

ALAMEDA COUNTY  
**HEALTH CARE SERVICES  
AGENCY**

COLLEEN CHAWLA, Director



DEPARTMENT OF ENVIRONMENTAL HEALTH  
LOCAL OVERSIGHT PROGRAM (LOP)  
For Hazardous Materials Releases  
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May 30, 2018

Ms. Andrea Wing  
Equilon Enterprises LLC  
Dba Shell Oil Products, US  
20945 S. Wilmington Avenue  
Carson, CA 90810  
(Sent via electronic mail to:  
[andrea.wing@shell.com](mailto:andrea.wing@shell.com))

Foothill Blvd. LLC  
c/o Linli Lee  
141 Woodland Way  
Piedmont, CA 94611  
(Sent via electronic mail to:  
[linliphua@yahoo.com](mailto:linliphua@yahoo.com))

Mr. Walter Watters  
101 Jasmine Creek Dr.  
Corona Del Mar, CA 92625

Subject: Data Gap Work Plan Request; Fuel Leak Case No. RO0000415 and GeoTracker Global ID T0600101065, Shell #13-5686, 4411 Foothill Blvd, Oakland, CA 94601

Dear Responsible Parties:

I have been recently assigned the referenced site and have had the opportunity to review case documents. I look forward to working with you to move the case towards case closure. Included in the review was the *Updated Conceptual Site Model and Closure Evaluation*, dated August 7, 2015, and the *Second Quarter 2017 Groundwater Monitoring and Sampling Report*, dated February 28, 2018. The referenced Site Conceptual Model (SCM) concluded that chemicals of concern at the site are not delineated upgradient of well S-6 and downgradient of well C-11, recommended further investigation of the status of the irrigation well at 4320 Bond Street, and further investigation of the basement of the building at 1718 High Street. The referenced groundwater monitoring report recommended continued groundwater monitoring of the site and vicinity.

Alameda County Department of Environmental Health (ACDEH) has evaluated the data and recommendations presented in the above-mentioned reports, in conjunction with the case files, to determine if the site is eligible for closure as a low risk site under the State Water Resources Control Board's (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (LTCP). Based on ACDEH staff review, ACDEH has determined that the site fails to meet the LTCP Media-Specific Criteria for Groundwater and the Media-Specific Criteria for Vapor Intrusion to Indoor Air.

At this juncture ACDEH requests that you prepare a Data Gap Investigation Work Plan that is supported by a focused Site Conceptual Model (SCM) to address the Technical Comments provided below.

### **TECHNICAL COMMENTS**

- 1. LTCP Media Specific Criteria for Groundwater** – To satisfy the media-specific criteria for groundwater, the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal extent, and meet all of the additional characteristics of one of the five classes of sites listed in the policy.

Our review of the case files indicates that insufficient data collection and analysis has been provided to support the requisite characteristics of plume stability or plume classification as follows:

- a. Lateral Extent of Groundwater Plume** – As noted above, the SCM indicates that the groundwater plume has not been defined both upgradient and downgradient of the subject site. The SCM did not recommend further delineation of the plume upgradient of the site and concluded that groundwater contamination in well S-6 was likely a result of soil contamination at a former dispenser proximal to the well. The SCM recommended further delineation of the groundwater plume downgradient of well C-11, installed by Chevron.

In regards to the upgradient extent of the groundwater plume, while ACDEH is in general agreement that groundwater contamination may be associated with the former dispenser at the site proximal to well S-6, the multiple generations of underground storage tanks (USTs) at the site (minimum of three generations) indicates that unsuspected soil contamination may be present elsewhere on the site that can impact any remedial option. This view is partially informed by sub-slab vapor concentrations at SSV-3, which do not meet current Environmental Screening Levels (ESLs) for Total Petroleum Hydrocarbons as gasoline (TPHg), naphthalene, and potentially periodically for benzene. ACDEH notes that SSV-3 is placed proximal to confirmation soil samples (C-12-9.0, C-13-4.0, etc.) collected from the UST removal that indicate fairly low soil concentrations, and which would otherwise not suggest a vapor risk.

In regards to the downgradient extent of the groundwater plume, while subsequent monitoring of well C-11 appears to indicate relative stability of groundwater concentrations downgradient of the site at the location of well C-11, ACDEH does not necessarily regard groundwater concentrations in well C-11 to be representative of all groundwater contaminant concentrations downgradient of the site. Review of soil and groundwater bores at the subject site documents a pervasive granular lithology (many feet of sands or gravels) to be present beneath the site, and includes relatively rare clay content. Review of bore logs at the adjacent environmental case at the Chevron service station (Chevron #9-0076; RO0000427; T0600100339) documents substantial clay units, with relatively rarer and thinner granular layers. Review of the local topography also indicates the site is centered in a former narrow stream valley. Therefore, it appears that the former Shell service station site may be centered on a "paleochannel" that can create preferential migration of groundwater and associated contamination. In this view, well C-11 may be placed off the former main stream channel, would thus monitor lower off-channel concentrations, and would therefore not define worst-case downgradient groundwater plume concentrations within a preferential migration channel.

To assist in understanding flow path controls on local hydrogeology ACDEH requests the generation of cross-sections in the Data Gap Work Plan that utilize offsite bore logs to depict site vicinity stratigraphy. This request may help identify potential preferential pathways beneath in the site vicinity. ACDEH requests the depiction of all additional potential preferential pathways, including utility locations and depths be incorporated into the cross-sections.

- b. Water Supply Wells** – The closest water supply well is at an approximate distance of 20 feet at 4320 Bond Street, one of several immediately adjacent downgradient properties. Its current status is unknown and the SCM recommended further investigation of its status. ACDEH is in agreement with this undertaking and can lend assistance if required.

Please present a strategy in the Data Gap Work Plan requested below to address the items discussed above.

- 2. LTCP Media Specific Criteria for Vapor Intrusion to Indoor Air** – The LTCP describes conditions, including bioattenuation zones, which if met will assure that exposure to petroleum vapors in indoor air will not pose unacceptable health risks to human occupants of existing or future site buildings, and adjacent parcels. Appendices 1 through 4 of the LTCP criteria illustrate four potential exposure scenarios and describe characteristics and criteria associated with each scenario.

Our review of the case files indicates that the site data collection and analysis fail to support the requisite characteristics of one of the four scenarios. Specifically, review of site vapor analytical data collected at a depth of 4.5 to 4.8 feet below grade surface (bgs) indicates that not all areas of the site meet the LTCP required goals (V-2, V-3, V-4, among others); however, ACDEH notes the data was collected between seven to nine years ago. Additionally as noted above, subslab vapor point SSV-3 does not meet commercial ESLs for TPHg, naphthalene, and may periodically not meet the ESL for benzene, based on data collected over five years ago. Therefore, it appears appropriate to request the

resampling of most, if not all, soil vapor wells and subslab vapor points in order to determine current concentrations and any associated health risks.

Consistent with Department of Toxic Substance Control (DTSC) guidance, ACDEH requests the collection of atmospheric gases including oxygen and carbon dioxide, as well as methane and the tracer, at each vapor sampling location. ACDEH requests that Standard Operating Procedures (SOPs) be included in the requested Data Gap Work Plan, in order to determine that more recent vapor sampling procedures have been incorporated into the SOPs. ACDEH additionally requests that the location of the Ambient Air sample be identified or otherwise located on site figures.

ACDEH additionally requests the installation of a vapor well or subslab vapor point vertically above the first generation USTs formerly situated directly below the China Express Restaurant. Although confirmation soil samples collected at a depth of 20 feet bgs were non-detectable at standard reporting limits, the samples were collected eight feet below groundwater as reported in soil bores TB-1 and TB-3. No confirmation samples were collected above the level of groundwater at that location, and thus it is not documented that all residual soil contamination was removed sufficient for a risk of vapor intrusion to be eliminated beneath the restaurant.

ACDEH similarly requests the installation of a vapor well or subslab vapor point outside the area excavated beneath the Lavanderia Laundromat. The effect of the excavation and backfill on soil vapors in native materials outside the excavation area has not been determined. Although sidewall samples document relatively low concentrations in soil beneath the Laundromat, similarly low soil concentrations near SSV-3 indicate a potential risk of vapor intrusion may be present to the business.

Please present a strategy in the Data Gap Investigation Work Plan, requested below, to collect additional data to address these concerns.

- 3. Investigation of Offsite Basement** – ACDEH is in agreement with recommendations for further investigation of the nature of the basement reported at 1718 High Street. ACDEH notes that a full eight foot basement would place the depth of the basement at or about the elevation of groundwater in onsite wells which report moderate to elevated hydrocarbon concentrations. Removal of this soil also removes the separation distance the LTCP utilizes to reduce the risk of vapor intrusion to the basement and residence. ACDEH requests this information be incorporated into the work proposed in the Data Gap Work Plan requested below. Should assistance be needed, ACDEH can also send a letter requesting the information from the property owners.
- 4. Data Gap Work Plan and Focused Site Conceptual Model** – Please prepare a Data Gap Work Plan to address the technical comments listed above. Please support the scope of work in the Data Gap Work Plan with a focused SCM and Data Quality Objectives (DQOs) that relate the data collection to each LTCP criteria. For example please clarify which scenario within each Media-Specific Criteria a sampling strategy is intended to apply to. Please note that collection of subslab vapor data does not fit within the LTCP; however, if the data cannot be otherwise collected, it is appropriate to collect it and utilize ESLs.

In order to expedite review, ACDEH requests the focused SCM be presented in a tabular format that highlights the major SCM elements and associated data gaps, which need to be addressed to progress the site to case closure under the LTCP. An example of the tabular format can be forwarded under separate cover. Please sequence activities in the proposed revised data gap investigation scope of work to enable efficient data collection in the fewest mobilizations possible.

- 5. Semi-Annual Groundwater Monitoring** – Please continue to conduct semi-annual groundwater monitoring in the months of June and December of a given year at the subject site. ACDEH requests the inclusion of a rose diagram that utilizes all groundwater gradient flow directions generated since groundwater monitoring started in 1993. ACDEH requests the collection, potentially on a one time basis, chlorinated volatile organic compounds (CVOCs) from well S-13 to verify that chlorinated

compounds are not a COC at the site, and potentially an offsite vapor intrusion risk at the immediately adjacent apartments. Please submit groundwater monitoring reports by the date identified below.

- 6. Coordinated Groundwater Monitoring** - It appears appropriate to request the coordination of groundwater monitoring with adjacent fuel leak sites in order to determine vicinity groundwater flow direction(s). Please initiate efforts to coordinate groundwater monitoring between the three sites. A separate letter requesting this coordination effort will be sent shortly.

### **TECHNICAL REPORT REQUEST**

Please upload technical reports to the ACDEH ftp site (Attention: Mark Detterman), and to the State Water Resources Control Board's Geotracker website, in accordance with the following specified file naming convention, and in Attachment 1, and schedule:

- **August 3, 2018** – Data Gap Work Plan and Tabular SCM  
File to be named RO415\_WP\_R\_YYYY-mm-dd
- **August 17, 2018** – First Semi-Annual 2018 Groundwater Monitoring Report  
File to be named: RO415\_GWM\_R\_YYYY-mm-dd
- **60 Days After Work Plan Submittal** – Site Investigation Report  
File to be named: RO415\_SWI\_R\_YYYY-mm-dd
- **February 25, 2019** – Second Semi-Annual 2018 Groundwater Monitoring Report  
File to be named: RO415\_GWM\_R\_YYYY-mm-dd

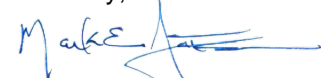
These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

Online case files are available for review at the following website: <http://www.acgov.org/aceh/index.htm>.

If your email address does not appear on the cover page of this notification, ACDEH is requesting you provide your email address so that we can correspond with you quickly and efficiently regarding your case.

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

Sincerely,



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

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations  
Electronic Report Upload (ftp) Instructions

cc: Shane Olton, AECOM, 300 Lakeside Drive, Suite 400, Oakland, CA 94612; (Sent via electronic mail to: [shane.olton@aecom.com](mailto:shane.olton@aecom.com))

Bill Phua, (Sent via electronic mail to: [billphua@yahoo.com](mailto:billphua@yahoo.com))

Dilan Roe, ACDEH, (Sent via electronic mail to: [dilan.roe@acgov.org](mailto:dilan.roe@acgov.org))

Paresh Khatri, ACDEH; (Sent via electronic mail to: [paresh.khatri@acgov.org](mailto:paresh.khatri@acgov.org))

Mark Detterman, ACDEH, (Sent via electronic mail to: [mark.detterman@acgov.org](mailto:mark.detterman@acgov.org))

Electronic File; GeoTracker

<b>Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)</b>	<b>REVISION DATE:</b> December 14, 2017
	<b>ISSUE DATE:</b> July 25, 2012
	<b>PREVIOUS REVISIONS:</b> September 17, 2013, May 15, 2014, December 12, 2016
<b>SECTION:</b> ACDEH Procedures	<b>SUBJECT:</b> Responsible Party(ies) Legal Requirements / Obligations

#### REPORT & DELIVERABLE REQUESTS

Alameda County Department of Environmental Health (ACDEH) Cleanup Oversight Programs, Local Oversight Program (LOP) and Site Cleanup Program (SCP) require submission of all reports in electronic form to the State Water Board's (SWB) GeoTracker website in accordance with California Code of Regulations, Chapter 30, Division 3, Title 23 and Division 3, Title 27.

#### Leaking Underground Fuel Tank (LUFT) Cases

Reports and deliverable requests are 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 (RP) in conjunction with an unauthorized release from a petroleum underground storage tank (UST) system.

#### Site Cleanup Program (SCP) Cases

For non-petroleum UST cases, reports and deliverables requests are pursuant to California Health and Safety Code Section 101480.

#### ELECTRONIC SUBMITTAL OF REPORTS

A complete report submittal includes the PDF report and all associated electronic data files, including but not limited to GEO\_MAP, GEO\_XY, GEO\_Z, GEO\_BORE, GEO\_WELL, and laboratory analytical data in Electronic Deliverable Format™ (EDF). Additional information on these requirements is available on the State Water Board's website ([http://www.waterboards.ca.gov/water\\_issues/programs/ust/electronic\\_submittal/](http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/))

- Do not upload draft reports to GeoTracker
- Rotate each page in the PDF document in the direction that will make it easiest to read on a computer monitor.

#### GEOTRACKER UPLOAD CERTIFICATION

Each report submittal is to include a GeoTracker Upload Summary Table with GeoTracker valid values<sup>1</sup> as illustrated in the example below to facilitate ACDEH review and verify compliance with GeoTracker requirements.

#### **GeoTracker Upload Table Example**

Report Title	Sample Period	PDF Report	GEO_MAPS	Sample ID	Matrix	GEO_Z	GEO_XY	GEO_BORE	GEO_WELL	EDF
<b>2016 Subsurface Investigation Report</b>	2016 S1	✓	✓	Effluent	SO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
<b>2012 Site Assessment Work Plan</b>	2012	✓	✓			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2010 GW Investigation Report</b>	2008 Q4	✓	✓	SB-10	W	✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
				SB-10-6	SO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
				MW-1	WG	✓	✓	✓	✓	✓
				SW-1	W	✓	✓	✓	✓	✓

<sup>1</sup> GeoTracker Survey XYZ, Well Data, and Site Map Guidelines & Restrictions, CA State Water Resources Control Board, April 2005

<b>Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)</b>	<b>REVISION DATE:</b> NA
	<b>ISSUE DATE:</b> December 14, 2017
	<b>PREVIOUS REVISIONS:</b> September 17, 2013, May 15, 2014, December 12, 2016
<b>SECTION:</b> ACDEH Procedures	<b>SUBJECT:</b> Responsible Party(ies) Legal Requirements / Obligations

**ACKNOWLEDGEMENT STATEMENT**

All work plans, technical reports, or technical documents submitted to ACDEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I have read and acknowledge the content, recommendations and/or conclusions contained in the attached document or report submitted on my behalf to the State Water Board's GeoTracker website." This letter must be signed by the Responsible Party, or legally authorized representative of the Responsible Party.

**PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS**

The California Business and Professions Code (Sections 6731, 6735, and 7835) 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 licensed or certified professional and include the professional registration stamp, signature, and statement of professional certification. Additional information is available on the Board of Professional Engineers, Land Surveyors, and Geologists website at: <http://www.bpelsg.ca.gov/laws/index.shtml>.

**UNDERGROUND STORAGE TANK CLEANUP FUND**

For LUFT cases, RP's non-compliance with these regulations may result in ineligibility to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse the cost of cleanup. Additional information is available on the internet at: [https://www.waterboards.ca.gov/water\\_issues/programs/ustcf/](https://www.waterboards.ca.gov/water_issues/programs/ustcf/)

**AGENCY OVERSIGHT**

Significant delays in conducting site assessment/cleanup or report submittals may result in referral of the case to the Regional Water 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.