is expected to be significantly less than 20 acre feet per year (AFY).

The project site is located within the boundaries of the Westland Water District (Westlands). In 1996, Westlands developed a Groundwater Management Plan (Plan). Part of the Plan was the conversion of diesel powered groundwater pumps within the district to electric pumps. To assist with the conversion, Westlands offered to convert the pumps for Plan participants in exchange for control of the delivery of the water from the participants' wells.

In 1999, Mike and Tanya Kochergen of Kochergen Properties joined Westlands and entered into agreements which transferred full operational control of the pumps in their wells to Westlands.

On May 1, 2001, Kochergen Properties, Inc. entered into a separate agreement with Duke Energy granting exclusive rights to a water supply from Kochergen Properties' wells of up to 3,000 gallons per minute, or 4,824 AFY. This amount of water was considered necessary when the design of the original power plant included evaporative cooling. It appears that the 2001 agreement submitted in the 2008 AFC was written for the previous (original) AFC. In addition, the term of the 2001 agreement was to commence on the "Effective Date" and expire 35 years later. However, no effective date was identified in the documents submitted in the AFC. Therefore, there is no indication that the agreement was ever finalized.

In a letter sent to the CEC dated May 29, 2008, Westlands indicated that it has control of the water delivered from the Kochergen Properties' wells and that any agreement for additional groundwater use from the wells would have to be approved by Westlands' Board of Directors. In addition, the letter stated, to date, the District's Board has opposed projects that have the potential to increase demand from the groundwater basin which is currently overdrafted."

Given this information, the viability of the proposed back-up water supply is questionable. Staff needs a clear understanding of the entity in control of delivery of the proposed back-up water supply, a copy of the agreement from that entity to provide the water required for the back-up supply, the instantaneous and annual volumes of water dedicated for the proposed project, and the length of time committed to delivery of the back-up water supply.

DATA REQUEST

90. Regarding the agreement between the applicant and Mike and Tanya Kochergen for delivery of up to 4,824 AFY:

    a. Please confirm whether the agreement is still valid and if it will be effective through the life of this project.

    b. Please determine whether there is a role for Westlands Water District in approving the 2001 agreement, and if so, whether Westlands Water District concurs that delivery of 4,824 acre feet per year is acceptable given the current project water needs of 20 acre feet per year.

    c. Please discuss the need and feasibility of entering into an updated agreement for the amount of water consistent with the needs of the proposed project (20 acre feet annually).

RESPONSE

The contract between Avenal Power Center, LLC and John Kochergen Properties, Inc. and Mike Kochergen ("Water Contract") is a fully executed and binding agreement between the parties, which has a term of 35 years from the effective date of the agreement which provides a back up water supply for the projected life of the project, including the construction period. The effective date is determined at the time of exercise of the option to purchase the project site. The Applicant has "closed" on the site and is now legal title holder of the project site as of 25 August 2008. Therefore, the effective date of the water agreement is 25 August 2008.

The highest priority groundwater rights are overlying, which are held by the landowner. In the case of a power plant located on property over the groundwater basin, the lands on which the power plant are built have an appurtenant overlying right that would support pumping for reasonable beneficial uses on the overlying land, and is used in common with all other overlying land owners. The Applicant has reviewed the Westlands Water District Ground Water Management Plan (Plan) and the agreement between John Kochergen Properties and Westlands Water District regarding various ground water pumping facilities. Neither document contains a contractual limit, regulation or policy statement that would interfere with the Kochergen's ability to supply groundwater to a power plant operating within Westlands' boundaries. The Plan states that Westlands would oppose any groundwater from within its service area being exported, but that does not apply in this case, as the Project would not be exporting water. The Plan governs how Westlands will work to keep groundwater elevations as high as possible through conservation and imports but does not limit the types of uses of the water and puts no restrictions on new uses. Avenal Power Center, LLC has provided evidence in the AFC (section 6.5.2.2) as to the water conservation methods that have been implemented or will be implemented should Avenal use any of the groundwater

(which as documented in the AFC could be as high as 104 acre-ft per year on an instantaneous basis). The Applicant believes that the amount of water contracted for is immaterial to the analysis, as the plant design (as required by CEC policy) limits the total annual water consumption to 104 AFY using an air-cooled condenser design.

The Applicant's representatives contacted Westlands Water District (Russ Freeman) to discuss any specific concerns they had and to provide detailed explanation of the above information. Further, the Applicant informed Mr. Freeman that any electricity to operate the wells for backup water supply would be provided by the Applicant through its ability to serve its own plant electric needs from its own generation, thus relieving Westlands Water District of the requirement to obtain electricity to operate the well when the Applicant operates the well.

The Applicant is working with Westlands Water District to explain netting of electricity for power plants and the agreed upon water conservation measures. The Applicant is also working with Westlands Water District to identify and address any additional concerns they may have.

Again the Applicant sees no need to enter into new negotiations to revise an existing contract particularly given the physical limitations of the plant, nor has the contract counterparty expressed any interest in renegotiating the contract.

DATA REQUEST

91. If the 2001 Kochergen agreement is no longer valid, please provide appropriate documentation confirming that a suitable back-up water supply has been acquired by the applicant, specify the instantaneous and annual volumes of water dedicated for the proposed project, and identify any steps that are necessary to ensure that the back-up water supply is available for the life of the project.

RESPONSE

As the contract is valid and executed, the Applicant notes that Section 6.5.2.2 of the AFC and Applicant's response to Data Requests 48 and 49 provide details of the Kochergen water agreement, planned mitigation and implemented mitigation methods in the event that ground water pumping is required. Therefore, no additional backup source of water is required for this project. Furthermore, the Applicant notes that most power plants only have one source of water and do not have a backup source of water.

BACKGROUND

Buildings for human occupancy will be constructed at the Avenal Energy site. These buildings will contain sanitary facilities (primarily sinks, and toilets) for site workers' and

visitors' use. Avenal Energy proposes to provide non-disinfected raw water for this domestic use and bottled water for drinking purposes. Kings County has adopted the Uniform Plumbing Code as a minimum standard for protection of Public Health and Safety. Section 601.1 of the Uniform Plumbing Code states, in part:

> *Except where not deemed necessary for safety or sanitation by the Administrative Authority, each plumbing fixture shall be provided with an adequate supply of potable running water piped thereto in an approved manner, so arranged as to flush and keep it in a clean and sanitary condition without danger of backflow or cross-connection.*

Avenal Energy has not provided documentation that the Administrative Authority agrees with the use of non-potable water for domestic use at the proposed facility. Staff needs this additional documentation to complete its analysis.

DATA REQUEST

92. Please explain why the use of non-potable water versus potable water is the preferred option for the facility's sanitation needs.

RESPONSE

The choice to use non-potable water versus potable water for domestic purposes as stated in the AFC was made based on past discussions with the City of Avenal and indications that the City would not be able to provide potable water to the Site. In recent discussions with the City, the Applicant and the City found a suitable location for the Applicant to tap into the City's existing potable water pipeline which runs on the north side of Avenal Cutoff Road. Due to chlorine contact time, this tap will have to be located about three-quarters of a mile southwest of the water treatment plant; and, a new underground pipe, no larger than 4 inches, will be installed parallel to and within the Avenal Cutoff Road right of way until it enters the project site (see Exhibit 92-1). An encroachment permit from the City of Avenal for this potable water pipeline will be required. The expected total water provided by the City of Avenal under the "will serve" letter dated September 21, 2007 (see AFC Appendix 6.5-3) provides for sufficient water to meet the potable water demand of 0.9 gallons per minute (gpm) (average daily use), shown as "domestic water" in AFC Table 2.3-1. Therefore, potable water will now be used for domestic purposes, including hand washing and drinking water.

At peak demand the potable water to be supplied to the plant will be 55 gpm and the new potable water pipeline will be sized to accommodate the peak demand flows.

DATA REQUEST

93. Please provide documentation that the Administrative Authority has concluded that it is not necessary to provide an adequate supply of potable running water throughout the facility.

RESPONSE

The Applicant will interconnect with the City of Avenal's potable water system; therefore, an adequate supply of potable running water will be provided throughout the facility. Exhibit 93-1 is a will serve letter from the City of Avenal agreeing to provide potable water for the Project and reiterating its ability to provide a total amount of water equivalent to 200 AFY.

DATA REQUEST

94. If the Administrative Authority determines that potable water for domestic use should be supplied to the facility, please provide a description of the changes in the project design that would be required to supply the potable water to the facility.

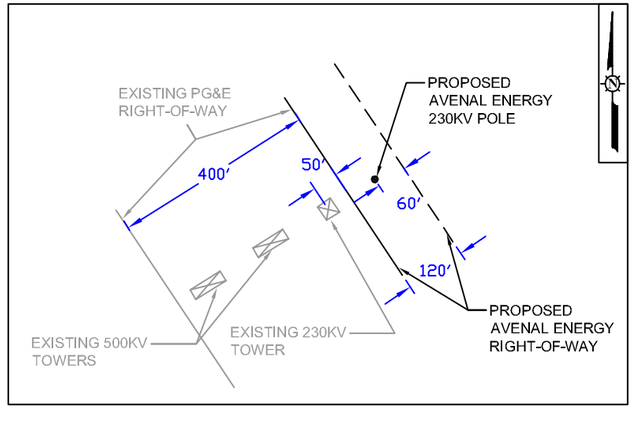
RESPONSE

See Data Response #92.

Once the potable water pipeline enters the Site it will connect to the main domestic water supply pipeline which had originally been planned to be supplied with raw water and the existing connection to the raw water system will be eliminated. No other changes to the project design are anticipated. Please see the will serve letter from the City of Avenal in Exhibit 93-1.

EXHIBIT 79-1

PHOTO-DEPICTION OF THE NEW 230 kV TRANSMISSION LINE POLES



TRANSMISSION LINE TOWER PHOTO SIMULATION

AVENAL POWER CENTER, LLC

TRC

EXHIBIT 79-1

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EXHIBIT 80-1

EXHIBITS 36-1, 36-2, AND 36-3 FROM THE FEBRUARY 2002 RESPONSES TO DATA REQUESTS FOR THE AVENAL ENERGY PROJECT (01-AFC-20)

EXHIBIT 36-1

Path 15 Upgrade Project Update

Jon Eric Thalman

Pacific Gas & Electric Company

February 4, 2002

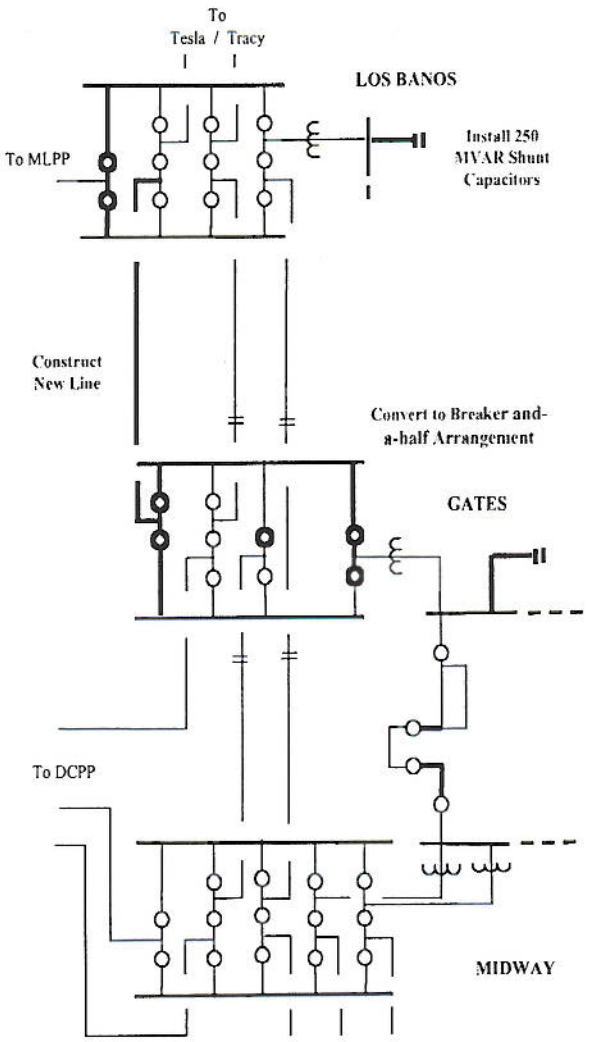
Project Summary

- Project entails:
  - Los Banos–Gates 500 kV line
  - Related 500 kV and 230 kV reinforcements
- Project would provide
  - 1500 MW of south–to–north capability
  - __X__ MW of north–to–south capability
- Project cost = ~300 Million
- Project Operating Date: October 2004

Project Need

- Historically, off-peak constraint >> higher prices in Northern California
- Latter part of 2000, higher prices during most periods >> lack of resources in Northern California
- January 2001 rotating outages in January 2001 due, in part, to Path 15 constraints
- Project need studies were undertaken in late 2000 and the CAISO has determined the project would be cost-justified

Plan of Service



-Installation of an uncompensated, single circuit 500 kV transmission line between Los Banos and Gates Substations.

-Conversion of the Gates Substation 500 kV bus from a ring bus arrangement to a 'break-and-a-half' arrangement.

-Installation of 250 MVAR of 230 kV shunt capacitors at both the Gates and Los Banos Substations.

-Reinforcement of the overloaded sections of the 230 kV line between the Gates and Midway Substations.

Project Implementation

- WAPA-sponsored project
- October 2001 MOU to develop the project
  - WAPA - Overall project manager, acquire land rights, and construct the line
  - PG&E - Fund and construct the substation work and 230 kV upgrades
  - Kinder-Morgan, Trans-elect, TANC & Williams - Fund the construction the transmission line
- Project Implementation Agreements being negotiated

WSCC Rating Process

- Phase 1
  - Rating Studies (April 2001–January 2002)
    - Preliminary Plan of Service
    - Proposed non-simultaneous south-to-north rating
  - Prepared Comprehensive Progress Report
    - Submitted November 16, 2001
    - Comments have been received WSCC members
    - PG&E to address comments as part of Phase 2
  - Regional Planning process completed in November 2001
- Phase 2 (January 2002 – ~mid-2002)
  - Refine Plan of Service
  - Address simultaneous interaction with other paths

EXHIBIT 36-2

Chapter 2.

(Sponsoring Witness Ben Morris[1])

Section 1. PG&E Has Evaluated Two Alternatives For A Plan Of Service To Increase Path 15 Capacity By 1500 Megawatts

On March 29, 2001, the CPUC ordered PG&E to file an application for a CPCN for the Los Banos-Gates Transmission Project within fourteen days. In accordance with that ruling, PG&E filed a conditional CPCN application on April 13, 2001. The Conditional Application included a detailed description of the then-proposed electrical Plan of Service (i.e., the various electrical facilities to be installed or modified part of the Project). *See* Conditional Application at 6-9.

Since submission of the Conditional Application, PG&E has conducted further studies of an appropriate Plan of Service and developed two lower-cost options for delivering the same electrical benefit as would result from implementation of the Plan of Service outlined in the Conditional Application. Either of these two alternative Plans of Service would upgrade Path 15 by increasing its capacity by 1500 megawatts (MW). Each alternative is capable of transferring 5400 MW on Path 15. The two alternatives differ from the Plan of Service outlined in the Conditional Application in three respects: (1) the Conditional Application proposed the installation of 500 kV shunt capacitors, but subsequent analysis has demonstrated that installation of the required shunt capacitors on the 230 kV system, either at the 500 megavolt amperes reactive (MVAR) level as analyzed in Alternative 1 or at 250 MVAR as analyzed in Alternative 2, is both electrically superior and less costly; (2) the Conditional Application referenced the realignment of 7000 feet of existing 500 kV transmission line as it loops into Gates Substation, but this work is now expected to be performed in June 2003 as part of the Los Banos Series Capacitor Replacement Project, which is a maintenance project needed to replace 1960 vintage series capacitors at the Los Banos and Midway substations, and is therefore no longer necessary as part of the Los Banos-Gates Transmission Project; and (3) the Conditional Application noted that PG&E would either reconductor or reconfigure the 230 kV transmission

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[1] A copy of Mr. Morris resume is attached hereto at Tab 2.

lines between the Gates and Midway Substations, while PG&E s current Plan of Service Alternatives 1 and 2 are based on reconductoring those lines.

Alternative 1 includes the following elements:

- Installation of a series-compensated, single circuit 500 kV transmission line between Los Banos and Gates Substations.
- Conversion of the Gates Substation 500 kV bus from a ring bus arrangement to a breaker-and-a-half arrangement.
- Termination of the existing Los Banos-Midway line on the Gates Substation 500 kV bus.
- Installation of 500 MVAR of 230 kV shunt capacitors at both the Gates and Los Banos Substations.
- Reconductoring of the overloaded sections of the 230 kV transmission line between Gates and Midway Substations.

The cost of implementing this Plan of Service along the Proposed Route is estimated to be approximately $359.6 million and the operating date is projected to be fall of 2004, depending upon the date of final CPCN approval. *See* Tabs 7, 9, 13, 14, 16, 17 and 19.

Alternative 2 includes the following elements:

- Installation of an uncompensated, single circuit 500 kV transmission line between Los Banos and Gates Substations.
- Conversion of the Gates Substation 500 kV bus from a ring bus arrangement to a breaker-and-a-half arrangement.
- Installation of 250 MVAR of 230kV shunt capacitors at both the Gates and Los Banos Substations.
- Reconductoring of the overloaded sections of the 230 kV line between the Gates and Midway Substations.

The cost of implementing this Plan of Service along the Proposed Route is estimated to be approximately $323.1 million and the operating date is projected to be fall of 2004, depending upon the date of final CPCN approval. *See* Tabs 8, 10, 13, 15, 18 and 19.

In addition, to support the 1500 MW increase in the Path 15 rating, both alternatives require additional generation and load dropping as remedial actions for 500 kV double line outages in the vicinity of Path 15. These remedial actions are either presently integrated (or will be integrated by 2003) with the existing Path 15 Remedial Action Scheme (RAS). [2] Thus, the cost of integrating these remedial actions has not been included in the estimated cost of implementing the above alternatives.

Prior to implementing a Path 15 upgrade, these remedial actions would be used primarily in the event of a double line outage south of Los Banos to support the present Path 15 transfer capability of 3900 MW. After implementing a Path 15 upgrade as described in Alternatives 1 and 2, the level of remedial actions needed for this double line outage would decrease. However, the level of remedial actions required for double line outages north of Los Banos Substation and north of Midway Substation would increase by up to 3200 MW.

Based on the findings in the PG&E Power System Study, attached hereto at Tab 6, PG&E recommends Plan of Service Alternative 2. This alternative is recommended because it: (1) can be implemented at a lower cost than Alternative 1; (2) provides the same increase to the south-to-north capability of Path 15 as Alternative 1; and (3) complies with the California ISO Controlled Grid Reliability Criteria.

Section 2. Detailed Description of Alternative 1 Plan of Service

The Alternative 1 Plan of Service consists of the following components:

Los Banos Substation

- Modify the existing Los Banos 500 kV Substation by extending the existing 500 kV bus by one bay and installing two new 500 kV circuit breakers in the new line position.
- Relocate the existing Los Banos — Moss Landing 500 kV line to the new bus position and terminate the new Los Banos — Gates 500 kV line at the existing Moss Landing line position.

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[2] RAS is a special protection scheme, which automatically initiates one or more specially pre-planned corrective measures (i.e., remedial actions, such as generation dropping at the sending end of a path and load dropping at the receiving end) following a disturbance to achieve acceptable system performance.

- Install 500 MVAR of 230 kV shunt capacitors.
- Install miscellaneous electrical equipment, including 500 kV and 230 kV disconnecting switches, reactors, instrument transformers, protective relaying, metering and control equipment, supervisory control and data acquisition equipment, telemetering equipment, auxiliary alternating current and direct current power system, electrical grounding system, and underground conduits or trench systems.

Gates Substation

- Modify the existing Gates 500 kV Substation by extending the existing 500 kV bus by one bay and installing two new 500 kV circuit breakers in the new line position.
- Terminate the new Los Banos — Gates 500 kV line at the new bus position.
- Install new line positions in existing vacant bays to terminate the existing Los Banos — Midway 500 kV #2 line on the Gates 500 kV bus. Each new position will include installation of two new 500 kV circuit breakers in the new line positions.
- Install a 500 kV series capacitor bank on the new Los Banos-Gates line at Gates Substation.
- Install two new 500 kV circuit breakers for the existing 500/230 kV Transformer Bank 11.
- Modify the arrangement of the 500 kV bus from a ring bus to a breaker-and-a-half scheme.
- Install 500 MVAR of 230 kV shunt capacitors.
- Install miscellaneous electrical equipment, including 500 kV and 230 kV disconnecting switches, reactors, instrument transformers, protective relaying, metering and control equipment, supervisory control and data acquisition equipment, telemetering equipment, auxiliary alternating current and direct

current power system, electrical grounding system, and underground conduits or trench systems.

- Los Banos — Gates 500 kV Tower Line (new)
- Construct approximately 84 to 86 miles of single-circuit, overhead 500 kV transmission line from Los Banos Substation to Gates Substation. The proposed line will likely consist of bundled 2300 kcmil aluminum conductors, installed on self-supporting, rectangular-base lattice structures that will vary in height from approximately 100 to 160 feet.

Gates — Arco — Midway 230 kV Line

- Reconductor the existing 230 KV transmission lines between Gates Substation and Midway Substation.

Section 3. Detailed Description of Alternative 2 Plan of Service

The Alternative 2 Plan of Service consists of the following components:

Los Banos Substation

- Modify the existing Los Banos 500 kV Substation by extending the existing 500 kV bus by one bay and installing two new 500 kV circuit breakers in the new line position.
- Relocate the existing Los Banos — Moss Landing 500 kV transmission line to the new bus position and terminate the new Los Banos — Gates 500 kV transmission line at the existing Moss Landing line position.
- Install 250 MVAR of 230 kV shunt capacitors.
- Install miscellaneous electrical equipment, including 500 kV and 230 kV disconnecting switches, reactors, instrument transformers, protective relaying, metering and control equipment, supervisory control and data acquisition equipment, telemetering equipment, auxiliary alternating current and direct current power system, electrical grounding system, and underground conduits or trench systems.

Gates Substation

- Modify the existing Gates 500 kV Substation by extending the existing 500 kV bus by one bay and installing two new 500 kV circuit breakers in the new line position.
- Terminate the new Los Banos — Gates 500 kV transmission line at the new bus position.
- Install two new 500 kV circuit breakers for the existing 500/230 kV Transformer Bank 11.
- Modify the arrangement of the 500 kV bus from a ring bus to a breaker-and-a-half scheme.
- Install 250 MVAR of 230 kV shunt capacitors.
- Install miscellaneous electrical equipment, including 500 kV and 230 kV disconnecting switches, reactors, instrument transformers, protective relaying, metering and control equipment, supervisory control and data acquisition equipment, telemetering equipment, auxiliary alternating current and direct current power system, electrical grounding system, and underground conduits or trench systems.

Los Banos — Gates 500 kV Tower Transmission Line (new)

- Construct approximately 84 to 86 miles of single-circuit, overhead 500 kV transmission line from Los Banos Substation to Gates Substation. The proposed line will likely consist of bundled 2300 kcmil aluminum conductors, installed on self-supporting, rectangular-base lattice structures that will vary in height from approximately 100 to 160 feet.

Gates — Arco — Midway 230 kV Line

- Reconductor the existing 230 kV transmission lines between Gates Substation and Midway Substation.

Section 4. Because Both Plan of Service Alternatives Provide the Same 1500 MW Increase in Capacity on Path 15, But Alternative 2 is Estimated to Cost Approximately $ 36.5 Million Less Than Alternative 1, PG&E Recommends Alternative 2.

PG&E is recommending Alternative 2 based on the findings of the PG&E Power System Study (see Tab 6). The study findings indicate:

- Both Alternatives 1 and 2 increase the south-to-north capability of Path 15 by 1500 MW, to a total of 5400 MW.
- Both Alternatives 1 and 2 require approximately the same megawatt level of remedial actions for the double line outage north of Los Banos and the double line outage north of Midway to achieve acceptable system performance. The 3400 MW level of RAS (sum of pump load, generation, and retail load dropping) being used for these outages is the maximum that PG&E believes can be employed at this time.
- The results of the double line outage south of Los Banos indicate that Alternative 2 (uncompensated 500˚kV line) requires 1440 MW of remedial actions compared with 440 MW for Alternative 1 (compensated line). While additional RAS in Alternative 1 could raise the transfer capability on the transmission system south of Los Banos, it would also increase the RAS requirement for the double line outage north of Los Banos and the double line outage north of Midway beyond the 3400 MW level that PG&E believes is the maximum that can be employed at this time. As a result, Alternative 2 provides a level of transfer capability that can be utilized within the existing system limits, whereas a substantial portion of the additional capability that would otherwise be available under Alternative 1 is not accessible give these existing system constraints.
- Because Alternative 2 provides the same benefit as Alternative 1 in light of the available RAS requirements, and the cost of implementing Alternative 2 is

approximately $36.5 million less than Alternative 1, PG&E recommends the Alternative 2 Plan of Service.

EXHIBIT 36-3

Chapter 3.

(Sponsoring Witnesses John Hagen and Robert M. Masuoka)[1]

Section 1. PG&E Has Prepared Detailed Cost Estimates for Plan of Service Alternatives 1 and 2 Constructed Along Either the Western or Eastern Corridor (Sponsoring Witnesses John Hagen and Robert M. Masuoka)

On March 29, 2001, the CPUC ordered PG&E to file a CPCN application for the Los Banos-Gates Transmission Project (the Project) within fourteen days. In accordance with that ruling, PG&E filed a Conditional CPCN Application on April 13, 2001. Pursuant to CPUC Rules of Practice and Procedure 18(f) and CPUC General Order 131-D, PG&E was required to include with its Application a detailed statement of the estimated costs of the proposed facilities. CPUC General Order 131-D (G.O. 131-D),/IX.A.1.d. Section XI of PG&E s Application contains detailed breakdowns of the estimated costs of construction, operation and maintenance of the Project as proposed by PG&E in the Conditional Application. *See* Application,/XI, pp. 19-21. The cost estimates submitted as part of PG&E s Conditional Application were generated using PG&E s standard cost accounting and estimating methods for projects at the conceptual design stage. These estimates were prepared for planning purposes and to comply with G.O. 131-D.[2]

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[1] Copies of Mr. Hagen s resume and Mr. Masuoka s statement of qualifications are attached hereto at Tabs 3 and 4, respectively.

[2] The Project proposed in the Conditional Application was estimated to cost approximately $300 million, based on the work PG&E was able to complete in the fourteen days it had to prepare and file the Conditional Application. As explained herein, that Project differs somewhat from each of the complete Project alternatives discussed in this Opening Testimony. Changes in project scope, such as the determination that reconductoring of the Gates-Arco-Midway 230 kV line is necessary, that additional land rights will need to be acquired for that work, and that costs for 230 kV shunt capacitors must be included, have resulted in increased costs, including proportionately increased indirect costs, overheads, and contingency amounts. In addition, new information, such as information regarding actual incurred costs in the recently-completed Round Mountain Project, have in some cases revealed that some of PG&E s April 13, 2001 unit cost estimates were too low. Finally, PG&E s April 13, 2001 estimate inadvertently used the incorrect percentages for indirect costs, overheads, and contingency amounts in some cases, or, in the case of land costs, failed to include such amounts altogether, which is contrary to PG&E s capital accounting guidelines. Thus, additional information in terms of the required Project components, PG&E s experience with similar projects, and applicable indirect costs, overheads, and

As set forth in Chapter 2, since submitting the Conditional Application, PG&E has continued to evaluate electrical plans of service that would achieve a 1500 megawatt increase in the capacity of Path 15. In Chapter 2 of this testimony Ben Morris describes two plans of service, Alternatives 1 and 2, which would achieve this goal. PG&E has prepared detailed cost estimates, using PG&E s standard cost accounting and estimating methods for projects at the conceptual design stage, for Alternatives 1 and 2. Although these alternatives differ from one another in terms of certain substation components of the Project, the new Los Banos — Gates 500 kV transmission line would be required under either Plan of Service. Moreover, the 500 kV transmission line could be constructed under either Plan of Service in either the western corridor or the eastern corridor of the San Joaquin Valley, on either side of Interstate 5. These two possible geographic routing alternatives are referred to herein as the Western Corridor route (or Proposed Route) and the Eastern Corridor route, respectively. The cost estimate for each Plan of Service Alternative and, separately, each route, was prepared using the methodology, assumptions, and information set forth below.

A summary of the estimated costs for each 500 kV transmission line route, with the components matching those described in Chapter 2, is set forth in Table 1 below.

Table 1
500 kV Transmission Line Costs

Component	Western Corridor Route	Eastern Corridor Route
Los Banos-Gates 500 kV Transmission Line Materials and Construction Costs	$125,149,337	$126,542,253
Land Costs for Los Banos-Gates Transmission Line	$18,125,010	$12,551,149
Mitigation Costs	$15,025,011	$8,851,149
Permitting and CPCN Support Costs	3,100,000	$3,100,000
Material Burden, AFUDC, Capital A & G, and Escalation Costs	$50,875,083	$48,332,418
Contingency Costs	$53,068,612	$49,844,244

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contingency amounts make clear that the $300 million estimate set forth in the Conditional Application significantly understated the true cost of that Project.

TOTAL	**$265,343,053**	**$249,221,213**

A summary of the estimated costs for each Plan of Service Alternative, with the components matching those described in Chapter 2, is set forth in Table 2 below.

Table 2
Substation and 230 kV Transmission Line Costs

Component	Plan of Service Alternative 1	Plan of Service Alternative 2
500 kV Los Banos Substation Work	$4,388,873	$4,388,873
500 kV Gates Substation Work	$17,034,374	$11,117,652
500 kV Series Capacitors	$17,538,580	$0
230 kV Shunt Capacitors	$12,361,982	$10,212,382
Reconductor Gates-Arco-Midway 230 kV Line	$14,244,228	$14,244,228
Material Burden, AFUDC, Capital A & G, and Escalation Costs	$19,892,500	$12,576,096
Contingency Costs	$8,843,202	$5,256,926
TOTAL	**$94,303,739**	**$57,796,157**

To determine the total estimated cost of a complete Project, one must select a 500 kV routing alternative and an electrical Plan of Service alternative, identifying the corresponding estimated costs from Tables 1 and 2 above, and add those costs together to obtain a grand total. Table 3 below summarizes the total estimated costs for each possible combination of the various Plan of Service route alternative(s).

Table 3
Total Project Costs

Complete Project Alternative	Grand Total Cost
Plan of Service 1 — Eastern Corridor Route	$343,524,952
Plan of Service 1 — Western Corridor Route	$359,646,792
Plan of Service 2 — Eastern Corridor Route	$307,017,370
Plan of Service 2 — Western Corridor Route	$323,139,210

PG&E s detailed cost estimates for each of the above 500 kV Line Routes (Western Corridor Route and Eastern Corridor Route) and Plan of Service Alternatives (Alternative 1 and Alternative 2) are set forth at Tabs 11 to 12 (construction) and Tabs 21 and 22 (land costs) of this Opening Testimony. Each Tab provides a high-level summary of the estimate

(the face sheet), a summary spreadsheet of the estimated costs, followed by a detailed spreadsheet of the estimated costs reflecting information provided by the project engineer responsible for that component of the Project or by PG&E s Building and Land Services Department, as applicable. Although this Project will not be built for some time, PG&E has attempted to account for increased costs in the future, in all of its estimates for the Project, by including an escalation factor of 6.336 or 8.244 percent for substation costs and transmission line costs, respectively, and a contingency factor of 10 percent (for substation costs) to 25 percent (for transmission line costs) to account for unforeseen difficulties or events beyond PG&E s control.

PG&E s analysis of the costs associated with the various components of this Project include three different types of estimates. The methodologies underlying these types of estimate are as follows:

- Standard unit cost-based estimates are prepared by taking standard unit costs, for example, the cost of reconductoring one mile of 230 kV transmission line, and multiplying that by the length of transmission line reconductoring proposed. The mileage required is identified by experienced PG&E personnel reviewing the proposed route, but without the benefit of extensive field surveys. PG&E based the materials and construction estimates for the 230 kV reconductoring portion of this Project on standard unit costs.
- Project specific unit cost-based estimates are prepared in much the same manner as standard unit cost-based estimates, except these estimates are informed wherever possible by detailed cost and route information that further considers specifics such as terrain, timing, construction requirements and other nuances of the particular project and area. Project-specific unit cost-based estimates are a hybrid that essentially use the methodology of standard unit cost-based estimates, but also includes additional refinement based on project-specific information. The materials and construction cost estimates for the Eastern Corridor route 500 kV transmission line alternative are based

on a project-specific unit cost derived from the detailed job estimates for the Proposed Route.

- Detailed job estimates are the most refined estimates prepared prior to final engineering of the approved route. For large-scale transmission line and substation projects, such as this Project, PG&E generates detailed, project-specific cost estimates reflecting not only PG&E s accumulated experience and knowledge, but also project-specific information developed on numerous walk-downs (*i.e.*, visual and other field inspections) of the proposed Project area. For this project, for example, extensive fieldwork was conducted for the Proposed Route (the Western Corridor route) to locate the proposed towers and make adjustments to the alignment. This effort provided the total number, type and size of the towers for the Western Corridor route. Likewise, PG&E designed the necessary substation components of the Project, identifying the specific equipment required. From this informational foundation, PG&E prepared detailed job estimate sheets for each discrete component of the Project. The information contained in these detailed job estimate sheets, along with PG&E s standard labor rates and material costs, were then incorporated into spreadsheets from which the Project cost estimates are tabulated. For this Project, all of the cost estimates except the Eastern Corridor route alternatives and the 230˚kV transmission line reconductoring work were based on project-specific cost estimates.

Because none of these types of estimates are based on final engineering of a route, which will only occur after the CPUC has selected the final route, all estimates include additional amounts for contingencies.

Given the available information, PG&E s cost estimates for Alternatives 1 and 2 were prepared as follows:

1. PG&E engineers responsible for each construction component of the Project were requested to estimate the costs of such component based on preliminary single line diagrams and plan of service

descriptions. This included all major equipment, structures, foundations, relays and controls, and related devices and components. Cost estimates were prepared based on recent projects of the same type and scope.

2. PG&E s cost estimates include estimates for land acquisition, eminent domain and related business expenditures. These cost estimates were generated by experienced PG&E personnel using real property data for the Los Banos — Gates Area, as well as standard costs and time estimates for personnel and other items related to these processes, which PG&E uses for all job estimates. This information is included in the spreadsheets that are included in this testimony at Tabs 21 through 22.

3. The CPCN support cost estimate includes, among other things, filing fees, fee contingencies, PG&E land project management costs, legal fees, and PG&E technical environmental services costs. The CPCN support costs also include non-land acquisition related permit fees. Expected state permit fees were estimated based upon previous experience with the California Department of Fish and Game, California Department of Transportation and California Department of Water Resources, among other agencies.

4. The mitigation and permit cost estimate includes costs associated with land banking for endangered species, ongoing monitoring costs of complying with those mitigation measures, and costs associated with obtaining the necessary permits.[3] This estimate includes potential mitigation costs associated with land banking. PG&E based these estimates on its experience with other recent projects and project-specific information regarding the cost of mitigation land. Expected federal permit fees were estimated by using fee schedules from the U.S. Bureau of Reclamation (BOR). CPUC fees were calculated in accordance with CPUC Rule 17.1.

5. Indirect and overhead costs were applied to the cost estimate in accordance with PG&E Capital Accounting Guidelines (copy attached at Tab 20).

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3 Construction-related mitigation measures are not included in this amount. Moreover, this cost estimate does not include cost estimates for new mitigation measures, if any, that might be identified in the 2001 Supplemental EIR because PG&E has not been provided a copy of it prior to preparing and submitting this testimony.

6. Escalation factors (reflecting labor and material price inflation) and AFUDC (reflecting cost of capital based on Project duration) were then calculated on the material, construction, land acquisition, and other costs by multiplying such costs by 6.336% (for substation costs) 8.244% (for transmission line costs) for escalation and 12.8% for AFUDC in accordance with PG&E Capital Accounting Guidelines.

7. Because the final route is not yet known, and final engineering is therefore not complete, PG&E also included Contingency factors of 10 to 25 percent to account for unforeseen difficulties or events beyond PG&E s control. PG&E was able to lower the 10% figure for substation costs because there is less uncertainty associated with substation work than with overhead transmission line work.

The foregoing cost elements were then compiled by PG&E into the estimates attached to this Opening Testimony at Tabs 7 to 10. The detailed costs set forth in these exhibits are based on the information, major assumptions and methodological decisions set forth in the following sections.

Section 2. PG&E s Substation and Transmission Line Costs. (Sponsoring Witness John Hagen)

PG&E s cost estimates include an evaluation of two alternative plans of service, which affects the scope of work at the Los Banos and Gates substations and two transmission line routes. The scope and cost of the substation work does not vary depending upon the transmission line route, but does vary between Plan of Service Alternatives 1 and 2. Similarly, the scope and cost of the 500 kV transmission line component of the Project does not vary between Plan of Service Alternative 1 and 2, but does vary between the Western Corridor route and Eastern Corridor route.

A. Substation Work

PG&E estimated substation costs by identifying the required work scope at each substation location and preparing preliminary cost estimates based on the identified work scope. To verify these estimates, PG&E compared the estimates with recent historical cost information derived from other recent PG&E projects, including Round Mountain (North) Series Capacitor, Metcalf 500 kV Bank Transfer Switch, Midway 500 kV Circuit Breaker Replacement Projects

and the Metcalf 230 kV Shunt Capacitor Project. The substation costs in these cost estimates are consistent with the actual costs of these recently completed projects.

(1) Plan of Service Alternative 1

PG&E s substation cost estimate for Alternative 1 includes $74.4 million to perform the work at the Los Banos Substation, the Gates Substation, and the Midway Substation for Alternative 1 set forth in PG&E s Opening Testimony, Chapter 2 at 2-2. The cost estimate for Alternative 1 includes a contingency of 10%. Alternative 1 includes the substation modifications required at Los Banos and Gates Substations to construct the line terminals for the new line, to install new line terminals to loop the existing Los Banos — Midway #1 line into Gates Substation, to re-align the Los Banos — Midway 500 kV towers adjacent to Gates, to install series capacitor banks at Los Banos and Gates Substations, and 500 MVAR of shunt capacitors on the 230 kV bus at Gates Substation. The Gates Substation 500 kV bus would be converted from a ring bus to a breaker-and-a-half arrangement, requiring the installation of eight new circuit breakers.

(2) Plan of Service Alternative 2

PG&E s substation cost estimate for Alternative 2 includes $37.9 million to perform the work at the Los Banos Substation and the Gates Substation for Alternative 2 as set forth in PG&E s Opening Testimony, Chapter 2 at 2-2. The cost estimate for Alternative 2 includes a contingency of 10%. The Alternative 2 plan of service is the same as Alternative 1 except that it does not include the 500 kV series capacitor banks at Los Banos and Gates Substations, omits the line terminals and tower re-arrangement at Gates Substation to loop the Los Banos — Midway 500 kV line into Gates Substations, and installs only 250 MVAR of shunt capacitors on the 230 kV bus at Gates Substation. The Gates Substation 500 kV bus would be converted from a ring bus to a breaker-and-a-half arrangement, requiring the installation of five new circuit breakers.

B. Los Banos Gates — 500 kV Line Western Corridor (Proposed) Route

PG&E s Western Corridor route cost estimate includes $265.3 million to engineer, procure and construct 83.9 linear miles of new single circuit overhead 500˚kV

transmission line. The new transmission line will be constructed with HV style 500 kV structures, bundled 2300 AAC aluminum conductor for each phase. The cost estimate for the Proposed Route includes a contingency of 25%. PG&E estimated the 500 kV transmission line costs for the Western Corridor route by locating the towers in the field in the proposed alignment. The number, size, and type of tower structure were determined, and the total weight of fabricated structure was calculated. The same approach was taken for quantities of concrete, conductor, and connectors and hardware. Labor hours were estimated from a recent project to replace two HV type structures on the Diablo Canyon — Gates 500 kV line near Parkfield. The methodology to determine the quantities for construction of the access road is consistent with the data in the FEIR, Volume 2B, Table 4.6-3, which describes the quantities of land disturbance including access roads. A 25 percent contingency was added because the final route has not been determined, and all required mitigations have yet to be determined.

The 500°kV overhead transmission line costs in this cost estimate were also compared to the cost estimate included in the 1988 FEIR. The comparison shows that the estimated cost of the 2001 project (including the 25% contingency) is approximately 35% higher than the 1988 cost. This difference roughly calculates to a 2.3% rate of inflation over 13 years.

C. Los Banos Gates — 500 kV LinEastern Corridor Route

PG&E s Eastern Corridor route cost estimate includes $249.2 million to engineer, procure and construct 85.7 linear miles of new overhead 500°kV transmission line similar to that described above. The cost estimate for the Eastern Corridor route includes a contingency of 25%. Although the same level of detail was not available for the Eastern Corridor route alternative, PG&E s extensive work on the Proposed Route formed the basis for the Eastern Corridor route estimate. For purposes of this estimate, PG&E first developed a project-specific unit cost for overhead 500 kV transmission line by dividing the total materials and construction cost of the Proposed Route by the length of that route in miles. The resulting unit cost, approximately $2 million per circuit mile, was then multiplied by the expected length of the Eastern Corridor route, as identified in the Proponent s Environmental Assessment. Thus, although detailed engineering and design work has not been performed for the Eastern Corridor

route, PG&E s project specific unit cost-based estimate for that route nonetheless reflects engineering and design work and other information specific to this Project, its required components and its general physical setting.

While the Eastern Corridor route appears to be flatter and straighter than the Proposed Route, it was assumed that the towers for the Eastern Corridor route might be slightly taller to avoid existing agricultural uses. The total estimated construction costs for the two routes is approximately the same.

D. Gates — Midway 230 kV Transmission Line

Both Plan of Service Alternatives include Gates-Midway 230 kV transmission line upgrades, including $19.9 million to engineer, procure and reconductor approximately 50 linear miles of existing overhead 230 kV transmission line between Arco Substation and Midway Substation to the south (approximately 43 miles), and a small section of the Arco — Gates 230 kV line between Arco Substation and the Gates — Midway 230 kV line (approximately 7 miles). The line will be upgraded to 795 ACSS conductor, which has a normal rating of about 1500 amps. Some towers may need to be modified to accommodate the new structural loading associated with this type of conductor. This portion of the Project does not vary between the Alternatives. The cost estimate for the 230 kV transmission line upgrades includes a contingency of 10%.

Section 3. PG&E s Estimated Land Costs (Sponsoring Witness Robert M. Masuoka)

PG&E s cost estimate includes the cost of acquiring right-of-way easements for transmission lines, which would include ingress and egress rights. PG&E estimated the land acquisition costs for the 500 kV transmission line right-of-way as follows:

- First, PG&E determined per-mile unit costs for right-of-way for each of the land use types, e.g., grazing land, row crops, orchards, open space, etc. To determine these unit costs, PG&E assumed an easement width of 200 feet. In determining land values, PG&E relied on the land values contained in the 2000 Land and Lease Values Surveys prepared by the California Chapter of the Society of Farm Managers and Rural Appraisers (the 2000 Report),

attached hereto at Tabs 21 to 22. PG&E estimated right-of-way values at full fee value.[4]

- Second, PG&E determined the various land use types and circumstances, *e.g.*, grazing land and agricultural land, in right-of-ways along the Western Corridor route and the Eastern Corridor route, and calculated the number of miles of each land use type. In making this determination, PG&E utilized the land use data contained in the DEIR and performed limited field reconnaissance to verify the land use information for the Western Corridor route.
- Third, PG&E calculated the projected right-of-way cost for each land use type and for each route by multiplying the applicable per mile unit cost by the number of miles of each land use type. PG&E then added the right-of-way costs for each land use type together to form one cost estimate for acquiring the 500 kV transmission line right-of-ways along the Western Corridor route, and another for the Eastern Corridor route.
- Finally, PG&E estimated the cost of acquiring the right-of-way. In preparing this estimate, PG&E utilized real property records from Fresno and Merced Counties to estimate the number of property owners along the Western Corridor route and the Eastern Corridor route. In determining the estimate for the Eastern Corridor route, PG&E assumed there were four property owners per route mile based on its knowledge of the relevant area. Based on its experience in similar right-of way acquisition efforts, PG&E then estimated the cost of land rights acquisition efforts.

PG&E estimated the land acquisition costs for the Gates-Arco-Midway 230 kV transmission line right-of-way as follows:

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4 With respect to agricultural rates, PG&E used the rate ascribed by the 2000 Report to the particular farming use of the land: field crops; row crops; grain and hay; pasture; orchards; and vineyards. See Tabs 21 to 22.

- PG&E has determined that it will need to perfect its easement rights along the entire length (50 miles) of the existing 230 kV transmission line in order to complete the reconductoring work described in the Conditional Application.[5] In preparing this estimate, PG&E utilized the same unit cost approach described above for the 500 kV transmission line.
- PG&E determined the various land use types and circumstances, *e.g.*, grazing land, row crops, orchard and vineyards, etc, based on its knowledge of the relevant area.
- Right-of-way values were based on (a) existing agricultural rates[6] and were estimated at full fee value. In determining land values, PG&E relied on the land values contained in the 2000 Report.
- In deriving the land rights acquisition cost estimate, PG&E assumed these were four property owners per mile based upon its knowledge of the relevant area.
- Finally, PG&E added the individual right-of-way cost components together to form a single cost estimate for acquiring the 230 kV transmission line right-of-ways.

PG&E s cost estimate for the 500 kV and 230 kV transmission line right-of-way includes a 25% contingency on estimated land costs. Such contingency is meant to address: (a) expected but unappraised costs for temporary construction easements and dislocation costs at certain parcels; (b) increases in land values since the 2000 Report and prior to condemnation

---

5 The existing easement has a 37.5 foot setback restriction from the easement centerline. Current standards on a typical 230 kV transmission line require a 100 foot easement width. Accordingly, PG&E may need to expand the easement width 12.5 feet on each side of the current transmission line easement.

6 As with the 500 kV transmission line right-of-ways, PG&E used the rate ascribed by the 2000 report to the particular farming use of the land: row crops; orchards; and vineyards. *See* Tabs 21 to 22.

proceedings;[7] and (c) other costs that may be higher than estimated by PG&E.

PG&E s cost estimate also includes estimated costs for: (a) PG&E labor in land engineering and land surveying, review of existing transmission line documents, and right-of-way acquisition; (b) outside contractor costs, including condemnation litigation; and (c) escalation, overhead and indirect costs, and AFUDC. Land engineering costs include surveying mapping, document preparation, ownership search, staking, restaking, condemnation package preparation, permit drawing preparation, and any other engineering support. Right-of-way acquisition costs include property appraisals, preliminary title report requests, right-of-way negotiations, necessary subordination agreement acquisition, eminent domain proceedings, right-of-way payments, property owner s notifications, and document filings. The right-of-way acquisition costs do not include costs associated with reimbursement for crop damage or third party claims settlement.

Section 4. PG&E s Estimated Permitting and Certification Costs (Sponsoring Witnesses John Hagen and Bob Masuoka)

PG&E s cost estimate includes the cost of conducting the required environmental surveys, permits, fees, and PG&E internal Technical and Environmental Services (TES) costs. These costs include the acquisition of permits from various governmental agencies including, but not limited to, California Department of Fish and Game, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, Regional Water Quality Control Board, Caltrans, Bureau of Land Management, Department of Parks and Recreation, Federal Aviation Administration, Department of Parks and Recreation (Los Banos Creek Recreation Area), and the Department of Water Resources (Little Panoche Reservoir). TES costs include biological assessments, surveys, California Department of Fish and Game and U.S. Fish and Wildlife Service consultations, support work for preparation of Section 7 and 2081 incidental take permits, if required, project monitoring, and any required mitigation for habitat lost as a result of construction of the Project.

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[7] In its experience gleaned from estimating land acquisition costs for other projects, PG&E has learned that property values for agricultural lands often fluctuate and such fluctuations are often not in sync with the real estate market in general.

Section 5. PG&E s Estimated CPCN Support Costs (Sponsoring Witness John Hagen)

PG&E s cost estimates for each of the Alternatives includes $3.1 million in CPCN support costs, which do not vary between Alternatives (excluding contingency and PG&E direct and indirect costs). PG&E s expected CPCN support costs include: $2.1 million in PG&E labor costs (including filing fees, fee contingencies, PG&E land project management costs, legal fees, PG&E CPCN filing support costs and PG&E technical and environmental services costs) to be incurred through the completion of the Project. Included in the costs above, PG&E estimates charges of $1 million from the CPUC Energy Division and its consultant, Aspen Environmental Group, for preparation of the Supplemental EIR.

Section 6. PG&E s Material Burden, Escalation, AFUDC and Capital Administrative and General Costs. (Sponsoring Witness John Hagen)

PG&E calculates material burden, escalation, and AFUDC costs by using a percentage of the other cost components. PG&E s cost estimate includes a 16% factor for material burden to account for stored expense associated with utility material procurement of conductors, insulators, structures, and high voltage equipment. The percentage used is in accordance with PG&E Capital Accounting Guidelines, Instruction 7, and Exhibit B. The percentage is applied to all material purchases and major equipment purchases that are less than $500,000 per line item. PG&E uses the same Material Burden percentage, 16%, across all material cost components of the project.

PG&E s cost estimate includes a 12.8% factor to account for the cost of capital (AFUDC or allowance for funds used during construction). The percentage used is in accordance with PG&E Capital Accounting Guidelines, Instruction 7, and Exhibit B. The percentage is determined by considering the approximate time between the first project charges and the date the project is used and useful. In this project, the Project Period (in 6 month intervals) is assumed to be 31-36 months. PG&E uses the same AFUDC percentage, 12.8%, across all cost components of the project.

PG&E included an escalation factor of 8.244% for electric transmission costs and 6.336 percent for substation work to account for cost increases over time. The percentage used is in accordance with PG&E Capital Accounting Guidelines, Instruction 7, and Exhibit B. The percentage is determined by considering the approximate time between the estimate preparation or first job charges and the expected operative date of the project. For this project the Project Period is assumed to be 31-36 months.

PG&E s cost estimate includes a 4% factor to account for the Capital Administrative and General (A&G) costs. The percentage used is in accordance with PG&E Capital Accounting Guidelines, Instruction 7, and Exhibit B. The percentage is applied to all costs incurred. PG&E uses the same A&G percentage, 4% across all cost components of the project.

EXHIBIT 83-1

TRANSMISSION LINE SURROUNDINGS

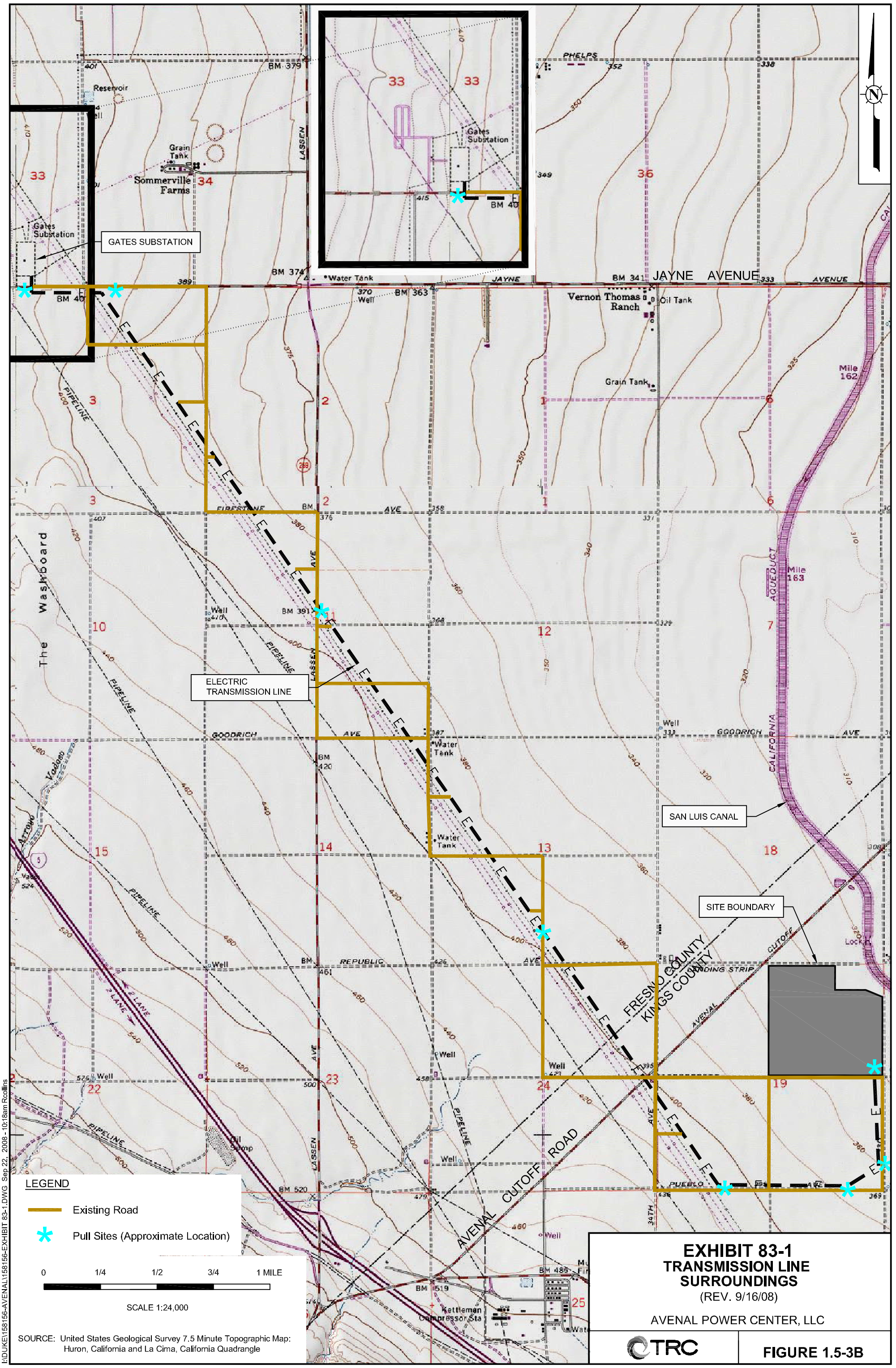

GATES SUBSTATION
ELECTRIC TRANSMISSION LINE
SAN LUIS CANAL
SITE BOUNDARY
JAYNE AVENUE
Sommerville Farms
Vernon Thomas Ranch
Gates Substation
Reservoir
Grain Tank
Oil Tank
Water Tank
Well
Oil Sump
Mile 162
Mile 163
Kettleman Compressor Sta
FRESNO COUNTY
KINGS COUNTY
LANDING STRIP
AQUEDUCT
CUTOFF
ROAD
PIPELINE
LASSEN
PHELPS
GOODRICH
REPUBLIC
AVENAL
CALIFORNIA
The Washboard
Arroyo Vadoso
LEGEND
Existing Road
Pull Sites (Approximate Location)
0 1/4 1/2 3/4 1 MILE
SCALE 1:24,000
SOURCE: United States Geological Survey 7.5 Minute Topographic Map: Huron, California and La Cima, California Quadrangle
EXHIBIT 83-1
TRANSMISSION LINE SURROUNDINGS
(REV. 9/16/08)
AVENAL POWER CENTER, LLC
TRC
FIGURE 1.5-3B
I:\DUKE\158156-AVENAL\158156-EXHIBIT 83-1.DWG Sep 22, 2008 - 10:18am Rcollins

EXHIBIT 83-2

UPDATED AFC TABLE 2.3-7

EXHIBIT 83-2

TABLE 2.3-7

ESTIMATED ACREAGE OF CONSTRUCTION AND OPERATIONS AREAS(1)

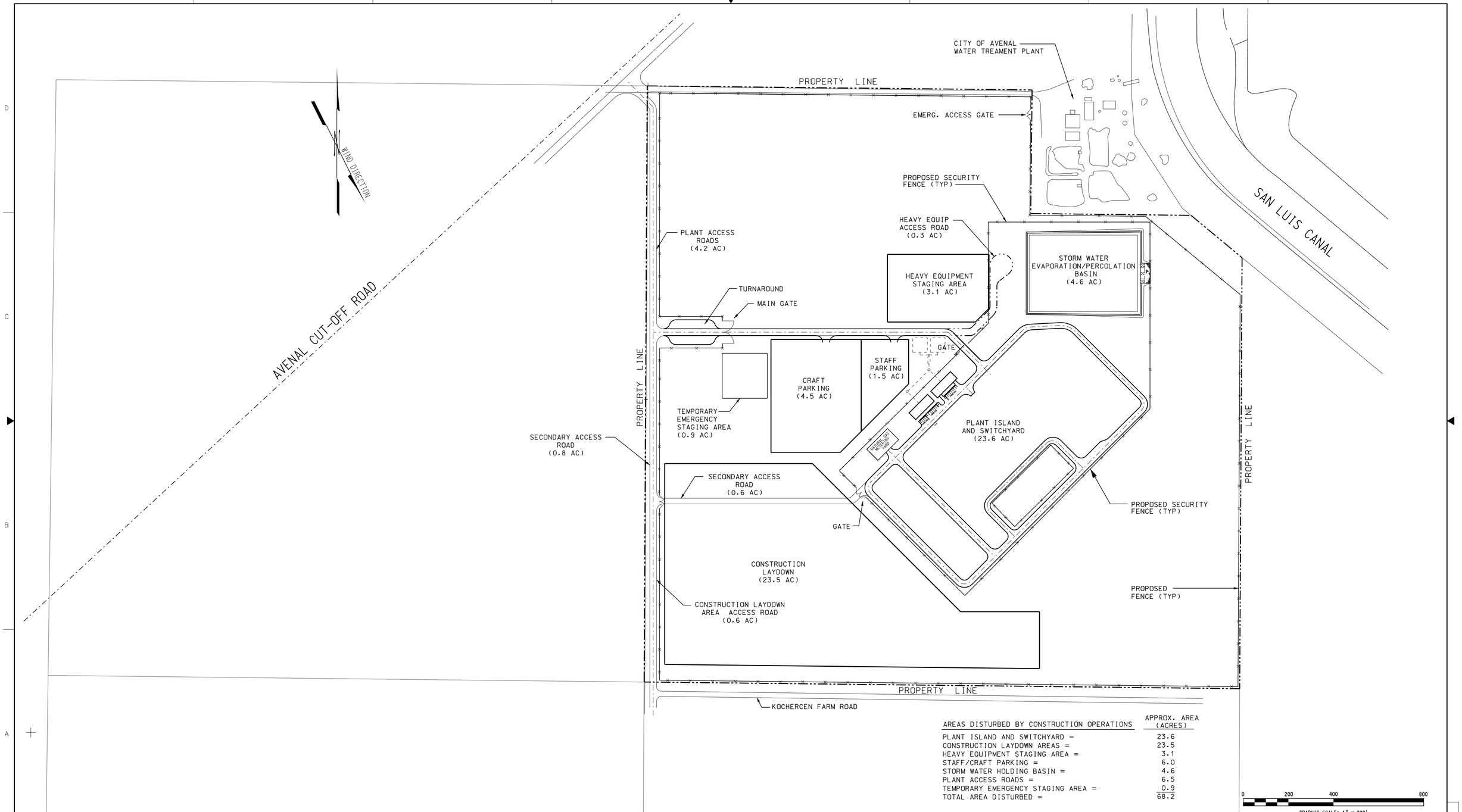
(Rev. 9/23/08)

PROJECT COMPONENT	ESTIMATED AREA (acres)		NOTES
	Temporary (Construction Only)	Permanent (Operations)	
Power Generation Facility	~~28~~33.5	~~23~~28.2	Temporary construction includes laydown, topsoil storage, parking, ~~and~~ construction office area, and temporary emergency staging area. Permanent disturbance is the disturbed area within the fence line including the power block, switchyard, ZLDF, air-cooled condenser and stormwater retention basin, as well as 2.5 acres of drainage swales located at the perimeter of the plant security fence.
Plant Access Road	~~6~~2.4	~~2~~4.1	Road length is approximately 2,600~~2,610~~ ft from the pavement on Avenal Cutoff Road to the power block entrance. Permanent disturbance is 30 ft wide (20-ft-wide pavement plus 5-ft shoulder on each side); temporary construction disturbance ~~is 70 ft wide (not including permanent road area). Temporary disturbance also includes an additional 2 acres for a road to the construction laydown area.~~includes an additional 10 feet of grading on each side of the road and an additional 2.7 acres for a secondary access road and temporary construction laydown and heavy equipment staging area access roads.
Transmission Line Interconnection	~~10~~3.6	~~1~~1.2	Transmission line from the Site switchyard to the existing PG&E Gates substation will require approximately 43 structures. Each structure will require approximately ~~10,000~~3,600 sq ft of temporary disturbance (total of ~~9.9~~3.6 acres). Permanent average disturbance of 1,200 sq ft per structure will be required (total of 1.2 acres). Temporary disturbance area for pull sites is included in the 3.6 acres of temporary disturbance.
Natural Gas Pipeline Interconnection	~~5~~1.1	0	Approximately ~~4,000~~2,000 ft of the pipeline interconnection will occur outside Avenal Cutoff Road and Plymouth Avenue rights-of-way, with an average disturbance corridor of approximately ~~50~~25 ft. Work within the existing City rights-of-way is not included in this calculation because work will occur entirely within the paved width of the roads and the dirt shoulders that have no cover vegetation.
Water Supply Pipelines	~~10~~5.5	0	Water supply pipeline 1.8 miles in total length from three wells to the power block battery units. No temporary or permanent access road is required. Construction disturbance will average 25~~50~~ ft wide.
Gates Substation Improvements	0	0	Activity will occur at the existing substation in an area that is already 100% disturbed with a graded gravel surface and no vegetation.
TOTAL	**~~59~~46.1**	**~~26~~33.5**	--

(1) Project facilities will occur entirely on land that has been intensively disturbed by agricultural activities. No new ground disturbance will occur due to the Project.

EXHIBIT 83-3

UPDATED AFC FIGURE 2.3-12



AREAS DISTURBED BY CONSTRUCTION OPERATIONS	APPROX. AREA (ACRES)
PLANT ISLAND AND SWITCHYARD =	23.6
CONSTRUCTION LAYDOWN AREAS =	23.5
HEAVY EQUIPMENT STAGING AREA =	3.1
STAFF/CRAFT PARKING =	6.0
STORM WATER HOLDING BASIN =	4.6
PLANT ACCESS ROADS =	6.5
TEMPORARY EMERGENCY STAGING AREA =	0.9
TOTAL AREA DISTURBED =	68.2

0 200 400 800

GRAPHIC SCALE: 1" = 200'

EXHIBIT 83-3

REV	DATE	REVISION DESCRIPTION	BY	CHK	APPV
A	09-19-07	ISSUED FOR CEC AFC	EA	HS	
B	06-13-08	GENERAL SITE UPDATE	DRM	BRE	
C	09-23-08	GENERAL SITE UPDATE	DRM	BRE	

REV	DATE	REVISION DESCRIPTION	BY	CHK	APPV	REFERENCE DWG NUMBER	REFERENCE DRAWINGS

FLUOR®

CONTRACT	A3DV	
DESIGNED BY	E. AVILA	
CHECKED BY	H. SARKISIAN	
SUPERVISOR	H. SARKISIAN	APP DATE 9/19/07
LEAD ENGR/SPEC.	B. EISENBISE	APP DATE 9/19/07
FLUOR		APP DATE
CLIENT		APP DATE

FEDERAL POWER AVENAL, LLC
AVENAL ENERGY PROJECT
AVENAL, CALIFORNIA

FIGURE 2.3-12
CONSTRUCTION OFFICES,
PARKING AND LAYDOWN AREAS

SCALE	DRAWING NUMBER	REV
1"=200'	A3DV01-0-SK-0-CT-02	C

CAD FILE NAME a3dv010sk0ct02 .DGN

SAP NWA

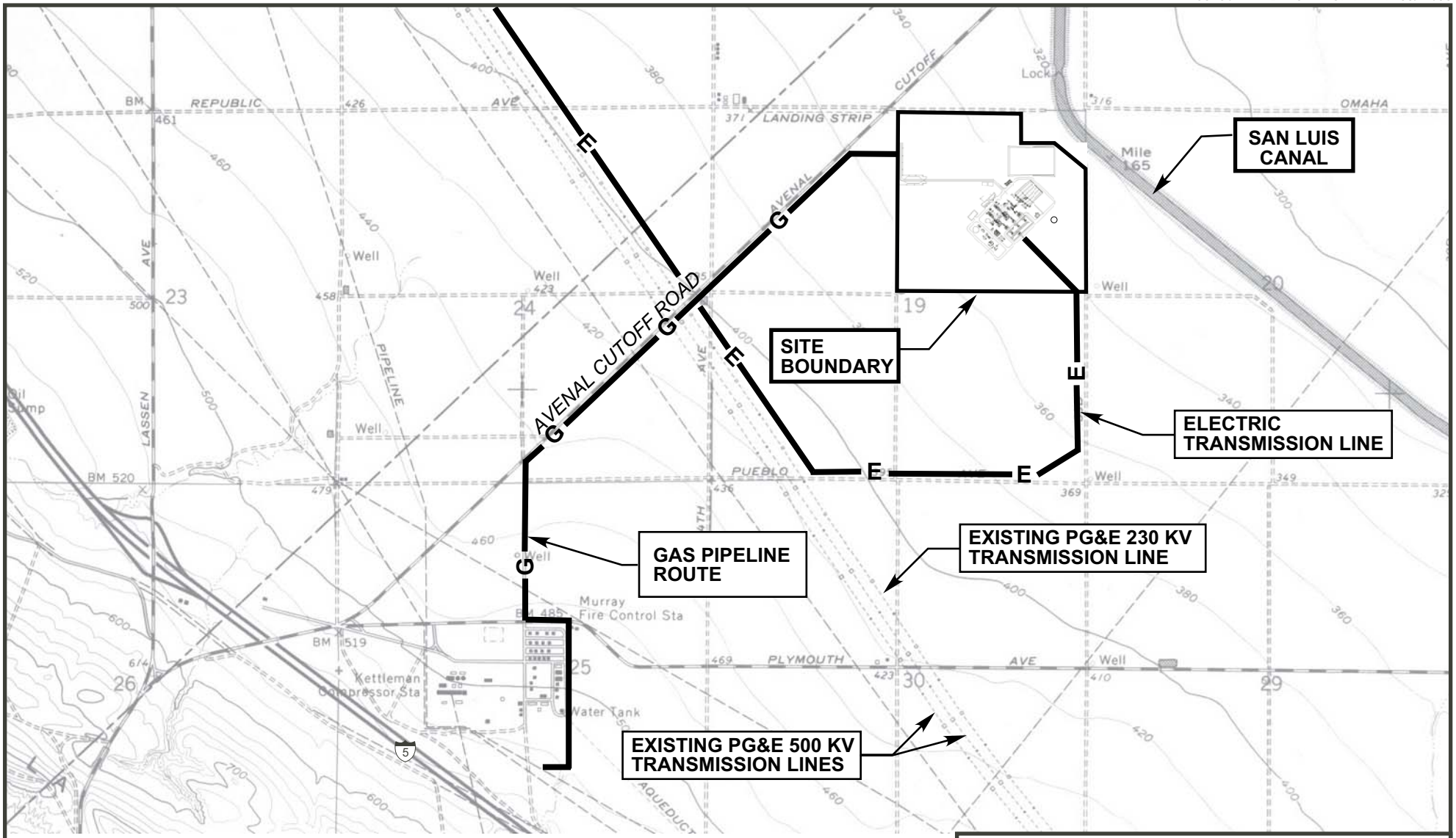
DIST CODE

PLOT DATE:

XREF ATTACHED - YES ☐ NO ☐ MANUAL CHANGES MADE - YES ☐ NO ☐ DWG FILE UPDATED - YES ☐ NO ☐ MODEL UPDATED - YES ☐ NO ☐

EXHIBIT 84-1

NATURAL GAS AND ELECTRIC INTERCONNECTION ROUTES (REV. 9/16/08)



REFERENCE:
U.S.G.S 7.5 MINUTE TOPOGRAPHIC SERIES MAP
OF LA CIMA, CALIFORNIA, DATED 1978.

0 2,000 4,000 FEET
SCALE

EXHIBIT 84-1
NATURAL GAS AND ELECTRICAL INTERCONNECTION ROUTES
(REV. 9/16/08)

AVENAL POWER CENTER, LLC

AVENAL ENERGY | FIGURE 2.1-1A

EXHIBIT 89-1

PHASE I ENVIRONMENTAL SITE ASSESSMENT FOR PROJECT LINEAR FACILITIES

PHASE I
ENVIRONMENTAL SITE ASSESSMENT

September 19, 2008

Avenal Energy
Linear Facility Corridors
Kings and Fresno Counties, California

TRC Project Number 158156.0000.0000

9301 Oakdale Avenue, Suite 210
Chatsworth, California 91311
(818) 772-0965

PHASE I
ENVIRONMENTAL SITE ASSESSMENT

September 19, 2008

Avenal Energy
Linear Facility Corridors
Kings and Fresno Counties, California

TRC Project Number 158156.0000.0000

Prepared For:

FEDERAL POWER AVENAL, LLC

Prepared By:

Carole Missirlian, PE
Senior Civil Engineer

J. Todd Stanford, REA, REHS, CEM
Principal Scientist

REGISTERED ENVIRONMENTAL ASSESSOR
TODD STANFORD
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STATE OF CALIFORNIA

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FIGURES

APPENDICES

1.0 INTRODUCTION

1.1 STATEMENT OF PURPOSE

TRC performed this Phase I Environmental Site Assessment (ESA) for three linear facility corridors (electric transmission, water and gas lines) associated with the proposed Avenal Energy electric power generating plant to be located in the City of Avenal, in Kings County, California. This Phase 1 ESA supplements a previous Phase 1 ESA for the proposed Avenal Energy generation facility prepared by TRC dated October 30, 2007. The proposed electric transmission corridor is located within the City of Avenal and in unincorporated Fresno County and is shown on Figures 1 and 2. The proposed gas line is located within the City of Avenal and is depicted on Figure 2. There are two water lines that will connect three existing water wells to the proposed power plant site as shown on Figure 3. These water lines are located primarily in the City of Avenal. The water line to existing Well 18-1 extends marginally into unincorporated Fresno County. For the purpose of this report, the property on which these linear facilities collectively will occur is referred to as the subject property. TRC prepared this report for Avenal Power Center, LLC (referred to herein as "Client") in support of future site development and permitting requirements. The overall purpose of this assessment was to establish environmental conditions at the subject property based on information collected at the time of the investigation.

TRC performed this Phase I ESA in accordance with the American Society of Testing and Materials (ASTM) Method E 1527-05 ("Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process").

1.2 DETAILED SCOPE OF SERVICES

An environmental professional as defined by the "All Appropriate Inquiries" (AAI) Rule, or someone under his/her supervision, performed this Phase I ESA. The assessment consisted of the following tasks performed within the scope of ASTM E 1527-05:

Current Conditions

1. Visual observations of subject property conditions to evaluate the nature and type of activities that have been or are being conducted at the subject property, in terms of the potential for release or threat of release of hazardous substances or petroleum products.
2. Visual inspection of abutting property, as practical from public areas, to evaluate the potential for affecting the subject property.
3. Description of the physical setting of the subject property
4. Interview with the subject property representatives, ad determined necessary based on other work conducted.

Historical Conditions

Review of the following sources of historical use information, as readily accessible:

1. Historical aerial photographs,
2. Topographic maps
3. Sanborn maps,
4. Building department records,
5. City directories.
6. Review of previous environmental reports provided to TRC, if applicable.
7. Environmental lien search was not conducted, nor were preliminary title reports obtained or reviewed for this Phase I ESA work.
8. A chain of title search was not conducted as a component of this Phase I ESA work.

Environmental Agency Review

1. A review was conducted of federal, state, tribal and local environmental database information within the ASTM-specified distance from the subject site using a database service to access records. The purpose of this review is to determine potential for impact to the subject property from an off-site source.
2. Review of state and local environmental files pertaining to the subject property, as available at the applicable environmental agencies.

1.2.1 Non-Scope Considerations

ASTM E 1527-05 includes the following list of "additional issues" that are considerations outside the scope of the ASTM Phase I assessment practice: asbestos containing materials, radon, lead-based paint, lead in drinking water, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, biological agents and mold. None of these "additional issues," were included as components of this Phase I ESA.

1.3 SIGNIFICANT ASSUMPTIONS

TRC has assumed that the information sources utilized for this investigation provide complete and accurate information. Evaluations presented in this report are based exclusively on information provided by Client, subject property representatives, available public records and observations made during subject property reconnaissance.

1.4 LIMITATIONS AND EXCEPTIONS

TRC completed this Phase I ESA in substantial conformance with the ASTM E 1527-05 standard. In TRC's opinion, no additions to, or deviations from, the ASTM work scope were made in completing this Phase I ESA.

The Phase I ESA is limited in nature and should not be construed to be a characterization of environmental regulatory compliance or of conditions above or below grade. The evaluations presented in this Phase I ESA are based on information provided by Client, subject property representatives, available public records, readily accessible historical documents and observations made during the subject property reconnaissance. TRC did not independently verify information supplied to TRC or obtained from regulatory files reviewed as a component of this investigation.

TRC performed this Phase I ESA in a competent and professional manner in accordance with sound consulting practices and procedures. No warranty is provided regarding the actual conditions described in this report beyond matters amenable to visual confirmation within the limits of this Phase I ESA work scope. TRC makes no representation or warranty regarding the accuracy or reliability of information or documents provided by others that are contained or relied on herein.

Data Gaps:

The potential for the existence of an ESA associated with the Carberry Farms Headquarters facility as further described in Section 6.2 is a data gap as defined by ASTM E-1527-05. No other data gaps were encountered during this Phase I ESA. TRC's opinion of potential environmental conditions associated with this property and associated recommendations are limited by the conditions prevailing at the time our work was performed.

1.5 SPECIAL TERMS AND CONDITIONS

No special terms or conditions were imposed on this Phase I ESA.

1.6 USER RELIANCE

TRC prepared this report for the use of the Client. There are no third party rights or benefits conferred under this report. Any use of the contents of this report by any party other than the Client is at the sole risk of that party.

2.0 SITE DESCRIPTION

2.1 LOCATION AND LEGAL DESCRIPTION

This assessment was performed for the three planned utility corridors, electric transmission, water and gas lines, from the proposed Avenal Energy electric power generating plant to be located on a 148-acre site in the City of Avenal, Kings County, California. The proposed power plant site is located adjacent to the Avenal Cutoff Road, on the northeast ¼ of Section 19, Township 21 South, Range 18 East, MDB&M, in the City of Avenal, Kings County, California.

- The electric transmission lines (Figures 1 and 2) will exit the southeast corner of the power plant site, generally following a dirt road approximately 2,500 feet in a southerly direction and then turning east along Pueblo Road (unpaved road) until meeting an existing Pacific Gas & Electric Company (PG&E) regional electric power transmission line corridor. The proposed transmission line will then parallel the existing electrical transmission line corridor in a northwesterly direction for approximately 5 miles to the PG&E Gates Substation located on the north side of Jayne Avenue near the City of Huron. Along its proposed route, the transmission line crosses from Kings to Fresno County.

- The proposed gas pipeline route (Figure 2) will extend from the northwestern corner of the proposed power plant site southwest along Avenal Cut-Off Road for a distance of approximately 7,000 feet, and then turn south and follow a dirt road approximately 2,000 feet to Plymouth Avenue, and then turn east and follow Plymouth Avenue for a distance of approximately 600 feet, and then turn south and follow a dirt road along the eastern boundary of the PG&E Kettleman Compressor Station for a distance of approximately 2,000 feet.

- Two proposed water lines are associated with the subject property referred to herein as Water Line 18-1 and Water Line 24-5. The proposed water line 18-1 extends from existing groundwater Well 18-1 and follows a dirt road adjacent to the San Luis Canal south to existing Well 18-4, then continues south and then east along the edge of an existing orchard to the proposed power plant site. The proposed water line 24-5 extends north from existing Well 24-5 to Avenal Cut-Off Road (approximately 400 feet), then along Avenal Cut-Off Road for a distance of approximately 3,000 feet to the proposed Power Plant. The locations of the proposed water lines and groundwater wells are indicated on Figure 3.

2.2 SUBJECT PROPERTY AND VICINITY GENERAL CHARACTERISTICS

The proposed linear facilities will be primarily within agricultural areas. In general, the linear facilities will travel along dirt roads, paved roads, or along the existing PG&E high-voltage

regional transmission corridor. The proposed gas line will be located within the City of Avenal and will connect to the existing PG&E Kettleman Compressor Station. The water lines will be primarily in the City of Avenal, with Water Line 18-1 extending marginally into unincorporated Fresno County. The proposed electric transmission line will be located within the City of Avenal and unincorporated Fresno County and will terminate at the existing PG&E Gates Substation near Huron, California. Surrounding properties consist of farmland (e.g., orchards, row crops and grain fields), and for one of the proposed water lines (Water Line 18-1) the San Luis Canal.

2.3 CURRENT USE OF THE PROPERTY

The proposed gas and water lines will be installed below grade along existing dirt roads or paved roads.

The proposed electric transmission line will be along existing dirt roads and along the existing PG&E high-voltage transmission lines, crossing agricultural properties. Near the southwest corner of Goodrich Street and Modoc Street, the proposed electric transmission line crosses a portion of the farm headquarter operations formerly operated by Carberry Farms. Based on information obtained during this investigation, Carberry Farms was recently sold. The proposed electric line will be cross to the southwest of the Carberry Farms headquarter operations or through the western portion of the headquarter operations.

At the time of the site inspection performed on August 12 and 13, 2008, the western portion of the Carberry Farms headquarter was used primarily as open storage area or for vehicle parking. Three polyethylene Baker tanks (approximately 1,000-gallons in capacity) were observed on the northwestern portion of the farm headquarter. The contents of these tanks were not determined during the course of this investigation. In addition, several storage sheds were observed throughout the area. Three large above-ground storage tanks, surrounded by a secondary containment berm, were located towards the east-central portion of the farm headquarter. These storage tanks reportedly contained fuel used in support of farm vehicle operations.

2.4 CURRENT USE OF THE ADJOINING PROPERTIES

TRC performed a visual examination of the surrounding area on the same day as the subject property inspection. Observations of surrounding sites were limited to accessible public areas and areas that could be readily observed from the subject property.

Adjoining properties consist mainly of agricultural fields. Along the proposed Water Line 18-1 are the San Luis Canal of the California Aqueduct to the east of the proposed line, and the City of Avenal Water Treatment Plant to the south.

2.5 PHYSICAL SETTING

The linear facility corridors are located at elevations ranging from approximately 335 to 480 feet above mean sea level (msl), according to the La Cima and Huron, California USGS topographic maps. Surface topography in the vicinity of the utility corridors is generally featureless and slopes gently to the east and east-northeast. The Kettleman Hills are located to the southwest of the subject property.

The subject property is located at the western edge of the San Joaquin Valley, within the Great Valley geomorphic province. Soils in the area consist primarily of non-marine sedimentary deposits of Quaternary alluvium. The area is underlain by unconsolidated to semi-consolidated layers of clay, silt, sand and gravel (TRC, 2001).

The subject property is located within the Tulare Lake drainage Basin, which is an area of internal drainage within the San Joaquin Valley. Previously, surface waters within this basin drained into the Tulare, Buena Vista, or Kern lake beds. By the mid-1900s, the primary sources of surface water recharge to these lakes were diverted away by the construction of the Sierran dams and the San Joaquin Valley canal systems. Groundwater in this region reportedly consists of three distinct aquifer zones. The first is unconfined to semi-confined, made up of Recent, Pleistocene, and possibly Pliocene age alluvial deposits underlain by the Corcoran Clay. The second aquifer is confined beneath the Corcoran Clay in alluvial lake deposits of Pleistocene age and older. The third aquifer is a saline water aquifer contained in marine sediments of middle Pliocene or older age (TRC, 2001). The Corcoran Clay is present in the central part of the valley and pinches out before reaching the western edge of the valley, and thin or non-existent beneath the subject property, resulting in an absence of the uppermost aquifer.

Records at the Regional Water Quality Control Board for the PG&E Compressor Station located at 34453 Plymouth Avenue in Avenal, California indicate that locally near the compressor station, shallow groundwater elevations have reportedly ranged from approximately 50 feet below msl to 100 feet above msl. Based on the average elevation of the subject property, groundwater is expected to occur at depths ranging from approximately 235 to 385 feet below grade (Alisto Engineering, 1999). The groundwater flow direction in the vicinity of the subject property is reportedly oriented toward the west (Alisto, 2006). Prior to completing construction of the California Aqueduct in 1972, groundwater pumping was more extensive in the area and the local groundwater flow direction was oriented toward the north to northeast (Alisto, 2006).

Groundwater was reported as sodium sulfate type, with field electrical conductivity in the upper unconfined aquifer ranging from 900 to 1,800 microSeimens/centimeter, or approximately 580 to 1,230 mg/L of total dissolved solids (TDS). Alisto reported that due to elevated levels of TDS and objectionable taste, groundwater in this region has not been considered suitable for domestic or potable use (Alisto, 2006).

3.0 USER PROVIDED INFORMATION

No first party information was collected from the Client during the completion of this Phase 1 ESA, except that the Application for Certification submitted to the California Energy Commission by the Client for licensing of Avenal Energy was used as a reference for proposed linear facility design information and existing environment technical information.

3.1 TITLE RECORDS

A chain-of title record was not obtained as a component of this Phase I ESA.

3.2 USER QUESTIONNAIRE

A. *Has the user determined that the subject site's Title contains environmental liens or other information related to the environmental condition of the property, including engineering and institutional controls and Activity and Use Limitations (AULs), as defined by the ASTM? (See 40 CFR 312.25 and 312.26.)*

   A specific search for environmental liens was not performed for this property, however, based on the location of the proposed utility routes along dirt roads, paved roads or existing electric transmission corridor, it appears unlikely that any environmental lien would have been recorded.

B. Has the user specialized knowledge about previous ownership or uses of the property that may be material to identify conditions indicative of releases or threatened releases? (See 40 CFR 312.28.)

   Not applicable based on the proposed utility routes along dirt roads, paved roads or existing electric transmission corridor.

C. Has the user prior knowledge that the price of the subject site has been reduced for environmentally related reasons? (See 40 CFR 312.29.)

   Not applicable based on the location of the proposed utility routes.

D. Is the user aware of commonly known or reasonably ascertainable information about the subject site including whether or not the presence of contamination is likely on the subject site and to what degree it can be detected? (See 40 CFR 312.30 and 312.31.)

   Not applicable based on the location of the proposed utility routes.

3.3 REASON FOR PERFORMING PHASE I

The purpose of this Phase I ESA is to fulfill a requirement related to the Client's Application for Certification to the California Energy Commission, with respect to determining the potential environmental conditions at the proposed linear facility routes.

4.0 HISTORICAL INFORMATION

4.1 HISTORICAL USE INFORMATION ON THE PROPERTY

A review of historical information was performed to identify past uses of the subject property and adjacent sites that may pose an environmental concern. TRC reviewed the following sources of information during the course of this investigation:

- Aerial Photographs;
- USGS Topographic Maps;
- Sanborn Maps;
- Building and Safety Departments; and
- Previous Reports

4.2 AERIAL PHOTOGRAPHS

Aerial photographs are a recommended source of historical research for a Phase I ESA. The general land use can often be discerned from the type and layout of structures visible in an aerial photograph. However, specific elements of a site operation cannot normally be determined from the photographs. Readily accessible historic aerial photographs were found for the years between 1967 and 2002 for the southern portion of the subject property, and reviewed in former Phase I reports prepared by TRC in 2001 and 2007. An aerial photograph from 1981 was located at the Kings County Agricultural Commissioner office in Hanford, California. An undated aerial photograph encompassing the entire subject property was obtained from the Client's Application for Certification.

On all of the reviewed photographs, the general area was observed as used for agricultural purposes. Avenal Cutoff Road was observed in all photographs, as well as the San Luis Canal. The City of Avenal Water Treatment Plant was first observed on the 1973 photograph.

Selected aerial photographs are provided in Appendix A.

4.3 HISTORICAL TOPOGRAPHIC MAPS

TRC reviewed available historic USGS Topographic Quadrangle Maps for information regarding past uses of the property. Historical topographic maps obtained from the Kings

County Agricultural Commissioner office and from EDR were reviewed for this Phase I ESA. Maps covering the entire study area included:

- 1912; Coalinga, California; Scale 1: 125,000
- 1947; Polvadero Gap, California; Scale: 1:50,000
- 1954; La Cima, California; Scale: 1:24,000
- 1956; Huron, California; Scale: 1:24,000
- 1971; La Cima, California; Scale: 1:24,000
- 1971; Huron, California; Scale: 1:24,000

Additional maps for the southern part of the utility corridors included the 1934, 1963 and 1978 La Cima, California topographic maps.

The study area is located within a broad area of agricultural land use. Avenal Cutoff Road was first observed on the 1947 map, and the San Luis Canal on the 1971 map. Gates Substation was indicated starting on the 1956 map, and the PG&E Kettleman Compressor station starting on the 1934 map. Note that the PG&E Kettleman Compressor station commenced operations in 1929, as indicated in other reviewed historical records (TRC, 2007).

Portions of the topographic maps are provided in Appendix B.

4.4 SANBORN MAPS

The Sanborn Mapping and Geographic Information Service began producing maps of industrial areas across the U.S.A. for fire insurance purposes in the 1860's. These maps detail property use, construction of buildings and related fire risks. The Sanborn archives were searched by EDR and no maps depicting the subject property or surrounding area were identified.

4.5 BUILDING AND SAFETY DEPARTMENTS

As the proposed electric line crosses the Carberry Farms Headquarters facility located near the southwest corner of Goodrich Street and Modoc Street, TRC reviewed associated building records at the Fresno County Public Works and Planning Department for this location. Numerous permits were issued for the overall Carberry Farms property which encompasses at total of approximately 470 acres. The majority of these permits relate to construction of farm labor residences. The permits issued for the northeastern corner of the farm property (i.e., near the southwest corner of Goodrich Street and Modoc Street) through which the electrical transmission line is proposed to extend include:

- Permit issued in 1976 for construction of a duplex at 43017 Modoc Street

- An Application for Agricultural Exemption dated 1985, for construction of a 2000 square foot Tool and Equipment Shed. This document indicated that the buildings were to be used for 'storage of farm tools and equipment including pesticides and fertilizers'.

4.6 HISTORICAL CITY DIRECTORIES

Review of City Directories are not applicable, as the subject property consists of utility corridors.

4.7 PREVIOUS ENVIRONMENTAL REPORTS

No previous Phase I ESA activities have been conducted for the linear facility corridors. In 2007, TRC prepared a Phase I ESA for the proposed power plant in Avenal, California.

4.8 HISTORICAL USE SUMMARY

The review of the historical records indicated that the general area of the subject property is located within agricultural lands and adjacent to public rights of way. Avenal Cutoff Road appears to have been constructed in the late 1920s. The PG&E Kettleman Compressor Station has been in operation since 1929. The PG&E Gates Substation has been in operation since at least the 1950s. The San Luis Canal of the California Aqueduct was constructed in the late 1960s and the City of Avenal Water Treatment Plant was constructed in the mid 1970s.

5.0 RECORDS REVIEW

5.1 STANDARD ENVIRONMENTAL RECORD SOURCES

Various federal and state regulations require that government agencies maintain records of environmental permits, properties known to be affected by regulated compounds and properties under investigation by the government for alleged violations of hazardous material regulations. TRC contracted Environmental Data Resources, Incorporated (EDR), a specialized research firm, to provide an electronic search of such data files with the ASTM-specified minimum distances. A complete copy of the EDR Corridor Study report is provided in Appendix C. EDR's report includes a summary table that provides descriptions of the databases searched, the number of sites found in each database, and the approximate distance from each listing to the utility corridors.

5.1.1 Subject Property

The subject property includes a portion of one site [i.e., the Duster Ranch, Air-Way Farms, Carberry, 43015 and 43105 Modoc Street, Huron (EDR #2)] that is listed on the EDR report. Additional details regarding this site are provided in the following section.

5.1.2 Adjacent Sites

Typically, groundwater would represent the migration medium of potential interest for contaminants that may travel significant distances from an original release source. Surrounding properties with known environmental conditions may be of potential concern with regard to contaminant migration if they are located at an upgradient direction with respect to groundwater flow. Releases from sites that are located in cross-gradient or down-gradient directions are less likely to adversely affect the subject property.

Groundwater flow direction is reported in a predominantly western direction. However, local groundwater flow direction may also influenced by the pumping of agricultural wells. Consequently, the true groundwater flow direction is not known and likely changes locally over time due to the extensive use of agricultural wells in the region.

AT&T Wireless Services, 40811 S. Lassen Avenue, Huron (EDR #1). This site is located approximately 1 mile east of the proposed electric transmission line, and was listed on the Fresno County Certified Unified Program Agencies (CUPA), and San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) databases. Based on the types of listed databases, it is unlikely that a release from this site would affect the utility corridor study area.

Duster Ranch, Air-Way Farms, Carberry, 43015 and 43105 Modoc Street, Huron (EDR #2). This site is located immediately east of the proposed electric line, as observed during the site inspection. It was listed on the aboveground storage tank (AST) database, Fresno CUPA database as a Hazardous Materials Handler Farm Exemption, RCRA-SQG (Small Quantity Generator of Hazardous Waste) and Haznet (shipment of waste under the hazardous waste manifest system) databases. No violations were noted in the EDR report. This site was not listed on a database indicative of subsurface impact.

As part of the Phase I ESA, TRC staff interviewed Mr. Fred Olmstead, owner of Carberry Farms and former occupant of the property located at 43015 and 43105 Modoc Street. Additional details regarding the interview are provided in Section 6.4.

Kochergen Properties: 15485 W. Republic, Huron (EDR #3). According to the EDR report, this site is located approximately ¾ of a mile to the northeast of the proposed 18-1 water line. This facility was listed on the Landfill and Fresno County CUPA (i.e., local agency) databases. Based on information provided in the EDR report and reviewed as part of the TRC 2001 Phase 1 ESA report, a permit was issued in 1996 for land-farming of food-related waste (i.e., used grease). The EDR database report indicates that landfarming operations stopped in 2003. Based

on the type of material applied to land, and distance from the subject property, it is unlikely that the reported activity would have adversely impacted the linear utility corridor study area.

Kochergen Farms Composting, Avenal Cutoff Road and Omaha Avenue, Avenal (EDR #4). The proposed electric line would be located in proximity of the southwestern corner of this composting facility. As observed during the site inspection, the existing high voltage power corridor crosses the southwestern corner of the composting area. However, no towers associated with the high voltage power corridor are located on this property. This site was listed on the Landfill database for a permit issued in 2003, allowing composting of green waste material. No violations were noted in the EDR report. This site was not listed on a database indicative of subsurface impact. Based on the type of operation (i.e. only green wastes), it is unlikely that a release from this site would adversely impact the proposed linear facility corridors.

Hillcrest Travel Plaza, 44779 Lassen, Huron (EDR #5). This site is located approximately 0.75 miles to the west of the proposed gas pipeline. This facility was listed on the Fresno CUPA database for the permitting of four underground storage tanks (fuel storage). No violations were noted in the EDR report. This site was not listed on a database that would indicate the known presence of subsurface impacts (e.g., the Leaking UST database). Based on the lack of reported release, and distance from the study area, it is unlikely that a release from this site would have adversely impacted the proposed linear facility corridors.

Pistachio Processing Plant WWT, 31510 Plymouth Ave., Kings County (EDR #6). This site is located approximately ½ a mile to the south of the study area and was listed on the CA WDS (California Waste Discharge System) database for a permit issued for disposal of treated wastewater. No violations were noted in the EDR report. Based on the type of issued permit, and distance from the study area, it is unlikely that a release from this site has adversely impacted the proposed linear facility corridors.

Farm Mickey & David Chavaria, 31970 Plymouth Ave., Kettleman City (EDR #7). This site is located approximately one mile to the southwest of the study area. It was listed on the Haznet database for the shipment of regulated waste (waste oil). No violation was noted on the EDR report. Based on CA WDS database for a permit issued for disposal of treated wastewater. No violations were noted in the EDR report. Based on the type of listed database, it is unlikely that this site would affect the linear facility corridors.

Kettleman Compressor Station, 34453 Plymouth Avenue, Avenal (EDR #8). This site is located immediately west of the proposed gas pipeline. It was listed on the SWF/LF (Landfill), CA WDS databases. Based on our review of California Regional Water Quality Control Board (CRWQCB) records, this site was also listed on the Spill Leak Investigation and Clean-up (SLIC) database (also accessed from Geotracker). Information regarding this site is provided in Section 5.2.2

Unmapped Sites: Unmapped sites were included in the EDR report. However, we could not determine whether any site was located near the study area, except for the City of Avenal Water

Treatment Plant (33115 Avenal Cutoff Road), and PG&E Kettleman Compressor Station (EDR #8). The City of Avenal Water Treatment Plant was listed on the Haznet, RCRA-SQG and EMI databases.

5.2 ADDITIONAL ENVIRONMENTAL RECORD SOURCES

The subject property is located within the jurisdiction of the environmental agencies listed below. TRC contacted these agencies for regulatory file information pertaining to the subject property:

- Kings and Fresno Counties Department of Environmental Health (DEH);
- CRWQCB, Central Valley Region;
- California Environmental Protection Agency Department of Toxic Substances Control;
- SJVAPCD; and
- California Department of Conservation, Division of Oil, Gas & Geothermal Resources (DOGG).

It should be noted that these agencies maintain file records based on the street addresses assigned to the properties. Since no street addresses have been assigned to the linear facility corridors, no records for the subject property were identified in the regulatory agency files. However, regulatory agency records were obtained for other nearby properties which may potential result in adverse impacts to the subject property.

Based on our review of the EDR Corridor Study report (Appendix C), TRC reviewed the PG&E Kettleman Compressor Station at the CRWQCB) for potential impacts associated with the proposed gas transmission line.

5.2.1 Fresno and Kings County Departments of Environmental Health

The Fresno and Kings County DEH are the local agencies regulating the use of hazardous materials, management of regulated wastes and management of underground storage tanks (USTs) within the study area. The Fresno and Kings County DEH maintain records of these sites based on assigned street addresses. Since no street addresses have been assigned to the subject property, no records pertaining to the proposed linear facility corridors were identified.

5.2.2 California Regional Water Quality Control Board

The subject property is within the boundaries and jurisdiction of the CRWQCB – Central Valley Region. TRC contacted the CRWQCB to determine whether the subject property had any discharge permits or had been investigated with regard to potential violations. The CRWQCB keeps records of the sites with respect to the street address. Since no street addresses have been

assigned to the subject property, no records pertaining to the subject property were identified in the CRWQCB files.

TRC reviewed records regarding the PG&E Kettleman Compressor Station located at 34453 Plymouth Avenue (located approximately 1.5 miles to the southeast of the proposed power plant and in the vicinity of the proposed gas transmission line). Documents obtained from the CRWQCB and reviewed as a component of this investigation include:

Alisto, 1998. Alisto Engineering. Groundwater Monitoring and Sampling Report, April 1, to June 30, 1998, PG&E Kettleman Compressor Station, July.

Alisto, 1999. Alisto Engineering. Groundwater Monitoring and Sampling Report 1999, PG&E Kettleman Compressor Station, October.

Waste Discharge Requirements 89-063 and 99-145

Alisto, 2006: Alisto Engineering. Closure Certification Report, - Class II Surface Impoundments, PG&E Company Kettleman Compressor Station, January.

Miscellaneous correspondence to and from the CRWQCB.

Facility History

PG&E has operated the Kettleman Compressor Station, a natural gas compressor facility, since 1929. Waste water generated at this PG&E site is derived from cooling tower blowdown and site maintenance activities. Maintenance activities typically include descaling copper-alloy cooling water systems of the main heat exchangers, draining of the closed cooling system and equipment degreasing. All oily wastewater is first drained to a sump and then to an oil-water separator prior to discharge to surface impoundments.

Between 1929 and 1989, PG&E operated five unlined surface impoundments for wastewater disposal. These surface impoundments were subsequently closed in 1994. The discharge was not regulated by waste discharge requirements. The report documenting closure of these impoundments was not part of the documents reviewed by TRC at the CRWQCB offices as this document had been archived for offsite storage. Available records reviewed indicate that a chromium-based corrosion inhibitor was added to the cooling tower makeup water between 1959 and 1979.

In 1989, four Class II surface impoundments were constructed for management of the wastewater. Each impoundment consisted of surface dimensions of approximately 450 feet by 175 feet and varied in depth from 9 to 15 feet. The impoundments were triple-lined with HDPE geomembranes and included leachate collection and removal systems (LCRS). The 1999 Waste Discharge Requirements associated with these surface impoundments require that groundwater

monitoring be performed if leachate is detected in any of the four lysimeters that surround each pond. No leachate has reportedly been observed in any of the lysimeters. Consequently, no groundwater monitoring has been required for these surface impoundments. In 2005, the four surface impoundments were closed in accordance with a CRWQCB approved closure plan.

In 2002, PG&E upgraded the Kettleman facility by replacing the water-cooled reciprocating engines with air-cooled turbines for natural gas compression. This upgrade eliminated the blow-down water from the cooling towers and only a small quantity of process cooling water is reportedly generated at the site. The CRWQCB records indicated that the cooling system water is derived from the City of Avenal water supply and no additives are introduced into the water. The CRWQCB approved the use of the process cooling water for landscaping irrigation. The CRWQCB indicated that this discharge complies with Resolution No. R5-2003-0008 for the category Air Conditioner, Cooling and Elevated Temperature Water Discharged to Land, and therefore, waste discharge requirements for the wastewater discharged are waved. This waiver expires on January 31, 2008 and will require renewal.

Groundwater Monitoring

The most recent groundwater monitoring events conducted from the PG&E Kettleman Compressor station were conducted in 1998 and 1999. Quarterly groundwater monitoring and sampling was performed between 1994 and 1998 and one time groundwater monitoring was performed in 1999. The monitored wells included two wells (21S/17E/25-F2 and 25-F3) located on PG&E site near the four former unlined impoundments and four offsite monitoring wells identified below:

- 21S/17E/25-D1
- 21S/17E/25-D2 (located immediately to the north of the PG&E station),
- 21S/17E/24N2 (located north of the PG&E station), and
- 21S/17E/30-P1 (located southeast of the PG&E Station).

The groundwater samples obtained from the six groundwater monitoring wells have been analyzed for total chromium and hexavalent chromium. The Alisto 1998 and 1999 reports summarized the groundwater analysis as follows:

> *"Review of historical analytical data for groundwater samples collected from the PG&E monitoring wells and selected nearby irrigation water supply wells indicated that hexavalent chromium has not been detected above the method detection limit (MDL) of 0.01 mg/L since April 1994. Total chromium has also not been detected above the MDL or the practical quantitation limit (PQL) of 0.02 mg/L since August 1994."*

The CRWQCB concurred with this finding and approved the cessation of the groundwater monitoring program (CRWQCB, 1998). In the evaluation of the groundwater monitoring data,

CRWQCB staff indicated that sporadic detections of chromium at or slightly above the detection limit for the onsite wells was mostly associated with a lack of sample filtration. CRWQCB staff also attributed the "detection of chromium near the detection limit" for an offsite well to the same rationale.

Additional groundwater data, specifically chromium concentrations, for the general area of the subject property was obtained from:

> Duke Energy Avenal, LLC – Application for Certification California Energy Commission, Responses to January 24, 2002 Data Requests, February 25, 2002.

Response to Data Request No. 81, summarizes the groundwater quality with respect to chromium as follows:

> *"…Based on review of the Regional Water Quality Control Board's file on the compressor station, chromium contamination has been decreasing since 1988. Since that time, attenuation mechanisms have reduced the concentration of chromium to below detection limits. Exhibit 81-1 provides a summary of relevant data obtained from the Regional Water Quality Control Board's file for the compressor station. As shown in Exhibit 81-1, chromium concentrations have been low for the last 8 years or more, and during the last four years, none of the wells monitored have exhibited detectable chromium."*

Copies of selected records are provided in Appendix D.

5.2.3 California Environmental Protection Agency Department of Toxic Substances Control

The California Environmental Protection Agency Department of Toxic Substances Control (DTSC) was contacted to determine whether the subject property had any hazardous waste permits or had been investigated by the DTSC. The DTSC maintains records of these sites based on assigned street addresses. Since no street addresses have been assigned to the subject property, no records pertaining to the proposed linear facility corridors were identified in the DTSC files.

5.2.4 San Joaquin Valley Air Pollution Control District

The SJVAPCD regulates the air quality in the area of the subject property. The SJVAPCD maintains records of these sites based on assigned street addresses. Since no street addresses have been assigned to the subject property, no records pertaining to the proposed linear facility corridors were identified in the SJVAPCD files.

5.2.5 California Department of Conservation, Division of Oil, Gas

Numerous areas of Southern California produce oil and gas from commercially viable fields. Over the past century, large numbers of commercial development and wildcat exploration wells have been drilled throughout the area. Improperly drilled or abandoned wells present potential hazards from gas seeps and other concerns may exist due to hazardous material handling during well construction.

TRC searched the DOGG website (www.consrv.ca.gov) to determine if petroleum exploration activities had occurred in the vicinity of the property. The property is not located within a known oil field and no oil production wells or dry holes were identified in the vicinity of the subject property (Reference: Wildcat Map W5-1). The oil production-related features were two dry holes (WE Strangman 33, and Tiger Oil Co. 'Redman-Bossana'1-30) located approximately ½ a mile south of the subject property (within Section 30, T21S, R18E, MDB&M), and one dry hole (Flynn Energy Corp. 'Bravo 11-1') located approximately ½ mile northeast of the proposed electrical transmission corridor (within Section 11, T21S, R17E, MDB&M).

6.0 SUBJECT PROPERTY RECONNAISSANCE

6.1 METHODOLOGY AND LIMITING CONDITIONS

TRC performed a visual inspection of the subject property on August 12 and 13, 2008. Photographs are presented in Appendix E. No quantitative field activities were conducted during the site inspection for the Phase I ESA.

6.2 GENERAL SITE SETTING

The proposed Avenal Energy power plant site will be located off of Avenal Cutoff Road, on the northeast ¼ of Section 19, Township 21 South, Range 18 East, MDB&M, in the City of Avenal, Kings County, California.

- The proposed gas pipeline route will extend from the northwestern corner of the proposed Power Plant site southwest along Avenal Cut-Off Road for a distance of approximately 7,000 feet, then south along a dirt road to Plymouth Avenue for a distance of approximately 2,000 feet, then east along Plymouth Avenue for a distance of approximately 600 feet, and then south along the eastern boundary of PG&E Kettleman Compressor Station for a distance of approximately 2,000 feet.

- The proposed Water Pipeline 18-1 extends from existing groundwater Well 18-1 and follows a dirt road adjacent to the San Luis Canal south to existing Well 18-4, then continues south and then east along the edge of an existing orchard to the proposed power plant site. The proposed water line 24-5 extends north from existing well 24-5 to Avenal Cutoff Road (a distance of approximately 400 feet), then along Avenal Cutoff Road for a distance of approximately 3,000 feet to the proposed power plant site.

- The proposed electrical transmission lines will exit the southeast corner of the proposed power plant site, generally following a dirt road approximately 2,500 feet in a southerly direction, and then turning east onto Pueblo Road (unpaved road) until reaching an existing PG&E regional electric power transmission line corridor. The proposed transmission line will then parallel the existing electric transmission line corridor in a northwestern direction over a distance of approximately 5 miles to the PG&E Gates Substation on the north side of Jayne Avenue near the City of Huron. Along its proposed route, the transmission line crosses from Kings County into Fresno County.

6.3 OBSERVATIONS

The following are descriptions of the general observations made during the site reconnaissance at the subject property.

6.3.1 General Observation of Buildings and Subject Property Operations

Proposed Gas Line
The proposed gas line will be installed below grade along existing dirt roads or paved roads. The southern portion of the proposed gas line will be located east of the PG&E Kettleman Compressor station. The eastern portion of the PG&E station was used for residential purposes, according to maps obtained from the CRWQCB. No environmentally sensitive operations were identified to have historically been conducted near the proposed alignment. The former unlined ponds where chromium releases were documented were located approximately three hundred feet from the closest portion of the proposed gas pipeline route (see maps in Appendix D). It is unlikely that the past chromium release from the ponds would have affected soils to be excavated during gas pipeline construction.

Proposed Water Supply Lines
The proposed water lines will be installed below grade along existing dirt roads or paved roads and connect existing groundwater wells to the proposed power plant. The existing groundwater wells are not owned by the Client. Water will be supplied by the well owner. Diesel engines which power the pumps associated with the supply wells are owned by the well owner.

Proposed Electric Transmission Line
The proposed electric transmission line will be installed above grade through agricultural properties partially along existing dirt roads and partially along an existing high-voltage transmission line corridor. Near the southwest corner of Goodrich Street and Modoc Street, the proposed electric transmission line will cross the farm headquarter operations formerly operated by Carberry Farms. Carberry Farms was recently sold. The proposed electric transmission line will cross over the southwestern or western portion of the former Carberry Farms headquarter operations.

At the time of the subject property inspection performed on August 12 and 13, 2008, the western portion of the Carberry Farms headquarter was used primarily as open storage or for vehicle parking. TRC staff was not able to access this farm headquarter area and observations of this area were made from the outside of the fence surrounding this property. Three polyethylene Baker tanks were observed at the northwest corner of the farm headquarters property. The content of the Baker tanks could not be determined based on information derived during the course of this investigation. Several small to large storage sheds were observed throughout the area. Empty chemical containers were located on large trailers towards the southwestern portion of this area. Three large above-ground fuel storage tanks, surrounded by a secondary containment berm, were located toward the east-central portion of this property. Within the central portion of the property, TRC observed a large canopy structure, covering a concrete pad. Several drums, smaller containers and above-grade storage tanks were observed on and around this area.

Based on interview conducted with Mr. Fred Olmstead of Carberry Farms, TRC was informed that the farm had been recently sold and that an environmental site assessment was performed as part of the real-estate sale. TRC requested information from this site assessment but as of the date of this report has not received a reply to our request for additional information regarding potential environmental records associated with this property. During the site inspection, TRC observed soil staining on the western part of the Carberry Farms Headquarter area, as visible from the fence.

Toward the southwestern portion of the proposed electric transmission line corridor, the power lines may cross the southwestern portion of the Kochergen Farms Composting facility.

6.3.2 Use of Hazardous Substances and Petroleum Products

With the exception of items noted on the Carberry Farms Headquarters area, no use or storage of hazardous materials or petroleum products was observed on the subject property at the time of the site inspection.

6.3.3 Waste Management and Disposal

TRC did not observe any generation of hazardous waste at the subject property.

6.3.4 Hazardous Substance Containers

Underground Storage Tanks

No visual evidence (i.e. pipes, vents, pumps, and stains) indicating the presence of USTs was apparent on the subject property. In addition, historical records review and the regulatory records review did not indicate evidence of the current or historical presence of USTs on the subject property.

Aboveground Storage Tanks

No ASTs were observed on the subject property, at the time of the site inspection, except for the three Baker tanks and three above-ground fuel storage tanks observed at the Carberry Farms Headquarter area. The contents of the Baker tanks were not determined during the course of this investigation.

Clarifiers and Sumps

No clarifiers or sumps were observed on the subject property at the time of the site inspection. In addition, no indications of the current or historical presence of clarifiers or sumps were observed in regulatory files reviewed as a component of this investigation.

6.3.5 Polychlorinated Biphenyls

Polychlorinated biphenyls (PCBs) are industrial chemicals widely used for their heat transfer properties. These substances were used in electrical transformers, hydraulic fluids and electrical equipment such as fluorescent light ballasts. PCBs are stable compounds that persist in the environment after a spill or improper disposal. Since 1978, the use of PCBs has been prohibited in most products. Fluorescent light ballasts manufactured since that time must state that they contain no PCBs.

No electrical equipment suspected of containing PCBs was observed at the subject property at the time of the site inspection.

6.3.6 Wells

With the exception of the groundwater supply wells discussed in Section 2.1, no other groundwater monitoring or production wells were identified on the subject property during this investigation.

6.3.7 Other Conditions of Concern

In accord with the ASTM standard, TRC made the following observations. Except as previously noted:

- TRC observed no evidence of significant staining at the subject property at the time of the site reconnaissance.
- TRC observed no evidence of pits, ponds and/or lagoons at the subject property at the time of the site reconnaissance;

- TRC noted no evidence of strong, pungent or noxious odors on the subject property at the time of the site reconnaissance; and

- TRC observed no evidence of stressed vegetation at the subject property at the time of the site reconnaissance.

- Asbestos containing materials, lead-based paint, mold, and radon are outside the scope of ASTM Phase I practice and outside the scope of this report. However, it is noted that these out-of-scope topics do not appear to be relevant to the subject property, based on the observations of the subject property that were made for this Phase I, and the nature of the intended use of the subject property for utility the described utility corridors.

6.4 INTERVIEW WITH OWNER, SUBJECT PROPERTY MANAGER OR OCCUPANTS

For this Phase I ESA, TRC interviewed Mr. Fred Olmstead, of Carberry Farms. Mr. Olmstead indicated that Carberry Farms has been in operation since the 1940s. The area to the southwest of Modoc and Goodrich streets were used as the headquarters for farm operations. Historically, this area was used to store farm equipment, farm chemicals and fuels. Mr. Olmstead indicated that all material was stored above-grade and that no underground storage tanks had been installed in this area.

The farm chemicals are reportedly stored in this area and transferred into the truck-mounted spray equipment for field application. Mr. Olmstead indicated that rinsing of mobile spray containers involved the transfer of rinsate from one piece of truck mounted equipment to another. Mr. Olmstead indicated that there was no wastewater discharged to the ground surface or to drainage pits.

Mr. Olmstead indicated that domestic wastes generated in this area are serviced by a septic system. He indicated that only the wastewater generated from residential areas or restrooms is connected to the septic tanks.

Two groundwater wells were observed in this area at the time of the site inspection. Mr. Olmstead did not retain any information regarding laboratory analysis of groundwater samples obtained from these groundwater wells.

Mr. Olmstead indicated that Carberry Farms had been recently sold. As part of the real estate transfer, Mr. Steve Muir, a geologist, conducted a site investigation concerning the overall farm. Mr. Olmstead provided contact information for Mr. Muir and TRC submitted a request for information related to environmental due diligence activities and/or investigation activities performed in support of this real estate transaction. As of the date of this report, TRC has neither received a reply to this request nor obtained any additional details regarding the possible availability of environmental assessment reports or data.

6.5 INTERVIEW WITH LOCAL GOVERNMENT OFFICIALS

No open regulatory issues were identified for the subject property during this Phase 1 ESA. Consequently, no local government officials were interviewed as a component of this investigation.

6.6 INTERVIEW WITH OTHERS

With the exception of the interview summarized in Section 6.4, no other individuals were interviewed as a component of this investigation.

7.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

7.1 SUMMARY

TRC performed this Phase I ESA in conformance with the scope and limitations of ASTM E1527-05 for the proposed linear facility corridors from the proposed Avenal Energy electric generating plant to be located south of Avenal Cutoff Road in Avenal, California. The linear corridors associated with the power plant will Include a proposed gas pipeline, a proposed electric transmission line, and two proposed water lines. The locations of these facilties are shown in Figures 1, 2, 3 and 4. The following is a summary of our findings from this and previous investigation activities:

- The review of the historical records indicated that the area surrounding the linear facility corridors are almost exclusively agricultural lands and public rights-of-way. The PG&E Kettleman Compressor Station occurs near the south end of the proposed gas pipeline and has been in operation since 1929. The PG&E Gates Substation occurs at the north terminus of the proposed electric transmission line and has been in operation since at least the 1950s. The San Luis Canal of the California Aqueduct occurs adjacent to Water Line 18-1 and was constructed in the late 1960s. The City of Avenal Water Treatment Plant occurs near the south end of Water Line 18-1 and was constructed in the mid 1970s.

- At the southwestern corner of the intersection of Modoc and Goodrich Streets, the proposed electric transmission line will cross a portion of the Carberry Farms Headquarter area. This area has been used as the headquarters for the Carberry Farms field operations since the 1940s. Historically, this area was used to store farm equipment, to store and transfer farm chemicals to rinse mobile spray containers, and to store and transfer fuels for farm operations. Based on an interview with Mr. Olmstead of Carberry Farms, all material was stored above-grade and no underground storage tanks have been present in this area. Mr. Olmstead indicated that there was no wastewater discharged to the ground surface or to drainage pits, except for domestic waste discharged to a septic system.

- TRC did not access the Carberry Farms Headquarters property, but made observations from outside of the fence line. At the time of the subject property inspection, the western portion of the Carberry Farms Headquarters was used for vehicle and trailer parking. The observed trailers were used for storage of empty farm chemical containers. Three above-ground fuel storage tanks, surrounded by a secondary containment berm, were observed on this property. Three Baker Tanks were located at the northwest corner of the Carberry Farms Headquarters, in the vicinity of the proposed electric transmission line corridor. TRC was unable to determine the contents of these tanks. TRC observed soil staining on the western part of the Carberry Farms Headquarter area visible from the fence. The Carberry Farms property recently sold and reportedly, an environmental site assessment was conducted. TRC attempted to obtain further information, but has not received any response.

- The PG&E Kettleman Compressor Station (PG&E site) is located at 34453 Plymouth Avenue, immediately west of the southern part of the proposed gas pipeline. Regulatory agency records reviewed as a component of this investigation indicate that a chromium-based corrosion inhibitor was added to the cooling tower makeup water between 1959 and 1979. Process wastewater, consisting primarily of cooling tower blowdown, was previously discharged to unlined ponds. Groundwater monitoring was performed to evaluate the concentrations of chromium in groundwater associated with the discharge of cooling tower blowdown to the former unlined ponds. In 1998, the CRWQCB approved cessation of the groundwater monitoring program. This CRWQCB case was closed in 2001. Based on CRWQCB records, the proposed gas pipeline route at its closest point is located approximately three hundred feet from the location of the unlined ponds where chromium is known to have been released. It is unlikely that the past chromium release from the ponds would have affected soils to be excavated during gas pipeline construction.

- With the exception of historical and current operations associated with the Carberry Farms Headquarters for field operations, no other use or storage of hazardous materials or petroleum products was observed at the subject property at the time of the inspection.
- TRC did not observe any generation of hazardous waste at the subject property.

- No underground storage tanks, clarifiers or sumps were observed on the subject property at the time of the site inspection.

7.2 CONCLUSIONS AND RECOMMENDATIONS

TRC performed this Phase I ESA in conformance with the scope and limitations of ASTM E1527-05 for the proposed linear facility corridors associated with the Avenal Energy electric generating plant to be located south of Avenal Cutoff Road in Avenal, California. The linear corridors consist of the locations of proposed subsurface natural gas and water supply lines and above-ground electric transmission lines. The natural gas and water supply lines will be located exclusively within the City of Avenal in Kings County, except for a short segment of one water

pipeline that will extend marginally into unincorporated Fresno County. The proposed electric transmission lines will be located partly in the City of Avenal in Kings County and partly in unincorporated Fresno County.

A "recognized environmental condition" (REC) is defined by ASTM as the "presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property." A "historical recognized environmental condition" (HREC) is defined by ASTM as an "environmental condition which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized environmental condition currently."

TRC's assessment revealed no evidence classified as a REC or a HREC associated with the subject property, except for the following:

- The proposed electric transmission line will cross the western portion of the Carberry Farms Headquarters, located at the southwest corner of Modoc and Goodrich streets. No definitive information indicating the presence of contamination on this property was identified during the course of this investigation. However, historical storage, use, and dispensing of fuels, pesticides, or other hazardous substances on this property may have adversely impacted soil, and some soil staining was observed from outside the facility fence line. This property was recently sold and, reportedly, an environmental site assessment was conducted in conjunction with this sale. TRC attempted to obtain further information on this reported investigation but, to date, has not received any response. This investigation may provide evidence as to whether or not this property has been impacted by a hazardous material release. Without such evidence, the storage, use and handling of chemicals and petroleum products over an extended period of time at this property, and the observation of soil staining, is considered a potential REC.
- Information provided by the Client indicates that the transmission line planned to cross the Carberry Farms Headquarter property will be an overhead line with support poles on approximately 800 foot spacing. With spacing of this order of magnitude, it may be possible to design the transmission line to span this property without placing poles in it or otherwise disturbing the soils. Alternatively, if one or more transmission line poles are to be installed on the Carberry Farms Headquarters property or soils therein must be otherwise disturbed, it is recommended that additional investigation occur, unless data from a previous site investigation on this property can be obtained and indicates that required work can occur on the Carberry Farms headquarters property without disturbing soils that are impacted or likely to have been impacted by a past hazardous materials release.

8.0 DEVIATIONS

TRC has performed a Phase I ESA in conformance with the scope and limitations of ASTM E1527-05. There were no exceptions to, or deletions, from this method during performance of the Phase I ESA.

9.0 ADDITIONAL SERVICES

No additional services were provided as a component of this evaluation.

10.0 REFERENCES

Alisto Engineering (Alisto), 1998. Groundwater Monitoring and Sampling Report, April 1, to June 30, 1998, PG&E Kettleman Compressor Station, July.

Alisto, 1999. Groundwater Monitoring and Sampling Report 1999, PG&E Kettleman Compressor Station, October.

Alisto, 2006. Closure Certification Report, - Class II Surface Impoundments, PG&E Company Kettleman Compressor Station, January.

Avenal Power Center, LLC., Application for Certification for Avenal Energy, Submitted to the California Energy Commission, February 2008.

California Environmental Protection Agency Department of Toxic Substances Control, Envirostor web-site search, August 2008.

California Regional Water Quality Control Board, Central Valley Region, records review.

Environmental Data Resources, Incorporated (EDR), Data Map Corridor Study, Inquiry No. 02286049, August 7, 2008.

Fresno, County of, Public Works and Planning Department, records review, August 2008.

Fresno County, Department of Environmental Health, telecon, 2008.

Kings County, Department of Environmental Health, telecon, 2008.

Kings County Agricultural Commissioner, Hanford, Aerial Photographs and Topographic Map reviews, August 2008

San Joaquin Valley Air Pollution Control District, telecon, 2008.

TRC, 2001: Phase I Environmental Site Assessment for Property at: Northeast ¼ Section 19, Township 21 South, Range 18 East, Avenal, California.

TRC, 2007: Phase I Environmental Site Assessment for Property at: Northeast ¼ Section 19, Township 21 South, Range 18 East, Avenal, California, October 30.

Various referenced reports

11.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

TRC's program manager for this assignment was Mr. J. Todd Stanford. Mr. Stanford is a Principal Scientist with TRC. Mr. Stanford has been a State of California Registered Environmental Assessor (REA) since 1991, and has more than 18 years of environmental consulting experience. In his career, Mr. Stanford has prepared and reviewed hundreds of environmental due diligence evaluations including Phase I ESAs and Environmental Transaction Screen reports for property transactions. In addition, Mr. Stanford has performed environmental assessment and remediation of several hundred environmentally impacted properties throughout the United States.

The site inspector and principal report author was Ms. Carole Missirlian, P.E. Ms. Missirlian has 20 years of experience, including performing hundreds of Phase I ESAs, Environmental Transaction Screen reports and similar environmental assessments of commercial, industrial, and residential buildings and of vacant lands. Ms. Missirlian has extensive experience in conducting remedial investigations and providing analysis of site-specific environmental regulatory issues. She is a State of California Professional Engineer (Civil) and a State of California REA.

J. Todd Stanford, REA, REHS, CEM
Principal Scientist – Project Director

REGISTRATION

Registered Environmental Assessor, No. 03742, State of California
Registered Environmental Health Specialist, No. 6183, State of California
Certified Environmental Manager, No. 1814, State of Nevada

AREAS OF EXPERTISE

- **PROGRAM AND PROJECT MANAGEMENT**
- **ENVIRONMENTAL SITE ASSESSMENT**
- **RISK-BASED CORRECTIVE ACTION**
- **REGULATORY NEGOTIATION**
- **SOIL AND GROUNDWATER REMEDIATION**

PROFESSIONAL EXPERIENCE

Mr. Stanford has over eighteen years experience in environmental sciences encompassing site assessment, soil and groundwater remediation, pharmacology, risk assessment, occupational health and safety, and air toxics. Mr. Stanford is a Principal Scientist responsible for coordination, promotion, and technical supervision of Phase I and Phase II environmental site assessments, remedial project design and implementation, human and environmental risk assessments, preliminary endangerment assessments, public health and environmental evaluations (PHEE), and environmental fate modeling of chemicals in soil, groundwater, and air. Additional responsibilities include the development and application of health-based remediation goals and development of risk management alternatives for sites impacted by petroleum fuels, pesticides and herbicides, chlorinated solvents, heavy metals, and polynuclear aromatic hydrocarbons. Mr. Stanford has had extensive involvement with underground storage tank facilities, chemical production, bulk storage facilities, manufactured gas plant sites, agricultural chemicals and pesticides, general industrial and manufacturing facility environmental compliance activities, State and Federal Superfund site and risk assessments, Proposition 65 interpretation and risk assessments, and AB 2588 comprehensive and screening assessments. He has served on the Scientific Advisory Board for California AB 2588, CSUN Center for Risk Communication and Management, and the Private Site Management Advisory Committee for AB 1876. His expertise also has been called upon in support of legal issues involving fate and transport and human health effects resulting from exposures to toxic chemicals.

RELEVANT PROJECT EXPERIENCE

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY (METRO). *Multiple Sites – Remedial Investigation, Remedial Action Planning, Regulatory Negotiations.* Serves as Project Director of a five-year exclusive environmental engineering contract with Metro for a variety of facilities including bus and rail maintenance divisions, dedicated bus and Light Rail alignments, and support facilities. Environmental engineering services provided

to METRO include geotechnical evaluation of proposed improvements, underground storage tank compliance and inspection programs for twenty-two operating bus and rail facilities, Stormwater Management Program development and implementation at thirty industrial facilities and ongoing construction-related activities, environmental due diligence associated with the acquisition of properties for expansion bus and light rail services, environmental assessment of soil and groundwater impacts, development of Remedial Action Plans, engineering design and specifications development for remedial actions, methane gas mitigation, regulatory communications and negotiations for assessment and remediation programs, and air quality permitting and program management.

HONOLULU HARBOR WORKING GROUP, Honolulu, Hawaii. *Data Evaluation and Conceptual Site Model Development, Risk Assessment, Database Development and Implementation of Geographical Information System:* Project Manager for a multi-party PRP group for an area with regional impacts of petroleum hydrocarbons to soil and groundwater and elevated levels of methane gas in the subsurface. Activities conducted include completion of conceptual site model of fate, transport, and human and ecological exposure pathways, calculation of health-based screening levels for chemicals of potential concern, and evaluation of vapor sampling for methane gas speciation via to evaluate potential mitigation and control mechanisms for methane gas and residual petroleum hydrocarbons, and development of comprehensive database platforms for GIS application.

LOCKHEED MARTIN CORPORATION, Torrance, California. ***Risk Assessment.*** Directed risk assessment of chlorinated and aromatic hydrocarbons in groundwater associated with a former aerospace facility. Potential exposure pathways evaluated included vapor intrusion into indoor air under current and anticipated future site conditions and hypothetical future residential use of groundwater. The results of the risk assessment were incorporated into the Corrective Measures Study for impacted groundwater.

CITY OF MONTEREY, Monterey, California. *Site Assessment, Risk Assessment, Community Relations Plan Development and Communication, and Remedial Design:* Project Manager for a comprehensive site assessment, risk assessment, and remedial design for a former manufactured gas plant site located in Monterey, California. The investigation evaluated potential constituents of concern related to former facility operations, design of statistical sampling plan, completion of a human health risks assessment involving current and potential future exposures related to property development, and generation of remedial design parameters. Obtained project approval for site development from the California Department of Toxic Substances Control, Regional Water Quality Control Board, and City of Monterey Environmental Health Department.

PROPOSED MINE SITE, Chubut Province, Argentina. *Risk Assessment.* Conducted a qualitative evaluation of risk to human health and the environment associated with the construction and operation of a proposed mine site. Activities evaluated with regard to probability and consequence included transport of hazardous substances during mine operation, plant operations and process-related activities, impoundment and sterile rock pile facilities, and onsite use of hazardous substances. Risk management measures were identified for activities associated with the greatest potential risk probability and consequence.

MANUFACTURING AND INDUSTRIAL FACILITIES, California. *Environmental Compliance.* Areas of responsibility include the development implementation of a comprehensive, multi-media environmental compliance program involving the following program areas: hazardous waste profiling, manifesting, and tracking; industrial wastewater treatment system monitoring and reporting; air permitting and related compliance activities (including Title V and RECLAIM programs); EPCRA reporting; RMPP compliance; and Stormwater Pollution Prevention Planning, implementation, and reporting. Other activities performed include interfacing with various regulatory agencies including the State Board of Equalization, Air Pollution Control Districts, Sanitation and Industrial Wastewater Discharge agencies, US Environmental Protection Agency, Regional Water Quality Control Boards, development of source testing requirements for various sources of air pollution, preparation of air permit applications and amendments to Title V permits, identification of hazardous waste source reduction alternatives, and general facility compliance with community right-to-know regulations, and litigation support.

AEROSPACE COMPANY, Riverside, California. *Air Dispersion Modeling/Health Risk Assessment*: Project manager for aerospace company with multiple fugitive and area emissions sources. Chemicals for which emissions inventories were completed included chlorinated hydrocarbons and hexavalent chromium. Air dispersion modeling results used to quantify potential offsite health risks and to evaluate appropriate risk management alternatives and to reduce potential corporate liability.

MONTROSE CHEMICAL COMPANY, Torrance, California. *Risk Assessment and Site Assessment:* Environmental scientist involved in the evaluation of potential human exposures to residual DDT, DDD, and DDE in soil, groundwater, and sediments for a federal Superfund site. Evaluated available human and animal toxicological data, screened environmental fate mechanisms, provided input regarding site assessment data acquisition, and developed health-based remedial action levels for residual DDT, DDD, and DDE in soil and groundwater.

CONFIDENTIAL CLIENT, Central California. *Site Assessment, Fate and Transport Modeling, Health Risk Assessment, Remedial Design:* Project manager for a former pesticide and fertilizer bulking facility located in an agricultural area of Central California. Historical dumping of bulk pesticides including ethylene dibromide (EDB), dichloropropane (DCP) and dibromochloropropane (DBCP) into an unlined wash basin created a plume of pesticides in soil and perched groundwater that threatened a municipal water well. Remedial investigations focused on establishing health based remedial goals for soil and groundwater that are protective of the underlying utilized aquifer and allow for residential development of the adjacent property. The selected remedial alternative included both limited remedial excavation of impacted soil and groundwater plume control. An additional component of this project was to successfully defend a border zone determination claim which could have prevented residential development and occupancy of the surrounding planned community.

FORMER CANNERY, Honolulu, Hawaii. *Environmental Due Diligence, Site Assessment, Remedial Investigation, Fate and Transport, Risk Assessment:* Completed a comprehensive evaluation of the presence and distribution of multiple chemicals in soil and groundwater beneath a

former cannery. Chemicals evaluated included substituted benzene compounds and polynuclear aromatic hydrocarbons. Conducted an analysis of the potential fate and transport potential of chemicals in groundwater and evaluated potential onsite and offsite health risks associated with direct contact and inhalation of chemicals during and after site development and specified vapor control criteria for volatile compounds and methane gas.

KINDER-MORGAN ENERGY PARTNERS, Southern California. *Environmental Site Assessment, Remedial Action Planning, Risk-Based Closure Evaluation, Regulatory Negotiations*. Project Director for bulk storage plants located in San Pedro and Carson, California. Activities included environmental site assessment, human and screening level ecological risk evaluation and derivation of site-specific remedial criteria, remedial action planning, and regulatory negotiations related to the closure and redevelopment of a 13-acre facility for proposed residential uses. Provided services to support remediation goals that are consistent with WDR limits and associated regulatory negotiations to support site closure. Project conducted on behalf of the oil pipeline company with oversight by the Los Angeles Regional Water Quality Control Board. Interfacing closely with Kinder Morgan and a private real estate developer on a proposed residential end use for the Site.

UNOCAL CORPORATION, Fullerton, California. *Human Health Risk Assessment and Professional Consulting:* Evaluated baseline site assessment information, conducted screening health risk evaluation and rendered a professional opinion as to the potential impacts of residual DDT, DDD, and DDE in surficial soil on future liability, developability or land use restrictions. The low concentrations of organochlorine pesticides identified in near surface soil are consistent with the historical use of pesticides in an historically agricultural area. In addition, the residual concentrations are below levels which would pose a significant risk to human health and the environment and do not adversely impact future site use considerations. The final recommendation was that no further assessment or remediation were warranted and property divestment can proceed.

METAL FINISHING COMPANIES, California. *Industrial Hygiene, Health and Safety, Environmental Compliance, Emissions Evaluation, Dispersion Modeling.* Evaluated exposures to personnel working near open process tanks containing phosphoric, nitric, and sulfuric acids, nickel, tin , copper, and hexavalent chromium. Evaluated general and specific requirements with air emissions from degreasing solvents (e.g., perchloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane), anodizing and etching, and electro and electro-less plating of nickel, chromium, copper, tin, silver, and gold. Reviewed source testing results and evaluated emissions estimates based on normalized facility-specific indices and conducted screening level risk evaluations. Assisted in optimizing wastewater treatment system efficiency, identification of source reduction alternatives, and general facility compliance with worker and community right-to-know regulations. Prepared variance request to demonstrate facility compliance with Federal NESHAPs standards for hexavalent chromium. Areas of consultation included eye and face protection, hearing conservation, confined space, lockout/tagout, foot protection, respiratory protection, operation of industrial trucks, and IIPP implementation.

UNOCAL CORPORATION, Brea, California. *Methane Gas Monitoring, Sampling, and Reporting.* Conducted regular monitoring of methane gas levels and pressures in subsurface monitoring wells associated with a former oil field that was converted to a residential development. Methane gas monitoring was conducted in order to determine the effectiveness of methane gas mitigation and control measures following cessation of active gas control measures.

MANUFACTURING AND INDUSTRIAL FACILITIES, California. *Site Assessment, Remedial Investigation and Implementation, Risk Assessment.* Managed several projects involving halogenated hydrocarbons including 1,1,1-trichloroethane, perchloroethylene, trichloroethylene, methylene chloride and degradation products thereof. Activities ranged from assessment and remedial design, analytical fate and transport evaluation of dissolved-phase compounds, remedial implementation and optimization, air and water permitting, and implementation of post-remediation monitoring at active and inactive facilities.

UNOCAL CORPORATION, Multiple Sites, California. *Site Assessment, Remedial Design, and Remedial Implementation:* Project Manager for multiple sites within Southern California, including three sites located within the Charnock Sub Basin. Representative work scope included development and implementation of site assessment methodologies and procedures, workplan development, site assessment documentation, oversight of waste handling and characterization, remedial testing including slug, aquifer pump, and vapor extraction testing, feasibility study preparation, remedial action planning, engineering design and specification, regulatory negotiations, and oversight of ongoing activities including remediation system operation and maintenance, fluid level monitoring, and groundwater sampling.

CITY OF RIVERSIDE, Riverside, California. *Due Diligence and Site Assessment.* Project manager for right-of-way acquisition and grade separation project within the City of Riverside. Performed environmental due diligence associated with property acquisitions. Completed Phase I investigations, subsurface assessment and evaluation, remedial alternatives cost analysis, and asbestos surveys.

MAINE YANKEE NUCLEAR POWER PLANT, Maine. *Risk Assessment:* Project Manager responsible for development of a radionuclide ranking scheme for air and water emissions resulting from nuclear power plant operation. Ranking scheme based on mass emissions, persistence, bioaccumulative and biomagnification potential, and frequency of release for routine and emergency emissions of radionuclides.

GATRON INDUSTRIES AND UNITED STATES DEPARTMENT OF DEFENSE, Tustin, California. *Risk Assessment:* Project Manager for a comprehensive human health risk assessment of JP-5 in soil released from a transfer pipeline in Tustin, California. The assessment evaluated the toxicological properties associated with JP-5 and developed a dose-response relationship for potential human exposures. Environmental fate modeling was conducted to determine if jet fuel hydrocarbons may impact groundwater. Clients included Gatron Industries, Inc. and the United States Department of Defense.

MOBIL OIL CORPORATION, Multiple Locations, California. *Risk Assessment*: Project Manager for evaluation of vapor and multi-pathway risk assessment of subsurface impacted soil and groundwater at former oil production, bulk storage, pipeline, and retail petroleum facilities in California. Typical project activities include assessment of environmental fate/transport analysis, toxicological evaluation of aromatic hydrocarbons (e.g., benzene, toluene, ethylbenzene, and total xylenes), polynuclear aromatic hydrocarbons (PAHs), metals, and various refined hydrocarbon distillates, and completion of human health and screening level ecological risk assessments to support determination of health-based target remedial goals. Additional consulting services include litigation support, expert witness testimony, and forensic evaluations to support source identification.

CHEVRON U.S.A., INC., Multiple Locations, Arizona and California. *Site Assessment, Remedial Investigation, and Risk Assessment*: Project Manager for various projects involving the refined petroleum hydrocarbons in soil and groundwater. Developed assessment plans, evaluated and completed fate and transport evaluations of chemicals in soil, groundwater, and air and completed multi-pathway risk assessments. Projects involved assessment of environmental fate/transport analysis, toxicological evaluation of BTEX and diesel, quantification of potential health risks, and determination of health-based target remedial goals.

TEXACO REFINING AND MARKETING, **Multiple Locations, California.** *Risk Assessment*: Project Manager for evaluation of vapor and multi-pathway risk assessment and environmental fate modeling of subsurface impacted soil and groundwater at retail petroleum sites in California. Projects involved assessment of environmental fate/transport analysis, toxicological evaluation of BTEX and diesel, quantification of potential health risks, and determination of health-based target remedial goals.

CITY OF BURBANK, Burbank, California. *Risk Assessment and Public Communication.* Project director for the City of Burbank to evaluate compliance of the Lockheed B-1 Vapor Extraction System with the Conditional Use Permit issued by the City. Activities performed include collection and analysis of verification samples of system air emissions, evaluate calibration of in-line VOC detectors and programmable logic controllers, completion of weekly and quarterly health risk assessments based on facility emissions, and develop and maintain a webpage of facility operational data.

UNOCAL CORPORATION, Multiple Locations, California. *Site Assessment, Remedial Investigation, Risk Assessment:* Project Manager for multiple sites in California including former retail petroleum outlets, oilfields, chemical production plants, bulk storage facilities, and developed properties. Projects involved development of assessment and sampling strategies, completion of field activities, evaluation of transport potential, forensic evaluation of refined and unrefined hydrocarbons, vadose and saturated zone modeling, toxicological evaluations gasoline, diesel fuel, crude oil, residual pesticides, and chlorinated solvents, quantification of potential health risks and determination of health-based target remedial goals and selection, implementation, and operation of active and passive remediation systems and mitigation approaches.

SIGNET ARMORLITE, **San Marcos, California.** *Air Dispersion Modeling/Risk Assessment:* Project Manager for evaluation of potential health risks associated with airborne facility emission of chlorinated hydrocarbons from fugitive and stack emissions. Evaluated potential receptor point concentrations, derived appropriate health-protective exposure levels, and developed and implemented community relations programs.

SIMPSON PAPER COMPANY, Various Locations, California. *Human and Ecological Risk Assessment and Industrial Hygiene.* Evaluated human and environmental health risks through exposure to polychlorinated dioxins and furans. Industrial hygiene activities included evaluation of particle size distribution of airborne particulates and evaluation of total body burden of dioxins and furans. Human health risk evaluation included exposures to milk, beef, water, fish, and ingestion and direct contact with water. Ecological risks evaluated included native predatory birds and aquatic and terrestrial species.

JORGENSEN STEEL, Lynwood, California. *Risk Assessment*: Project Manager for an industrial site located in Los Angeles, California. Investigation of human health effects associated with potential offsite and onsite exposure to polychlorinated biphenyls (PCBs), lead, copper, cadmium, and methylene chloride in surficial soils. Risk assessment was used to determine remedial and administrative options available for sale or transfer of the site.

COASTAL CORPORATION, Vernon, California. *Site Assessment, Risk Assessment and Remedial Action, Preliminary Endangerment Assessment*: Project Manager and Supervising Scientist for two projects involving the presence of heavy metals (lead, copper, cadmium, and zinc) in soil. Supervised project completion, regulatory interface, and development of mitigation alternatives for the metal-recycling facilities. Managed all aspects of project including environmental fate modeling of metals in soil, toxicological evaluations, community relations plan preparation, and exposure assessment, risk characterization, remedial action plan development, and negotiating site closure criteria.

UNION BANK OF CALIFORNIA, Multiple Locations, California. *Environmental Due Diligence*: Risk Assessment Manager for completion of environmental due diligence activities related to secured loans and real estate used as collateral for loan securitization. Due diligence activities conducted included preparation of Phase I Environmental Site Assessment reports and transaction screen reports for various commercial, manufacturing, and industrial properties within California. Evaluated potential impacts to properties resulting from current or historical activities and provided recommendations for additional data collection.

NIXON PEABODY, Various Locations, Western US. *Multi-Media Environmental Compliance Evaluations.* Project Manager for comprehensive multi-media compliance audits of several industrial manufacturing facilities located in the Western US. Compliance evaluations were performed subsequent to various acquisitions by a confidential parent company. TRC provided environmental compliance auditing services as related to hazardous and solid waste management, water and wastewater discharges, chemical management, air emissions and permitting, underground storage tanks, spill prevention and control, SARA Title III and EPCRA, OSHA, DOT, and TSCA.

KIRKLAND & ELLIS, Various Locations, Western and Central US. *Multi-Media Environmental Compliance Evaluations.* Project Manager for comprehensive limited environmental compliance audits of several food production and distribution facilities located in California and Texas. The environmental compliance evaluations were performed as a component of pre-acquisition due diligence. TRC provided environmental compliance auditing services as related to air emissions and permitting, underground storage tanks, spill prevention and control, ozone depleting substances, Risk Management Planning, SARA Title III and EPCRA, and Process Safety Management.

PROFESSIONAL AFFILIATIONS

Society for Risk Analysis
Air and Waste Management Association
National Environmental Health Association
CSUN Center for Risk Communication & Management

EDUCATION

M.S., Environmental Health, California State University (CSU), Northridge
B.S., Environmental and Occupational Health, (Minor: Cell and Molecular Biology), CSU, Northridge

OTHER TRAINING

40-Hour OSHA Hazardous Waste Health and Safety Training Course (CFR 1910.120)
8-Hour OSHA Hazardous Waste Health and Safety Training Course
8-Hour Health and Safety Program for Supervisors

PUBLICATIONS

Stanford, J.T. and R.E. Stultz. 1998. *Multiple Site Management via Risk Based Prioritization*. Proceedings of the International Petroleum Environmental Conference. Albuquerque, New Mexico, October.

Stanford, J.T. and G. McCue. 1997. "Risk Based Corrective Action and Inhalation of Vapors from Subsurface Contamination: Theory versus Reality". Poster Presentation at the Proceedings of the Seventh Annual Conference on Contaminated Soils & Groundwater. March 1997. Oxnard, California.

Baker, J., J.J Clark, and J.T Stanford, 1994, "Ex Situ Remediation of Diesel-Contaminated Railroad Sand by Soil Washing": Principles and Practices for Diesel Contaminated Soils, Lewis Publishers, Volume II.

Stanford, J.T., 1994, Risk Management for Metals in Soil: Proceedings of HAZMACON '94, San Jose, California, March 1994.

Stanford, J.T., 1994, Applications of Risk Assessment and Risk Management for UST Sites: Proceedings of the 1994 California Water Resources Control Board Underground Storage Tank Conference, San Diego, California, March, 1994.

Wiegand, J., J.T. Stanford, and W.H. Hunt, 1993, "Closure Technologies for California LUST Sites": Hydrocarbon Contaminated Soils and Groundwater, Lewis Publishers, Volume III.

Stanford, J.T. and R.J. Kofron, 1993, "Risk Management versus Clean at Any Cost": San Diego Business Journal, August 1993.

Baghdikian, S.Y., J.T. Stanford, W.T. Hunt, and J.W. Wiegand, 1992, Limitations of Pump-and-Treat Technologies in Remediating LNAPL: Proceedings of Association of Groundwater Scientists and Engineers Annual Conference, Las Vegas, NV, September 1992.

Sullivan, M.J. and J.T. Stanford, 1992, Estimating the Toxicological Properties of Tetramethyltetrahydrofuran through Structure Activity Relationships: Proceedings of Society of Toxicology Annual Meeting, February.

Stanford, J.T. and M.J. Sullivan, 1991, Determination of Allowable Risk for Occupational Exposures: A Comparison of TLV's and Standard 'De Minimis' Risk Levels: Proceedings of the Society for Risk Analysis Annual Convention. Baltimore, MD, December, 1991.

Stanford, J.T. and M.J. Sullivan, 1991, Evaluation of Exposure Pathways, Risks and Remedial Alternatives Associated with Soil Contamination at a Metal Scrap Yard: A Case Study: Proceedings of the Society for Risk Analysis Annual Convention, Baltimore, MD, December, 1991.

Stanford, J.T. and M.J. Sullivan, 1991, Calculation of Incidental Ingestion of Soil: A Methodology Based on Transfer Events: Proceedings of the Society for Risk Analysis Annual Convention, Baltimore, MD, December, 1991.

Stanford, J.T., M.J. Sullivan, and A.C. Kopf, 1991, Practical Results of Risk Assessments: Proceedings of the Industrial Environmental Association Environmental Compliance Conference, San Diego, California.

Sullivan M.J., A.C. Kopf, S.R. Custance, and J.T. Stanford, 1991, Toxicity Assessment of the Chemical Mixtures: JP-5, Crude Oil, Mineral Spirits and Diesel Fuel: Proceedings of the Society for Risk Analysis Annual Convention, Baltimore, MD, December, 1991.

Sullivan, M.J. and J.T. Stanford, 1991, Using Risk Assessment to Select Subsurface Remedial Action Plans: Proceedings of the Industrial Environmental Association Environmental Compliance Conference, San Diego, California, 1991.

Wright, C., J.T. Stanford, and D. Vensel, 1991, Air Toxics Risk Assessment - Human Health Risk Assessment and Air Dispersion Modeling: Proceedings of North Carolina Air Toxics Conference, February, 1991.

Stanford, J.T., 1990, Who Is Really Exposed?: Critical Issues in Air Risk Assessments: Proceedings of GTI Risk Driven Remediation Seminar, San Francisco, California, November.

Stanford, J.T., M.J. Sullivan, C.J. Miller, and P.A. McCaw, 1990, Setting Initial Safe Concentrations in an Unused Perched Zone to Protect a Drinking Water Aquifer: Proceedings of the Society for Risk Analysis Annual Convention, New Orleans, LA, October.

Stanford, J.T., M.J. Sullivan, and J.R. Hatherill, Human Health Risk Assessment Under AB 2588 for Air Emissions of Acetone, Freon 113 and Methylene Chloride*":* Ensol '90, Santa Clara, California, September, 1990.

Stanford, J.T., M.J. Sullivan, and J.R. Hatherill, 1990, Quantification of Non-Cancer Health Risks from Exposure to Facility Air Emissions of Acetone, Freon 113 and Methylene Chloride: Proceedings of the Society for Risk Analysis Annual Convention, New Orleans, LA, October.

Sullivan, M.J. and J.T. Stanford, 1990, Risk Associated with Potential Exposure to Dioxin through Consumption of Tea Brewed Using Tea Bags Containing Bleached Pulp": Chemosphere, Pergamon Press, England, Volume 20, 1990.

Carole Missirlian, PE, REA
Senior Civil Engineer

REGISTRATION Professional Engineer (Civil), California, No. 45994
California Registered Environmental Assessor, No. 06959

AREAS OF EXPERTISE

- **PROJECT MANAGEMENT**
- **ENVIRONMENTAL COMPLIANCE**
- **ENVIRONMENTAL DUE DILIGENCE**
- **SOIL AND GROUNDWATER INVESTIGATION AND REMEDIAL ACTION**

PROFESSIONAL EXPERIENCE

Ms. Missirlian has over eighteen years of professional experience in environmental management and environmental engineering. Her experience in the environmental field includes performance and project management of environmental site assessments including Phase 1 Environmental Site Assessments, Transaction Screens, investigations and remedial action at hazardous waste sites for both soil and groundwater. During her tenure with an international aerospace company staff, Ms. Missirlian prepared land for sale for numerous closed aerospace plants in Southern California. Ms. Missirlian has also prepared numerous applications for NPDES discharge permits, RCRA Part B storage and treatment permits and RCRA post-closure permits. In addition, she has obtained closure of permitted (Part B) storage facilities. Her work requires knowledge of environmental regulations such as RCRA, CERCLA, and California specific regulations such as the ones governing the Underground Storage Tanks.

RELEVANT PROJECT EXPERIENCE

VARIOUS SITES, California. *Property Transaction and Redevelopment:* Performed environmental due diligence for real property, including report review and evaluation of potential effects on properties potentially impacted by releases from hazardous waste sites. Performed numerous Phase I Environmental Site Assessments and Transaction Screen reports following ASTM standards for industrial/commercial properties, vacant land and apartment complexes.

HIGH RISE COMPLEX Westwood, California. *Prepared Closure Documentation:* Solicited the RWQCB to be the lead agency for the case and, after reviewing all publicly available files, prepared closure request within 30 days of project start-up. Closure from the RWQCB was received within three weeks after submitting documentation.

AEROSPACE COMPANY REAL ESTATE DEPARTMENT, Southern California. *Exit Strategy:* Provided environmental support for sale of various facilities or portion of facilities in Southern California. Managed all aspects of environmental disclosure and any required investigations and clean-ups of properties undergoing real estate transfer.

REAL ESTATE COMPANY, California. *Real Estate Assessment:* Manager of the Real Estate Assessment for a California environmental consulting firm. In addition to performing numerous assessments herself, Ms. Missirlian managed and provided technical guidance to staff in conducting Phase 1 environmental site assessments.

AEROSPACE COMPANY, El Segundo, California. *Site Closure and Sale:* Project Manager for demolition of a 50-acre manufacturing facility. Project included removal of all site improvements including buildings, above-ground tanks, registered underground tanks (42), clarifiers (12), sumps and miscellaneous containment structures (34), and underground piping. Obtained all necessary permits. Managed all aspects of environmental site restoration (soil and groundwater) and case closure by local and state environmental agencies, including closure of a permitted hazardous waste storage facility.

BROWNFIELD RESTORATION SITE, Los Angeles, California. *Site Closure*: Based on a review of all environmental investigations performed at the site by other consulting firms, negotiated on behalf of the Client, site closure with no further action. Site Closure was approved by the Regional Water Quality Control Board, Los Angeles Region, saving the Client over $400,000 (cost of clean-up proposed by another environmental consulting firm). No further clean-up or monitoring was necessary for the petroleum hydrocarbons left in place.

VARIOUS SITES, Southern California. *Investigation and Remedial Action:* Managed numerous Leaking Underground Fuel Tank (LUFT) sites in Southern California. Responsibilities included all aspects of assessments and remediation, including tank removal, workplans preparations, site clean-ups (soil and groundwater), groundwater monitoring and final closure reports. Negotiated all aspects of work to be performed with regulatory oversight agency.

VARIOUS SITES, California. *Permitting:* Prepared applications and obtained various permits from environmental agencies, including from California EPA Department of Toxic Substances Control RCRA operation permit, RCRA closures and RCRA post-closure permit for various hazardous waste management units; from California Regional Water Quality Control Board (RWQCB) NPDES discharge permits and storm water discharge permits; from the Los Angeles County Department of Public Works and the RWQCB tank closure certifications; and from the Air Quality Management District, Rule 1166 permits for excavation of VOC contaminated soil (including a permit for excavating 200,000 cubic yards of potentially VOC contaminated soil).

VARIOUS SITES, California. *Compliance Monitoring:* Performed compliance monitoring for various media and environmental regulations, specific to hazardous waste storage regulations, specific NPDES and RCRA permits, etc.

MARINE CORPS LOGISTICS BASE, Barstow, California. *RCRA/CERCLA:* Project Manager for conducting a RCRA Facility Assessment. Project consisted of an extensive site inspection and a thorough record search, including review of 15,000 engineering drawings, conducting over 50 interviews, review of all MSDSs for chemicals used at the Base, review of disposal records from on base DRMO office and studying aerial photographs obtained from 40 different years.

NAVY AND AIR FORCE BASES, California. *RCRA/CERCLA:* Participated in the preparation of several Workplans, Sampling and Analysis Plans, Quality Assurance Project Plans. Work was performed under State and EPA (CERCLA or RCRA) guidelines.

UNITED STATES ENVIORNMENTAL PROTECTION AGENCY, California. *RCRA/CERCLA:* Participated in the Technical Enforcement Support (TES IV) contract to the EPA. Acquired in-depth knowledge of Federal environmental regulations, including RCRA & CERCLA. On behalf of the EPA, performed RCRA compliance audits at Hazardous Waste Facilities & Federal Facilities.

CALIFORNIA STATE SUPERFUND, Fresno, California. Project Manager for a California State Superfund site in Fresno on behalf of a major aerospace company. Coordinated all activities, including: negotiating scope of investigations and interim remedial action, negotiating order from Cal-EPA Department of Toxic Substances Control, participation in PRP meetings, preparation of scopes of work and contract negotiations.

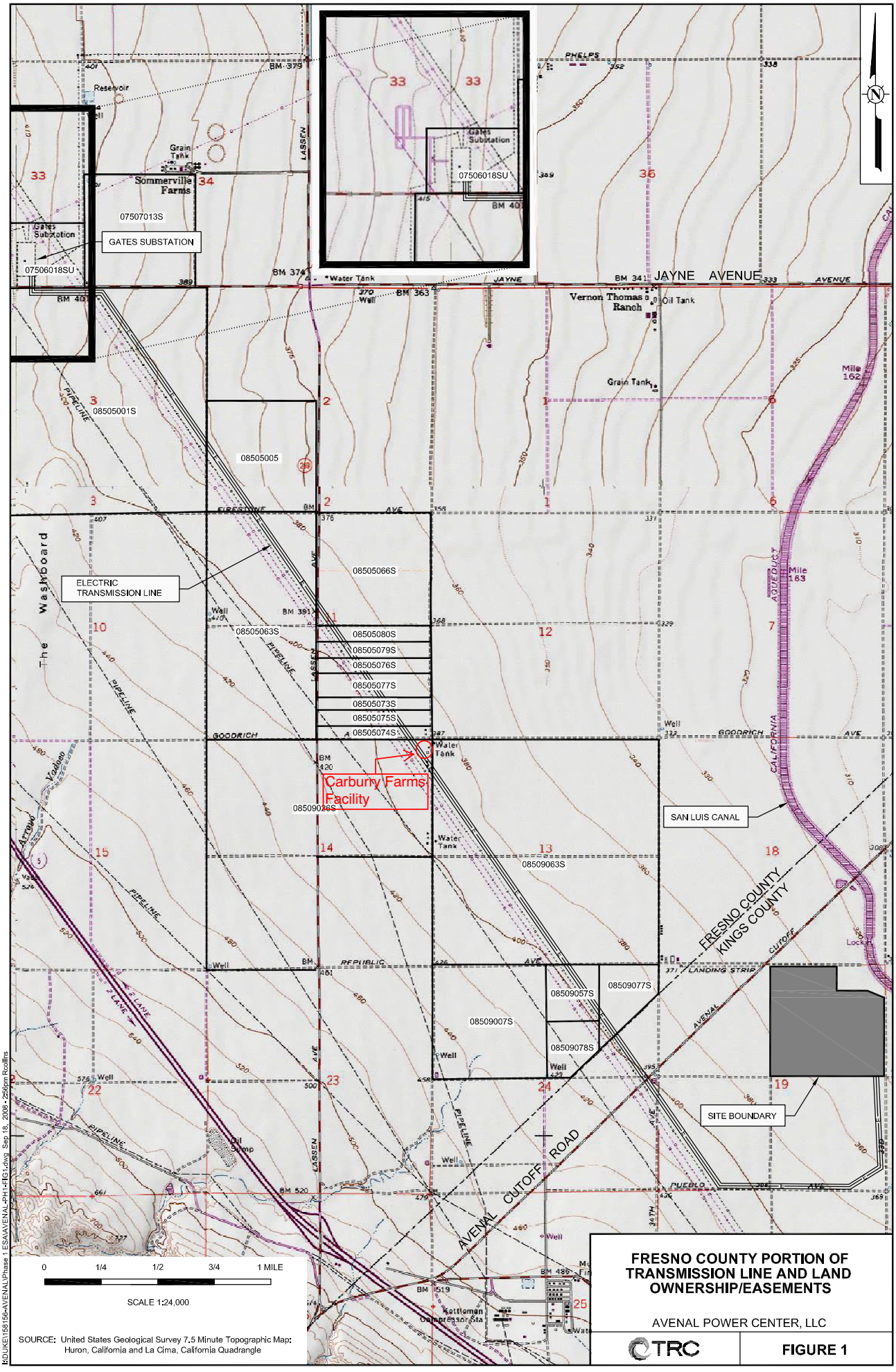
EDUCATION

M.S. Environmental Engineering, University of Southern California, Los Angeles
B.S. Chemical Engineering, California State University Northridge, Northridge, California

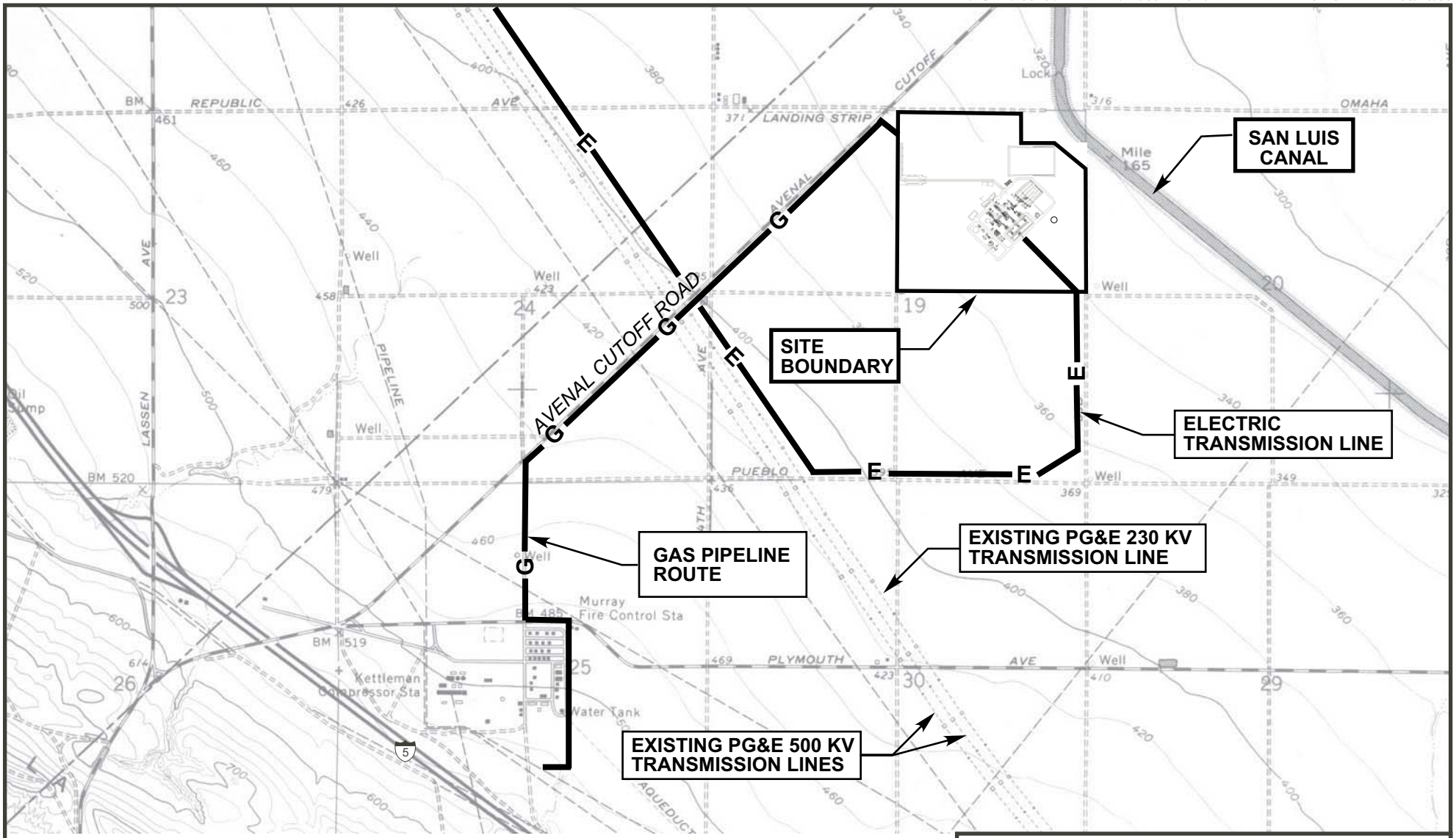
OTHER TRAINING

40-Hour OSHA Hazardous Waste Health and Safety Training Course (CFR 1910.120)
8-Hour OSHA Hazardous Waste Health and Safety Training Course

FIGURES


GATES SUBSTATION
07507013S
07506018SU
07506018SU
ELECTRIC TRANSMISSION LINE
08505001S
08505005
08505066S
08505063S
08505080S
08505079S
08505076S
08505077S
08505073S
08505075S
08505074S
Carbury Farms Facility
08509026S
SAN LUIS CANAL
08509063S
08509057S
08509077S
08509007S
08509078S
SITE BOUNDARY
FRESNO COUNTY
KINGS COUNTY
AVENAL CUTOFF ROAD
JAYNE AVENUE
Sommerville Farms
Vernon Thomas Ranch
The Washboard
0 1/4 1/2 3/4 1 MILE
SCALE 1:24,000
SOURCE: United States Geological Survey 7.5 Minute Topographic Map: Huron, California and La Cima, California Quadrangle
FRESNO COUNTY PORTION OF TRANSMISSION LINE AND LAND OWNERSHIP/EASEMENTS
AVENAL POWER CENTER, LLC
TRC
FIGURE 1
I:\DUKE\158156-AVENAL\Phase 1 ESA\AVENAL-PH1-Rt1.dwg Sep 18, 2008 - 2:56pm Rollins

I:\DUKE\158156-AVENAL\Phase 1 ESA\AVENAL-PH1-FIG2.CNV REV. 09/18/08



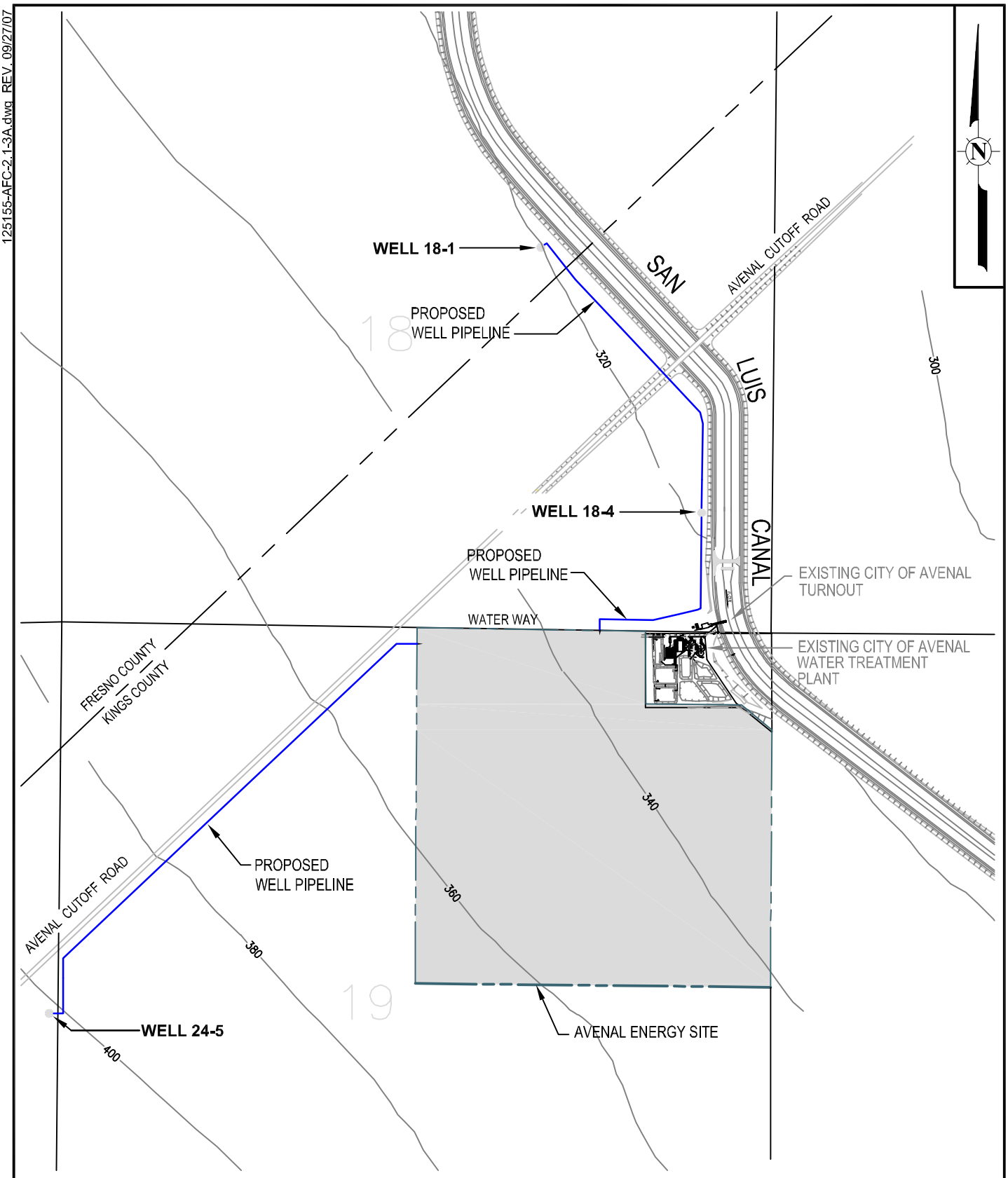
REFERENCE:
U.S.G.S 7.5 MINUTE TOPOGRAPHIC SERIES MAP
OF LA CIMA, CALIFORNIA, DATED 1978.

0 2,000 4,000 FEET
SCALE

NATURAL GAS AND ELECTRICAL INTERCONNECTION ROUTES
(REV. 9/16/08)

AVENAL POWER CENTER, LLC

AVENAL ENERGY | FIGURE 2



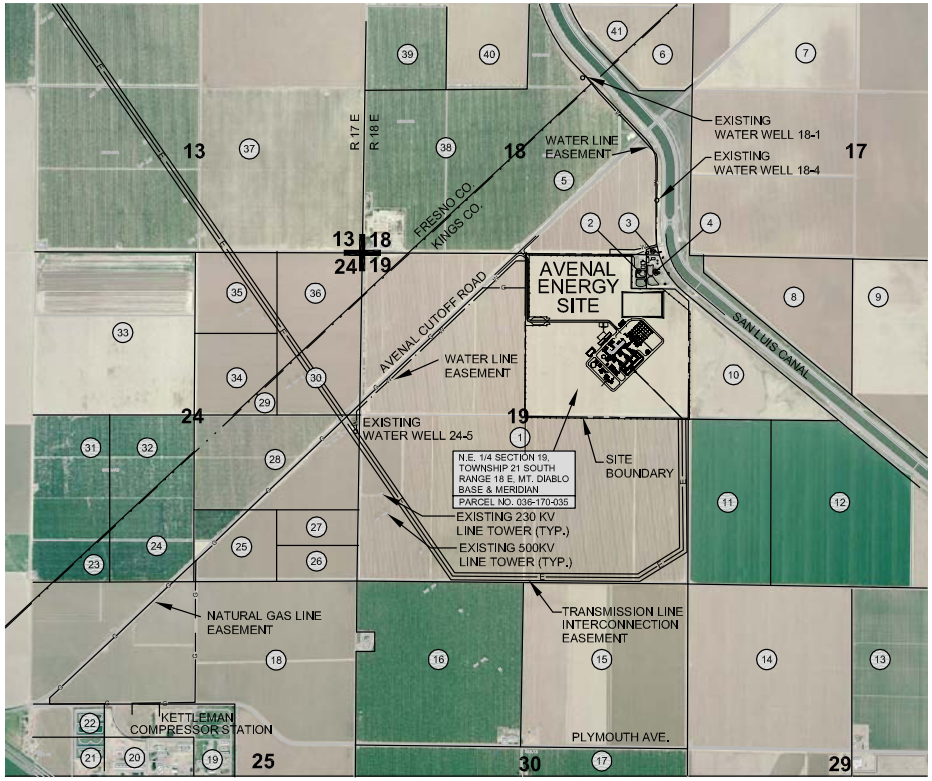
REFERENCE: SUMMERS ENGINEERING, INC., LOCATION MAP, WATER SUPPLY AND TREATMENT FACILITIES WITH OPTION B, PRELIMINARY, MARCH 7, 2001.

0 1,000 2,000 FEET
SCALE

PROPOSED WATER WELLS AND WATER LINE ROUTES

AVENAL POWER CENTER, LLC

AVENAL ENERGY | **FIGURE 3**



LEGEND:

- ASSESSORS PARCEL BOUNDARY
- (15) PARCEL NUMBER
- 13 SECTION NUMBER
- SITE PROPERTY LINE
- PROPOSED GAS PIPELINE ROUTE
- ALTERNATE GAS PIPELINE ROUTE
- PROPOSED TRANSMISSION LINE ROUTE
- PROPOSED WATER LINE ROUTE
- EXISTING WATER WELL LOCATION

KEY:	ASSESSOR'S PARCEL NO.:
1	036-170-036
2	036-170-031
3	036-170-020
4	036-170-018
5	036-170-027
6	036-170-030
7	036-170-002
8	036-170-012
9	036-170-014
10	036-170-013
11	036-170-026
12	036-170-025
13	036-180-055
14	036-180-054
15	036-180-044
16	036-180-043
17	036-180-042
18	038-010-043
19	038-010-038
20	038-010-039
21	038-010-037
22	038-010-042
23	038-380-008
24	038-380-005
25	038-380-006
26	038-031-001
	038-031-002
	038-031-003
	038-031-004
	038-031-012
	038-031-013
	038-031-015
	038-031-019
	038-031-020
	038-032-001
	038-032-004
	038-032-005
	038-032-007
	038-032-008
	038-032-009
26	038-033-003

KEY:	ASSESSOR'S PARCEL NO.:
27	038-021-001
	038-021-002
	038-021-003
	038-021-004
	038-021-005
	038-021-007
	038-021-008
	038-021-009
	038-021-010
	038-021-012
	038-021-016
	038-021-018
	038-021-022
	038-021-023
	038-021-024
	038-021-025
	038-022-001
	038-022-002
27	038-023-003
28	038-380-004
29	038-380-007
30	038-380-002
31	085-090-079
32	085-090-083
33	085-090-007
34	085-090-078
35	085-090-057
36	085-090-077
37	078-090-063
38	078-090-026
39	078-090-002
40	078-090-022
41	078-090-018

NOTE: APPENDIX 1.0-1 PROVIDES A LIST OF CURRENT TAX ASSESSOR'S PARCEL NUMBERS AND OWNER'S NAMES AND ADDRESSES FOR PARCELS WITHIN 500 FEET OF PROPOSED LINEAR FACILITIES AND WITHIN 1,000 FEET OF THE SITE.

PROJECT FACILITIES AND LAND OWNERSHIP / EASEMENTS

AVENAL POWER CENTER, LLC

AVENAL ENERGY | **FIGURE 4**

I:\DUKE\158156-AVENAL\Phase 1 ESA\AVENAL-PH1-FIG4.dwg Sep 18, 2008 - 2:59pm Rcollins

APPENDIX A

AERIAL PHOTOGRAPHS

Avenal Power Center, LLC was formerly known as “Federal Power Avenal, LLC” (aka “Federal Power” and “Federal Power-Avenal”). References to “Federal Power-Avenal” or “Federal Power Avenal, LLC” in this appendix refer to Avenal Power Center, LLC.

APPENDIX A-1

EDR AERIAL PHOTO PACKAGE

The EDR Aerial Photo Decade Package

Federal Power - Avenal
Avenal Cutoff
Avenal, CA 93239

Inquiry Number: 2041704.5

October 02, 2007

The Standard in Environmental Risk Information

440 Wheelers Farms Road
Milford, Connecticut 06461

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDRs professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Date EDR Searched Historical Sources:

Aerial Photography October 02, 2007

Target Property:

Avenal Cutoff

Avenal, CA 93239

Year	Scale	Details	Source
1981	Aerial Photograph. Scale: 1"=690'	Flight Year: 1981	WSA
1994	Aerial Photograph. Scale: 1"=666'	Flight Year: 1994	USGS
2002	Aerial Photograph. Scale: 1"=666'	Flight Year: 2002	USGS


SITE
INQUIRY #: 2041704.5
YEAR: 1981
= 690'
N


SITE
INQUIRY #: 2041704.5
YEAR: 1994
= 666'
N


SITE
INQUIRY #: 2041704.5
YEAR: 2002
= 666'
N

APPENDIX A-2

AERIAL PHOTOGRAPH FROM AVENAL ENERGY APPLICATION FOR CERTIFICATION (FEBRUARY 2008)

NOT TO SCALE
NOT OTHO-RECTIFIED

SOURCE: GlobeXplorer, image date 12/1/2004.

AERIAL PHOTOGRAPH
FRESNO COUNTY PORTION OF TRANSMISSION LINE

FEDERAL POWER AVENAL, LLC

TRC

FIGURE 2.1-5B

I:\DUKE\125155\125155-AFC-2.1-5B.dwg Nov 02, 2007 - 9:28am Rollins

APPENDIX B

HISTORICAL TOPOGRAPHIC MAPS

Avenal Power Center, LLC was formerly known as “Federal Power Avenal, LLC” (aka “Federal Power” and “Federal Power-Avenal”). References to “Federal Power-Avenal” or “Federal Power Avenal, LLC” in this appendix refer to Avenal Power Center, LLC.

EDR Historical Topographic Map Report

Federal Power - Avenal
Avenal Cutoff
Avenal, CA 93239

Inquiry Number: 2041704.4

October 02, 2007

EDR® Environmental Data Resources Inc

The Standard in Environmental Risk Information

440 Wheelers Farms Rd
Milford, Connecticut 06461

Nationwide Customer Service

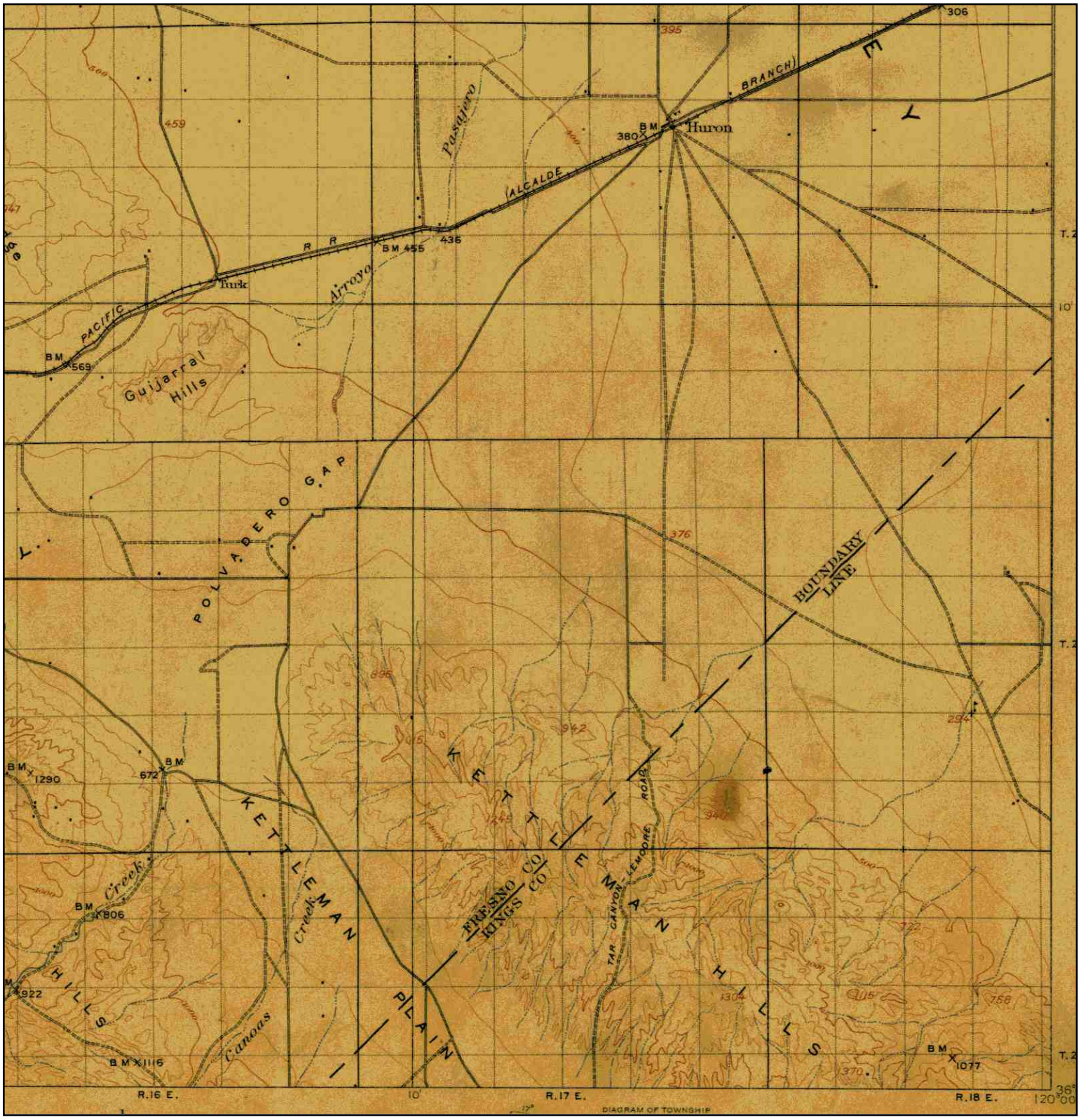
Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

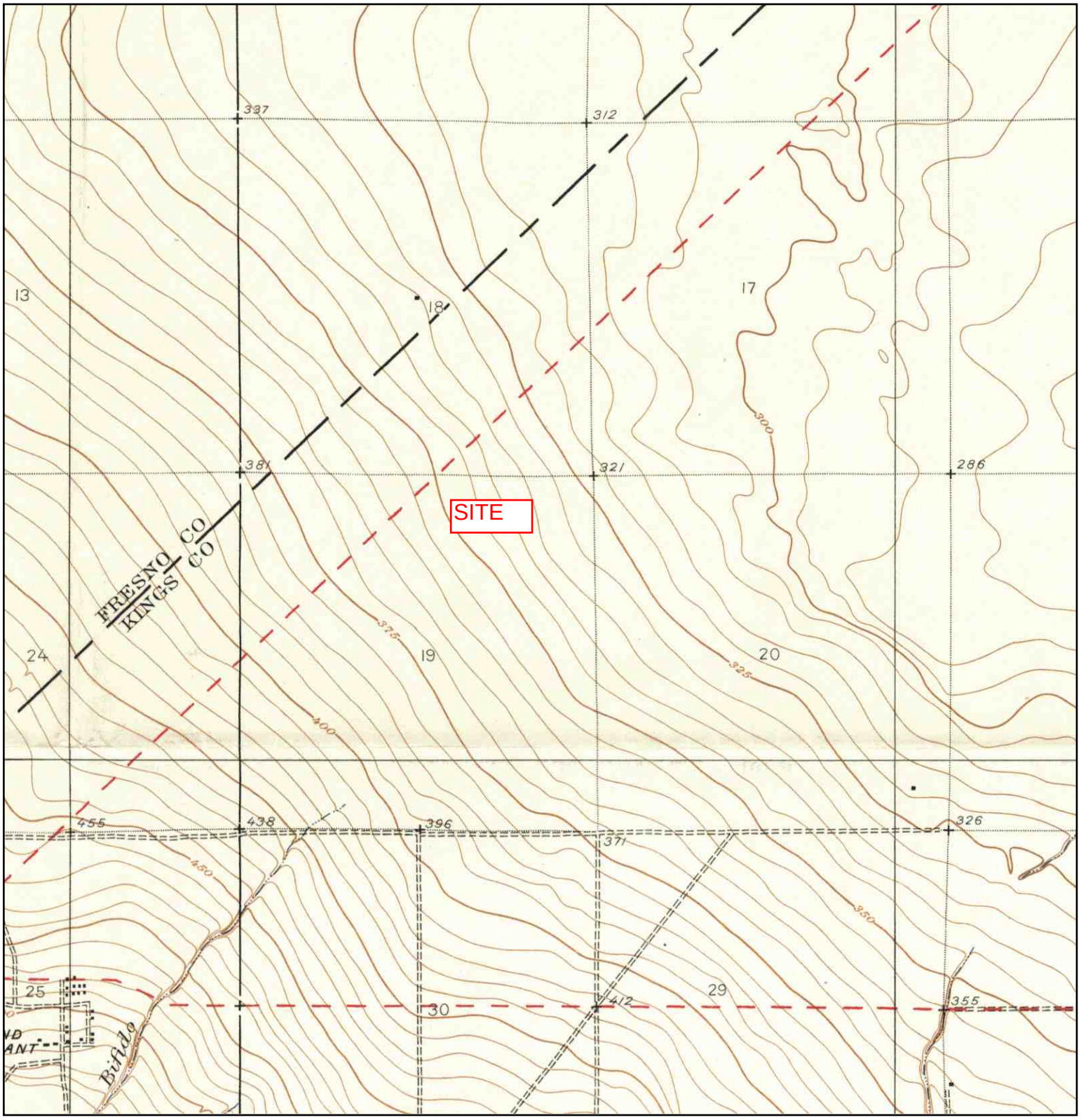
Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Historical Topographic Map



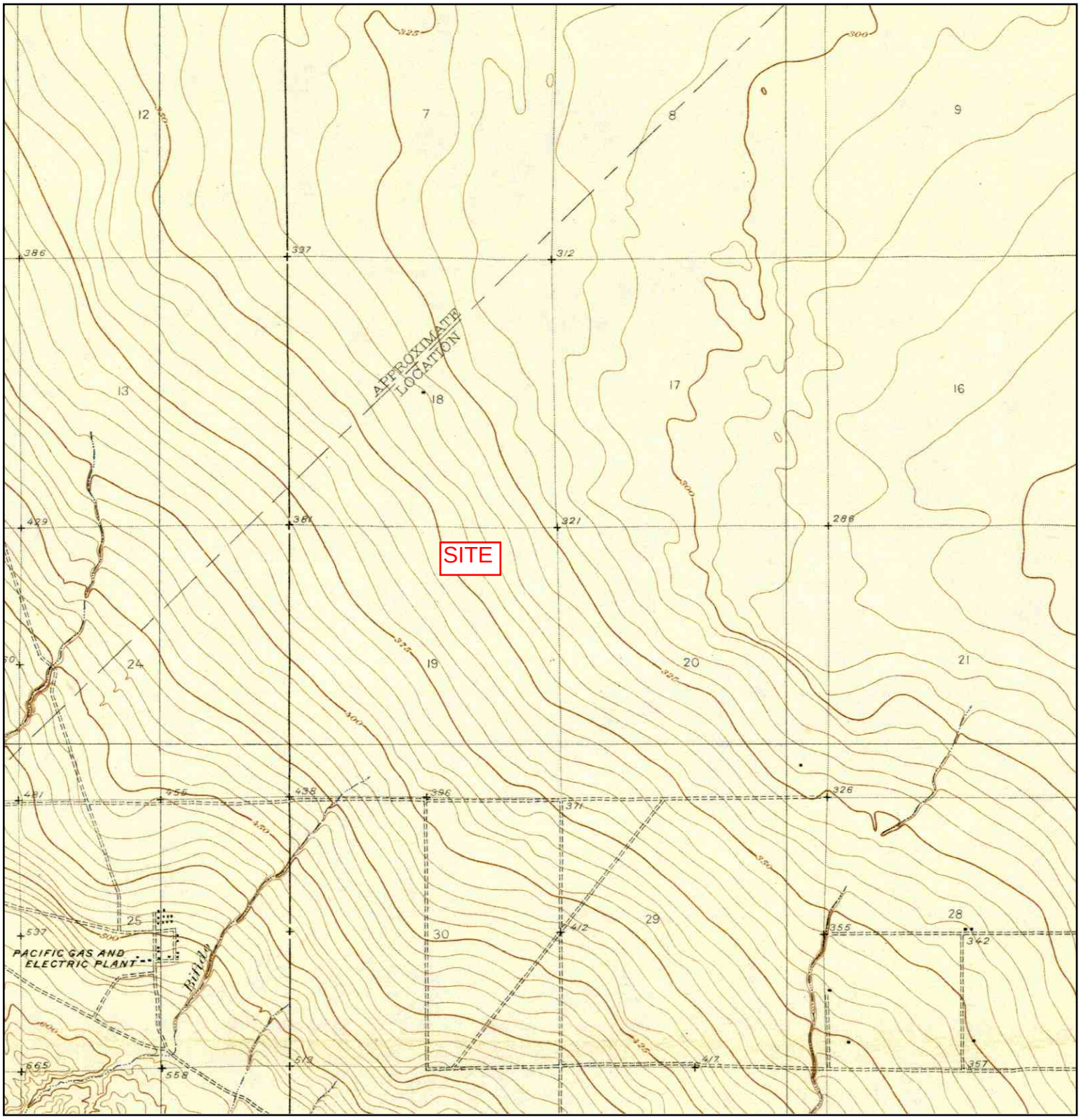
N	TARGET QUAD NAME: COALINGA MAP YEAR: 1912 SERIES: 30 SCALE: 1:125000	SITE NAME: Federal Power - Avenal ADDRESS: Avenal Cutoff Avenal, CA 93239 LAT/LONG: 36.0921 / 120.0598	CLIENT: TRC CONTACT: Carole Missirlian INQUIRY#: 2041704.4 RESEARCH DATE: 10/02/2007

Historical Topographic Map



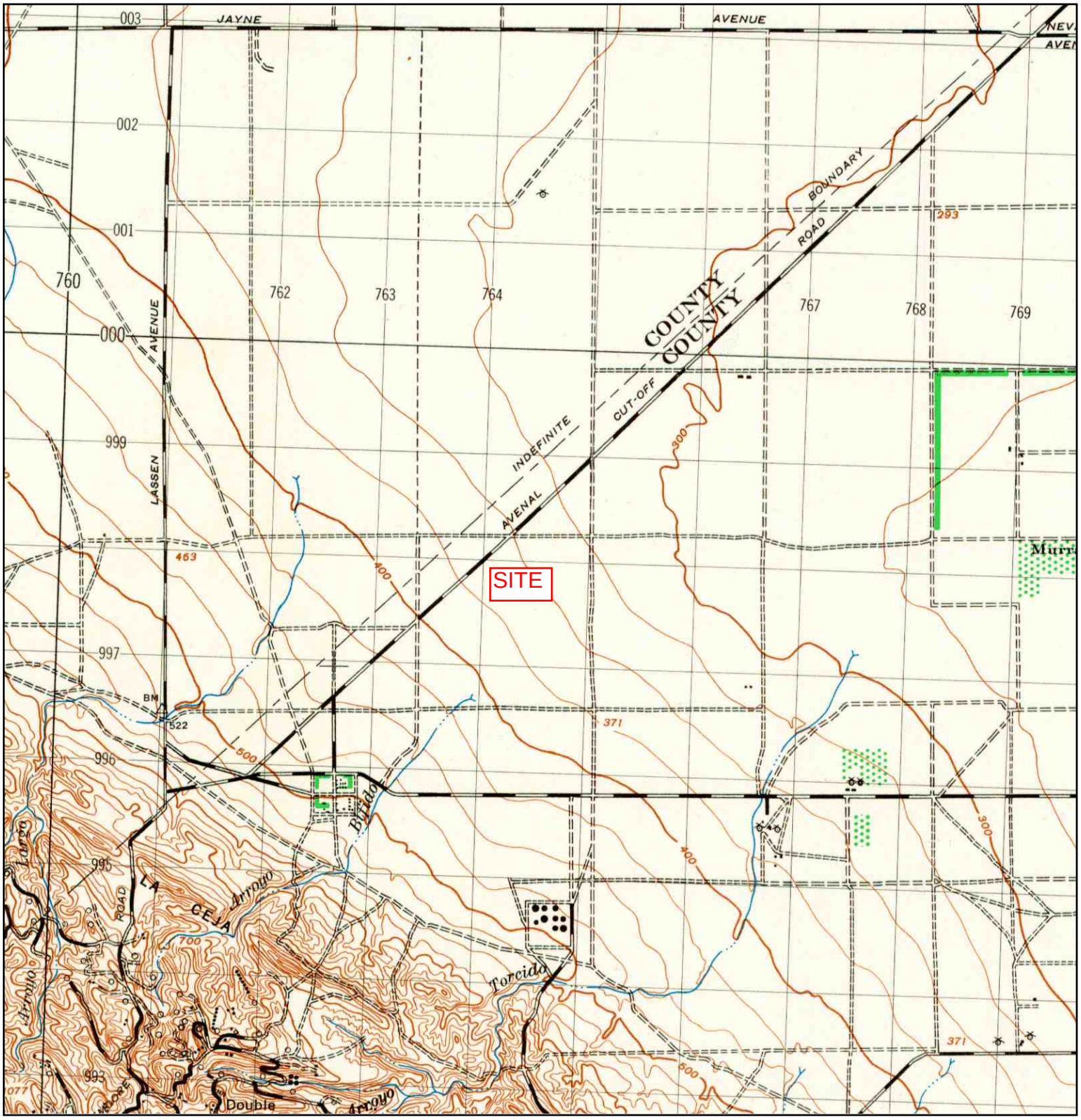
N	TARGET QUAD NAME: LA CIMA MAP YEAR: 1930 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Federal Power - Avenal ADDRESS: Avenal Cutoff Avenal, CA 93239 LAT/LONG: 36.0921 / 120.0598	CLIENT: TRC CONTACT: Carole Missirlian INQUIRY#: 2041704.4 RESEARCH DATE: 10/02/2007

Historical Topographic Map



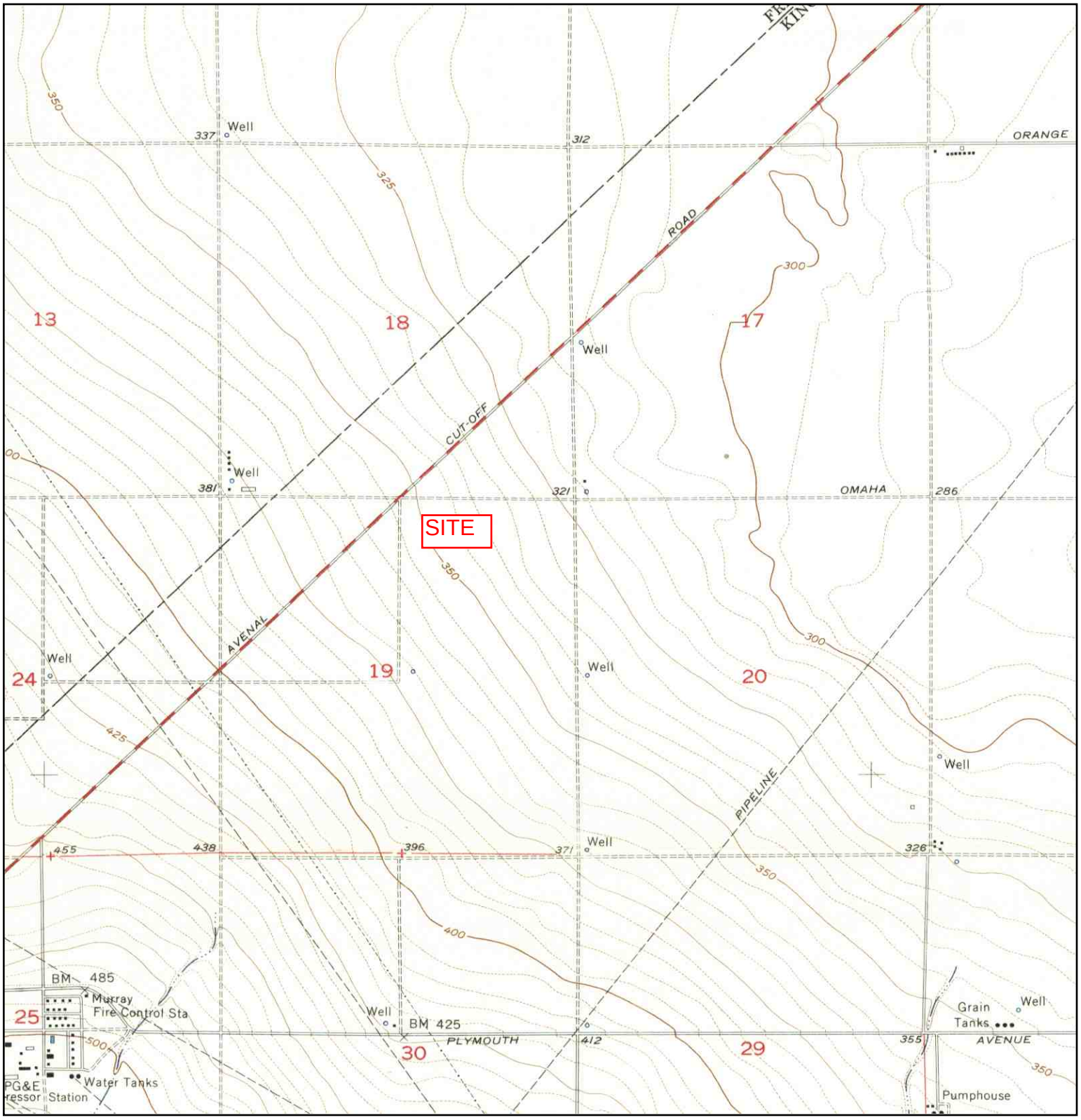
N	TARGET QUAD NAME: LA CIMA MAP YEAR: 1934 SERIES: 7.5 SCALE: 1:31680	SITE NAME: Federal Power - Avenal ADDRESS: Avenal Cutoff Avenal, CA 93239 LAT/LONG: 36.0921 / 120.0598	CLIENT: TRC CONTACT: Carole Missirlian INQUIRY#: 2041704.4 RESEARCH DATE: 10/02/2007

Historical Topographic Map



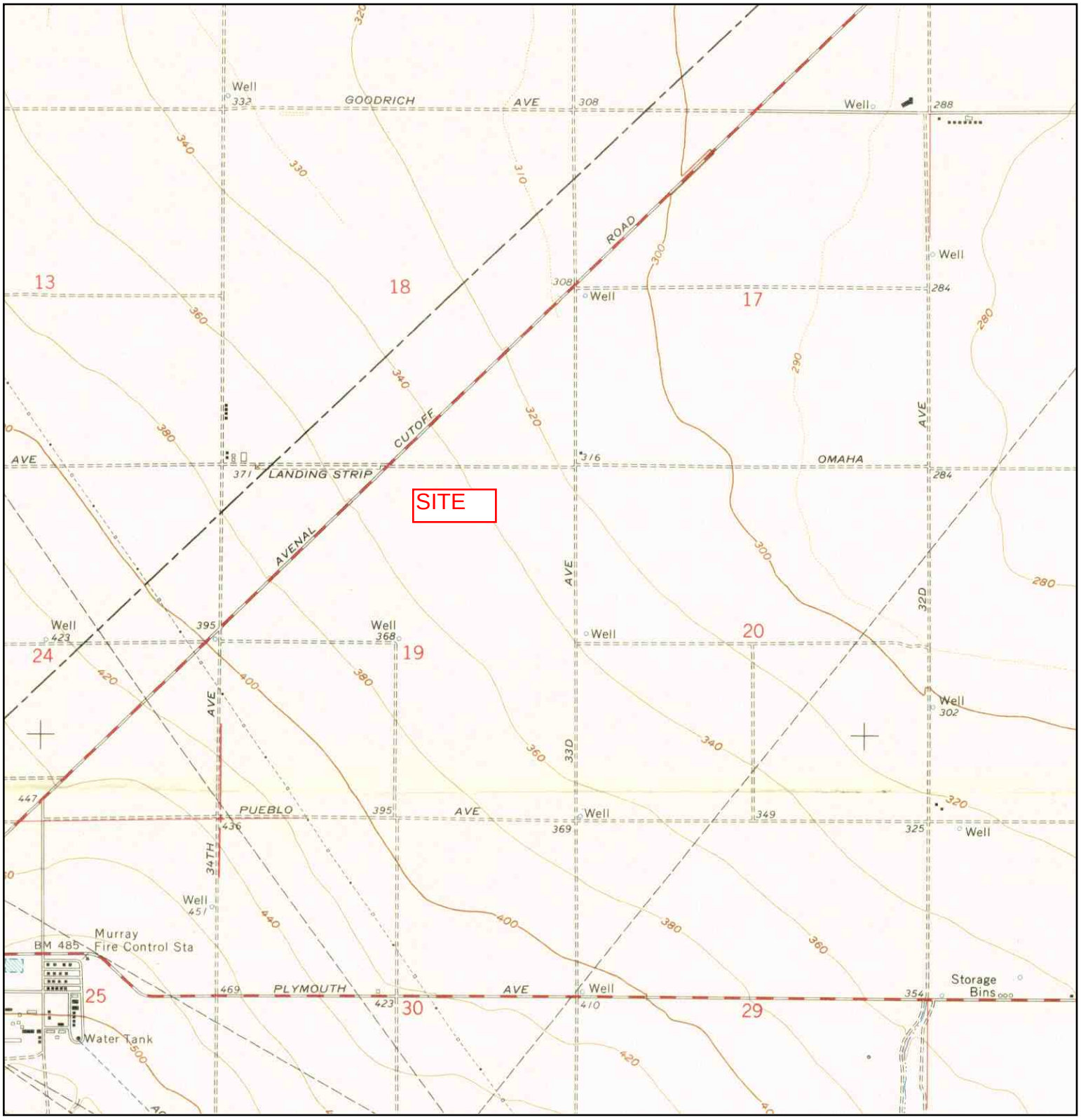
N	TARGET QUAD NAME: POLVADERO GAP MAP YEAR: 1947 SERIES: 15 SCALE: 1:50000	SITE NAME: Federal Power - Avenal ADDRESS: Avenal Cutoff Avenal, CA 93239 LAT/LONG: 36.0921 / 120.0598	CLIENT: TRC CONTACT: Carole Missirlian INQUIRY#: 2041704.4 RESEARCH DATE: 10/02/2007

Historical Topographic Map



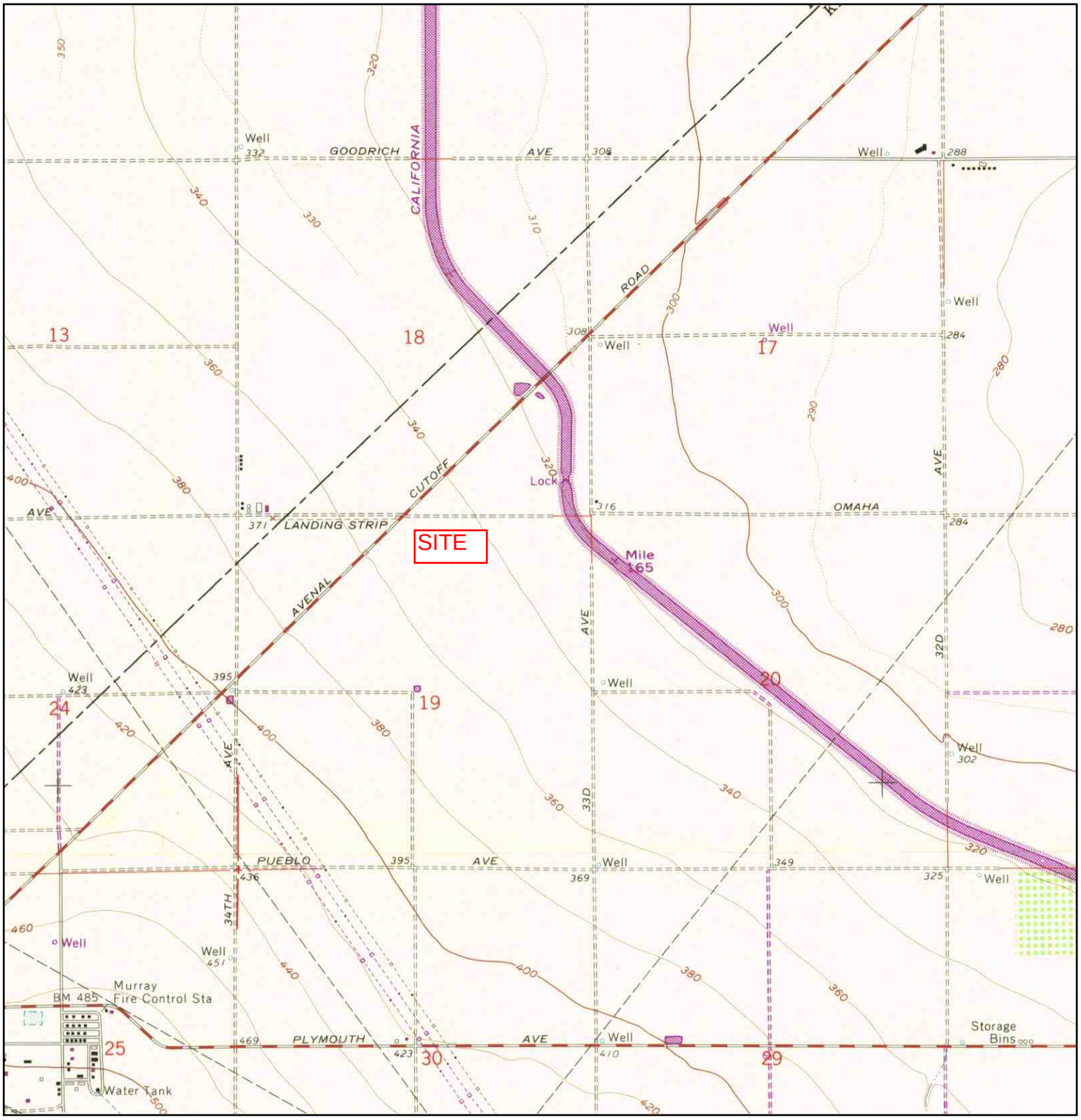
N	TARGET QUAD NAME: LA CIMA MAP YEAR: 1954 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Federal Power - Avenal ADDRESS: Avenal Cutoff Avenal, CA 93239 LAT/LONG: 36.0921 / 120.0598	CLIENT: TRC CONTACT: Carole Missirlian INQUIRY#: 2041704.4 RESEARCH DATE: 10/02/2007

Historical Topographic Map



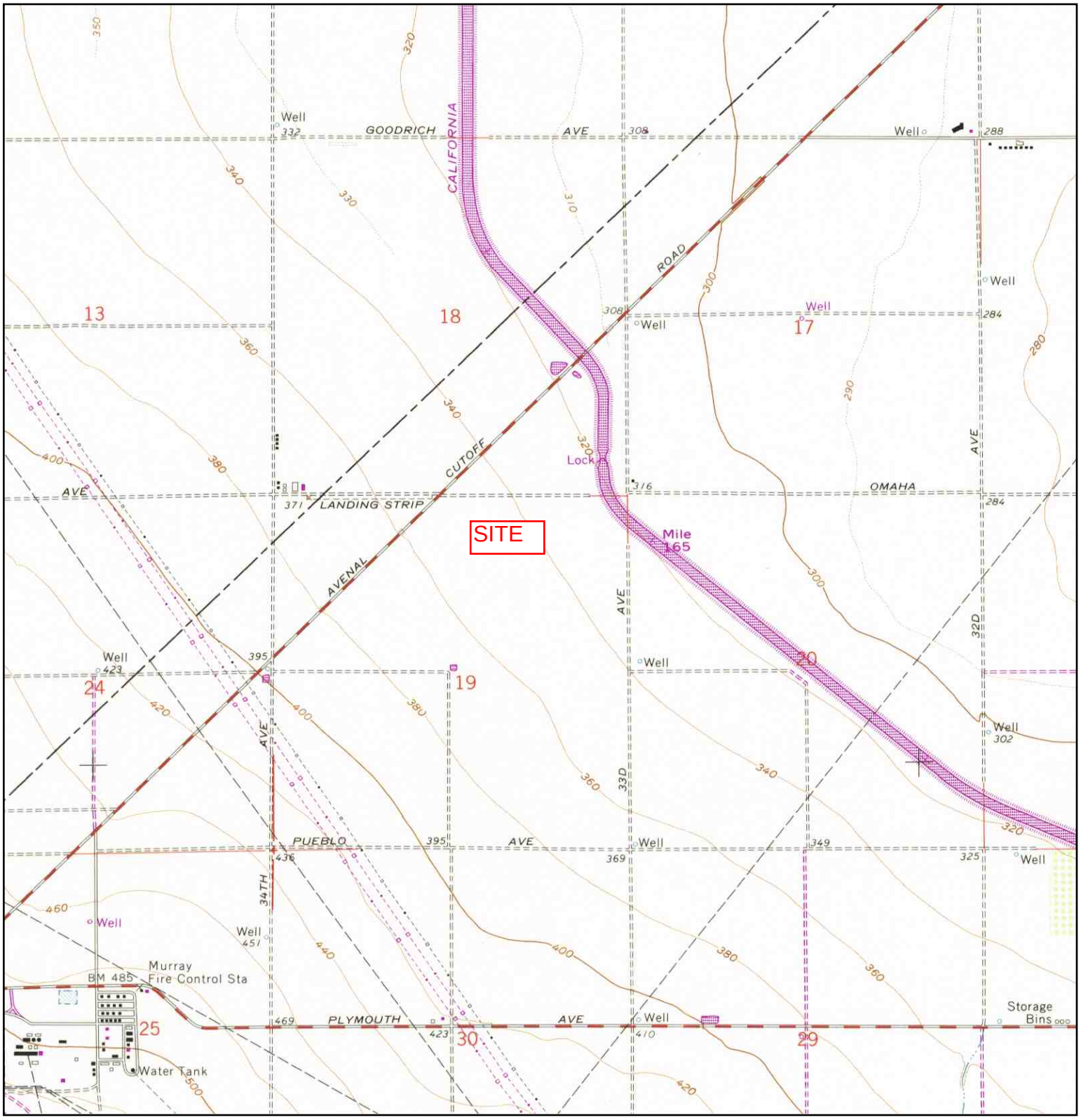
N	TARGET QUAD NAME: LA CIMA MAP YEAR: 1963 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Federal Power - Avenal ADDRESS: Avenal Cutoff Avenal, CA 93239 LAT/LONG: 36.0921 / 120.0598	CLIENT: TRC CONTACT: Carole Missirlian INQUIRY#: 2041704.4 RESEARCH DATE: 10/02/2007

Historical Topographic Map



N	TARGET QUAD NAME: LA CIMA MAP YEAR: 1971 PHOTOREVISED FROM:1963 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Federal Power - Avenal ADDRESS: Avenal Cutoff Avenal, CA 93239 LAT/LONG: 36.0921 / 120.0598	CLIENT: TRC CONTACT: Carole Missirlian INQUIRY#: 2041704.4 RESEARCH DATE: 10/02/2007

Historical Topographic Map



N	TARGET QUAD NAME: LA CIMA MAP YEAR: 1978 PHOTOINSPECTED FROM: 1963 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Federal Power - Avenal ADDRESS: Avenal Cutoff Avenal, CA 93239 LAT/LONG: 36.0921 / 120.0598	CLIENT: TRC CONTACT: Carole Missirlian INQUIRY#: 2041704.4 RESEARCH DATE: 10/02/2007

APPENDIX C

EDR DATA MAP CORRIDOR STUDY

Avenal Power Center, LLC was formerly known as “Federal Power Avenal, LLC” (aka “Federal Power” and “Federal Power-Avenal”). References to “Federal Power-Avenal” or “Federal Power Avenal, LLC” in this appendix refer to Avenal Power Center, LLC.

Federal Power - Avenal
Huron, CA 93234

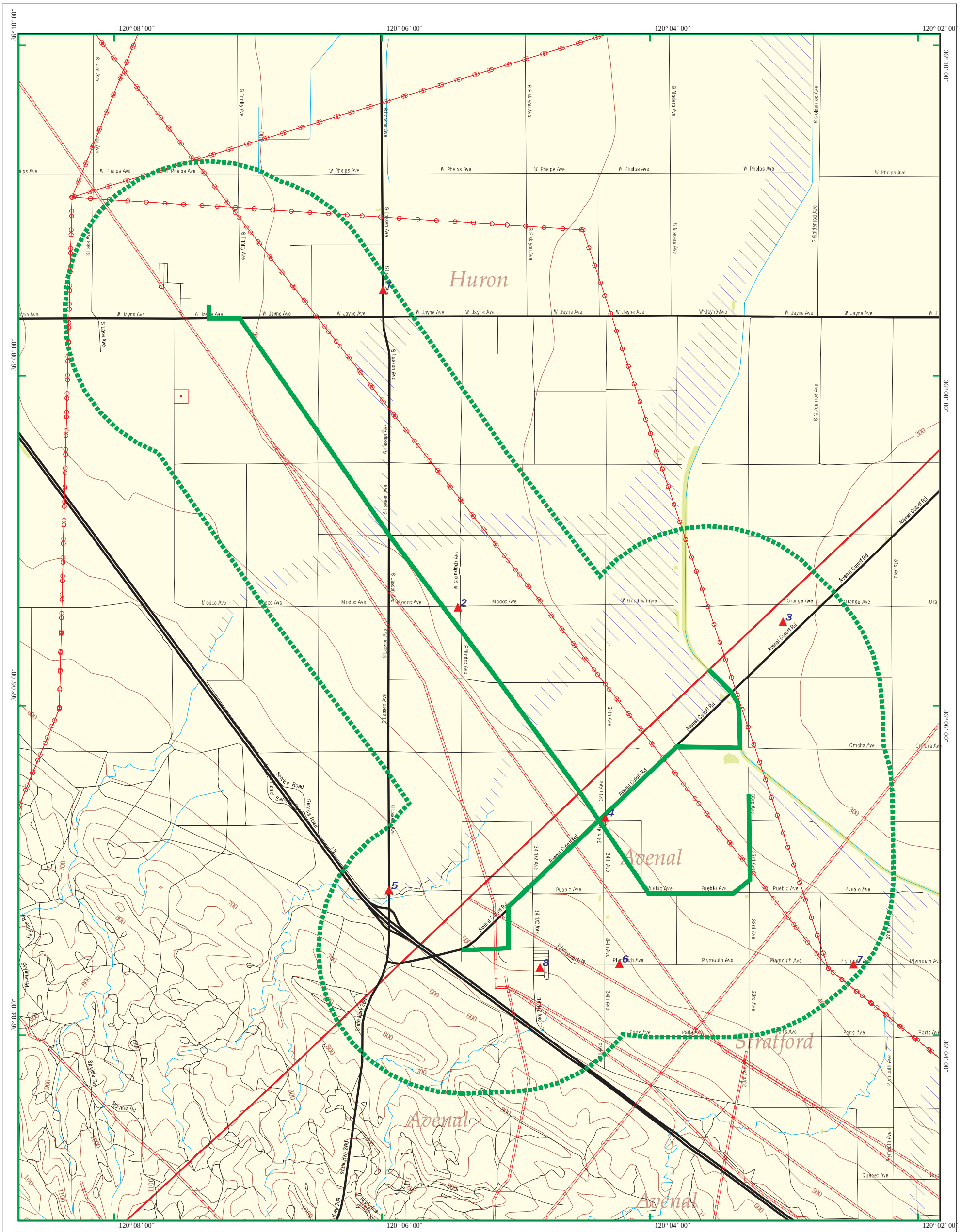
Inquiry Number: 02286049.1r
August 07, 2008

EDR DataMap™ Corridor Study

Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.



EDR DataMap® - Corridor Study

Federal Power - Avenal

EDR® Environmental Data Resources Inc

Huron, CA

- Listed Sites
- Earthquake Epicenters (Richter 5 or greater)
- Search Boundary
- Roads
- Major Roads
- Waterways
- Railroads
- Contour Lines
- Pipelines
- Powerlines
- Fault Lines
- Water
- Superfund Sites
- Federal DOD Sites
- Indian Reservations BIA
- 100-Yr Flood Zones
- National Wetland Inventory

N

0 1/2 1

Scale in Miles

02286049.1r - 07 Aug 08

EXECUTIVE SUMMARY

TARGET PROPERTY INFORMATION

ADDRESS

HURON, CA 93234
HURON, CA 93234

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records within the requested search area for the following databases:

FEDERAL RECORDS

NPL	National Priority List
Proposed NPL	Proposed National Priority List Sites
Delisted NPL	National Priority List Deletions
NPL LIENS	Federal Superfund Liens
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CERC-NFRAP	CERCLIS No Further Remedial Action Planned
LIENS 2	CERCLA Lien Information
CORRACTS	Corrective Action Report
RCRA-TSDF	RCRA - Transporters, Storage and Disposal
RCRA-LQG	RCRA - Large Quantity Generators
RCRA-CESQG	RCRA - Conditionally Exempt Small Quantity Generator
RCRA-NonGen	RCRA - Non Generators
US ENG CONTROLS	Engineering Controls Sites List
US INST CONTROL	Sites with Institutional Controls
ERNS	Emergency Response Notification System
HMIRS	Hazardous Materials Information Reporting System
DOT OPS	Incident and Accident Data
US CDL	Clandestine Drug Labs
US BROWNFIELDS	A Listing of Brownfields Sites
DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
LUCIS	Land Use Control Information System
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
ODI	Open Dump Inventory
DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations
MINES	Mines Master Index File
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems
ICIS	Integrated Compliance Information System

PADS PCB Activity Database System
MLTS Material Licensing Tracking System
RADINFO Radiation Information Database
RAATS RCRA Administrative Action Tracking System

STATE AND LOCAL RECORDS

HIST Cal-Sites Historical Calsites Database
CA BOND EXP. PLAN Bond Expenditure Plan
SCH School Property Evaluation Program
Toxic Pits Toxic Pits Cleanup Act Sites
WMUDS/SWAT Waste Management Unit Database
Cortese "Cortese" Hazardous Waste & Substances Sites List
SWRCY Recycler Database
LUST Geotracker's Leaking Underground Fuel Tank Report
CA FID UST Facility Inventory Database
SLIC Statewide SLIC Cases
UST Active UST Facilities
HIST UST Hazardous Substance Storage Container Database
LIENS Environmental Liens Listing
SWEEPS UST SWEEPS UST Listing
CHMIRS California Hazardous Material Incident Report System
Notify 65 Proposition 65 Records
DEED Deed Restriction Listing
VCP Voluntary Cleanup Program Properties
DRYCLEANERS Cleaner Facilities
WIP Well Investigation Program Case List
CDL Clandestine Drug Labs
RESPONSE State Response Sites
HAULERS Registered Waste Tire Haulers Listing
ENVIROSTOR EnviroStor Database

TRIBAL RECORDS

INDIAN RESERV Indian Reservations
INDIAN ODI Report on the Status of Open Dumps on Indian Lands
INDIAN LUST Leaking Underground Storage Tanks on Indian Land
INDIAN UST Underground Storage Tanks on Indian Land
INDIAN VCP Voluntary Cleanup Priority Listing

EDR PROPRIETARY RECORDS

Manufactured Gas Plants EDR Proprietary Manufactured Gas Plants

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Page numbers and map identification numbers refer to the EDR Radius Map 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.

EXECUTIVE SUMMARY

FEDERAL RECORDS

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 03/06/2008 has revealed that there is 1 RCRA-SQG site within the searched area.

Site	Address	Map ID	Page
AIR WAYS FARMS INC DUSTERS	***43015 SOUTH MODOC AVE***	***2***	***6***

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 04/03/2008 has revealed that there are 2 FINDS sites within the searched area.

Site	Address	Map ID	Page
AT&T WIRELESS SERVICES	40811 S. LASSEN AVENUE	1	4
AIR WAYS FARMS INC DUSTERS	***43015 SOUTH MODOC AVE***	***2***	***6***

STATE AND LOCAL RECORDS

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, and dated 06/09/2008 has revealed that there are 3 SWF/LF sites within the searched area.

Site	Address	Map ID	Page
KOCHERGEN PROPERTIES	***15485 W REPUBLIC***	***3***	***7***
KOCHERGEN FARMS COMPOSTING	AVENAL CUTOFF RD. AND O	4	8
KETTLEMEN COMPRESSOR STATION	10 MI NORTH OF KETTMEN	8	11

EXECUTIVE SUMMARY

CA WDS: California Water Resources Control Board - Waste Discharge System.

A review of the CA WDS list, as provided by EDR, and dated 06/19/2007 has revealed that there are 2 CA WDS sites within the searched area.

Site	Address	Map ID	Page
PISTACHIO PROCESSING PLANT WWT	31510 PLYMOUTH AVE	6	9
KETTLEMAN COMPRESSOR STATION	34453 PLYMOUTH AVE	8	11

AST: The Aboveground Storage Tank database contains registered ASTs. The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the AST list, as provided by EDR, and dated 11/01/2007 has revealed that there are 2 AST sites within the searched area.

Site	Address	Map ID	Page
DUSTERS RANCH	43105 S. MODOC AVE.	2	5
CARBERRY #4304, 05, 08	43105 S. MODOC AVE.	2	6

Fresno Co. CUPA: Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

A review of the Fresno Co. CUPA list, as provided by EDR, and dated 03/31/2008 has revealed that there are 4 Fresno Co. CUPA sites within the searched area.

Site	Address	Map ID	Page
AT&T MOBILITY-HURON 27596	40811 S LASSEN	1	3
AIR-WAY FARMS/DUSTERS RANCH	43015 S MODOC	2	5
KOCHERGEN PROPERTIES	***15485 W REPUBLIC***	***3***	***7***
HILLCREST TRAVEL PLAZA	44779 S LASSEN	5	9

HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal method. The source is the Department of Toxic Substance Control is the agency

A review of the HAZNET list, as provided by EDR, and dated 12/31/2006 has revealed that there are 2 HAZNET sites within the searched area.

Site	Address	Map ID	Page
AIR WAYS FARMS INC DUSTERS	***43015 SOUTH MODOC AVE***	***2***	***6***
FARM MICKE & DAVID CHAVARRIA	31970 PLYMOUTH AVE	7	10

EXECUTIVE SUMMARY

EMI: Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies

A review of the EMI list, as provided by EDR, and dated 12/31/2005 has revealed that there are 3 EMI sites within the searched area.

Site	Address	Map ID	Page
AT&T WIRELESS SERVICES	40811 S. LASSEN AVENUE	1	3
AT&T WIRELESS SERVICES	40811 S LASSEN AVE	1	4
NEW CINGULAR WIRELESS - HURON	40811 S LASSEN AVE	1	5

EXECUTIVE SUMMARY

Please refer to the end of the findings report for unmapped orphan sites due to poor or inadequate address information.

MAP FINDINGS SUMMARY

Database	Total Plotted
FEDERAL RECORDS	
NPL	0
Proposed NPL	0
Delisted NPL	0
NPL LIENS	0
CERCLIS	0
CERC-NFRAP	0
LIENS 2	0
CORRACTS	0
RCRA-TSDF	0
RCRA-LQG	0
RCRA-SQG	1
RCRA-CESQG	0
RCRA-NonGen	0
US ENG CONTROLS	0
US INST CONTROL	0
ERNS	0
HMIRS	0
DOT OPS	0
US CDL	0
US BROWNFIELDS	0
DOD	0
FUDS	0
LUCIS	0
CONSENT	0
ROD	0
UMTRA	0
ODI	0
DEBRIS REGION 9	0
MINES	0
TRIS	0
TSCA	0
FTTS	0
HIST FTTS	0
SSTS	0
ICIS	0
PADS	0
MLTS	0
RADINFO	0
FINDS	2
RAATS	0
STATE AND LOCAL RECORDS	
HIST Cal-Sites	0
CA BOND EXP. PLAN	0
SCH	0
Toxic Pits	0
SWF/LF	3

MAP FINDINGS SUMMARY

Database	Total Plotted
CA WDS	2
WMUDS/SWAT	0
Cortese	0
SWRCY	0
LUST	0
CA FID UST	0
SLIC	0
UST	0
HIST UST	0
AST	2
LIENS	0
Fresno Co. CUPA	4
SWEEPS UST	0
CHMIRS	0
Notify 65	0
DEED	0
VCP	0
DRYCLEANERS	0
WIP	0
CDL	0
RESPONSE	0
HAZNET	2
EMI	3
HAULERS	0
ENVIROSTOR	0
TRIBAL RECORDS	
INDIAN RESERV	0
INDIAN ODI	0
INDIAN LUST	0
INDIAN UST	0
INDIAN VCP	0
EDR PROPRIETARY RECORDS	
Manufactured Gas Plants	0

NOTES:

Sites may be listed in more than one database

1 **AT&T MOBILITY-HURON 27596** **Fresno Co. CUPA** **S106353038**
40811 S LASSEN **N/A**
HURON, CA 93234

Fresno Co. CUPA:
Region: CUPA
Facility ID: FA0276897
APM Number: Not reported
Owner Name: NEW CINGULAR WIRELESS PCS LLC
Program Element: UNSTAFFED FACILITY MODEL PLAN

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1 **AT&T WIRELESS SERVICES** **EMI** **S105936588**
40811 S. LASSEN AVENUE **N/A**
HURON, CA 0

EMI:

Year:	2000
Carbon Monoxide Emissions Tons/Yr:	10
Air Basin:	SJV
Facility ID:	3412
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2001
Carbon Monoxide Emissions Tons/Yr:	10
Air Basin:	SJV
Facility ID:	3412
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2002
Carbon Monoxide Emissions Tons/Yr:	10
Air Basin:	SJV
Facility ID:	3412
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0

AT&T WIRELESS SERVICES (Continued) **S105936588**

Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

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1 **AT&T WIRELESS SERVICES** **FINDS** **1008245639**
40811 S. LASSEN AVENUE **110021335107**
HURON, CA 93234

FINDS:
Other Pertinent Environmental Activity Identified at Site

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

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1 **AT&T WIRELESS SERVICES** **EMI** **S106920079**
40811 S LASSEN AVE **N/A**
HURON, CA 93234

EMI:

Year:	2003
Carbon Monoxide Emissions Tons/Yr:	10
Air Basin:	SJV
Facility ID:	3412
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2004
Carbon Monoxide Emissions Tons/Yr:	10
Air Basin:	SJV
Facility ID:	3412
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.034053612
Reactive Organic Gases Tons/Yr:	0.0031125
Carbon Monoxide Emissions Tons/Yr:	0.0048375
NOX - Oxides of Nitrogen Tons/Yr:	0.0052125
SOX - Oxides of Sulphur Tons/Yr:	1.3125E-05
Particulate Matter Tons/Yr:	0.0001875

AT&T WIRELESS SERVICES (Continued) **S106920079**

Part. Matter 10 Micrometers & Smllr Tons/Yr: 0.000186375

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1 **NEW CINGULAR WIRELESS - HURON 27596** **EMI** **S108432624**
40811 S LASSEN AVE **N/A**
HURON, CA 93234

EMI:

Year:	2005
Carbon Monoxide Emissions Tons/Yr:	10
Air Basin:	SJV
Facility ID:	3412
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.0334224837304335886
Reactive Organic Gases Tons/Yr:	.00305481501296163
Carbon Monoxide Emissions Tons/Yr:	.00474784502014518
NOX - Oxides of Nitrogen Tons/Yr:	.00355904351510108
SOX - Oxides of Sulphur Tons/Yr:	.0000128817500546575
Particulate Matter Tons/Yr:	.0001851358156748702
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.000184025000780821

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2 **DUSTERS RANCH** **AST** **A100225923**
43105 S. MODOC AVE. **N/A**
HURON, CA

AST:

Owner:	AIR-WAY FARMS, INC.
Total Gallons:	17000

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2 **AIR-WAY FARMS/DUSTERS RANCH** **Fresno Co. CUPA** **S104870211**
43015 S MODOC **N/A**
HURON, CA 93234

Fresno Co. CUPA:

Region:	CUPA
Facility ID:	FA0168860
APM Number:	Not reported
Owner Name:	AIR-WAY FARMS INC
Program Element:	HAZARDOUS MATERIALS HANDLER FARM EXEMPTION

Region:	CUPA
Facility ID:	FA0168860
APM Number:	Not reported
Owner Name:	AIR-WAY FARMS INC
Program Element:	EXTREMELY HAZARDOUS SUBSTANCE HANDLER (EPCRA)

2 **CARBERRY #4304, 05, 08** **AST** **A100225826**
43105 S. MODOC AVE. **N/A**
HURON, CA

AST:
Owner: CARBERRY FARMS, INC.
Total Gallons: 36000

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2 **AIR WAYS FARMS INC DUSTERS** **RCRA-SQG** **1000594694**
43015 SOUTH MODOC AVE **FINDS** **CAD983585613**
HURON, CA 93234 **HAZNET**

RCRA-SQG:
Date form received by agency: 06/21/1991
Facility name: AIR WAYS FARMS INC DUSTERS
Facility address: 43015 SOUTH MODOC AVE
HURON, CA 93234
EPA ID: CAD983585613
Mailing address: 911 E SHIELDS AVE
FRESNO, CA 93704
Contact: DARRYL SILVA
Contact address: 43015 SOUTH MODOC AVE
HURON, CA 93234
Contact country: US
Contact telephone: (209) 884-2456
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: AIR WAYS FARMS INC
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

AIR WAYS FARMS INC DUSTERS (Continued) **1000594694**

Handler Activities Summary:
- U.S. importer of hazardous waste: Unknown
- Mixed waste (haz. and radioactive): Unknown
- Recycler of hazardous waste: No
- Transporter of hazardous waste: No
- Treater, storer or disposer of HW: No
- Underground injection activity: No
- On-site burner exemption: Unknown
- Furnace exemption: Unknown
- 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
- Off-site waste receiver: Commercial status unknown

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:
- Gepaid: CAD983585613
- Contact: AIR WAYS FARMS INC
- Telephone: 4155551212
- Facility Addr2: Not reported
- Mailing Name: Not reported
- Mailing Address: 911 E SHIELDS AVE
- Mailing City,St,Zip: FRESNO, CA 937045043
- Gen County: Fresno
- TSD EPA ID: CAD093459485
- TSD County: Fresno
- Waste Category: Aqueous solution with less than 10% total organic residues
- Disposal Method: Treatment, Tank
- Tons: .2543
- Facility County: Fresno

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3 **KOCHERGEN PROPERTIES** **SWF/LF** **S102359976**
15485 W REPUBLIC **Fresno Co. CUPA** **N/A**
HURON, CA 93234

SWF/LF:
- Region: STATE
- Facility ID: 10-AA-0174
- Lat/Long: 36.10713 / -120.05306
- Owner Name: Kochergen Farms
- Owner Telephone: 5592778069

KOCHERGEN PROPERTIES (Continued) **S102359976**

Owner Address:	Not reported
Owner Address2:	8163 W. Mckinley
Owner City,St,Zip:	Fresno, CA 93722
Operator:	Kochergen Farms
Operator Phone:	5592778069
Operator Address:	Not reported
Operator Address2:	8163 W. Mckinley
Operator City,St,Zip:	Fresno, CA 93722
Operator's Status:	Active
Permit Date:	6/26/1996
Permit Status:	Permitted
Permitted Acreage:	$200.00
Activity:	Land Application
Regulation Status:	Permitted
Landuse Name:	Rural
GIS Source:	External
Category:	Disposal
Unit Number:	01
Inspection Frequency:	Monthly
Accepted Waste:	Other designated
Closure Date:	7/1/2003
Closure Type:	Estimated
Disposal Acreage:	$200.00
Swisnumber:	10-AA-0174
Issue & Observations:	Fresno, CA 93722
Program Type:	BOE Reporting Disposal Facility
Permitted Throughput with Units:	150000
Actual Throughput with Units:	Gallons/day
Permitted Capacity with Units:	150000
Remaining Capacity:	Not reported
Remaining Capacity with Units:	Gallons/day

Fresno Co. CUPA:

Region:	CUPA
Facility ID:	FA0271855
APM Number:	85-090-07,57,78
Owner Name:	JOHN A KOCHERGEN PROP INC
Program Element:	SOLID WASTE FACILITY-FULL PERMIT

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4 **KOCHERGEN FARMS COMPOSTING** **SWF/LF** **S105964536**
AVENAL CUTOFF RD. AND OMAHA AVE. **N/A**
AVENAL, CA

SWF/LF:

Region:	STATE
Facility ID:	16-AA-0022
Lat/Long:	36.08736 / -120.07519
Owner Name:	Kochergen Farms
Owner Telephone:	5592778069
Owner Address:	Not reported
Owner Address2:	8163 W. Mckinley
Owner City,St,Zip:	Fresno, CA 93722
Operator:	Kochergen Farms
Operator Phone:	5592778069
Operator Address:	Not reported
Operator Address2:	8163 W. Mckinley
Operator City,St,Zip:	Fresno, CA 93722

KOCHERGEN FARMS COMPOSTING (Continued) **S105964536**

Operator's Status: Active
Permit Date: 12/2/2003
Permit Status: Permitted
Permitted Acreage: $30.00
Activity: Composting Facility (Green Waste)
Regulation Status: Permitted
Landuse Name: Agricultural
GIS Source: GPS
Category: Composting
Unit Number: 01
Inspection Frequency: Monthly
Accepted Waste: Food Wastes,Green Materials
Closure Date: Not reported
Closure Type: Not reported
Disposal Acreage: Not reported
Swisnumber: 16-AA-0022
Issue & Observations: Fresno, CA 93722
Program Type: Not reported
Permitted Throughput with Units: 1000
Actual Throughput with Units: Cu Yards/day
Permitted Capacity with Units: 37000
Remaining Capacity: Not reported
Remaining Capacity with Units: Cubic Yards

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5 **HILLCREST TRAVEL PLAZA** **Fresno Co. CUPA** **S108226040**
44779 S LASSEN **N/A**
HURON, CA 93234

Fresno Co. CUPA:
Region: CUPA
Facility ID: FA0278646
APM Number: 085-130-26S
Owner Name: HILLCREST TRAVEL PLAZA LLC
Program Element: MV FUEL/OIL/PROPANE ONLY IN AGST/UST MODEL PL

Region: CUPA
Facility ID: FA0278646
APM Number: 085-130-26S
Owner Name: HILLCREST TRAVEL PLAZA LLC
Program Element: UST FACILITY WITH FOUR TANKS

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6 **PISTACHIO PROCESSING PLANT WWT** **CA WDS** **S102003609**
31510 PLYMOUTH AVE **N/A**
KINGS COUNTY, CA 0

CA WDS:
Facility ID: Tulare Lake 162022001
Facility Type: Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number: Not reported

PISTACHIO PROCESSING PLANT WWT (Continued) **S102003609**

Subregion:	0
Facility Telephone:	5599451400
Facility Contact:	Gary Chastain
Agency Name:	KEENAN FARMS INC
Agency Address:	PO BOX 99
Agency City,St,Zip:	AVENAL 93204
Agency Contact:	GARY CHASTAIN
Agency Telephone:	5599451400
Agency Type:	Private
SIC Code:	173
SIC Code 2:	Not reported
Primary Waste:	Process Waste (Waste produced as part of the industrial/manufacturing process)
Primary Waste Type:	Inert/Influent or Solid Wastes that do not contain soluble pollutants or organic wastes and have little adverse impact on water quality. Such wastes could cause turbidity and siltation. Uncontaminated soils, rubble and concrete are examples of this category.
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	1
Baseline Flow:	1
Reclamation:	No reclamation requirements associated with this facility.
POTW:	The facility is not a POTW.
Treat To Water:	Moderate Threat to Water Quality. A violation could have a major adverse impact on receiving biota, can cause aesthetic impairment to a significant human population, or render unusable a potential domestic or municipal water supply. Awsthetic impairment would include nuisance from a waste treatment facility.
Complexity:	Category B - Any facility having a physical, chemical, or biological waste treatment system (except for septic systems with subsurface disposal), or any Class II or III disposal site, or facilities without treatment systems that are complex, such as marinas with petroleum products, solid wastes, and sewage pump out facilities.

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7 **FARM MICKE & DAVID CHAVARRIA** **HAZNET** **S106093137**
31970 PLYMOUTH AVE **N/A**
KETTLEMAN CTY, CA 93239

HAZNET:

Gepaid:	CAL000249297
Contact:	David Chavarria
Telephone:	5598168790
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	ST RT BOX 16
Mailing City,St,Zip:	KETTLEMAN CTY, CA 93239
Gen County:	Kings
TSD EPA ID:	Not reported
TSD County:	Fresno
Waste Category:	Waste oil and mixed oil
Disposal Method:	Transfer Station
Tons:	1.45
Facility County:	Not reported

8 **KETTLEMEN COMPRESSOR STATION** **SWF/LF** **S104493079**
10 MI NORTH OF KETTMEN CITY ON I-5 **N/A**
AVENAL, CA

SWF/LF:

Region:	STATE
Facility ID:	16-CR-0015
Lat/Long:	36.07111 / -120.08944
Owner Name:	PG&E - Walnut Creek
Owner Telephone:	Not reported
Owner Address:	Not reported
Owner Address2:	375 North Wiget Lane, Suite 130
Owner City,St,Zip:	Walnut Creek, CA 94598
Operator:	Not reported
Operator Phone:	Not reported
Operator Address:	Not reported
Operator Address2:	Not reported
Operator City,St,Zip:	Not reported
Operator's Status:	Closed
Permit Date:	Not reported
Permit Status:	Not reported
Permitted Acreage:	$0.00
Activity:	Solid Waste Disposal Site
Regulation Status:	Pre-regulations
Landuse Name:	Not reported
GIS Source:	Map
Category:	Disposal
Unit Number:	01
Inspection Frequency:	None
Accepted Waste:	Not reported
Closure Date:	Not reported
Closure Type:	Not reported
Disposal Acreage:	$0.00
Swisnumber:	16-CR-0015
Issue & Observations:	Not reported
Program Type:	Not reported
Permitted Throughput with Units:	Not reported
Actual Throughput with Units:	Not reported
Permitted Capacity with Units:	Not reported
Remaining Capacity:	Not reported
Remaining Capacity with Units:	Not reported

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8 **KETTLEMAN COMPRESSOR STATION** **CA WDS** **S105034207**
34453 PLYMOUTH AVE **N/A**
AVENAL, CA 93204

CA WDS:

Facility ID:	Tulare Lake 162000001
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	Not reported
Subregion:	0
Facility Telephone:	Not reported
Facility Contact:	Mike Bennett

KETTLEMAN COMPRESSOR STATION (Continued) **S105034207**

Agency Name:	PACIFIC GAS & ELECTRIC CO
Agency Address:	375 N WIGET LANE STE 130
Agency City,St,Zip:	WALNUT CREEK 94598
Agency Contact:	PHILLIP STIENER
Agency Telephone:	Not reported
Agency Type:	Private
SIC Code:	4911
SIC Code 2:	Not reported
Primary Waste:	Cooling Water: Noncontact
Primary Waste Type:	Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.
Secondary Waste:	Cooling Water: Contact
Secondary Waste Type:	Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.
Design Flow:	0
Baseline Flow:	0
Reclamation:	No reclamation requirements associated with this facility.
POTW:	The facility is not a POTW.
Treat To Water:	Moderate Threat to Water Quality. A violation could have a major adverse impact on receiving biota, can cause aesthetic impairment to a significant human population, or render unusable a potential domestic or municipal water supply. Awsthetic impairment would include nuisance from a waste treatment facility.
Complexity:	Category B - Any facility having a physical, chemical, or biological waste treatment system (except for septic systems with subsurface disposal), or any Class II or III disposal site, or facilities without treatment systems that are complex, such as marinas with petroleum products, solid wastes, and sewage pump out facilities.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
AVENAL	S103479946	BJ TITAN	5TH ST / HWY 44	93204	LUST, Cortese
AVENAL	S106920084	AT&T WIRELESS SERVICES	HWY 269 / SKYLINE RD	93204	EMI
AVENAL	S101480488	AVENAL AIRPORT	HWY 33 / HWY 269	93204	ENVIROSTOR
AVENAL	S102804177	DEVILS DEN SUB STATION	HWY 33 16 MILES SOUTH OF	93204	HAZNET
AVENAL	S107148039	HEWITSON	39482 HWY 33	93204	HAZNET
AVENAL	U003971409	WHITFIELD'S REEF CITY	40103 HIGHWAY 33	93204	UST
AVENAL	S107622437	WHITFIELD REEF CITY	40103 HWY 33/41	93204	EMI
AVENAL	U001580826	COTTONWOOD STATION	HIGHWAY 41	93204	HIST UST
AVENAL	U001580827	DARELL ZWANG RANCH	HWY 41 5 MI. SW OF REEF CITY	93204	HIST UST
AVENAL	S108196082	1X CITY OF AVENAL	AVENAL WATER PLANT	93204	HAZNET
AVENAL	1001023061	AVENAL WATER TREATMENT PLANTS	33115 AVENAL CUTOFF RD	93204	RCRA-SQG, FINDS, HAZNET
AVENAL	S106920407	CITY OF AVENAL	33115 AVENAL-CUTOFF RD	93204	EMI
AVENAL	U001580821	AVENAL ROAD YD.	S/E CORNER OF CORCORAN ST.	93204	HIST UST
AVENAL	1010606278	CITY OF AVENAL WATER TREATMENT PLANT	33115 CUTOFF ROAD (MAIN OFFICE: 919 SKYLINE BLVD)	93204	ICIS
AVENAL	S106920406	CITY OF AVENAL, WASTEWATER TREATMENT	100 EFFLUENT WAY	93204	EMI
AVENAL	1008241958	AVENAL ELEMENTARY	400 S. FIRST AVE.	93204	FINDS
AVENAL	S103678614	SC GAS CO/AVENAL COMPRESSION STATION	E HWY 33 / S TEHAMA RD	93204	HAZNET
AVENAL	1000251773	PACIFIC BELL	ST. HWY.198, 1/2MI.W/0 AVENAL	93204	RCRA-SQG, FINDS
AVENAL	1000698146	COALINGA DIST KETTLEMAN	11P LASSEN AVE	93204	RCRA-SQG, FINDS
AVENAL	S108215765	PAC COAST BUILDING PRODUCTS INC DBA MATERIAL TRANS	I-5 LAT 36.12546 DEGREES NORTH	93204	HAZNET
AVENAL	S103650489	FEDERAL AVAITION AUTHORITY	3 1/2 MI WEST OF BLACKWELL	93204	HAZNET
AVENAL	S106924757	COALINGA PUMP STATION	2 MILES W OF I-5 / HWY 198	93204	SWEEPS UST
AVENAL	S108432776	PACIFIC GAS & ELECTRIC CO - ISTS DEPT	2.5 MI N/E OF AVENAL ON SKYLINE BLVD	93204	EMI
AVENAL	1000886124	KETTLEMEN COMPRESSOR STATION	34453 PLYMOUTH AVENUE	93204	RCRA-SQG, FINDS
AVENAL	S100869772	P G & E/KETTLEMAN COMPRESSER STATION	34453 PLYMOUTH AVE	93204	HAZNET, EMI
AVENAL	S103980424	P G & E /KETTLEMAN COMPRESSER STATION	34453 PLYMOUTH AVE	93204	HAZNET
AVENAL	S103981723	PG & E/KETTLEMAN COMPRESSOR STATION	34453 PLYMOUTH AVE	93204	HAZNET
AVENAL	U001580833	KETTLEMAN COMPRESSOR STATIN	34453 PLYMOUTH AVENUE	93204	HIST UST
AVENAL	U001580834	KETTLEMAN COMPRESSOR STATION PACIFIC GAS & ELECTRI	34453 PLYMOUTH AVE	93204	HAZNET, WMUDS/SWAT, SLIC, AST, HIST UST, SWEEPS UST
AVENAL	1005927125	CHEVRON USA INC - KETTLEMAN 3-P	SECTION 3 (22-17) MDBM	93204	TSCA
AVENAL	S104404427	COTTONWOOD STATION	STAR RTE 2 BOX 3	93204	LUST, Cortese
AVENAL	S107540765		STAR ROUTE 2, BOX 5	93204	CDL
AVENAL	S105724377	TOSCO REFINING CO/TAR CANYON PUMP STAT	TAR CANYON RD, 1 MI SO OF AVENAL	93204	HAZNET
AVENAL	1001231450	UNOCAP TAR CYN PUMP STATION	TAR CYN RD AND HWY 33	93204	RCRA-SQG, FINDS
FRESNO	S106088605	PG & E	1/2 MI W OF 30TH 1/2 MI SO OF OMAHA	93239	HAZNET
FRESNO COUNTY	S104867814	WESTERN AREA POWER ADMIN	CALIFORNIA AQUEDUCT		CHMIRS, Fresno Co. CUPA
HURON	S104576927	D ANDERSON & SONS FARMING DBA VASTO VALL	HWY 198 / 145	93234	HAZNET
HURON	S104310319	HURON DISPOSAL SITE	AVENAL CUTOFF / REPUBLIC IND	93234	CA WDS
HURON	S107257328	THRIFTY BEST PUMPING SERVICE	AVENAL CUTOFF	93234	Fresno Co. CUPA
HURON	1008237337	HURON PLANT NO. 3 EFFLUENT - TREATED	P.O. BOX 339	93234	FINDS
HURON	1008066245	HURON PLANT NO. 2 EFFLUENT - TREATED	P.O. BOX 339	93234	FINDS

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
HURON	S106921693	VERIZON WIRELESS - GUIJARREL HILLS	19945 W DORRIS AVE	93234	EMI
HURON	S105511352	VERIZON WIRELESS - GUIJARREL HILLS	19945 W DORRIS	93234	Fresno Co. CUPA
HURON	S108200562	CALTRANS DIST 6/CONSTR/EA06-39810	FRES RTE 269(MEDIAN) PM 0	93234	HAZNET
HURON	S108197799	ANTONINI BROS INC	ON GALE AVE 4 MI EAST OF LASSEN	93234	HAZNET
HURON	S105418719	VERIZON WIRELESS - VANGUARD	33725 S JAMESON	93234	Fresno Co. CUPA
HURON	1002782974	DRESICK FARMS	19536 JAYNE	93234	Fresno Co. CUPA
HURON	1007991870	DRESICK COOLING	19935 JAYNE	93234	Fresno Co. CUPA
HURON	A100226021	GATES SUBSTATION	18336 W. JAYNE AVE.	93234	AST
HURON	S102819280	DRESICK FARM, INC.	19536 JAYNE AVENUE	93234	HAZNET
HURON	S102825029	AMERICAN COOLING, INC	16980 JAYNE AVE	93234	HAZNET
HURON	S104869492	SALYER AMERICAN COOLING	16980 JAYNE	93234	Fresno Co. CUPA
HURON	S106843423	B E GIOVANNETTI & SONS	13644 W JAYNE	93234	Fresno Co. CUPA
HURON	S107257339	LEVEL 3 COMMUNICATIONS	18364 W JAYNE	93234	Fresno Co. CUPA
HURON	S107622448	WILTEL COMMUNICATIONS LLC	18364 W JAYNE	93234	EMI
HURON	S108226045	INDIAN AUXILIARY FIELD #3	JAYNE / SISKIYOU SE COR	93234	Fresno Co. CUPA
HURON	S108540764	DRESICK FARM INC.	19536 JAYNE AVE	93234	DRYCLEANERS
HURON	S108746562	DRESICK FARM, INC.	19536 JAYNE AVE	93234	HAZNET
HURON	S103679141	PACIFIC GAS & ELECTRIC - HURON SUB	LASSEN AVE 1/4 MI. NORTH OF	93234	HAZNET
HURON	S103655476	CITY OF HURON	36311 NORTH LASSEN	93234	HAZNET
HURON	S105614756	PG&E CALFLAX SUBSTATION	LASSEN (1MI S)	93234	Fresno Co. CUPA
HURON	S107621686	PACIFIC GAS & ELECTRIC CO	LASSEN	93234	EMI
HURON	S107539163		LASSEN AVE, 2 MI N OF HIGHWAY 198	93234	CDL
HURON	S106486286	CHEVRON PIPELINE LEAK - HURON	LOS GATOS CREEK (ARROYO PASAJERO)	93234	SLIC
HURON	S108432772	PACIFIC GAS & ELECTRIC CO	1 MILE WEST OF LASSEN / JAYNE	93234	EMI
HURON	1000228184	GIFFEN DUMP SITE	3/4 MI N OF DORRIS 3.MI W OF LASSEN	93234	ENVIROSTOR
HURON	1003878001	GIFFEN DUMP SITE	3/4 MI N DORRIS 3 MI W LASSEN	93234	CERC-NFRAP
HURON	S106921750	WELLHEAD POWER GATES, LLC.	S-29,T-20S,R-17E	93234	EMI
HURON	1006869340	WELLHEAD POWER GATES, LLC	S29 T20S R17E	93234	FINDS
KETTLEMAN	S106921698	VERIZON WIRELESS - KETTELMAN CITY	28435 MILHAM AVE	93239	EMI
KETTLEMAN CITY	S105937108	CHEVRON PIPELINE-KETTLEMAN ALP	I-5 / HWY 41	93239	EMI
KETTLEMAN CITY	S106828562	CHEVRON USA, INC.	I-5 / HWY 41	93239	EMI
KETTLEMAN CITY	1003878374	POWERS MALCOM P & MALCOM D	25TH AVE	93239	CERC-NFRAP
KETTLEMAN CITY	1000434419	CHEVRON USA INC KETTLEMAN STA	HWY 41	93239	RCRA-SQG
KETTLEMAN CITY	A100176297	KETTLEMAN CITY M.S. (DIST. 6)	HWY. 41 @ RACINE AVE.	93239	AST
KETTLEMAN CITY	S104573770	CHEVRON PIPE LINE COMPANY	HIGHWAY 41	93239	HAZNET
KETTLEMAN CITY	S105084051	CONWAY WESTERN EXPRESS SVCS INC	32251 HWY 41	93239	HAZNET
KETTLEMAN CITY	S106923905	CALTRANS	HWY 41 / RACINE	93239	SWEEPS UST
KETTLEMAN CITY	S108431565	CON-WAY WESTERN EXPRESS	32251 HIGHWAY 41	93239	EMI
KETTLEMAN CITY	U001581788	KETTLEMAN CITY FIRE STATION	HIGHWAY 41	93239	HIST UST
KETTLEMAN CITY	U001593055	KETTLEMAN STATION	HWY. 41	93239	HIST UST
KETTLEMAN CITY	1008201945	CONOCOPHILLIPS COMPANY - 256000	27585 BERNARD DR	93239	FINDS
KETTLEMAN CITY	S103479932	ARCO S/S #2170	BERNARD / HWY 41	93239	LUST, Cortese
KETTLEMAN CITY	S103479934	ARCO FAC #2170	BERNARD / HWY 41	93239	LUST, Cortese
KETTLEMAN CITY	S106086896	MOTOR CARGO INDUSTRIES	BERNARD DR / SR-41	93239	HAZNET
KETTLEMAN CITY	S106922793	ARCO FAC #2170	BERNARD DR/HWY 41	93239	SWEEPS UST
KETTLEMAN CITY	S103619586	KINGS COUNTY - PLANNING DEPARTMENT	100 BROWN	93239	HAZNET
KETTLEMAN CITY	S104573560	P G & E	CORNER OF QUAIL AVE / HWY 41	93239	HAZNET

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
KETTLEMAN CITY	S105557919	WWTF	0.75 MI E/O HWY 41	93239	CA WDS
KETTLEMAN CITY	A100108849	KETTLEMAN STATION	1/2 MILE S. OF KETTLEMAN CITY	93239	AST
KETTLEMAN CITY	S103985128	ROBISON PREZIOSO INC	1/2 MILE S OF KETTLEMAN CITY ON HWY 41	93239	HAZNET
KETTLEMAN CITY	S100183861	BEACON OIL	1.5 MILES SW OF KETTLEMAN CITY	93239	ENVIROSTOR
KETTLEMAN CITY	U001581790	KETTLEMAN HILLS FACILITY	35251 OLD SKYLINE ROAD	93239	CHMIRS, WMUDS/SWAT, HIST UST, EMI
KETTLEMAN CITY	1000210694	WEBER IMPLEMENT	32040 ORANGE AVE	93239	RCRA-SQG, FINDS
KETTLEMAN CITY	S103954550	CALTRANS DISTRICT 6	RACINE AT HWY 41	93239	HAZNET
KETTLEMAN CITY	1000287660	SHELL #1 WELL	5 MI SE ON I-5 3 MI E ON UTICA	93239	RCRA-SQG, FINDS
KETTLEMAN CITY	1000149994	PARAMOUNT FARMS	STAR RTE BX 100 5	93239	RCRA-SQG, FINDS
KETTLEMAN CITY	U001581792	KOCHERGEN FARMS	STAR ROUTE 35	93239	HIST UST
KETTLEMAN CITY	1008238819	SHELL OIL COMPANY - STATION #6	25712 WARD DR	93239	FINDS
KETTLEMEN CITY	S103479935	ARCO FAC #2170	BERNARD DR / HWY 41	93239	LUST

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

FEDERAL RECORDS

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/30/2008
Date Data Arrived at EDR: 05/06/2008
Date Made Active in Reports: 06/09/2008
Number of Days to Update: 34

Source: EPA
Telephone: N/A
Last EDR Contact: 07/28/2008
Next Scheduled EDR Contact: 10/27/2008
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/30/2008
Date Data Arrived at EDR: 05/06/2008
Date Made Active in Reports: 06/09/2008
Number of Days to Update: 34

Source: EPA
Telephone: N/A
Last EDR Contact: 07/28/2008
Next Scheduled EDR Contact: 10/27/2008
Data Release Frequency: Quarterly

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/30/2008
Date Data Arrived at EDR: 05/06/2008
Date Made Active in Reports: 06/09/2008
Number of Days to Update: 34

Source: EPA
Telephone: N/A
Last EDR Contact: 07/28/2008
Next Scheduled EDR Contact: 10/27/2008
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 05/19/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: No Update Planned

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/08/2008
Date Data Arrived at EDR: 04/25/2008
Date Made Active in Reports: 05/21/2008
Number of Days to Update: 26

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 07/22/2008
Next Scheduled EDR Contact: 09/15/2008
Data Release Frequency: Quarterly

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 12/03/2007
Date Data Arrived at EDR: 12/06/2007
Date Made Active in Reports: 02/20/2008
Number of Days to Update: 76

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 06/17/2008
Next Scheduled EDR Contact: 09/15/2008
Data Release Frequency: Quarterly

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/08/2008
Date Data Arrived at EDR: 03/07/2008
Date Made Active in Reports: 03/20/2008
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 05/19/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: Varies

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/26/2008
Date Data Arrived at EDR: 04/02/2008
Date Made Active in Reports: 05/06/2008
Number of Days to Update: 34

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: Quarterly

RCRA-TSDF: RCRA - Transporters, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/06/2008
Date Data Arrived at EDR: 03/06/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 43

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 05/21/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: Quarterly

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/06/2008
Date Data Arrived at EDR: 03/06/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 43

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 05/21/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/06/2008
Date Data Arrived at EDR: 03/06/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 43

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 05/21/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/06/2008
Date Data Arrived at EDR: 03/06/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 43

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 05/21/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: Varies

RCRA-NonGen: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/06/2008
Date Data Arrived at EDR: 03/06/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 43

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 05/21/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 04/04/2008
Date Data Arrived at EDR: 04/17/2008
Date Made Active in Reports: 05/15/2008
Number of Days to Update: 28

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 06/30/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 04/04/2008
Date Data Arrived at EDR: 04/17/2008
Date Made Active in Reports: 05/15/2008
Number of Days to Update: 28

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 06/30/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Varies

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 01/23/2008
Date Made Active in Reports: 03/17/2008
Number of Days to Update: 54

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 07/25/2008
Next Scheduled EDR Contact: 10/20/2008
Data Release Frequency: Annually

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 04/16/2008
Date Made Active in Reports: 05/15/2008
Number of Days to Update: 29

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 07/15/2008
Next Scheduled EDR Contact: 10/13/2008
Data Release Frequency: Annually

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 02/14/2008
Date Data Arrived at EDR: 02/27/2008
Date Made Active in Reports: 03/20/2008
Number of Days to Update: 22

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 05/28/2008
Next Scheduled EDR Contact: 08/25/2008
Data Release Frequency: Varies

CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 12/28/2007
Number of Days to Update: 25

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 06/27/2008
Next Scheduled EDR Contact: 09/22/2008
Data Release Frequency: Quarterly

US BROWNFIELDS: A Listing of Brownfields Sites

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 04/01/2008
Date Data Arrived at EDR: 04/30/2008
Date Made Active in Reports: 05/30/2008
Number of Days to Update: 30

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 07/15/2008
Next Scheduled EDR Contact: 10/13/2008
Data Release Frequency: Semi-Annually

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 703-692-8801
Last EDR Contact: 05/09/2008
Next Scheduled EDR Contact: 08/04/2008
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 08/31/2007
Date Made Active in Reports: 10/11/2007
Number of Days to Update: 41

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 06/30/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005
Date Data Arrived at EDR: 12/11/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 31

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 06/09/2008
Next Scheduled EDR Contact: 09/08/2008
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 02/08/2008
Date Data Arrived at EDR: 04/25/2008
Date Made Active in Reports: 05/30/2008
Number of Days to Update: 35

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 07/21/2008
Next Scheduled EDR Contact: 10/20/2008
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 01/14/2008
Date Data Arrived at EDR: 01/22/2008
Date Made Active in Reports: 01/30/2008
Number of Days to Update: 8

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/30/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 07/13/2007
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 06/16/2008
Next Scheduled EDR Contact: 09/15/2008
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 03/25/2008
Date Data Arrived at EDR: 04/17/2008
Date Made Active in Reports: 05/15/2008
Number of Days to Update: 28

Source: EPA, Region 9
Telephone: 415-972-3336
Last EDR Contact: 06/23/2008
Next Scheduled EDR Contact: 09/22/2008
Data Release Frequency: Varies

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/07/2008
Date Data Arrived at EDR: 03/26/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 23

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 06/25/2008
Next Scheduled EDR Contact: 09/22/2008
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 06/16/2008
Next Scheduled EDR Contact: 09/15/2008
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2002
Date Data Arrived at EDR: 04/14/2006
Date Made Active in Reports: 05/30/2006
Number of Days to Update: 46

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 07/14/2008
Next Scheduled EDR Contact: 10/13/2008
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/11/2008
Date Data Arrived at EDR: 04/24/2008
Date Made Active in Reports: 05/21/2008
Number of Days to Update: 27

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 06/16/2008
Next Scheduled EDR Contact: 09/15/2008
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/11/2008
Date Data Arrived at EDR: 04/24/2008
Date Made Active in Reports: 05/21/2008
Number of Days to Update: 27

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 06/16/2008
Next Scheduled EDR Contact: 09/15/2008
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 03/14/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 35
Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/14/2008
Next Scheduled EDR Contact: 10/13/2008
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 02/28/2008
Date Data Arrived at EDR: 03/18/2008
Date Made Active in Reports: 05/06/2008
Number of Days to Update: 49
Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 07/14/2008
Next Scheduled EDR Contact: 10/13/2008
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 12/04/2007
Date Data Arrived at EDR: 02/07/2008
Date Made Active in Reports: 03/17/2008
Number of Days to Update: 39
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 08/07/2008
Next Scheduled EDR Contact: 11/03/2008
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/22/2008
Date Data Arrived at EDR: 05/06/2008
Date Made Active in Reports: 06/09/2008
Number of Days to Update: 34
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 06/30/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/29/2008
Date Data Arrived at EDR: 05/01/2008
Date Made Active in Reports: 05/21/2008
Number of Days to Update: 20
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 07/31/2008
Next Scheduled EDR Contact: 10/27/2008
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/08/2008
Date Made Active in Reports: 05/06/2008
Number of Days to Update: 28

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 06/30/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 03/06/2007
Date Made Active in Reports: 04/13/2007
Number of Days to Update: 38

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 06/11/2008
Next Scheduled EDR Contact: 09/08/2008
Data Release Frequency: Biennially

STATE AND LOCAL RECORDS

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 05/27/2008
Next Scheduled EDR Contact: 08/25/2008
Data Release Frequency: No Update Planned

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 05/27/2008
Date Data Arrived at EDR: 05/28/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 23

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/28/2008
Next Scheduled EDR Contact: 08/25/2008
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 07/28/2008
Next Scheduled EDR Contact: 10/27/2008
Data Release Frequency: No Update Planned

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 06/09/2008
Date Data Arrived at EDR: 06/11/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 9

Source: Integrated Waste Management Board
Telephone: 916-341-6320
Last EDR Contact: 06/11/2008
Next Scheduled EDR Contact: 09/08/2008
Data Release Frequency: Quarterly

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: Quarterly

CA WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 06/16/2008
Next Scheduled EDR Contact: 09/15/2008
Data Release Frequency: Quarterly

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites). This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 05/29/2001
Date Made Active in Reports: 07/26/2001
Number of Days to Update: 58

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 07/21/2008
Next Scheduled EDR Contact: 10/20/2008
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 07/09/2008
Date Data Arrived at EDR: 07/10/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 21

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 07/10/2008
Next Scheduled EDR Contact: 10/06/2008
Data Release Frequency: Quarterly

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 07/14/2008
Next Scheduled EDR Contact: 10/13/2008
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/04/2008
Next Scheduled EDR Contact: 11/03/2008
Data Release Frequency: Varies

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 06/30/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/22/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Quarterly

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 06/23/2008
Next Scheduled EDR Contact: 09/22/2008
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 05/12/2008
Next Scheduled EDR Contact: 08/11/2008
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 07/09/2008
Next Scheduled EDR Contact: 10/06/2008
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 05/19/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 07/03/2008
Date Data Arrived at EDR: 07/11/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 20

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 07/11/2008
Next Scheduled EDR Contact: 10/06/2008
Data Release Frequency: Quarterly

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 05/19/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 07/03/2008
Date Data Arrived at EDR: 07/11/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 20

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 07/11/2008
Next Scheduled EDR Contact: 10/06/2008
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 05/19/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 07/09/2008
Next Scheduled EDR Contact: 10/06/2008
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 05/12/2008
Next Scheduled EDR Contact: 08/11/2008
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/21/2008
Next Scheduled EDR Contact: 10/20/2008
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 06/30/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 06/30/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 05/19/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 06/30/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 05/27/2008
Next Scheduled EDR Contact: 08/25/2008
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 07/10/2008
Date Data Arrived at EDR: 07/10/2008
Date Made Active in Reports: 07/25/2008
Number of Days to Update: 15

Source: SWRCB
Telephone: 916-480-1028
Last EDR Contact: 07/10/2008
Next Scheduled EDR Contact: 10/06/2008
Data Release Frequency: Semi-Annually

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 06/23/2008
Date Data Arrived at EDR: 06/23/2008
Date Made Active in Reports: 07/02/2008
Number of Days to Update: 9

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 06/23/2008
Next Scheduled EDR Contact: 09/22/2008
Data Release Frequency: Varies

HIST UST: Hazardous Substance Storage Container Database
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

AST: Aboveground Petroleum Storage Tank Facilities
Registered Aboveground Storage Tanks.

Date of Government Version: 11/01/2007
Date Data Arrived at EDR: 11/27/2007
Date Made Active in Reports: 02/14/2008
Number of Days to Update: 79

Source: State Water Resources Control Board
Telephone: 916-341-5712
Last EDR Contact: 07/28/2008
Next Scheduled EDR Contact: 10/27/2008
Data Release Frequency: Quarterly

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 05/05/2008
Date Data Arrived at EDR: 05/06/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 45

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/04/2008
Next Scheduled EDR Contact: 11/03/2008
Data Release Frequency: Varies

SWEEPS UST: SWEEPS UST Listing
Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CHMIRS: California Hazardous Material Incident Report System
California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 05/09/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 42

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 05/02/2008
Next Scheduled EDR Contact: 05/19/2008
Data Release Frequency: Varies

NOTIFY 65: Proposition 65 Records

Proposition 65 Notification Records. NOTIFY 65 contains facility notifications about any release which could impact drinking water and thereby expose the public to a potential health risk.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 07/14/2008
Next Scheduled EDR Contact: 10/13/2008
Data Release Frequency: No Update Planned

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 06/30/2008
Date Data Arrived at EDR: 06/30/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 31

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 06/30/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Semi-Annually

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 05/27/2008
Date Data Arrived at EDR: 05/28/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 23

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/28/2008
Next Scheduled EDR Contact: 08/25/2008
Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 07/31/2007
Date Data Arrived at EDR: 07/31/2007
Date Made Active in Reports: 08/09/2007
Number of Days to Update: 9

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 07/03/2008
Next Scheduled EDR Contact: 08/11/2008
Data Release Frequency: Annually

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 02/26/2008
Date Data Arrived at EDR: 04/23/2008
Date Made Active in Reports: 05/06/2008
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 07/25/2008
Next Scheduled EDR Contact: 10/20/2008
Data Release Frequency: Varies

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/06/2008
Number of Days to Update: 14

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 07/21/2008
Next Scheduled EDR Contact: 10/20/2008
Data Release Frequency: Varies

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 05/27/2008
Date Data Arrived at EDR: 05/28/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 23

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/28/2008
Next Scheduled EDR Contact: 08/25/2008
Data Release Frequency: Quarterly

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 10/04/2007
Date Made Active in Reports: 11/07/2007
Number of Days to Update: 34

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 05/09/2008
Next Scheduled EDR Contact: 08/04/2008
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 04/17/2007
Date Made Active in Reports: 05/10/2007
Number of Days to Update: 23

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 04/18/2008
Next Scheduled EDR Contact: 07/14/2008
Data Release Frequency: Varies

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 07/15/2008
Date Data Arrived at EDR: 07/18/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 13

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 07/14/2008
Next Scheduled EDR Contact: 09/08/2008
Data Release Frequency: Varies

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 05/27/2008
Date Data Arrived at EDR: 05/28/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 23

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/28/2008
Next Scheduled EDR Contact: 08/25/2008
Data Release Frequency: Quarterly

TRIBAL RECORDS

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 05/09/2008
Next Scheduled EDR Contact: 08/04/2008
Data Release Frequency: Semi-Annually

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 05/27/2008
Next Scheduled EDR Contact: 08/25/2008
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 02/21/2008
Date Data Arrived at EDR: 02/26/2008
Date Made Active in Reports: 03/20/2008
Number of Days to Update: 23

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 05/19/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 02/28/2008
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 03/17/2008
Number of Days to Update: 17

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 05/19/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 02/25/2008
Date Data Arrived at EDR: 02/26/2008
Date Made Active in Reports: 03/17/2008
Number of Days to Update: 20

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 05/19/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: Quarterly

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 02/20/2008
Date Data Arrived at EDR: 03/04/2008
Date Made Active in Reports: 03/17/2008
Number of Days to Update: 13

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 05/19/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 03/17/2008
Date Data Arrived at EDR: 03/27/2008
Date Made Active in Reports: 05/06/2008
Number of Days to Update: 40

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 05/19/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 03/17/2008
Date Data Arrived at EDR: 03/27/2008
Date Made Active in Reports: 05/06/2008
Number of Days to Update: 40

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 05/19/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: Semi-Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 03/12/2008
Date Data Arrived at EDR: 03/14/2008
Date Made Active in Reports: 03/20/2008
Number of Days to Update: 6

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/19/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land
A listing of underground storage tank locations on Indian Land.

Date of Government Version: 03/12/2008
Date Data Arrived at EDR: 03/14/2008
Date Made Active in Reports: 03/20/2008
Number of Days to Update: 6

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/19/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
No description is available for this data

Date of Government Version: 03/17/2008
Date Data Arrived at EDR: 03/27/2008
Date Made Active in Reports: 05/06/2008
Number of Days to Update: 40

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 05/19/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: Semi-Annually

INDIAN UST R10: Underground Storage Tanks on Indian Land
No description is available for this data

Date of Government Version: 02/21/2008
Date Data Arrived at EDR: 02/26/2008
Date Made Active in Reports: 03/20/2008
Number of Days to Update: 23

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 05/19/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land
No description is available for this data

Date of Government Version: 02/20/2008
Date Data Arrived at EDR: 03/04/2008
Date Made Active in Reports: 03/17/2008
Number of Days to Update: 13

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 05/19/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: Quarterly

INDIAN UST R6: Underground Storage Tanks on Indian Land
No description is available for this data

Date of Government Version: 02/28/2008
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 03/17/2008
Number of Days to Update: 17
Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 05/19/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land
No description is available for this data

Date of Government Version: 12/21/2007
Date Data Arrived at EDR: 12/21/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 34
Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 05/19/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land
No description is available for this data

Date of Government Version: 02/25/2008
Date Data Arrived at EDR: 02/26/2008
Date Made Active in Reports: 03/20/2008
Number of Days to Update: 23
Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 05/19/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land
No description is available for this data

Date of Government Version: 06/01/2007
Date Data Arrived at EDR: 06/14/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 21
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 05/19/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 04/02/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27
Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 07/21/2008
Next Scheduled EDR Contact: 10/20/2008
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27
Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 07/21/2008
Next Scheduled EDR Contact: 10/20/2008
Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/28/2008
Date Data Arrived at EDR: 01/29/2008
Date Made Active in Reports: 02/14/2008
Number of Days to Update: 16

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 08/04/2008
Next Scheduled EDR Contact: 10/20/2008
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 01/28/2008
Date Data Arrived at EDR: 01/29/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 10

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 08/04/2008
Next Scheduled EDR Contact: 10/20/2008
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 06/03/2008
Date Data Arrived at EDR: 06/05/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 15

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 05/27/2008
Next Scheduled EDR Contact: 08/25/2008
Data Release Frequency: Semi-Annually

FRESNO COUNTY:

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 03/31/2008
Date Data Arrived at EDR: 04/18/2008
Date Made Active in Reports: 05/06/2008
Number of Days to Update: 18

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 08/04/2008
Next Scheduled EDR Contact: 11/03/2008
Data Release Frequency: Semi-Annually

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 06/02/2008
Date Data Arrived at EDR: 06/03/2008
Date Made Active in Reports: 07/02/2008
Number of Days to Update: 29

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: Quarterly

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 07/07/1999
Date Made Active in Reports: N/A
Number of Days to Update: 0

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 07/14/2008
Next Scheduled EDR Contact: 10/13/2008
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 04/30/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 05/12/2008
Next Scheduled EDR Contact: 08/11/2008
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 05/12/2008
Date Data Arrived at EDR: 05/27/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 24

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 05/14/2008
Next Scheduled EDR Contact: 08/11/2008
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/01/2008
Date Data Arrived at EDR: 03/20/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 25

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 06/09/2008
Next Scheduled EDR Contact: 09/08/2008
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 02/14/2008
Date Data Arrived at EDR: 04/10/2008
Date Made Active in Reports: 05/06/2008
Number of Days to Update: 26

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 05/12/2008
Next Scheduled EDR Contact: 08/11/2008
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 05/27/2008
Date Data Arrived at EDR: 06/10/2008
Date Made Active in Reports: 07/02/2008
Number of Days to Update: 22

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 05/27/2008
Next Scheduled EDR Contact: 08/11/2008
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003
Date Data Arrived at EDR: 10/23/2003
Date Made Active in Reports: 11/26/2003
Number of Days to Update: 34

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 05/21/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: Annually

City of Torrance Underground Storage Tank

Underground storage tank sites located in the city of Torrance.

Date of Government Version: 02/26/2008
Date Data Arrived at EDR: 02/27/2008
Date Made Active in Reports: 03/14/2008
Number of Days to Update: 16

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 05/27/2008
Next Scheduled EDR Contact: 08/11/2008
Data Release Frequency: Semi-Annually

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 05/07/2008
Date Data Arrived at EDR: 05/27/2008
Date Made Active in Reports: 07/02/2008
Number of Days to Update: 36

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 07/28/2008
Next Scheduled EDR Contact: 10/27/2008
Data Release Frequency: Semi-Annually

NAPA COUNTY:

Sites With Reported Contamination

A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 07/09/2008
Date Data Arrived at EDR: 07/09/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 22

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 07/09/2008
Next Scheduled EDR Contact: 09/22/2008
Data Release Frequency: Semi-Annually

Closed and Operating Underground Storage Tank Sites

Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 07/21/2008
Next Scheduled EDR Contact: 09/22/2008
Data Release Frequency: Annually

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 06/02/2008
Date Data Arrived at EDR: 06/13/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 7
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 06/04/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 06/02/2008
Date Data Arrived at EDR: 06/16/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 4
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 06/04/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 06/02/2008
Date Data Arrived at EDR: 06/13/2008
Date Made Active in Reports: 07/14/2008
Number of Days to Update: 31
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 06/04/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 07/23/2007
Date Data Arrived at EDR: 07/23/2007
Date Made Active in Reports: 08/09/2007
Number of Days to Update: 17
Source: Placer County Health and Human Services
Telephone: 530-889-7312
Last EDR Contact: 06/16/2008
Next Scheduled EDR Contact: 09/15/2008
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 07/15/2008
Date Data Arrived at EDR: 07/18/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 13
Source: Department of Public Health
Telephone: 951-358-5055
Last EDR Contact: 07/14/2008
Next Scheduled EDR Contact: 10/13/2008
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 05/13/2008
Date Data Arrived at EDR: 05/15/2008
Date Made Active in Reports: 07/02/2008
Number of Days to Update: 48
Source: Health Services Agency
Telephone: 951-358-5055
Last EDR Contact: 07/28/2008
Next Scheduled EDR Contact: 10/13/2008
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Contaminated Sites

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 05/06/2008
Date Data Arrived at EDR: 05/08/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 43

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/28/2008
Next Scheduled EDR Contact: 10/27/2008
Data Release Frequency: Quarterly

ML - Regulatory Compliance Master List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 05/06/2008
Date Data Arrived at EDR: 05/08/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 43

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/28/2008
Next Scheduled EDR Contact: 10/27/2008
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 06/23/2008
Date Data Arrived at EDR: 06/23/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 38

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 05/16/2005
Date Data Arrived at EDR: 05/18/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 29

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 07/29/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 08/01/2007
Date Data Arrived at EDR: 02/05/2008
Date Made Active in Reports: 02/14/2008
Number of Days to Update: 9

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 05/19/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 06/04/2008
Date Data Arrived at EDR: 07/25/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 6

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 07/03/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Varies

SAN FRANCISCO COUNTY:

Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 06/02/2008
Date Data Arrived at EDR: 06/03/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 17

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 06/02/2008
Date Data Arrived at EDR: 06/03/2008
Date Made Active in Reports: 07/14/2008
Number of Days to Update: 41

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/12/2008
Date Data Arrived at EDR: 06/13/2008
Date Made Active in Reports: 07/02/2008
Number of Days to Update: 19

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 07/14/2008
Next Scheduled EDR Contact: 10/13/2008
Data Release Frequency: Semi-Annually

SAN MATEO COUNTY:

Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 06/18/2008
Date Data Arrived at EDR: 06/18/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 2

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 07/09/2008
Next Scheduled EDR Contact: 10/06/2008
Data Release Frequency: Annually

Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 07/10/2008
Date Data Arrived at EDR: 07/11/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 20

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 07/09/2008
Next Scheduled EDR Contact: 10/06/2008
Data Release Frequency: Semi-Annually

SANTA CLARA COUNTY:

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22
Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 06/23/2008
Next Scheduled EDR Contact: 09/22/2008
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 07/17/2008
Date Data Arrived at EDR: 07/18/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 13
Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 07/09/2008
Next Scheduled EDR Contact: 09/22/2008
Data Release Frequency: Varies

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 06/06/2008
Date Data Arrived at EDR: 06/10/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 10
Source: City of San Jose Fire Department
Telephone: 408-277-4659
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: Annually

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/23/2008
Date Data Arrived at EDR: 07/09/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 22
Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/23/2008
Next Scheduled EDR Contact: 09/22/2008
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 06/22/2008
Date Data Arrived at EDR: 07/03/2008
Date Made Active in Reports: 07/25/2008
Number of Days to Update: 22
Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/23/2008
Next Scheduled EDR Contact: 09/22/2008
Data Release Frequency: Quarterly

SONOMA COUNTY:

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9
Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 07/21/2008
Next Scheduled EDR Contact: 10/20/2008
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 05/04/2007
Date Data Arrived at EDR: 05/04/2007
Date Made Active in Reports: 05/24/2007
Number of Days to Update: 20

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 06/30/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Semi-Annually

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/11/2008
Next Scheduled EDR Contact: 09/08/2008
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 08/01/2007
Date Data Arrived at EDR: 08/29/2007
Date Made Active in Reports: 09/26/2007
Number of Days to Update: 28

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/19/2008
Next Scheduled EDR Contact: 08/18/2008
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/11/2008
Next Scheduled EDR Contact: 09/08/2008
Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 06/27/2008
Date Data Arrived at EDR: 07/11/2008
Date Made Active in Reports: 07/25/2008
Number of Days to Update: 14

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 07/11/2008
Next Scheduled EDR Contact: 10/06/2008
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 05/13/2008
Date Data Arrived at EDR: 05/30/2008
Date Made Active in Reports: 07/02/2008
Number of Days to Update: 33

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 07/28/2008
Next Scheduled EDR Contact: 07/14/2008
Data Release Frequency: Annually

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 06/15/2007
Date Made Active in Reports: 08/20/2007
Number of Days to Update: 66

Source: Department of Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 06/13/2008
Next Scheduled EDR Contact: 09/08/2008
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 09/30/2007
Date Data Arrived at EDR: 12/04/2007
Date Made Active in Reports: 12/31/2007
Number of Days to Update: 27

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/03/2008
Next Scheduled EDR Contact: 06/30/2008
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 05/27/2008
Date Data Arrived at EDR: 05/29/2008
Date Made Active in Reports: 07/10/2008
Number of Days to Update: 42

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/29/2008
Next Scheduled EDR Contact: 08/25/2008
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 12/21/2007
Date Made Active in Reports: 01/10/2008
Number of Days to Update: 20

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 06/09/2008
Next Scheduled EDR Contact: 09/08/2008
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 06/03/2008
Date Made Active in Reports: 08/07/2008
Number of Days to Update: 65

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 06/16/2008
Next Scheduled EDR Contact: 09/15/2008
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 04/27/2007
Date Made Active in Reports: 06/08/2007
Number of Days to Update: 42

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 07/21/2008
Next Scheduled EDR Contact: 10/06/2008
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

STREET AND ADDRESS INFORMATION

APPENDIX D

CENTRAL VALLEY RWQCB RECORDS

(PG&E KETTLEMAN COMPRESSOR STATION)

California Regional Water Quality Control Board
Central Valley Region

Fresno Branch Office
Internet Address: http://www.swrcb.ca.gov/~rwqcb5/home.html
3614 East Ashlan Avenue, Fresno, California 93726
Phone (209) 445-5116 • FAX (209) 445-5910

10 August 1998

Mr. Melvin Wong
Pacific Gas and Electric Company
375 North Wiget Lane, Suite 170
Walnut Creek, CA 94598

DISCONTINUE GROUNDWATER MONITORING, PACIFIC GAS AND ELECTRIC COMPANY, KETTLEMAN COMPRESSOR STATION, AVENAL, KINGS COUNTY

We have reviewed the *Groundwater Monitoring and Sampling Report: April 1 to June 30, 1998.* The report contains analytical results for groundwater samples from two on-site (25-F2 and 25-F3) and two off-site (25-D1 and 25-D2) monitoring wells at your Kettleman Compressor Station. The report also contains a table of historical sample results for the wells (see attached Table 2 from the report). Since August 1994, the on-site wells have had sporadic detection of chromium at or slightly above the detection limit, mostly associated with a lack of sample filtration. The off-site wells were installed in August 1997 and had an initial detection of chromium near the detection limit in an unfiltered sample. The filtered samples indicated that dissolved chromium has not been detected in the off-site wells during the four quarters of monitoring.

The *Groundwater Monitoring and Sampling Report* recommends the discontinuance of groundwater monitoring and the proper abandonment of the on-site and off-site wells. In a letter dated 8 January 1998, we concurred with the recommendation of quarterly monitoring of the wells for one year, after which we would reevaluate the results. After one year of monitoring, dissolved chromium has not been detected in the off-site wells, where previous computer modeling predicted the center of the potential plume would be located.

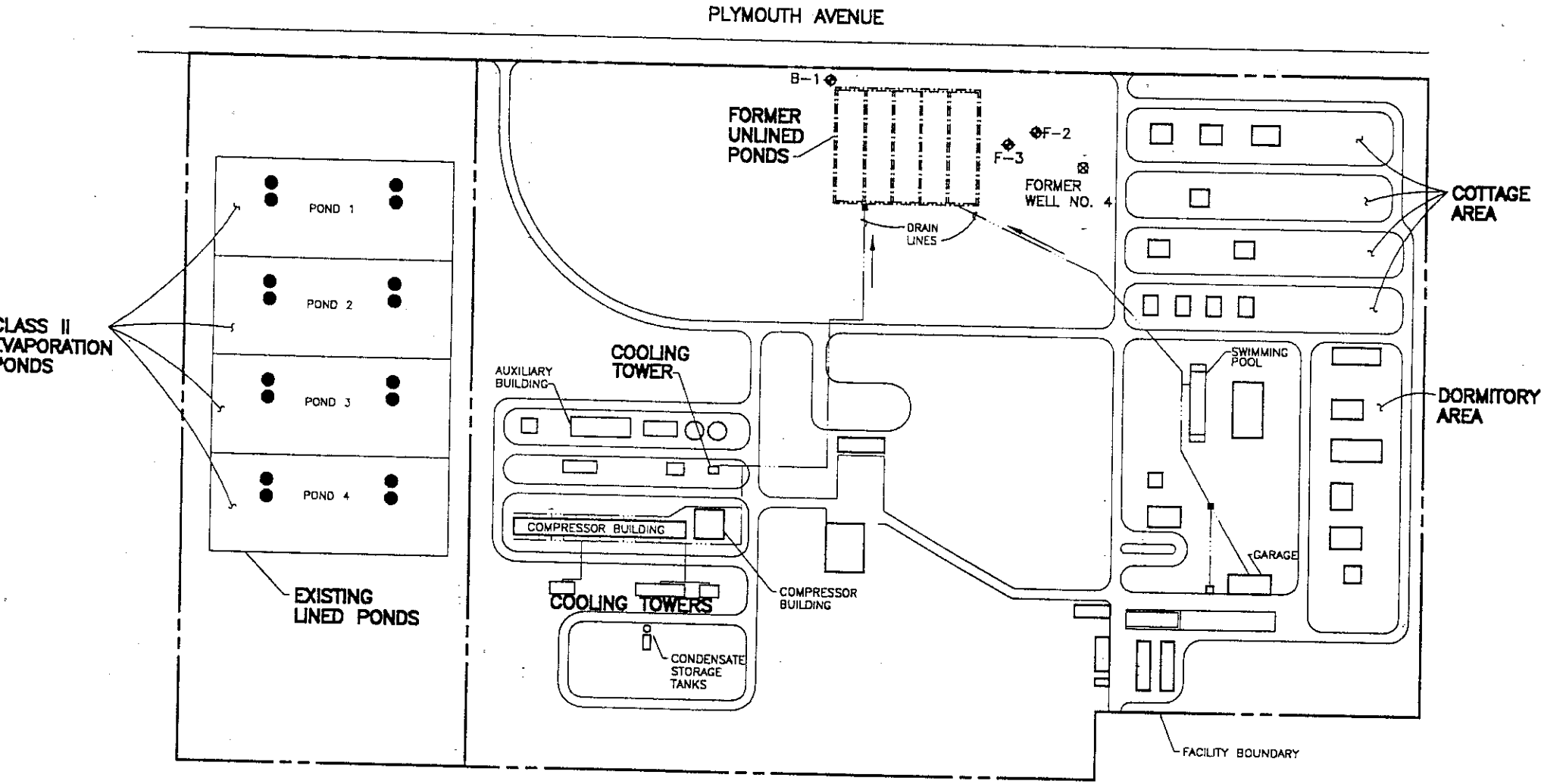
We concur with your recommendation to discontinue groundwater monitoring. However, we request that the monitoring wells be maintained for at least one more year. After that time, and following the collection and analysis of a sample from each well, we will consider final well abandonment.

If you have any questions, please call Doug Patteson at (209) 445-6191.

SHELTON R. GRAY
Senior Engineering Geologist

WILLIAM PFISTER
Supervising Engineering Geologist
CEG No. 931

cc: Department of Toxic Substances Control, Rancho Cordova
Kings County Environmental Health Department, Hanford
Mr. Al Sevilla, Alisto Engineering, Walnut Creek


PLYMOUTH AVENUE
B-1
FORMER UNLINED PONDS
F-2
F-3
FORMER WELL NO. 4
DRAIN LINES
COTTAGE AREA
CLASS II EVAPORATION PONDS
POND 1
POND 2
POND 3
POND 4
EXISTING LINED PONDS
AUXILIARY BUILDING
COOLING TOWER
SWIMMING POOL
DORMITORY AREA
COMPRESSOR BUILDING
GARAGE
COOLING TOWERS
COMPRESSOR BUILDING
CONDENSATE STORAGE TANKS
FACILITY BOUNDARY

California Regional Water Quality Control Board
Central Valley Region
Robert Schneider, Chair

:rry Tamminen
Secretary for Environmental Protection

Fresno Branch Office
www.swrcb.ca.gov/~rwqcb5
1685 E Street, Fresno, California 93706-2020
Phone (559) 445-5116 • FAX (559) 445-5910

Arnold Schwarzenegger
Governor

9 December 2004

Mr. Mike Bennett
Pacific Gas and Electric Company
650 'O' Street, Building A
Fresno, CA 93760

NOTICE OF APPLICABILITY OF GENERAL WAIVER, RESOLUTION NO. R5-2003-0008, PG&E KETTLEMAN COMPRESSOR STATION, KINGS COUNTY

The Pacific Gas and Electric (PG&E) Kettleman Compressor Station in Kings County produces process cooling water as part of its operation. The facility has four Class II surface impoundments which will be closed. Waste Discharge Requirements Order Number 99-145 regulates the facility. Regional Board staff received a proposal dated 5 August 2004 for the discharge of process cooling water to land following impoundment closure. A revised proposal dated 21 September 2004, serves as a Report of Waste Discharge (RWD).

Discharge Location

The PG&E Kettleman Compressor Station is located in a remote part of western Kings County. The facility is bounded by the Kettleman Hills to the southwest and by properties primarily agricultural or open range to the northeast. The site is on an 85-acre parcel adjacent to Interstate-5, approximately six miles north-northeast of Avenal, California. The legal description of the site is as follows: a portion of Section 25, Township 21S, Range 17E, MDB&M.

Depth to the uppermost water-bearing zone is greater than 500 feet. The closest domestic well is approximately 8,000 feet north-northeast of the site and the closest agricultural well is approximately 3,000 feet to the east.

Discharge Description

In 2002, PG&E upgraded the Kettleman Compressor Station by replacing the water-cooled reciprocating engines with air-cooled turbines for natural gas compression. The replacement of the reciprocating engines eliminated blow-down water from the cooling towers and only a small quantity of process cooling water is now generated at the facility. The City of Avenal water is used for the cooling system water and no additives are introduced into the water. PG&E is proposing to reuse the process cooling water to supplement the current landscaping irrigation through the existing facility irrigation system. City of Avenal water is used for irrigation and the irrigation demand at the facility has been calculated to be 6,000 to 9,000 gallons per day.

Typically, process cooling water is only generated when the ambient temperature is above 75 degrees F, May through October. It is conservatively estimated that on the average, 2,000 gallons a day of process cooling water will be generated. Actual data indicates that between September 2001 and June 2004, approximately 202,700 gallons of cooling water have been discharged from the cooling system. This is approximately 68,000 per six-month period, or approximately 400 gallons per day. The cooling water will be stored in two 7,100-gallon holding tanks.

In the unlikely event that the cooling system would be required to operate 24 hours a day, the maximum discharge would be 13,000 gallons per day for irrigation. The maximum irrigation demand is estimated to be 9,000 gallons per day leaving an excess of 4,000 gallons per day. PG&E proposes to discharge any excess cooling water to a 0.6-acre non-landscaped area at the location of the closed impoundments. A water balance for this area indicates that the evaporation rate exceeds the discharge and rainfall rate.

The proposal contains cooling water and groundwater analytical data. Analyses indicate that the process cooling water will have an electrical conductivity approximately the same as the uppermost underlying groundwater and a TDS concentration less than the uppermost underlying groundwater.

Conditional Waiver

Based on Regional Board staff review, the discharge as described in your RWD satisfies the general and specific conditions of Resolution No. R5-2003-0008 for the category of *Air Conditioner, Cooling and Elevated Temperature Waters Discharged to Land.* Therefore, this shall serve as formal notice that Resolution No. R5-2003-0008 is applicable and waste discharge requirements for the discharge are waived.

This waiver will expire on 31 January 2008 at which time you must submit a new RWD with filing fee to renew the waiver or cease the discharge. Further, this waiver is conditional. For continued waiver, the discharge must meet on an ongoing basis the general conditions listed in the enclosed Attachment A of the General Waiver and the following specific conditions, also detailed in Attachment A:

- Waste constituent concentrations must be less than in the uppermost underlying groundwater
- Biochemical oxygen demand (BOD) must be consistently less than 30 mg/L without treatment and, if impounded, must be less than 10 lb/acre/day
- Additives, if any, must be used in accordance with manufacturer's guidelines and reliably attenuated before infiltrating to groundwater

If the operation changes significantly from what was described, waste discharge requirements may be may be appropriate. If the discharge violates the terms or conditions of the waiver, the Regional Board may take enforcement, including assessment of administrative civil liability.

If you have any questions regarding this Notice of Applicability, please contact Terry Fox at (559) 445-6191.

THOMAS R. PINKOS
Executive Officer

Enclosure: General Waiver, including Staff Report and Attachment A

cc: w/encl: Kings County Environmental Health, Hanford
w/o encl: Bo Bowman, Alisto Engineering, 2737 North Main Street, Suite 100, Walnut Creek, CA 93706

GROUNDWATER MONITORING AND SAMPLING REPORT 1999

Pacific Gas and Electric Company
Kettleman Compressor Station

California Regional Water Quality Control Board,
Central Valley Region

Prepared for:

Pacific Gas and Electric Company
Gas Supply Operations
375 North Wiget Lane
Walnut Creek, California

Prepared by:

Alisto Engineering Group
1575 Treat Boulevard, Suite 201
Walnut Creek, California

Alisto Project No. 10-188-22-001

MONITORING REPORT REVIEW

Engineer _____

Compliance _____ yes _____ no

Date Reviewed _____

October 1999

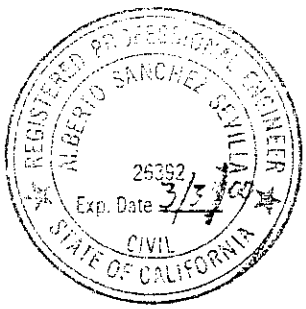
GROUNDWATER MONITORING AND SAMPLING REPORT 1999

Pacific Gas and Electric Company
Kettleman Compressor Station

Alisto Project No. 10-188-22-001

The undersigned certify that this report presents the results of environmental monitoring requested by the California Regional Water Quality Control Board, Central Valley Region, for this facility.

Alisto Engineering Group:



Al Sevilla, P.E.
Principal

GROUNDWATER MONITORING AND SAMPLING REPORT

Pacific Gas and Electric Company
Kettleman Compressor Station

Alisto Project No. 10-188-22-001

October 1999

INTRODUCTION

To comply with the requirements of the Regional Water Quality Control Board, Central Valley Region (RWQCB), Pacific Gas and Electric Company (PG&E) retained Alisto Engineering Group to perform groundwater monitoring and sampling at PG&E's Kettleman compressor station, 34453 Plymouth Avenue, near Avenal, California. This report presents the results and findings of the 1999 groundwater monitoring and sampling performed by Alisto at the Kettleman station from August 17 to 18, 1999 as set forth in the letter from the RWQCB dated August 10, 1999. A site vicinity map is shown on Figure 1.

FIELD PROCEDURES

Depth to groundwater was measured on August 17, 1998 in two onsite and two offsite monitoring wells using an electronic water level indicator. Depth to groundwater in the 14 offsite water supply wells was measured using an acoustic sounder. The location of these wells is shown on Figure 2. The depth to groundwater in wells monitored and corresponding groundwater elevations are summarized in Table 1.

Groundwater samples were collected from two onsite wells (21S/17E/25-F2 and 21S/17E/25-F3) and from four offsite wells (21S/17E/25-D1, 21S/17E/25-D2, 21S/17E/24-N2 and 21S/17E/30-P1) in accordance with the requirements of the Regional Water Quality Control Board, Central Valley Region (RWQCB). Analytical results, including historical data collected since October 1993, are summarized in Table 2.

The two onsite wells (25-F2 and 25-F3) and the two offsite monitoring wells (25-D1 and 25-D2) are equipped with dedicated pumps. Well 25-D2 was purged of three well volumes before sampling and Well 25-F3 was purged dry after one well volume and allowed to recover before sample collection. As approved by the RWQCB in a letter dated May 27, 1998 Wells 25-D1 and 25-F2 were purged of one well volume before sampling based on the results of a site-specific purging study. The three offsite irrigation water supply wells were not purged before collecting grab samples using a bailer.

Approximately 1800 gallons of groundwater was purged from Wells 25-D1 and 25-D2 and stored in a temporary tank pending analytical results to determine the appropriate method of disposal. Copies of the field data sheets are presented in Appendix A. Based on analytical results and with concurrence from the RWQCB, the purge water was transported to the PG&E Kettleman facility and discharged at the lawn area on September 17, 1999.

SAMPLING AND ANALYTICAL RESULTS

The groundwater samples collected on August 18, 1999 were submitted to Applied P & Ch Laboratory (APCL), a state-certified analytical laboratory, for analyses of total and hexavalent chromium using EPA Methods 200.7/6010 and 7196A. All samples were filtered at the laboratory by APCL before analysis.

Total and hexavalent chromium were not detected in the groundwater samples analyzed by APCL either at or above the method detection limit of 0.01 milligrams per liter (mg/l). Total and hexavalent chromium were also not detected in the grab samples of purge water from the temporary storage tank. Analytical results for total and hexavalent chromium, for this event as well as historical data collected since October 1993, are summarized in Table 2. Copies of the laboratory reports and chain of custody documentation are included in Appendix B.

Review of historical analytical data for groundwater samples collected from PG&E monitoring wells and selected nearby irrigation water supply wells indicates that hexavalent chromium has not been detected above the method detection limit (MDL) of 0.01 milligrams per liter (mg/l) since April 1994. Total chromium has also not been detected above the MDL or the practical quantitation limit (PQL) of 0.02 mg/l since August 1994.

Groundwater elevation contours, as interpreted from the August 1999 monitoring data and shown on Figure 3, indicate that the groundwater flow regime beneath and in the vicinity of the PG&E facility is generally consistent with previous monitoring results and the potentiometric contour map presented in the Hydrogeologic Investigation report (Alisto, 1997). Graphical interpretation of groundwater elevation contours, shown on Figure 3, indicates an apparent depression in the water table beneath the PG&E facility, probably as a result of groundwater pumping by nearby agricultural water supply wells.

RECOMMENDATIONS

Based on the results of this and previous quarterly monitoring events and in accordance with RWQCB's letters, dated January 8, 1998 and August 10, 1998, regarding the hydrogeologic investigation at PG&E's Kettleman compressor station, Alisto recommends that PG&E requests RWQCB's approval to:

- Terminate the quarterly groundwater monitoring and sampling of designated wells at and in the vicinity of the Kettleman compressor station.

- Properly abandon/destroy the groundwater monitoring wells associated with the hydrogeologic investigation in the future. The two offsite monitoring wells, 25-D1 and 25-D2, can be left in place and converted to other uses, subject to applicable requirements of the California Department of Water Resources and local agencies.

TABLE 1 - RESULTS OF GROUNDWATER MONITORING
PG&E KETTLEMAN COMPRESSOR STATION

ALISTO PROJECT NO. 10-188-19

WELL ID	MONITORING DATE	CASING ELEVATION (a) (feet)	DEPTH TO WATER (feet)	GROUNDWATER ELEVATION (b) (feet)	SCREENED INTERVAL (feet)
21S/17E/11N1	09/28/95	427 (c)	480	-53	---
21S/17E/11N1	03/06/96	427	469.6	-43	---
21S/17E/11N1	05/06/96	427	455.8	-29	---
21S/17E/11N1	08/06/96	427	454.5	-28	---
21S/17E/11N1	10/22/96	427	452.2	-25	---
21S/17E/11N1	02/26/97	427	449.7	-23	---
21S/17E/11N1	04/23/97	427	453.7	-27	---
21S/17E/11N1	08/18/97	427	376.7	50	---
21S/17E/11N1	10/21/97	427	385.8	41	---
21S/17E/11N1	02/18/98	427	328.8	98	---
21S/17E/11N1	05/14/98	427	333.4	94	---
21S/17E/11N1	08/17/99	427	330.6	96	---
21S/17E/14A1	09/29/95	401 (c)	339.54 (d)	61.46	730-1420
21S/17E/14A1	03/06/96	401	327.0	74	730-1420
21S/17E/14A1	05/06/96	401	308.7	92	730-1420
21S/17E/14A1	08/06/96	401	300.9	100	730-1420
21S/17E/14A1	10/22/96	401	298.1	103	730-1420
21S/17E/14A1	02/26/97	401	297.3	104	730-1420
21S/17E/14A1	04/23/97	401	300.7	100	730-1420
21S/17E/14A1	08/18/97	401	330.0	71	730-1420
21S/17E/14A1	10/21/97	401	338.2	63	730-1420
21S/17E/14A1	02/18/98	401	287.8	113	730-1420
21S/17E/14A1	05/14/98	401	293.1	108	730-1420
21S/17E/14A1	08/17/99	401	289.9	111	730-1420
21S/17E/14A2	09/29/95	401 (c)	366.06 (d)	34.94	---
21S/17E/14A2	03/06/96	401	331.5	70	---
21S/17E/14A2	05/06/96	401	309.2	92	---
21S/17E/14A2	08/06/96	401	308.0	93	---
21S/17E/14A2	10/22/96	401	305.7	95	---
21S/17E/14A2	02/26/97	401	300.8	100	---
21S/17E/14A2	04/23/97	401	304.3	97	---
21S/17E/14A2	08/18/97	401	355.3	46	---
21S/17E/14A2	10/21/97	401	364.9	36	---
21S/17E/14A2	02/18/98	401	314.2	87	---
21S/17E/14A2	05/14/98	401	317.1	84	---
21S/17E/14A2	08/17/99	401	315.6	85	---
21S/17E/14H1	09/28/95	402 (c)	444.58 (d)	-42.58	---
21S/17E/14H1	03/06/96	402	432.6	-31	---
21S/17E/14H1	05/06/96	402	416.9	-15	---
21S/17E/14H1	08/06/96	402	415.6	-14	---
21S/17E/14H1	10/22/96	402	412.0	-10	---
21S/17E/14H1	02/26/97	402	408.6	-7	---
21S/17E/14H1	04/23/97	402	412.8	-11	---
21S/17E/14H1	08/18/97	402	403.4	-1	---
21S/17E/14H1	10/21/97	402	413.9	-12	---
21S/17E/14H1	02/18/98	402	289.5	113	---
21S/17E/14H1	05/14/98	402	283.7	118	---
21S/17E/14H1	08/17/99	402	280.9	121	---
21S/17E/14N3	09/29/95	476.16 (e)	542.85 (d)	-66.69	---
21S/17E/14N3	03/06/96	476.16	--- (f)	---	---
21S/17E/22G1	09/29/95	576	492.03 (d)	83.97	555-1707

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WELL ID	MONITORING DATE	CASING ELEVATION (feet)		DEPTH TO WATER (feet)		GROUNDWATER ELEVATION (feet)		SCREENED INTERVAL (feet)
21S/17E/22G1	03/06/96	576		482.6		93		555-1707
21S/17E/22G1	08/06/96	576		---	(f)	---		555-1707
21S/17E/24E1	09/28/95	448.27	(e)	443.32	(d)	4.95		506-1734
21S/17E/24E1	03/06/96	448.27		429.7		19		506-1734
21S/17E/24E1	05/06/96	448.27		418.2		30		506-1734
21S/17E/24E1	08/06/96	448.27		417.1		31		506-1734
21S/17E/24E1	10/22/96	448.27		415.2		33		506-1734
21S/17E/24E1	02/26/97	448.27		409.9		38		506-1734
21S/17E/24E1	04/23/97	448.27		411.2		37		506-1734
21S/17E/24E1	08/18/97	448.27		428.9		19		506-1734
21S/17E/24E1	10/21/97	448.27		439.1		9		506-1734
21S/17E/24E1	02/18/98	448.27		423.8		25		506-1734
21S/17E/24E1	05/14/98	448.27		426.9		21		506-1734
21S/17E/24E1	08/17/99	448.27		421.1		27		506-1734
21S/17E/24G1	09/28/95	420.06	(e)	462.62	(d)	-42.56		572-1800
21S/17E/24G1	03/06/96	420.06		443.2		-23		572-1800
21S/17E/24G1	05/06/96	420.06		---	(f)	---		---
21S/17E/24H1	09/28/95	393.10	(e)	330.0		63.1		---
21S/17E/24H1	03/06/96	393.10		323.3		70		---
21S/17E/24H1	05/06/96	393.10		310.1		83		---
21S/17E/24H1	08/06/96	393.10		308.6		85		---
21S/17E/24H1	10/22/96	393.10		306.2		87		---
21S/17E/24H1	02/26/97	393.10		304.2		89		---
21S/17E/24H1	04/23/97	393.10		308.1		85		---
21S/17E/24H1	08/18/97	393.10		307.0		86		---
21S/17E/24H1	10/21/97	393.10		318.4		75		---
21S/17E/24H1	02/26/98	393.10		312.0		81		---
21S/17E/24H1	05/14/98	393.10		311.5		82		---
21S/17E/24H1	08/17/99	393.10		313.5		80		---
::								
21S/17E/24J1	09/28/95	396.84	(e)	389.63	(d)	7.21		---
21S/17E/24J1	03/06/96	396.84		368.4		28		---
21S/17E/24J1	05/06/96	396.84		359.9		37		---
21S/17E/24J1	08/06/96	396.84		358.7		38		---
21S/17E/24J1	10/22/96	396.84		355.7		41		---
21S/17E/24J1	02/26/97	396.84		351.7		45		---
21S/17E/24J1	04/23/97	396.84		358.2		39		---
21S/17E/24J1	08/18/97	396.84		314.7		82		---
21S/17E/24J1	10/21/97	396.84		323.9		73		---
21S/17E/24J1	02/18/98	396.84		299.9		97		---
21S/17E/24J1	05/14/98	396.84		302.6		94		---
21S/17E/24J1	08/17/99	396.84		304.2		93		---
21S/17E/24N1	10/19/95	461.99	(e)	539.14	(d)	-77.15		---
21S/17E/24N1	03/06/96	461.99		426.6		35		---
21S/17E/24N1	05/06/96	461.99		416.3		46		---
21S/17E/24N1	08/06/96	461.99		415.0		47		---
21S/17E/24N1	10/22/96	461.99		413.8		48		---
21S/17E/24N1	02/26/97	461.99		409.7		52		---
21S/17E/24N1	04/23/97	461.99		415.0		47		---
21S/17E/24N1	04/23/97	461.99		422.2		40		---
21S/17E/24N1	08/18/97	461.99		426.3		36		---
21S/17E/24N1	08/27/97	461.99		422.2		40		---

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ALISTO PROJECT NO. 10-188-19

WELL ID	MONITORING DATE	CASING ELEVATION (a) (feet)	DEPTH TO WATER (feet)	GROUNDWATER ELEVATION (b) (feet)	SCREENED INTERVAL (feet)
21S/17E/24N1	10/21/97	461.99	429.7	32	---
21S/17E/24N1	02/18/98	461.99	407.1	55	---
21S/17E/24N1	05/14/98	461.99	403.6	58	---
21S/17E/24N1	08/17/99	461.99	405.1	57	---
21S/17E/24N2	10/19/95	476.18 (e)	519.14 (d)	-42.96	---
21S/17E/24N2	03/06/96	476.18	502.5	-26	---
21S/17E/24N2	05/06/96	476.18	488.9	-13	---
21S/17E/24N2	08/06/96	476.18	487.7	-12	---
21S/17E/24N2	10/22/96	476.18	485.4	-9	---
21S/17E/24N2	02/26/97	476.18	480.6	-4	---
21S/17E/24N2	04/23/97	476.18	485.7	-10	---
21S/17E/24N2	08/18/97	476.18	411.6	65	---
21S/17E/24N2	08/27/97	476.18	420.6	56	---
21S/17E/24N2	10/21/97	476.18	427.2	49	---
21S/17E/24N2	02/18/98	476.18	401.4	75	---
21S/17E/24N2	05/14/98	476.18	444.0	32	---
21S/17E/24N2	08/17/99	476.18	446.1	30	---
21S/17E/25D1	08/18/97	471.54	--- (g)	---	---
21S/17E/25D1	08/27/97	471.54	--- (g)	---	---
21S/17E/25D1	10/21/97	471.54	510.75 (d)	-39.21	---
21S/17E/25D1	02/18/98	471.54	481.47 (d)	-9.93	---
21S/17E/25D1	05/14/98	471.54	508.25 (d)	-36.71	---
21S/17E/25D1	08/17/99	471.54	502.51 (d)	-30.97	---
21S/17E/25D2	08/18/97	471.38	496.92 (d)	-25.54	---
21S/17E/25D2	08/27/97	471.38	496.09 (d)	-24.71	---
21S/17E/25D2	10/21/97	471.38	495.41 (d)	-24.03	---
21S/17E/25D2	02/18/98	471.38	492.25 (d)	-20.87	---
21S/17E/25D2	05/14/98	471.38	489.82 (d)	-18.44	---
21S/17E/25D2	08/17/99	471.38	482.5 (d)	-11.12	---
21S/17E/25F2	09/28/95	485.98 (e)	533.63 (d)	-47.65	---
21S/17E/25F2	03/06/96	485.98	530.62 (d)	-44.64	---
21S/17E/25F2	05/06/96	485.98	529.64 (d)	-43.66	---
21S/17E/25F2	08/06/96	485.98	528.40 (d)	-42.42	---
21S/17E/25F2	10/22/96	485.98	527.93 (d)	-41.95	---
21S/17E/25F2	02/26/97	485.98	524.21 (d)	-38.23	---
21S/17E/25F2	04/22/97	485.98	527.37 (d)	-41.39	---
21S/17E/25F2	08/18/97	485.98	523.95 (d)	-37.97	---
21S/17E/25F2	08/27/97	485.98	523.80 (d)	-37.82	---
21S/17E/25F2	10/21/97	485.98	524.15 (d)	-38.17	---
21S/17E/25F2	02/18/98	485.98	522.31 (d)	-36.33	---
21S/17E/25F2	05/14/98	485.98	519.16 (d)	-33.18	---
21S/17E/25F2	08/17/99	485.98	515.50 (d)	-29.52	---
21S/17E/25F3	09/28/95	485.69 (e)	517.03 (d)	-31.34	---
21S/17E/25F3	03/06/96	485.69	511.03 (d)	-25.34	---
21S/17E/25F3	05/06/96	485.69	510.06 (d)	-24.37	---
21S/17E/25F3	08/06/96	485.69	509.01 (d)	-23.32	---
21S/17E/25F3	10/22/96	485.69	508.56 (d)	-22.87	---
21S/17E/25F3	02/26/97	485.69	505.14 (d)	-19.45	---
21S/17E/25F3	04/22/97	485.69	507.99 (d)	-22.30	---
21S/17E/25F3	08/18/97	485.69	503.38 (d)	-17.69	---
21S/17E/25F3	08/27/97	485.69	503.95 (d)	-18.26	---

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21S/17E/25F3	10/21/97	485.69	504.32 (d)	-18.63	---
21S/17E/25F3	02/18/98	485.69	501.77 (d)	-16.08	---
21S/17E/25F3	05/14/98	485.69	501.97 (d)	-16.28	---
21S/17E/25F3	08/17/99	485.69	507.91 (d)	-22.22	---
21S/17E/25H1	09/26/95	451.06 (e)	396.57 (d)	54.49	560-900
21S/17E/25H1	03/06/96	451.06	388.5	63	560-900
21S/17E/25H1	08/06/96	451.06	---	---	560-900
21S/17E/25H1	10/22/96	451.06	380.9	70	560-900
21S/17E/25H1	02/26/97	451.06	376.1	75	560-900
21S/17E/25H1	04/23/97	451.06	383.0	68	560-900
21S/17E/25H1	08/18/97	451.06	393.3	58	560-900
21S/17E/25H1	10/21/97	451.06	399.0	52	560-900
21S/17E/25H1	02/18/98	451.06	364.7	86	560-900
21S/17E/25H1	05/14/98	451.06	377.4	74	560-900
21S/17E/25H1	08/17/99	451.06	376.2	75	560-900
::					
21S/18E/18N1	09/28/95	372 (c)	311.86 (d)	60.14	492-1100
21S/18E/18N1	03/06/96	372	302.3	70	492-1100
21S/18E/18N1	05/06/96	372	300.8	71	492-1100
21S/18E/18N1	08/06/96	372	299.5	73	492-1100
21S/18E/18N1	10/22/96	372	296.3	76	492-1100
21S/18E/18N1	02/26/97	372	292.6	79	492-1100
21S/18E/18N1	04/23/97	372	340.0	32	492-1100
21S/18E/18N1	08/18/97	372	330.5	42	492-1100
21S/18E/18N1	10/21/97	372	340.2	32	492-1100
21S/18E/18N1	02/18/98	372	290.7	81	492-1100
21S/18E/18N1	05/14/98	372	237.8	134	492-1100
21S/18E/18N1	08/17/99	372	242.2	130	492-1100
21S/18E/20N1	09/29/95	370 (c)	276.53 (d)	93.47	---
21S/18E/20N1	03/06/96	370	272.7	97	---
21S/18E/20N1	08/06/96	370	---	---	---
21S/18E/20N1	10/22/96	370	297.3	73	---
21S/18E/20N1	02/26/97	370	295.5	75	---
21S/18E/20N1	04/23/97	370	308.2	62	---
21S/18E/20N1	08/18/97	370	549.7	-180	---
21S/18E/20N1	10/21/97	370	553.4	-183	---
21S/18E/20N1	02/18/98	370	493.6	-124	---
21S/18E/20N1	05/14/98	370	495.3	-125	---
21S/18E/20N1	08/17/99	370	288.6	81	---
21S/18E/29E1	09/29/95	407 (c)	329.49 (d)	77.51	---
21S/18E/29E1	03/06/96	407	322.9	84	---
21S/18E/29E1	08/06/96	407	---	---	---
21S/18E/29E1	10/22/96	407	314.7	92	---
21S/18E/29E1	02/26/97	407	312.7	94	---
21S/18E/29E1	04/23/97	407	320.1	87	---
21S/18E/29E1	08/18/97	407	324.0	83	---
21S/18E/29E1	10/21/97	407	329.2	78	---
21S/18E/29E1	02/18/98	407	311.7	95	---
21S/18E/29E1	05/14/98	407	317.1	90	---
21S/18E/29E1	08/17/99	407	316.2	91	---
21S/18E/30P1	09/27/95	467.80 (e)	460.93 (d)	6.87	---
21S/18E/30P1	03/06/96	467.80	446.1	22	---

TABLE 1 - RESULTS OF GROUNDWATER MONITORING
PG&E KETTLEMAN COMPRESSOR STATION

ALISTO PROJECT NO. 10-188-19

WELL ID	MONITORING DATE	CASING ELEVATION (a) (feet)	DEPTH TO WATER (feet)	GROUNDWATER ELEVATION (b) (feet)	SCREENED INTERVAL (feet)
21S/18E/30P1	05/06/96	467.80	433.6	34	---
21S/18E/30P1	08/06/96	467.80	432.3	36	---
21S/18E/30P1	10/22/96	467.80	430.9	37	---
21S/18E/30P1	02/26/97	467.80	425.6	42	---
21S/18E/30P1	04/23/97	467.80	428.9	39	---
21S/18E/30P1	08/18/97	467.80	439.0	29	---
21S/18E/30P1	08/27/97	467.80	439.1	29	---
21S/18E/30P1	10/21/97	467.80	444.2	24	---
21S/18E/30P1	02/18/98	467.80	418.0	50	---
21S/18E/30P1	05/14/98	467.80	422.2	46	---
21S/18E/30P1	08/17/99	467.80	442.7	25	---

ABBREVIATION:

--- Not available/not measured

NOTES:

(a) Elevation of casing in feet above mean sea level.
(b) Groundwater elevation in feet above/below mean sea level.
(c) Land surface elevation interpolated from USGS topo maps.
(d) Depth to groundwater measured using a Solinist electronic sounder.
If footnote (d) is not indicated, depth to groundwater was measured using an acoustic sounder.
(e) Wellhead elevation surveyed by L. C. Hollfelder (PG&E-TES) from July 6 to 8, 1988.
(f) Access port welded shut or not accessable. Well subsequently removed from monitoring program.
(g) Sounder reading not possible due to location of transducer equipment.

TABLE 2 - SUMMARY OF GROUNDWATER SAMPLING RESULTS
PG&E KETTLEMAN COMPRESSOR STATION

ALISTO PROJECT NO. 10-188-19

WELL ID		SAMPLING DATE	TOTAL CHROMIUM (mg/l)	HEXAVALENT CHROMIUM (mg/l)	LAB
24-N1		10/23/96	ND<0.01	ND<0.01	CL
24-N1		02/27/97	ND<0.01	ND<0.006	APCL
24-N1		04/23/97	ND<0.01	ND<0.01	APCL
24-N1		08/19/97	0.012 (b)	0.010 (b)	CL
24-N1		08/19/97	0.010	---	CL
24-N1		08/27/97	0.010 (c)	0.01	APCL
24-N1		10/22/97	ND<0.01	ND<0.01	APCL
24-N1		02/19/98	ND<0.01	ND<0.01	APCL
24-N1		05/16/98	ND<0.01	ND<0.01	APCL
24-N2		03/07/96	ND<0.01 (b)	ND<0.01 (b)	CL
24-N2		03/07/96	ND<0.01	---	CL
24-N2		05/08/96	ND<0.01	ND<0.01	CL
24-N2		08/07/96	ND<0.01	ND<0.01	CL
24-N2		10/23/96	ND<0.01	ND<0.01	CL
24-N2		02/27/97	ND<0.01	ND<0.006	APCL
24-N2		04/23/97	ND<0.01	ND<0.01	APCL
24-N2		08/19/97	ND<0.01 (b)	ND<0.010 (b)	CL
24-N2		08/19/97	ND<0.01	---	CL
24-N2		08/27/97	ND<0.01	ND<0.01	APCL
24-N2		10/22/97	ND<0.01	ND<0.01	APCL
24-N2		02/19/98	ND<0.01	ND<0.01	APCL
24-N2		05/16/98	ND<0.01	ND<0.01	APCL
24-N2		08/18/99	ND<0.01	ND<0.01	APCL
30-F1		05/08/96	ND<0.01	ND<0.01	CL
30-F1		08/07/96	ND<0.01	ND<0.01	CL
30-F1		10/23/96	ND<0.01	ND<0.01	CL
30-F1	(d)	02/27/97	---	---	
30-P1		05/08/96	ND<0.01	ND<0.01	CL
30-P1		08/07/96	ND<0.01	ND<0.01	CL
30-P1		10/23/96	ND<0.01	ND<0.01	CL
30-P1		02/27/97	ND<0.01	ND<0.006	APCL
30-P1		04/23/97	ND<0.01	ND<0.01	APCL
30-P1		08/19/97	ND<0.01 (b)	ND<0.010 (b)	CL

TABLE 2 - SUMMARY OF GROUNDWATER SAMPLING RESULTS
PG&E KETTLEMAN COMPRESSOR STATION

ALISTO PROJECT NO. 10-188-19

WELL ID	SAMPLING DATE	TOTAL CHROMIUM (mg/l)	HEXAVALENT CHROMIUM (mg/l)	LAB
25-F3	11/20/95	---	ND<0.01	CL
25-F3	03/07/96	0.02 (b)	ND<0.01 (b)	CL
25-F3	03/07/96	ND<0.01	---	CL
25-F3	05/08/96	ND<0.01	ND<0.01	CL
25-F3	08/07/96	ND<0.01	ND<0.01	CL
25-F3	10/23/96	ND<0.01	ND<0.01	CL
25-F3	02/27/97	ND<0.01	ND<0.006	APCL
25-F3	04/23/97	ND<0.01	ND<0.01	APCL
25-F3	08/19/97	0.014 (b)	0.010 (b)	CL
25-F3	08/19/97	0.015	---	CL
25-F3	08/27/97	ND<0.01	ND<0.01	APCL
25-F3	10/22/97	ND<0.01	ND<0.01	APCL
25-F3	04/30/98	ND<0.01	ND<0.01	APCL
25-F3	05/16/98	ND<0.01	ND<0.01	APCL
25-F3	08/18/99	ND<0.01	ND<0.01	APCL
25-D1	08/19/97	ND<0.01 (b)	ND<0.010 (b)	CL
25-D1	08/19/97	ND<0.01	---	CL
25-D1	08/27/97	ND<0.01	ND<0.01	APCL
25-D1	10/21/97	ND<0.01	ND<0.01	APCL
25-D1E	02/19/98	ND<0.01	ND<0.01	APCL
25-D1	05/16/98	ND<0.01	ND<0.01	APCL
25-D1	08/18/99	ND<0.01	ND<0.01	APCL
25-D2	08/19/97	0.016 (b)	0.010 (b)	CL
25-D2	08/19/97	ND<0.01	---	CL
25-D2	08/27/97	ND<0.01	ND<0.01	APCL
25-D2	10/21/97	ND<0.01	ND<0.01	APCL
25-D2	02/19/98	ND<0.01	ND<0.01	APCL
25-D2	05/16/98	ND<0.01	ND<0.01	APCL
25-D2	08/18/99	ND<0.01	ND<0.01	APCL
24-N1	03/07/96	0.01 (b)	ND<0.01 (b)	CL
24-N1	03/07/96	ND<0.01	---	CL
24-N1	05/08/96	ND<0.01	ND<0.01	CL
24-N1	08/07/96	ND<0.01	ND<0.01	CL

TABLE 2 - SUMMARY OF GROUNDWATER SAMPLING RESULTS
PG&E KETTLEMAN COMPRESSOR STATION

ALISTO PROJECT NO. 10-188-19

WELL ID	SAMPLING DATE	TOTAL CHROMIUM (mg/l)	HEXAVALENT CHROMIUM (mg/l)	LAB
25-F2	10/26/93	ND<0.01	ND<0.01	BCA
25-F2	04/28/94	0.023 (a)	ND<0.01	CL
25-F2	06/02/94	ND<0.01	ND<0.01	BCA
25-F2	08/03/94	ND<0.01	ND<0.01	CL
25-F2	01/27/95	ND<0.01	ND<0.01	CL
25-F2	05/16/95	ND<0.01 (b)	ND<0.01 (b)	CL
25-F2	05/16/95	ND<0.01	ND<0.01	CL
25-F2	08/10/95	ND<0.01 (b)	0.01 (b)	CL
25-F2	08/10/95	ND<0.01	0.01	CL
25-F2	11/20/95	---	---	CL
25-F2	03/07/96	0.01 (b)	ND<0.01 (b)	CL
25-F2	03/07/96	ND<0.01	---	CL
25-F2	05/08/96	ND<0.01	ND<0.01	CL
25-F2	08/07/96	ND<0.01	ND<0.01	CL
25-F2	10/23/96	ND<0.01	ND<0.01	CL
25-F2	02/27/97	ND<0.01	ND<0.006	APCL
25-F2	04/25/97	ND<0.01	ND<0.01	APCL
25-F2	08/19/97	ND<0.01 (b)	ND<0.010 (b)	CL
25-F2	08/19/97	ND<0.01	---	CL
25-F2	08/27/97	ND<0.01	ND<0.01	APCL
25-F2	10/22/97	ND<0.01	ND<0.01	APCL
25-F2E	02/19/98	ND<0.01	ND<0.01	APCL
25-F2	05/16/98	ND<0.01	ND<0.01	APCL
25-F2	08/18/99	ND<0.01	ND<0.01	APCL
25-F3	10/26/93	0.14	0.014	BCA
25-F3	04/28/94	0.036	ND<0.01	CL
25-F3	06/02/94	0.031	ND<0.01	BCA
25-F3	08/03/94	0.048 (b)	ND<0.01 (b)	CL
25-F3	08/03/94	ND<0.01	---	CL
25-F3	01/27/95	ND<0.01	ND<0.01	CL
25-F3	05/16/95	ND<0.01	ND<0.01	CL
25-F3	05/16/95	ND<0.01	ND<0.01	CL
25-F3	08/10/95	ND<0.01 (b)	ND<0.01 (b)	CL
25-F3	08/10/95	ND<0.01	ND<0.01	CL
25-F3	11/20/95	0.01 (b)	ND<0.01 (b)	CL

TABLE 2 - SUMMARY OF GROUNDWATER SAMPLING RESULTS
PG&E KETTLEMAN COMPRESSOR STATION

ALISTO PROJECT NO. 10-188-19

WELL ID	SAMPLING DATE	TOTAL CHROMIUM (mg/l)	HEXAVALENT CHROMIUM (mg/l)	LAB
30-P1	08/19/97	ND<0.01	---	CL
30-P1	08/27/97	ND<0.01	ND<0.01	APCL
30-P1	10/22/97	ND<0.01	ND<0.01	APCL
30-P1	02/19/98	ND<0.01	ND<0.01	APCL
30-P1	05/16/98	ND<0.01	ND<0.01	APCL
30-P1	08/18/99	ND<0.01	ND<0.01	APCL

ABBREVIATIONS:

mg/l	Milligrams per liter
APCL	Applied P & Ch Laboratory
BCA	BC Analytical
CL	Chromalab, Inc
ND	Not reported above method detection limit
---	Not measured/available/analyzed
25-F2	Well 21S/17E/25F2 (also called E1)
25-F3	Well 21S/17E/25F3 (also called E2)
25-D1	Well 21S/17E/25D1
25-D2	Well 21S/17E/25D2
24-N1	Well 21S/17E/24N1
24-N2	Well 21S/17E/24N2
30-F1	Well 21S/18E/30F1
30-P1	Well 21S/18E/30P1

NOTES:

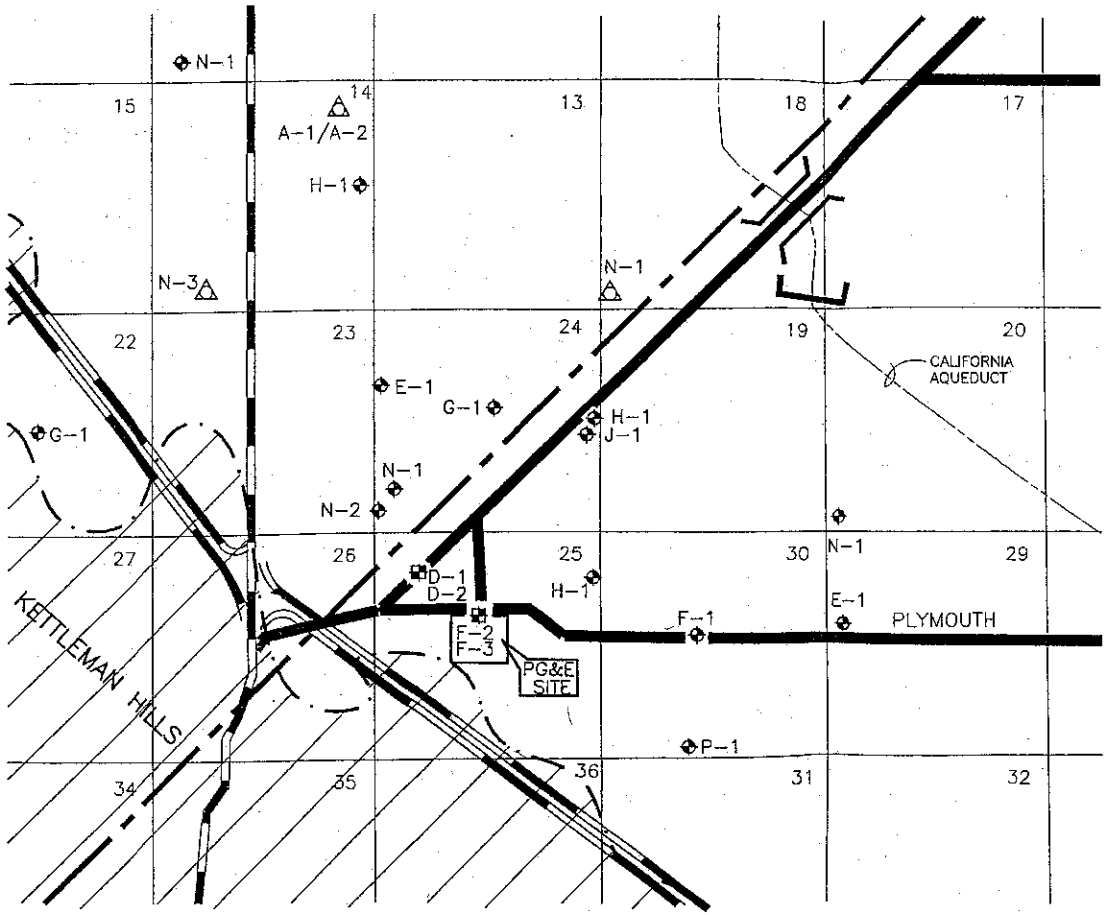
All samples were filtered prior to analysis unless noted

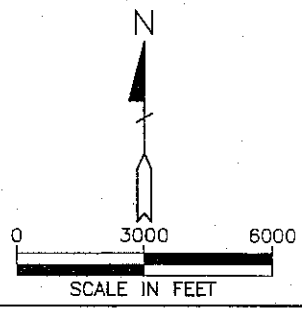
(a) Anomalous result. Laboratory reported that sample contained sediment.

(b) Sample was not filtered before analysis.

(c) Reported value is above the method det limit (MDL) but below the method's practical quantification limit (PQL).

(d) Well removed from sampling program at request of owner.





LEGEND

- IRRIGATION WELL
- MONITORING WELL
- DOMESTIC WELL, AS IDENTIFIED BY DEPARTMENT OF WATER RESOURCES, ACTUAL USE UNKNOWN
- BOUNDARY OF KETTLEMAN HILLS

FIGURE 2

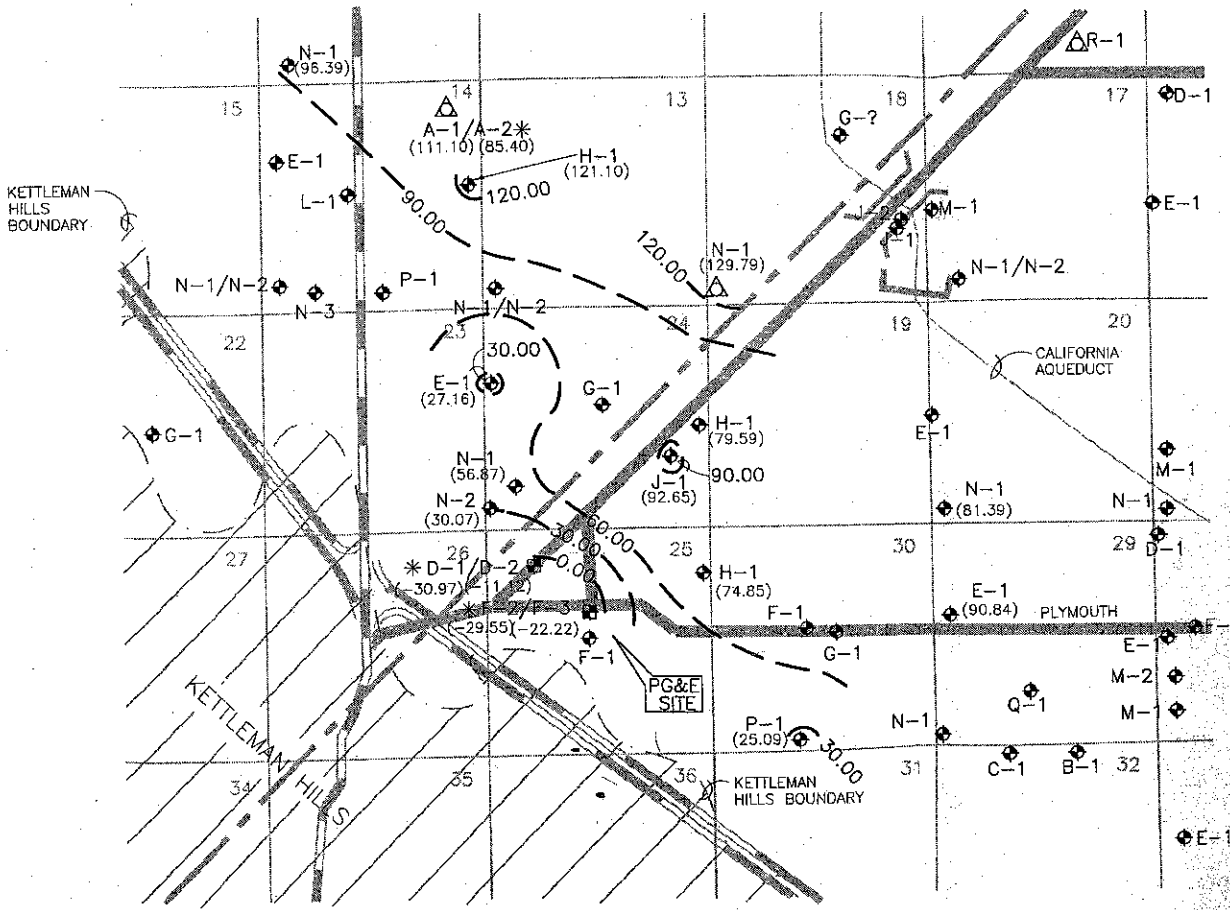
LOCATION OF GROUNDWATER WELLS

PACIFIC GAS AND ELECTRIC COMPANY
KETTLEMAN COMPRESSOR STATION
AVENAL, CALIFORNIA

PROJECT NO. 10-188

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

1688-DRG 1-4-98 Rev 1=3000



N

0 3000 6000

SCALE IN FEET

LEGEND

- IRRIGATION WELL
- MONITORING WELL
- DOMESTIC WELL, AS IDENTIFIED BY DEPARTMENT OF WATER RESOURCES
- (120.79) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 120.00 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL–30.00FEET)
- * GROUNDWATER ELEVATION NOT USED IN PREPARING CONTOURS

NOTE:
Potentiometric groundwater elevation contours were generated with Quicksurf using the Kriging method with an exponential variogram on a triangulated grid surface.

FIGURE 3

POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP

AUGUST 17, 1999

PACIFIC GAS AND ELECTRIC COMPANY
KETTLEMAN COMPRESSOR STATION
AVENAL, CALIFORNIA

PROJECT NO. 10-188

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

APPENDIX E

PHOTOGRAPHS

Photograph 1: View of proposed gas line, along Avenue Cutoff Road near proposed power plant. Photo taken looking southwest. Note above-grade water line.

Photograph 2: Proposed gas line, turning south from Avenue Cutoff Road, along a dirt road. Note cellular phone tower in general area.

Photograph 3: View proposed gas line along dirt road, south towards Plymouth Avenue. PG&E Kettleman Compressor Station is in background of photo.

Photograph 4: Proposed water line 24-5, view of well 24-5 and associated diesel engine at entrance to Kochergen Farms Composting facility – 33195 Avenal Cutoff Road.

Photograph 5: Entrance to Kochergen Farms Composting facility, at Avenal Cutoff Road.

Photograph 6: View of proposed water line on north side of proposed Power Plant, photo taken looking east. View of City of Avenal Water Treatment Plant in background.

Photograph 7: View of proposed water line along dirt road on west side of San Luis Canal.

Photograph 8: Proposed water line 18-1, north of Avenal Cutoff Road.

Photograph 9: Proposed electrical line – view of southeast corner of proposed Power Plant, start of proposed electrical line.

Photograph 10: Proposed electrical line along dirt road, south of proposed Power Plant.

Photograph 11: Southernmost portion of proposed electric line, along dirt road, photo taken looking west.

Photograph 12: Proposed electric line crossing composting area of Kochergen Farms Composting facility, along existing high voltage power line corridor.

Photograph 13: Typical view of proposed electric line along existing high voltage power line corridor (north of Avenal Cutoff Road).

Photograph 14: Typical view of proposed electric line along existing high voltage power line corridor.

Photograph 15: Proposed electric line at southwest corner of Carberry Farms Headquarter, along existing high voltage power line corridor.

Photograph 16: Proposed electric line at southwest corner of Carberry Farms Headquarter, along existing high voltage power line corridor.

Photograph 17: View of above-grade fuel tanks, central area of Carberry Farms Headquarter, located at southwest corner of Goodrich Street and Modoc Street.

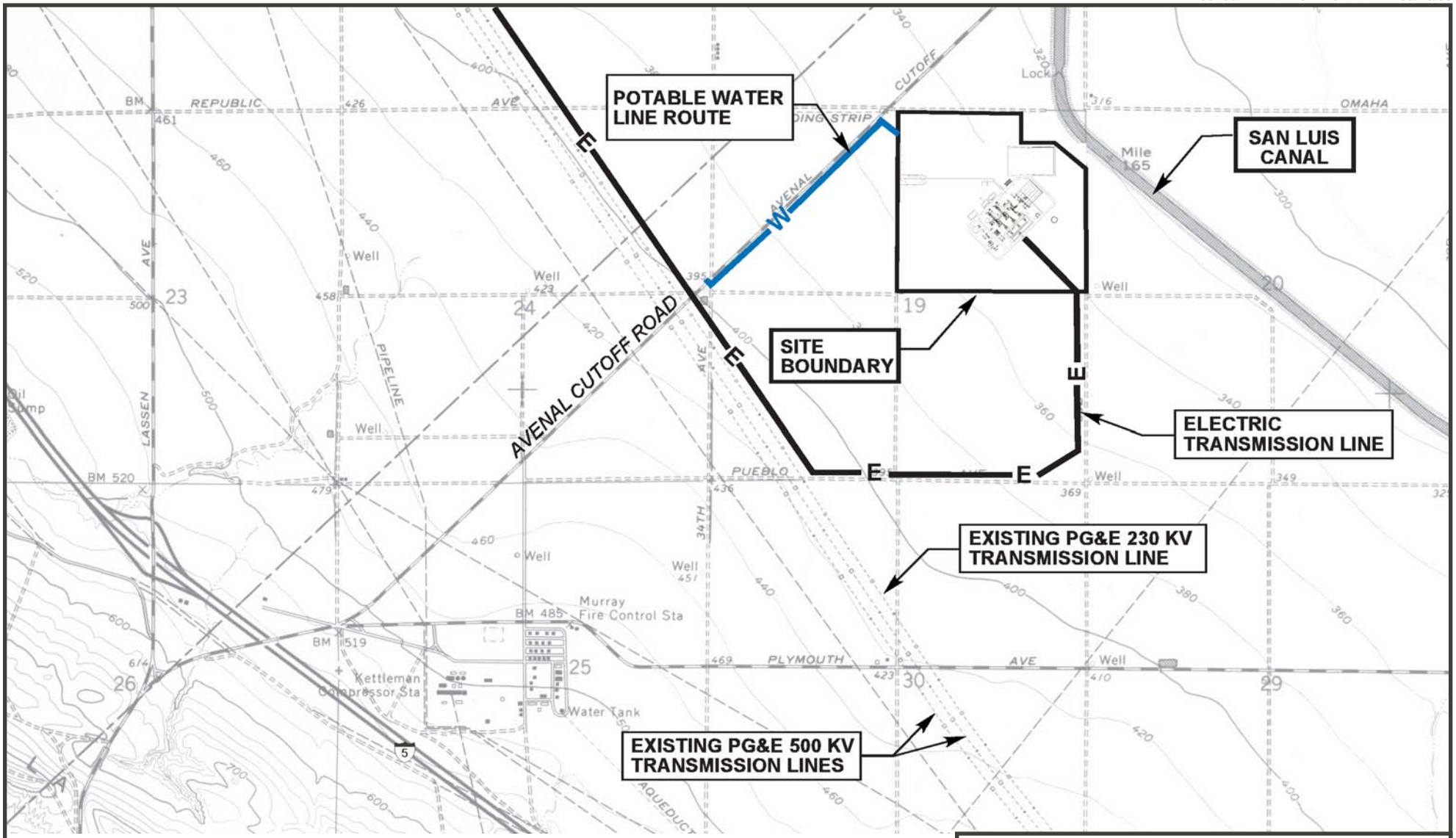
Photograph 18: Typical view of proposed electric line along existing high voltage power line corridor.

Photograph 19: Proposed electric line along existing high voltage power line corridor, approaching Jayne Avenue & PG&E Gates Substation.

Photograph 20: View of PG&E Gates Substation.

EXHIBIT 92-1

POTABLE WATER LINE ROUTE



REFERENCE:
U.S.G.S 7.5 MINUTE TOPOGRAPHIC SERIES MAP
OF LA CIMA, CALIFORNIA, DATED 1978.

0 2,000 4,000 FEET
SCALE

POTABLE WATER LINE ROUTE

AVENAL POWER CENTER, LLC

AVENAL ENERGY | **EXHIBIT 92-1**

EXHIBIT 93-1

CITY OF AVENAL POTABLE WATER WILL SERVE LETTER

City of Avenal
919 Skyline Blvd.
Avenal, CA 93204
Phone (559) 386-5766
Fax (559) 386-0629

September 22, 2008

Mr. Jim Rexroad, Vice President
Avenal Power Center
500 Dallas Street, Suite 3100
Houston, TX 77002

Dear Mr. Rexroad:

This letter is in response to your request regarding potable water availability for your project. Based on the maximum flow rate demand of 55 gallons per minutes and a maximum annual consumption of 10 acre-feet per year, water is available to serve the project from the City of Avenal's potable water pipeline that runs along the north side of Avenal Cut-Off Road.

Further, based on a maximum flow demand rate of 200 gallons per minutes of combined potable and raw water and a maximum annual consumption of 200 acre-ft./yr. of combined potable and raw water, water is available to serve the combined potable and raw water of the project from the existing City of Avenal water treatment plant.

Sincerely,

CITY OF AVENAL

Melissa G. Whitten
City Manager

mgw/

EXHIBIT 93-1

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV

APPLICATION FOR CERTIFICATION
For the AVENAL ENERGY PROJECT

Docket No. 08-AFC-1
PROOF OF SERVICE
(revised 9/22//2008)

INSTRUCTIONS: All parties shall either (1) send an original signed document plus 12 copies or (2) mail one original signed copy AND e-mail the document to the address for the Docket as shown below, AND (3) all parties shall also send a printed or electronic copy of the document, which includes a proof of service declaration to each of the individuals on the proof of service list shown below:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 07-AFC-9
1516 Ninth Street, MS-15
Sacramento, CA 95814-5512
docket@energy.state.ca.us

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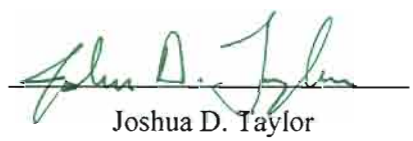
DECLARATION OF SERVICE

I, Joshua D. Taylor, Declare that on September 23, 2008, I deposited copies of the attached Responses to California Energy Commission Data Requests 75-94 (Set 2) for the Avenal Energy Project (08-AFC-1), pursuant to CEC staff request, at the Federal Express Hub on Barranca Parkway in Irvine, California, with waybills fully prepaid and addressed to those individuals identified on the Proof of Service list above.

I declare under penalty of perjury that the foregoing is true and correct.



Joshua D. Taylor