Eric Hetrick
Project Manager
Marketing Business Unit

Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, CA 94583
Tel (925) 790-6491
ehetrick@chevron.com

April 4, 2013

RECEIVED
By Alameda County Environmental Health at 9:25 am, Apr 05, 2013

Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Former Chevron Service Station 95607
5269 Crow Canyon Road
Castro Valley, CA
ACEH Case #RO 0350

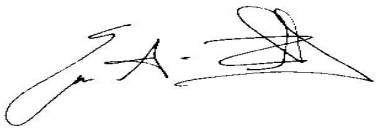
I have reviewed the attached Remedial Action Plan Addendum.

I agree with the conclusions and recommendations presented in the referenced report. This information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by Conestoga Rovers Associates, upon who assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,



Eric Hetrick
Project Manager

Attachment: Remedial Action Plan Addendum

CONESTOGA-ROVERS & ASSOCIATES

5900 Hollis Street, Suite A
Emeryville, California 94608
Telephone: (510) 420-0700 Fax: (510) 420-9170
http://www.craworld.com

April 4, 2013 Reference No. 311950

Mr. Mark Detterman
Alameda County Environmental Health Services (ACEHS)
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6540

Re: Remedial Action Plan Addendum
Former Chevron Service Station 95607
5269 Crow Canyon Road
Castro Valley, California
ACEH LOP #RO0350

Dear Mr. Detterman:

Conestoga-Rovers & Associates (CRA) is submitting this *Remedial Action Plan (RAP) Addendum* (addendum) for the site referenced above (Figure 1) on behalf of Chevron Environmental Management Company (Chevron). This addendum is in response to ACEH's March 15, 2013 letter (Attachment A) and to propose changes to the January 8, 2007 *RAP* submitted by Cambria Environmental Technology (Cambria) and subsequently approved by Alameda County Environmental Health (ACEH) in a February 7, 2007 letter. In the approved RAP, Cambria proposed installing a dual-phase extraction (DPE) system to remove hydrocarbon mass in soil and groundwater. The DPE system, as described in the RAP, was proposed to be connected to wells C-1, C-3, C-6, C-9, C-12, and RW-1 and would be located in the southern portion of the site. Based on changes to site conditions since it was submitted, CRA proposes the following changes to the approved RAP.

SYSTEM LOCATION AND SITE MODIFICATIONS

Based upon discussions with the property owner and review of planning ordinances, the location of the system components has been altered. A new electrical transformer will be placed in the southeast corner of the site adjacent to the office. The groundwater treatment enclosure will be placed next to the transformer. The soil vapor extraction enclosure and related equipment will be placed on the western side of the site parallel to Waterford Place (Figure 2). In addition, the retaining wall running parallel to Waterford Place will be reinforced to support the weight of the nearby DPE system components.

EXTRACTION WELL INSTALLATION AND WELL DESTRUCTION

In the approved RAP, Cambria evaluated groundwater and soil conditions and proposed connecting the DPE system to wells C-1, C-3, C-6, C-9, C-12, and RW-1. However, based on current site conditions, CRA recommends connecting the system to three proposed extraction wells that would be installed adjacent to existing monitoring wells C-1, C-3 and C-6 (Figure 2). The proposed extraction wells will be installed solely to effectively remediate hydrocarbons sorbed to soil and dissolved in groundwater. These wells will not be used to monitor groundwater concentrations for compliance. The existing monitoring wells in those locations will continue to be the means for measuring concentration trends onsite.

Wells C-9 and C-12, which historically contained elevated and stable dissolved petroleum hydrocarbon concentrations, have exhibited declining dissolved hydrocarbon concentrations since the RAP was approved. Current trends indicate concentrations in those wells will meet low-threat closure policy criteria without them being connected to the proposed DPE system. Therefore, C-9 and C-12 will not be included in the extraction well array. Well RW-1 is immediately adjacent to well C-6 and extracting from both wells would not increase remedial efficacy in that area. Additionally, well RW-1 exhibits concentrations in the same order of magnitude as C-6, thereby providing redundant data. CRA proposes to destroy offsite remediation well RW-1 by pressure grouting in accordance with local regulations.

To install three extraction wells and destroy well RW-1, CRA will perform the tasks described below.

Access
CRA will obtain access from Forest Creek Townhome Association, Inc. to install the new monitoring wells, and to encroach upon Waterford Place to install the extraction well near C-6 and destroy well RW-1.

Permits
CRA will obtain well installation permits from the Alameda County Public Works Agency (ACPWA) prior to beginning field operations. A minimum of 48 hours of notice will be given to ACEH and ACPWA prior to commencing drilling activities.

Site Health and Safety Plan
CRA will prepare a site health and safety plan to provide safety guidelines to all site workers and visitors. The plan will be kept onsite at all times and its guidance will be followed by all site workers and visitors each day of operation.

Utility Location and Clearance

CRA will mark the site for Underground Service Alert (USA) clearance. USA and a licensed geophysicist will be contacted a minimum of 48 hours prior to field activities to mark and identify locations of utilities near the proposed well locations. Per Chevron and CRA safety requirements, the proposed well locations will be cleared to 8 feet below grade (fbg) using an air knife equipped vacuum truck and/or hand augers to detect any unknown utilities prior to drilling.

Extraction Well Installation

After clearing to 8 fbg, the boreholes for the wells will be advanced using 10-inch diameter hollow-stem augers. The wells will be constructed using 4-inch diameter Schedule 40 PVC casing with a 0.020-inch slotted screen. Proposed extraction wells adjacent to monitoring wells C-1 and C-3 will be screened from approximately 10 to 50 fbg with a 3-foot long blank-casing sump below the screen. Proposed extraction well adjacent to monitoring wells C-6 will be screened from approximately 7 to 42 fbg with a 3-foot long blank-casing sump below the screen. The proposed screen interval is based on the depth interval between the high groundwater table elevation and base of hydrocarbon smear zone. Historic depth to groundwater measurements in wells C-1, C-3, and C-6 ranged from approximately 7.5 to 30 fbg, and the base of the smear zone has historically been defined at an approximate depth of 45 fbg onsite. The base of the smear zone will be better defined in the field with soil screening data collected during well installation and the total depth of each well may be altered based on this field data. The filter pack will consist of #2/12 sand from the bottom of the boring to approximately 2 feet above the screened interval. The well annulus will have a 2-foot bentonite seal above the screen and sand pack, with the remainder backfilled with Portland Type I/II cement to approximately 1 fbg. A well box equipped with a traffic rated lid will be installed flush with grade. Well construction may be further altered based upon all field observations. Well locations and top-of-casing elevation will be surveyed by a licensed land surveyor after installation. CRA's standard operating procedures for monitoring well installation are included as Attachment B.

Soil Sampling Protocol

Soil samples will be collected at approximately 5 foot intervals to the total depth of each borehole including the 0 to 5 foot interval, the 5 to 10 foot interval, at obvious changes in soil types, and where indicators of petroleum hydrocarbons are observed. Soil concentrations will also be screened in the field using a photo-ionization detector (PID). Soil samples above 8 fbg will be collected by driving steel tubes inserted into a hand auger bucket. Soil samples collected below 8 fbg will be collected by driving 6-inch steam-cleaned steel or brass tubes into undisturbed sediments. CRA geologists will log collected soils using the ASTM D 2488 Unified

Soil Classification System. The samples will be sealed, capped, labeled, logged on a chain-of-custody form, placed on ice and transported to a Chevron and State approved laboratory for analysis.

Well Destruction

Remediation well RW-1 will be pressure grouted by injecting neat Portland cement through a tremie pipe under pressure to the bottom of the well. The cement will be composed of approximately five gallons of water to a 94 pound sack of Portland I/II Cement. Once the well casing is full of grout, it will be pressurized for five minutes by applying a pressure of 25 pounds per square inch (psi) with a grout pump to force the grout into the sand pack. After grouting the sand pack and casing, the well vault will removed and the area will be finished to match the existing grade. CRA's Standard Field Procedures for Monitoring Well Destruction are included as Attachment C.

Well Development

The new extraction wells will be developed using surge agitation and pumping. Gettler-Ryan, Inc. of Dublin, California will develop the wells no sooner than 72 hours after installation. As described above, these wells will be used strictly for remediation; therefore, they will not be sampled. Groundwater from the adjacent wells C-1, C-3, and C-6 will continue to be monitored and sampled on the current schedule.

Soil and Water Disposal

Soil cuttings and decontamination water will be temporarily stored onsite in properly labeled 55-gallon drums pending soil profiling results. The waste will be transported and disposed at appropriate Chevron and State approved disposal facilities.

Chemical Analysis

Soil samples will be analyzed for the following constituents:

- TPHg by EPA Method 8015B modified
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8260B
- Methyl-tertiary butyl ether (MTBE) by EPA Method 8260B
- Naphthalene by EPA Method 8260B
- Poly-Aromatic Hydrocarbons (PAHs) by EPA Method 8270
- Total lead by EPA Method 6010 (waste composite soil samples only)

POST REMEDIATION MONITORING

In their March 15, 2013 letter, ACEH suggested reinstalling existing monitoring wells C-1, C-3, and C-6 due to their long screen intervals. ACEH suggested reinstalling these wells with shorter screen intervals for post-remedial monitoring. CRA does not agree with this suggestion. Pre- and post-remedial monitoring needs to be conducted using the same wells because a baseline set of data is needed for comparison to the data that will be collected during and after completion of remediation. If new wells are installed with differing screen intervals, they would need to be monitored for a period of time prior to conducting remediation to establish a pre-remedial data set.

The DPE system will be operated until hydrocarbon mass removal rates from each of the extraction wells has reached asymptotic levels. Remedial success would then be indicated by declining concentration trends in the existing monitoring well network and the additional proposed offsite monitoring wells (described below) after the DPE system is shut down. Groundwater will be analyzed for TPHg by EPA Method 8015B, and BTEX, and MTBE by EPA Method 8260B. Declining dissolved hydrocarbon concentration trends would indicate that hydrocarbons sorbed to soil (secondary hydrocarbon source) have successfully been removed to the extent practical and that the rate of hydrocarbon leaching to groundwater has been exceeded by the rate of natural attenuation. As long as it is possible to demonstrate that the residual plume following remediation does not pose a threat to human health and the groundwater plume meets the low threat closure policy definition, no confirmation soil samples should be required. [1]

ADDITIONAL OFFSITE MONITORING WELLS

As requested by the ACEH in their June 7, 2012 letter, CRA proposed to install an offsite monitoring well between wells C-9 and C-12 for additional offsite horizontal delineation of dissolved hydrocarbons. In response to CRA's August 28, 2012 *Site Conceptual Model and Work Plan* (SCM/WP), ACEH requested that two monitoring wells be installed between C-9 and C-12 in their March 15, 2013 letter. Therefore, CRA proposes to install two offsite monitoring wells between C-9 and C-12 (Figure 2).

1. California State Water Resource Control Board (SWRCB), *Low-Threat Underground Storage Tank Case Closure Policy:* dated May 1, 2012.

In the SCM/WP, CRA proposed a 15-foot long well screen from 5 to 20 fbg; however, ACEH requested shorter well screens and potentially multiple wells at each location with varying well screen depths. Based on the soil analytical data from offsite soil borings SV-1 through SV-8 and SB-1, the highest petroleum hydrocarbon concentrations are consistently detected at approximately 25 fbg; therefore, CRA proposes a 5 foot screen from 22 to 27 fbg. Due to the shorter well screens, these wells will likely have submerged well screens. However, they will be monitoring the interval where it appears petroleum hydrocarbons previously migrated offsite. These proposed monitoring wells would not be used to determine groundwater flow direction with the existing well network, due to the differing screen intervals.

CRA proposes to monitor and sample groundwater in these proposed monitoring wells quarterly for one annual cycle utilizing the same analytical suite as the existing well network. After four quarters of sampling, CRA will evaluate the data and propose changes to the sampling frequency. Soil samples will be collected during installation at approximately 5 foot intervals to the total depth of each borehole including the 0 to 5 foot interval, the 5 to 10 foot interval, at obvious changes in soil types, and where indicators of petroleum hydrocarbons are observed. Soil concentrations will also be screened in the field using a PID. Soil samples above 8 fbg will be collected by driving steel tubes inserted into a hand auger bucket. Soil samples collected below 8 fbg will be collected by driving 6-inch steam-cleaned steel or brass tubes into undisturbed sediments. CRA geologists will log collected soils using the ASTM D 2488 Unified Soil Classification System. The samples will be sealed, capped, labeled, logged on a chain-of-custody form, placed on ice and transported to a Chevron and State approved laboratory for analysis.

REPORTING

Upon completion of field activities and review of the analytical results, CRA will prepare an investigation report that at minimum will contain:

- Geophysical survey findings
- Descriptions of drilling and sampling methods
- Well construction logs
- Tabulated groundwater analytical results
- A figure illustrating the well locations
- Analytical reports and chain-of-custody forms
- Soil disposal methods
- Updated SCM

- Updated path to closure schedule
- Conclusions and recommendations

SCHEDULE FOR IMPLEMENTATION OF CLEANUP

July 2013 – CRA will install three extraction wells, two offsite monitoring wells, and destroy remediation well RW-1

September 2013 – CRA will start construction to reinforce the existing retaining wall, contingent upon construction permitting.

September 2013 – CRA will begin construction of the DPE system, contingent upon construction permitting

December 2013 – CRA will start the DPE system, contingent upon construction and other permitting. CRA projects the system will operate for approximately one year to achieve remediation objectives.

December 2014 – CRA will begin post-remediation groundwater monitoring.

December 2015 – CRA will evaluate the site for low threat case closure.

December 2015 – CRA will destroy the well network in preparation of case closure.

CLOSING

CRA will conduct the work proposed upon approval from the ACEH and from the property owners. After approval, CRA will obtain the necessary drilling permits and schedule a drilling subcontractor.

According to the California Code of Regulations Title 23, Division 3, Chapter 16, Underground Tank Regulations, the responsible party may begin implementation of the proposed actions after the work plan has been submitted for 60 calendar days and without receipt of written agency approval. Therefore, if ACEH has not approved this addendum within 60 days after submittal, CRA will submit a letter on behalf of Chevron stating our intentions to initiate the above scope of work within two weeks of the date of that letter. We will then submit the investigation results, updated SCM, and path to closure schedule approximately 90 days after

completion of the field work.

Please contact Judy Gilbert at (510) 420-3314 if you have any questions or require additional information.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

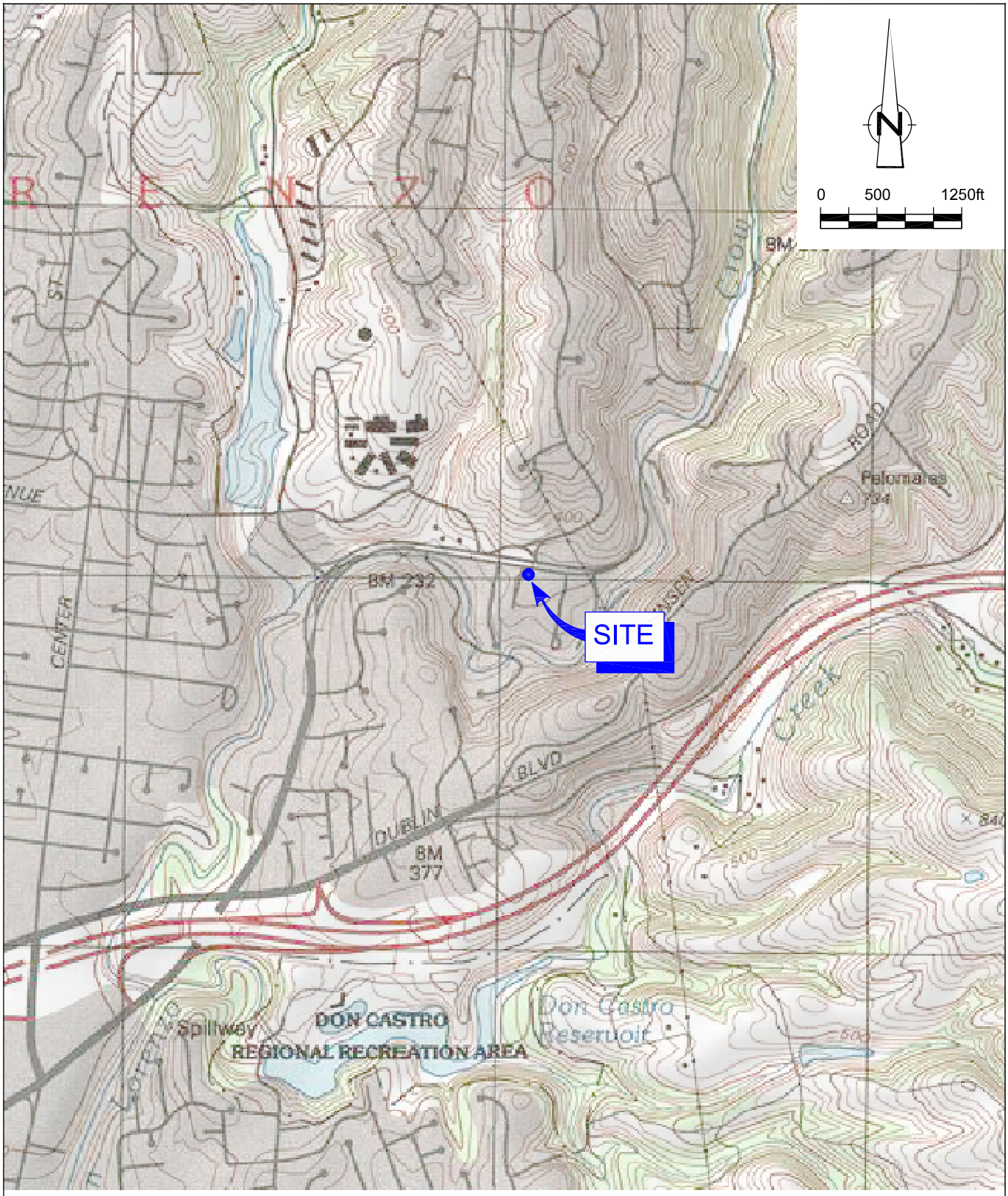
Kiersten Hoey Brandon S. Wilken, PG 7564

KH/aa/21
Encl.

Figure 1	Vicinity Map
Figure 2	Site Plan
Attachment A	Regulatory Letter
Attachment B	CRA's Standard Field Procedures for Well Installation
Attachment C	CRA's Standard Field Procedures for Well Destruction

cc: Mr. Eric Hetrick, Chevron *(electronic copy)*
Mr. Kevin Hinkley, Property Owner
Ms. Diane Riggs, Forest Creek Townhomes Association

FIGURES

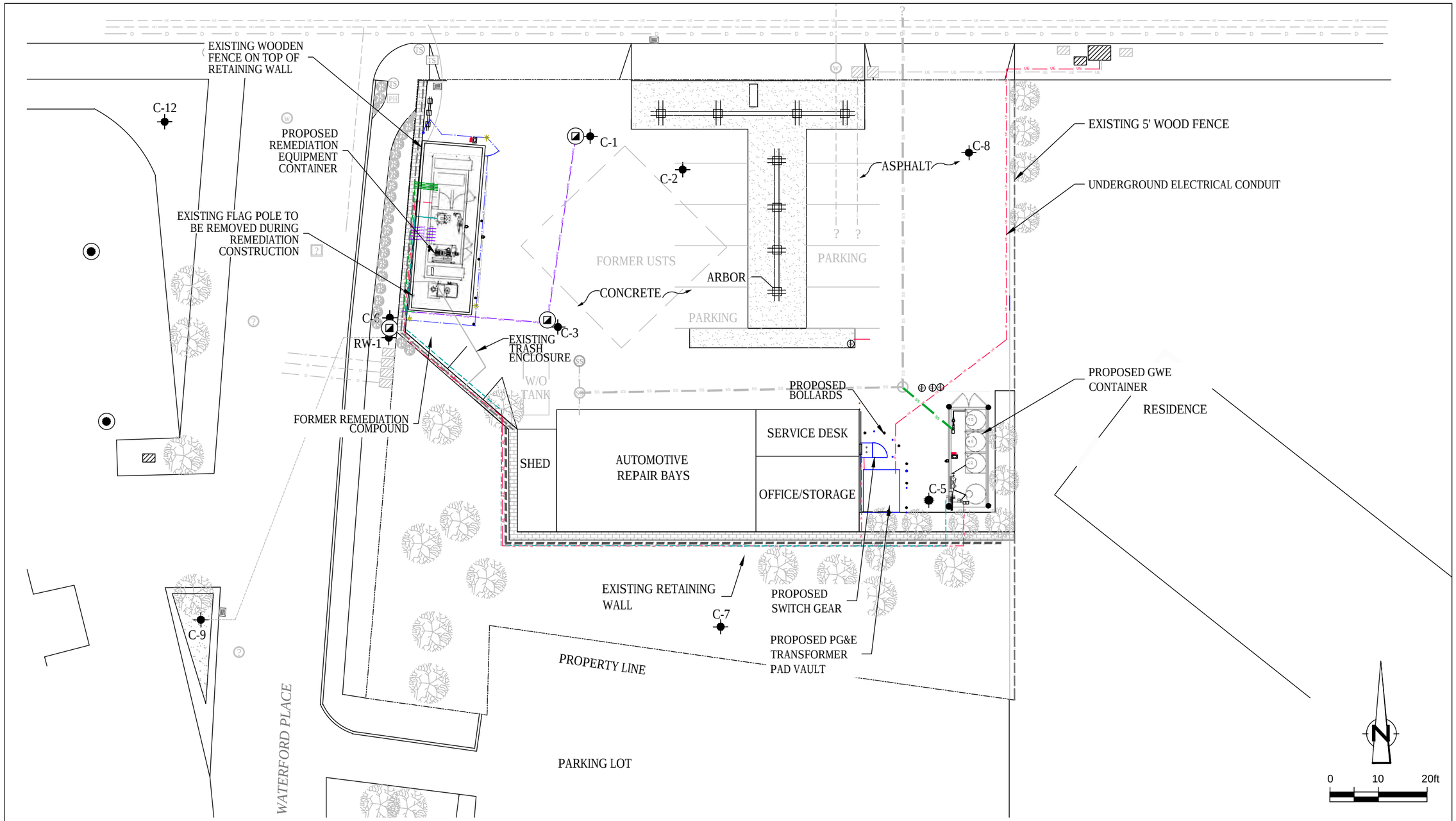


SOURCE: TOPO! MAPS.

Figure 1

VICINITY MAP
FORMER CHEVRON STATION 95607
5269 CROW CANYON ROAD
Castro Valley, California

311950-2013(021)GN-EM001 MAR 12/2013



LEGEND

- PROPOSED MONITORING WELL LOCATION
- PROPOSED EXTRACTION WELL LOCATION
- MONITORING WELL LOCATION
- AIR SUPPLY LINE
- MPE PIPING LINE
- ABOVE GROUND ELECTRICAL LINE
- UNDERGROUND ELECTRICAL LINE
- SANITARY SEWER LINE
- RAW WATER LINE
- DATA LINE
- NATURAL GAS LINE

Figure 2

SITE PLAN
FORMER CHEVRON STATION 95607
5269 CROW CANYON ROAD
Castro Valley, California

311950-2013(021)GN-EM002 APR 2/2013

ATTACHMENT A

REGULATORY LETTER

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

March 15, 2013

Mr. Eric Hetrick
Chevron Corporation
6101 Bollinger Canyon Road
San Ramon, CA 94583
(sent via electronic mail to:
ehetrick@chevron.com)

Kevin & Julia Hinkley
Kevin Hinkley Service
5269 Crow Canyon Road
Castro Valley, CA 94552

Subject: Request for Work Plan Addendum; Fuel Leak Case No. RO0000350 and GeoTracker Global ID T0600100344, Chevron #9-5607, 5269 Crow Canyon Road, Castro Valley, CA 94552

Dear Mr. Hetrick, and Mr. and Ms. Hinkley:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above referenced site including the *Site Conceptual Model and Work Plan,* dated August 28, 2012, and the *Second Semi-Annual 2012 Groundwater Monitoring and Sampling Report,* dated August 28, 2012. The reports were prepared and submitted on your behalf by Conestoga-Rovers & Associates (CRA). The Site Conceptual Model (SCM) report did not identify additional data gaps beyond one mentioned by ACEH in the previous June 2012 directive letter; that to define the lateral and vertical extent of contamination between wells C-9 and C-12 directly downgradient of two wells (C-3 and C-6) with significant residual contamination (up to 9,400 µg/l benzene in July 2012). While ACEH suggested a soil bore transect between these two wells, the installation of one well directly downgradient of wells C-3 and C-6 was proposed.

Based on the review of the case file ACEH requests that you address the following technical comments and send us the documents requested below.

TECHNICAL COMMENTS

1) **Work Plan Modifications** – The referenced work plan proposes a series of actions with which ACEH is in general agreement of undertaking; however, ACEH requests several modifications to the approach. Please submit a work plan addendum by the date specified below. This is intended to be a brief document that will allow the site to progress after a quick review.

    a. **Request for Additional Well** – As noted above the installation of one well has been proposed in lieu of a soil bore transect between wells C-9 and C-12. ACEH is in general agreement with the installation of wells to infill this gap; however, it appears appropriate to install two wells in this coverage gap to help monitor changes in the dissolved groundwater plume downgradient of the proposed remediation activities. This also appears to be appropriate because of the significant spike in groundwater concentration in well C-9 during the January 2013 sampling event (<50 to 8,400 µg/l TPHg, <0.5 to 1,600 µg/l benzene, and <0.5 to 310 µg/l ethylbenzene), and due to potential subsurface complexities related to the apparent presence of unevenly eroded bedrock beneath the site. As a consequence ACEH requests the submittal of a revised Figure 2 to document the proposed well installation adjustments.

    b. **Collection and Analysis of Soil & Groundwater** – ACEH generally concurs with the proposed analytical suite outlined for soil and groundwater data; however, ACEH did not locate details for the minimum number of soil samples proposed to be submitted for analysis. To prevent miscommunication ACEH requests that soil samples be collected and submitted

for analysis, at signs of contamination (odor, discoloration, PID responses, etc.) at significant changes in lithology, and at the groundwater interface.

Additionally because the LTCP requires the evaluation soil analytical data in the 0 to 5 foot and the 5 to 10 foot interval, the collection of shallow soil samples in these depth intervals is appropriate at onsite locations in the vicinity of contaminant sources.

c. **Well Screen Intervals** – The work plan specified 20-foot wells, with 15-foot screen intervals based on the depth to water measurements in wells C-9 and C-12. Based on technical literature, ACEH requests shorter screen intervals in order to collect more representative groundwater samples, generally with no more than a 5 foot sand interval. ACEH also recognizes that fully screened water-bearing zones are appropriate in thinner permeable zones. Consequently, ACEH requests an effort to minimize the screen length at each well location to the extent possible, with well screens minimally longer than the water-bearing zone, including the capillary fringe. If it is appropriate to monitor a longer interval at a site as indicated, well clusters or CMT multilevel wells are appropriate. Please document intended changes in a brief work plan addendum by the date identified below.

2) **Request for Corrective Action Plan Addendum** – Recent email communications have indicated that wells C-3 and C-6 are proposed for reinstallation as DPE wells. ACEH is not in agreement with this as this will remove existing monitoring points from the site that would constitute a portion of a performance monitoring network. Additionally, it appears appropriate to install a DPE well in the vicinity of well C-1 and the northwest edge of the tank excavation, based on elevated residual soil contamination at the time of the UST removals at that location, and a potentially submerged well (C-1) that may not be providing representative groundwater samples. Finally, because several items normally associated with a CAP were not discussed in the existing Remedial Action Plan ACEH requests that you prepare a CAP Addendum that meets the provisions of section 2725 of the UST regulations (CCR, Title 23, Chapter 16, section 2600, et seq.) and includes the following minimum information:

   - Detailed description of proposed remediation including confirmation sampling and monitoring during implementation (a performance monitoring network).
   - Post-remediation monitoring.
   - Schedule for implementation of cleanup.

   Please be aware that public participation is a requirement for the Corrective Action Plan process. Therefore, we request that you submit a CAP Addendum for ACEH review and a Draft Public Notification Fact Sheet. Two examples are attached to this letter. Upon ACEH approval of the documents, ACEH will notify potentially affected members of the public who live or own property in the surrounding area of the proposed remediation described in the RAP and CAP Addendum. Public comments on the proposed remediation will be accepted for a 30-day period.

3) **LTCP Review** – ACEH has reviewed the site against the Low-Threat Closure Policy (LTCP) and finds that the site does not meet the policy for a number of reasons. ACEH attaches the GeoTracker LTCP review page and the ACEH Data Gap Identification Tool (DGIT) review to help communicate identified data gaps, with the expectation that data gaps will be addressed in future proposed work. The communication of these data gaps under the LTCP is intended to initiate a "Path to Closure" dialogue between ACEH and Responsible Parties. In order to continue this dialogue, ACEH requests that an updated SCM and a data gap work plan be submitted as a part of the soil and groundwater investigation report, as requested below, and in conjunction with the following item.

4) **Path to Closure Project Schedule** - The State Water Resources Control Board passed Resolution No. 2012-0062 on November 6, 2012 which requires development of a "Path to Closure Plan" by December 31, 2013 that addresses the impediments to closure for the site. The Path to Closure must have milestone dates to calendar quarter which will achieve site cleanup and case closure in a timely and efficient manner that minimizes the cost of corrective action. The Project Schedule should include, but not be limited to, the following key environmental elements and milestones as appropriate:

- Preferential Pathway Study
- Soil, Groundwater, and Soil Vapor Investigations
- Initial, Updated, and Final/Validated SCMs
- Interim Remedial Actions
- Feasibility Study/Corrective Action Plan
- Pilot Tests
- Remedial Actions
- Soil Vapor and Groundwater Monitoring Well Installation and Monitoring
- Public Participation Program (Fact Sheet Preparation/Distribution/Public Comment Period, Community Meetings, etc.)
- Case Closure Tasks (Request for closure documents, ACEH Case Closure Summary Preparation and Review, Site Management Plan, Institutional Controls, Public Participation, Landowner Notification, Well Decommissioning, Waste Removal, and Reporting.)

Please include time for regulatory and RP in house review, permitting, off-site access agreements, and utility connections, etc.

Please use a critical path methodology/tool to construct a schedule with sufficient detail to support a realistic and achievable Path to Closure Schedule. The schedule is to include at a minimum:

- Defined work breakdown structure including summary tasks required to accomplish the project objectives and required deliverables
- Summary task decomposition into smaller more manageable components that can be scheduled, monitored, and controlled
- Sequencing of activities to identify and document relationships among the project activities using logical relationships
- Identification of critical paths, linkages, predecessor and successor activities, leads and lags, and key milestones
- Identification of entity responsible for executing work
- Estimated activity durations (60-day ACEH review times are based on calendar days)

Please submit an electronic copy of the Path to Closure Schedule by the date listed below. ACEH will review the schedule to ensure that all key elements are included.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACEH ftp site (Attention: Mark Detterman), and to the State Water Resources Control Board's Geotracker website, in accordance with the specified file naming convention below, according to the following schedule:

- **May 3, 2013** – Work Plan Addendum and CAP Addendum
  File to be named: RO350_WP_CAP_ ADEND_L_yyyy-mm-dd

- **60 Days After Work Plan Approval** – Soil and Groundwater Report (with Updated SCM, Data Gap Work Plan, and Path to Closure Schedule); File to be named: RO350_SWI_WP_R_yyyy-mm-dd

- **September 6, 2013** – Second Semiannual 2013 Groundwater Monitoring Report
  File to be named: RO350_GWM_R_yyyy-mm-dd

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible

party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

If your email address is not listed on the first page of this letter, ACEH is requesting your email address to help expedite communications and to help lower overall costs. Please provide that information in the next submittal.

Should you have any questions, please contact me at (510) 567--6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,

Digitally signed by Mark Detterman
DN: cn=Mark Detterman, o, ou,
email=mark.detterman@acgov.org, c=US
Date: 2013.03.15 13:50:34 -07'00'

Mark E. Detterman, PG, CEG
Senior Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations
Electronic Report Upload (ftp) Instructions
GeoTracker LTCP Checklist
ACEH Data Gap Identification Tool (DGIT)
Example Draft Public Notification Fact Sheets

cc: Kiersten Hoey, Conestoga-Rovers & Assoc., 5900 Hollis Street, Suite A, Emeryville, CA 94608 (sent via electronic mail to khoey@craworld.com)

Judy Gilbert, Conestoga-Rovers & Assoc., 5900 Hollis Street, Suite A, Emeryville, CA 94608; (sent via electronic mail to: jgilbert@CRAworld.com)

Donna Drogos, ACEH, (sent via electronic mail to donna.drogos@acgov.org)
Mark Detterman, ACEH, (sent via electronic mail to mark.detterman@acgov.org)
Geotracker, Electronic File

Attachment 1

Responsible Party(ies) Legal Requirements/Obligations

REPORT/DATA REQUESTS

These reports/data are being requested pursuant to Division 7 of the California Water Code (Water Quality), Chapter 6.7 of Division 20 of the California Health and Safety Code (Underground Storage of Hazardous Substances), and Chapter 16 of Division 3 of Title 23 of the California Code of Regulations (Underground Storage Tank Regulations).

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (Local Oversight Program [LOP] for unauthorized releases from petroleum Underground Storage Tanks [USTs], and Site Cleanup Program [SCP] for unauthorized releases of non-petroleum hazardous substances) require submission of reports in electronic format pursuant to Chapter 3 of Division 7, Sections 13195 and 13197.5 of the California Water Code, and Chapter 30, Articles 1 and 2, Sections 3890 to 3895 of Division 3 of Title 23 of the California Code of Regulations (23 CCR). Instructions for submission of electronic documents to the ACEH FTP site are provided on the attached "Electronic Report Upload Instructions."

Submission of reports to the ACEH FTP site is in addition to requirements for electronic submittal of information (ESI) to the State Water Resources Control Board's (SWRCB) Geotracker website. In April 2001, the SWRCB adopted 23 CCR, Division 3, Chapter 16, Article 12, Sections 2729 and 2729.1 (Electronic Submission of Laboratory Data for UST Reports). Article 12 required electronic submittal of analytical laboratory data submitted in a report to a regulatory agency (effective September 1, 2001), and surveyed locations (latitude, longitude and elevation) of groundwater monitoring wells (effective January 1, 2002) in Electronic Deliverable Format (EDF) to Geotracker. Article 12 was subsequently repealed in 2004 and replaced with Article 30 (Electronic Submittal of Information) which expanded the ESI requirements to include electronic submittal of any report or data required by a regulatory agency from a cleanup site. The expanded ESI submittal requirements for petroleum UST sites subject to the requirements of 23 CCR, Division, 3, Chapter 16, Article 11, became effective December 16, 2004. All other electronic submittals required pursuant to Chapter 30 became effective January 1, 2005. Please visit the SWRCB website for more information on these requirements: (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 7835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, late reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	**REVISION DATE:** July 25, 2012
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (petroleum UST and SCP) require submission of all reports in electronic form to the county's FTP site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single Portable Document Format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

1) Obtain User Name and Password
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to deh.loptoxic@acgov.org
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are **NOT** being supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

ATTACHMENT B

CRA'S STANDARD FIELD PROCEDURES FOR WELL INSTALLATION

STANDARD FIELD PROCEDURES FOR SOIL BORING AND MONITORING WELL INSTALLATION

This document presents standard field methods for drilling and sampling soil borings and installing, developing, and sampling groundwater monitoring wells. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

SOIL BORINGS

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor or staining, and to collect samples for analysis at a State-certified laboratory. All borings are logged using the ASTM D2488-06 Unified Soil Classification System by a trained geologist working under the supervision of a California Professional Geologist (PG).

Soil Boring and Sampling

Prior to drilling, the first 8 feet of the boring are cleared using an air or water knife and vacuum extraction or hand auger. This minimizes the potential for impacting utilities. Soil borings are typically drilled using hollow-stem augers or direct-push technologies such as the Geoprobe®. Soil samples are collected at least every five ft to characterize the subsurface sediments and for possible chemical analysis. Additional soil samples are collected near the water table and at lithologic changes. Samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments at the bottom of the borehole.

Drilling and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Analysis

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labeled and stored at or below 4° C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

Field Screening

One of the remaining tubes is partially emptied leaving about one-third of the soil in the tube. The tube is capped with plastic end caps and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable volatile vapor analyzer measures volatile hydrocarbon vapor concentrations in the tube headspace, extracting the vapor through a slit in the cap. Volatile vapor analyzer measurements are used along with the field observations, odors, stratigraphy and groundwater depth to select soil samples for analysis.

Water Sampling
Water samples, if they are collected from the boring, are either collected using a driven Hydropunch® type sampler or are collected from the open borehole using bailers. The groundwater samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.

Grouting
If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

MONITORING WELL INSTALLATION, DEVELOPMENT AND SAMPLING

Well Construction and Surveying
Groundwater monitoring wells are installed to monitor groundwater quality and determine the groundwater elevation, flow direction and gradient. Well depths and screen lengths are based on groundwater depth, occurrence of hydrocarbons or other compounds in the borehole, stratigraphy and State and local regulatory guidelines. Well screens typically extend 10 to 15 feet below and 5 feet above the static water level at the time of drilling. However, the well screen will generally not extend into or through a clay layer that is at least three feet thick.

Well casing and screen are flush-threaded, Schedule 40 PVC. Screen slot size varies according to the sediments screened, but slots are generally 0.010 or 0.020 inches wide. A rinsed and graded sand occupies the annular space between the boring and the well screen to about one to two feet above the well screen. A two feet thick hydrated bentonite seal separates the sand from the overlying sanitary surface seal composed of Portland type I, II cement.

Well-heads are secured by locking well-caps inside traffic-rated vaults finished flush with the ground surface. A stovepipe may be installed between the well-head and the vault cap for additional security.

The well top-of-casing elevation is surveyed with respect to mean sea level and the well is surveyed for horizontal location with respect to an onsite or nearby offsite landmark.

Well Development

Wells are generally developed using a combination of groundwater surging and extraction. Surging agitates the groundwater and dislodges fine sediments from the sand pack. After about ten minutes of surging, groundwater is extracted from the well using bailing, pumping and/or reverse air-lifting through an eductor pipe to remove the sediments from the well. Surging and extraction continue until at least ten well-casing volumes of groundwater are extracted and the sediment volume in the groundwater is negligible. This process usually occurs prior to installing the sanitary surface seal to ensure sand pack stabilization. If development occurs after surface seal installation, then development occurs 24 to 72 hours after seal installation to ensure that the Portland cement has set up correctly.

All equipment is steam-cleaned prior to use and air used for air-lifting is filtered to prevent oil entrained in the compressed air from entering the well. Wells that are developed using air-lift evacuation are not sampled until at least 24 hours after they are developed.

Groundwater Sampling

Depending on local regulatory guidelines, three to four well-casing volumes of groundwater are purged prior to sampling. Purging continues until groundwater pH, conductivity, and temperature have stabilized. Groundwater samples are collected using bailers or pumps and are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.

Waste Handling and Disposal

Soil cuttings from drilling activities are usually stockpiled onsite and covered by plastic sheeting. At least three individual soil samples are collected from the stockpiles and composited at the analytic laboratory. The composite sample is analyzed for the same constituents analyzed in the borehole samples in addition to any analytes required by the receiving disposal facility. Soil cuttings are transported by licensed waste haulers and disposed in secure, licensed facilities based on the composite analytic results.

Groundwater removed during development and sampling is typically stored onsite in sealed 55-gallon drums. Each drum is labeled with the drum number, date of generation, suspected contents, generator identification and consultant contact. Upon receipt of analytic results, the water is either pumped out using a vacuum truck for transport to a licensed waste treatment/disposal facility or the individual drums are picked up and transported to the waste facility where the drum contents are removed and appropriately disposed.

ATTACHMENT C

CRA'S STANDARD FIELD PROCEDURES FOR WELL DESTRUCTION

STANDARD FIELD PROCEDURES FOR MONITORING WELL DESTRUCTION

This document presents standard field procedures for properly destroying groundwater monitoring wells. The objective of well destruction is to destroy wells in a manner that is protective of potential water resources. The two procedures most commonly used are pressure grouting and drilling out the well. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

Pressure Grouting

Pressure grouting consists of injecting neat Portland cement through a tremie pipe under pressure to the bottom of the well. The cement is composed of about five gallons of water to a 94 pound sack of Portland I/II Cement. Once the well casing is full of grout, it is pressurized for five minutes by applying a pressure of 25 pounds per square inch (psi) with a grout pump. The well casing can also be pressurized by extending the well casing to the appropriate height and filling it with grout. In either case, the additional pressure allows the grout to be forced into the sand pack. After grouting the sand pack and casing, the well vault is removed and the area resurfaced or backfilled as required.

Well Drill Out

When well drill out is required, the well location is cleared for subsurface utilities and a hollow-stem auger (or other appropriate) drilling rig is used to drill out the well casing and filter pack materials. First, drill rods are placed down the well and used to guide the augers as they drill out the well. A guide auger is used in place of the drill rods if feasible. Once the well is drilled out, the boring is filled with Portland cement injected through the augers or a tremmie pipe under pressure to the bottom of the boring. The well vault is removed and the area resurfaced or backfilled as required.

Waste Handling and Disposal

Soil cuttings from drilling activities are usually stockpiled onsite and covered by plastic sheeting. At least three individual soil samples are collected from the stockpiles and composited at the analytic laboratory. The composite sample is analyzed for the same constituents analyzed in the borehole samples in addition to any analytes required by the receiving disposal facility. Soil cuttings are transported by licensed waste haulers and disposed in secure, licensed facilities based on the composite analytic results.