ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
COLLEEN CHAWLA, Agency

DEPARTMENT OF ENVIRONMENTAL HEALTH
LOCAL OVERSIGHT PROGRAM (LOP)
For Hazardous Materials Releases
1131 HARBOR BAY PARKWAY, SUITE 250
ALAMEDA, CA 94502
(510) 567-6700
FAX (510) 337-9335

April 25, 2018

Rashid Ghafoor (Sent via e-mail to: rashidz1@aol.com)
226 Havenwood Circle
Pittsburg, CA 94567

Subject: Fuel Leak Case No. RO0002931 and GeoTracker Global ID T0600174667, Shore Acres Gas, 403 E. 12th St., Oakland, CA 94606

Dear Mr. Ghafoor:

Alameda County Department of Environmental Health (ACDEH) issued a Directive Letter for the case on April 20, 2018. On April 23, 2018 a *Data Gap Investigation Work Plan and Site Conceptual Model* (Work Plan) for the subject site became available on Geotracker. The Work Plan is over seven months late and is overdue. ACDEH initially rejected the Work Plan on Geotracker because it did not address the Technical Comments provided in the April 20, 2018 Directive Letter; however, ACDEH has now accepted the Work Plan and with this Directive Letter, is requesting a Work Plan Addendum.

ACDEH and Underground Storage Tank Fund (USTCF) staff are in concurrence that the case does not meet the State Water Resources Control Board's (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (LTCP) adopted by the SWRCB on May 1, 2012 for the closure of leaking petroleum underground storage tank (UST) sites. ACDEH has determined that the site does not meet the LTCP General Criteria d (Free Product Removal), e (Site Conceptual Model), f (Secondary Source Removal), Media-Specific Criteria for Groundwater, Media-Specific Criteria for Vapor Intrusion to Indoor Air, and the Media-Specific Criteria for Direct Contact (See the August 11, 2017 Directive Letter for details).

The referenced work plan begins to propose actions with which ACDEH will be in general agreement of undertaking; however, in the interest of closing data gaps identified by ACDEH and the USTCF, ACDEH request that you address all of the Technical Comments specifically provided in ACDEH's April 20, 2018 Directive Letter (which are Technical Comments 3, 4, and 6, and 8 from the August 11, 2017 Directive Letter), in a *Data Gap Investigation Work Plan Addendum and Site Conceptual Model.* Copies of the two Directive Letters are attached. Please submit the requested Work Plan Addendum by the dates identified below. Please be aware that ACDEH has not approved the Work Plan with this Directive Letter.

TECHNICAL COMMENTS

1. **Geotracker Electronic Submittal of Information (ESI) Compliance: Please be aware that failure to comply with Geotracker requirements will jeopardize reimbursement from the USTCF and will delay eventual case closure.**

TECHNICAL REPORT REQUEST

Please upload technical reports to the State Water Resources Control Board's Geotracker website, in accordance with the following specified file naming convention and schedule:

- **May 18, 2018**: GeoTracker electronic submittal date for all missing ESI submittals
- **June 27, 2018**: Data Gap Investigation Work Plan Addendum and Site Conceptual Model
  File to be named: RO2931_WP_SCM_ADEND_R_yyyy-mm-dd

- **May 31, 2018**: Semiannual Groundwater Monitoring and Sampling Report, 1st Half 2018
  File to be named: RO2931_GWM_R_yyyy-mm-dd

- **November 30, 2018**: Semiannual Groundwater Monitoring and Sampling Report, 2nd Half 2018
  File to be named: RO2931_GWM_R_yyyy-mm-dd

- **May 31, 2019**: Semiannual Groundwater Monitoring and Sampling Report, 1st Half 2019
  File to be named: RO2931_GWM_R_yyyy-mm-dd

- **November 30, 2019**: Semiannual Groundwater Monitoring and Sampling Report, 2nd Half 2019
  File to be named: RO2931_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.

Thank you for your cooperation. Should you have any questions or concerns regarding this correspondence or your case, please send me an e-mail message at: karel.detterman@acgov.org or call me at (510) 567-6708.

Sincerely,

Karel Detterman

Digitally signed by Karel Detterman
DN: cn=Karel Detterman, o, ou, email=karel.detterman@acgov.org, c=US
Date: 2018.04.25 15:49:30 -07'00'

Karel Detterman, PG
Hazardous Materials Specialist

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

Attachment A - April 20, 2018 ACDEH Directive Letter and August 11, 2017 ACDEH Directive Letter

cc: Drew Van Allen, Environmental Compliance Group, LLC, 270 Vintage Drive, Turlock, CA 95382 (Sent via E-mail to: ecg.ust@gmail.com)

Dilan Roe, ACDEH, (Sent via E-mail to: dilan.roe@acgov.org)
Karel Detterman, ACDEH, (Sent via E-mail to: karel.detterman@acgov.org)
Paresh Khatri, ACDEH, (Sent via E-mail to: paresh.khatri@acgov.org)
GeoTracker, eFile

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	**REVISION DATE:** December 14, 2017
	ISSUE DATE: July 25, 2012
	PREVIOUS REVISIONS: September 17, 2013, May 15, 2014, December 12, 2016
SECTION: ACDEH Procedures	**SUBJECT:** 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, Division3, 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/)

- 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[1] 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_WEL L	EDF
2016 Subsurface Investigation Report	2016 S1	✓	✓	Effluent	SO	☐	☐	☐	☐	✓
2012 Site Assessment Work Plan	2012	✓	✓			☐	☐	☐	☐	☐
2010 GW Investigation Report	2008 Q4	✓	✓	SB-10	W	✓	☐	☐	☐	✓
				SB-10-6	SO	☐	☐	☐	☐	✓
				MW-1	WG	✓	✓	✓	✓	✓
				SW-1	W	✓	✓	✓	✓	✓

[1] GeoTracker Survey XYZ, Well Data, and Site Map Guidelines & Restrictions, CA State Water Resources Control Board, April 2005

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	**REVISION DATE:** NA
	ISSUE DATE: December 14, 2017
	PREVIOUS REVISIONS: September 17, 2013, May 15, 2014, December 12, 2016
SECTION: ACDEH Procedures	**SUBJECT:** 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/

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.

ATTACHMENT A

ALAMEDA COUNTY
HEALTH CARE SERVICES
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DEPARTMENT OF ENVIRONMENTAL HEALTH
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April 20, 2018

Rashid Ghafoor (Sent via e-mail to: rashidz1@aol.com)
226 Havenwood Circle
Pittsburg, CA 94567

Subject: Fuel Leak Case No. RO0002931 and GeoTracker Global ID T0600174667, Shore Acres Gas, 403 E. 12th St., Oakland, CA 94606

Dear Mr. Ghafoor:

Alameda County Department of Environmental Health (ACDEH) and Underground Storage Tank Fund (USTCF) staff discussed prioritization of the Technical Comments provided to you in ACDEH's August 11, 2017 Directive Letter to fill remaining numerous data gaps to meet the State Water Resources Control Board's (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (LTCP) adopted by the SWRCB on May 1, 2012 for the closure of leaking petroleum underground storage tank (UST) sites. ACDEH has determined that the site does not meet the LTCP General Criteria d (Free Product Removal), e (Site Conceptual Model), f (Secondary Source Removal), Media-Specific Criteria for Groundwater, Media-Specific Criteria for Vapor Intrusion to Indoor Air, and the Media-Specific Criteria for Direct Contact (See the August 11, 2017 Directive Letter).

To continue progress on the path to closure, ACDEH and USTCF request that you address all of the following Technical Comments, including Technical Comments 3, 4, and 6, and 8 from the August 11, 2017 Directive Letter, in a *Data Gap Work Plan and Site Conceptual Model.*

TECHNICAL COMMENTS

1. **LTCP Media Specific Criteria for Groundwater, August 11, 2017 Directive Letter Technical Comment 3:** ACDEH's review of the case files indicates that insufficient data and analysis has been presented to assess compliance with Media Specific Criteria for Groundwater. The rose diagram included in the October 23, 2017 *Third Quarter 2017 Groundwater Monitoring Report* indicates a southeasterly groundwater gradient direction parallel to East 12th Street. Business and residences are located southeast and immediately downgradient of the site. Wells EW-4 and MW-2 located in the down gradient portion of the property proximal to the southeastern property boundary detected Total Petroleum Hydrocarbons as gasoline (TPHg) and benzene and indicate that the plume length is undefined and have not determined if free product has migrated southeast and downgradient off site. Please present a strategy in the Data Gap Work Plan requested below to collect sufficient off-site and downgradient soil and groundwater data to satisfy the LTCP Media Specific Criteria for Groundwater criteria.

2. **LTCP Media Specific Criteria for Vapor Intrusion to Indoor Air, August 11, 2017 Directive Letter Technical Comment 4:** ACDEH's review of the case files indicates that insufficient data and analysis has been presented to assess compliance with Media Specific Criteria for Vapor Intrusion to Indoor Air to businesses and residences located southeast to, immediately adjacent to, and immediately downgradient of the site. Additionally, vapor intrusion to residential houses immediately adjacent to and southwest of MW-1 has not been assessed. In accordance with the LTCP, since benzene is detected between 100 ug/L and 1,000 ug/L in groundwater, the bioattenuation zone must greater than 10 feet thick. Review of the site's boring logs indicate a bioattenuation zone greater than 5 feet bgs but less than 10 feet bgs, and indicates the potential for vapor intrusion to indoor air to the neighboring residences and business. As previously

requested in ACDEH's February 18, 2016, and August 11, 2017 Directive Letters, ACDEH requests preparation of a Data Gap Work Plan to assess potential vapor intrusion to indoor air of the on-site trailer and adjacent downgradient businesses and residences. Please present a strategy to collect sufficient data to satisfy the Media Specific Criteria for Vapor Intrusion to Indoor Air. Please ensure that your strategy is consistent with the field sampling protocols described in the Department of Toxic Substances Control's (DTSC's) *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance) (October 2011)* and DTSC's *Advisory Active Soil Gas Investigations* (July 2015). Consistent with the guidance, ACDEH requires installation of permanent vapor wells to assess temporal and seasonal variations in soil gas concentrations.

3. **LTCP General Criteria e (Site Conceptual Model), August 11, 2017 Directive Letter Technical Comment 6:**

   a. ACDEH requests preparation of a SCM 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. Please prepare an SCM similar to Attachment A, ACDEH's August 11, 2017 Directive Letter and include the SCM with the Data Gap Work Plan requested below.

   b. As a part of the SCM, please perform a Sensitive Receptor Study by reviewing Alameda County Public Works Agency (ACPWA) well data base for an inventory of vicinity water supply wells to determine if sensitive receptors are present within a radius of 2,000 feet of the site. ACDEH requests the identification and location of all irrigation, domestic water supply, and industrial wells within a 2,000-foot radius of the site on a site vicinity figure. Please identify on the same figure beneficial resources and other sensitive receptors including, but not limited to, surface water bodies, schools, hospitals, day care centers, elder care facilities, etc. Please plot the numbered well locations on an aerial photography-based figure and provide a table listing the same numbered well locations and information similar to the example provided in Attachment B, ACDEH's August 11, 2017 Directive Letter and include the table and figure with the Data Gap Work Plan requested below.

   c. Two pump islands are shown on ECG's report figures submitted to date; however, the *UST Removal Report* dated September 15, 2009 documents the existence of three pump islands at the site and the aerial photography-based Figures 3, 5, 6, and 7 of ECG's *Third Quarter 2017 Groundwater Monitoring Report* show the dark asphalt patches of the three former pump islands. Please depict the location of the third pump island on all figures in all future reports including the Data Gap Work Plan requested below.

4. **Groundwater Monitoring Analyses, Technical Comment 8, August 11, 2017 Directive Letter:** ACDEH's August 11, 2017 Directive Letter requested analysis of groundwater samples collected from the six site monitoring wells (MW-1 through MW-6) and four extraction wells (EW-1, EW-2, EW-3, EW-4) for Total Petroleum Hydrocarbons diesel (TPHd) because one of the USTs was used to store diesel and for naphthalene because naphthalene has not been included in the list of site analytes for either soil or groundwater and the LTCP uses naphthalene to assess risk from vapor intrusion to indoor air. However, ACDEH noted the absence of both TPHd and naphthalene analysis in the September 18, 2017 groundwater monitoring and sampling event. In accordance with the California State Resources Control Board's September 2012 *Leaking Underground Fuel*

Tank Guidance Manual (LUFT), ACDEH **requires** the following analyses by the LUFT-listed analytical method for all groundwater samples collected from the six site monitoring wells (MW-1 through MW-6) and four extraction wells (EW-1, EW-2, EW-3, EW-4) starting with the 1st Half of 2018 semiannual groundwater monitoring and sampling event and to be continued unless otherwise directed in writing by ACDEH.

- Total Petroleum Hydrocarbons Gasoline (TPHg);
- **TPH Diesel by EPA Method 8015B with low laboratory detection limits**;
- **naphthalene,** benzene, toluene, ethylbenzene, and xylenes (BTEX);
- ethylene dibromide (EDB), ethylene dichloride (EDC), methyl tertiary-butyl ether (MTBE), tert-amyl-methyl ether (TAME), ethyl tert-butyl ether (ETBE), di-isopropyl ether (DIPE), and t-Butyl alcohol (TBA) and fuel oxygenates.

As a reminder, all proposed changes to the groundwater monitoring and sampling program, including sampling periodicity and changes to groundwater sample analyses, must be approved in writing by ACDEH prior to implementation. **Non-compliance with ACDEH Directive Letters jeopardizes USTCF reimbursement and will lead to an Enforcement Letter and a Notices of Violation.**

5. **Semi-Annual Wastewater Discharge Report submittal**: The groundwater treatment system was shut down on April 11, 2016 and has not operated since then. ACDEH does not require submittal of future Semi-Annual Wastewater Discharge Reports; consequently, preparation and/or submittal of future Semi-Annual Wastewater Discharge Reports is not reimbursable by the USTCF.

6. **Electronic Submittal of Information (ESI) Compliance** - As described in ACDEH Directive Letters from 2016 to the present, review of the case file indicates that the SWRCB Geotracker database is not complete, thus rendering the site to a non-compliant status pursuant to California Code of Regulations, Title 23, Division 3, Chapter 30, Articles 1 and 2, Sections 3890 to 3895. At present missing data and documents include, but may not be limited to:

   - complete copies of reports, in pdf format, including the signed transmittal letter and professional certification (GEO_REPORT files);
   - analytical data for soil, water and vapor samples collected for the purpose of subsurface investigation or remediation, including all influent/effluent wastewater samples collected between 2013 and 2016 from the groundwater treatment system (EDF files);
   - surveyed elevation measurements to the top of well casings including EW-3 and EW-4 (GEO_Z files);
   - the latitude and longitude (GEO_XY files) of any permanent monitoring well including EW-3 and EW-4 for which data is reported in EDF format;

- depth-to-water information for permanent sampling points whenever the data is collected, even if the well is not sampled during the sampling event (GEO_WELL files);

- stand-alone site maps displaying tank locations, streets bordering the facility, and sampling locations for all soil, water and vapor samples (GEO_MAP files);

- stand-alone boring logs including off-site borings SB-10 through SB-21 (GEO_BORE files);

ACDEH requests e-mail notification of and a list of the documents uploaded to Geotracker. Please upload all submittals to GeoTracker website by the date specified below.

Please be aware that failure to comply with Geotracker requirements jeopardizes reimbursement from the USTCF and will delay eventual case closure.

TECHNICAL REPORT REQUEST

Please upload technical reports to the State Water Resources Control Board's Geotracker website, in accordance with the following specified file naming convention and schedule:

- **May 20, 2018**: GeoTracker electronic submittal date for all missing ESI submittals

- **June 14, 2018**: Data Gap Investigation Work Plan and Site Conceptual Model
  File to be named: RO2931_WP_SCM_R_yyyy-mm-dd

- **May 31, 2018**: Semiannual Groundwater Monitoring and Sampling Report, 1st Half 2018
  File to be named: RO2931_GWM_R_yyyy-mm-dd

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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.

Thank you for your cooperation. Should you have any questions or concerns regarding this correspondence or your case, please send me an e-mail message at: karel.detterman@acgov.org or call me at (510) 567-6708.

Sincerely,

Digitally signed by Karel Detterman
DN: cn=Karel Detterman, o, ou, email=karel.detterman@acgov.org, c=US
Date: 2018.04.20 12:58:34 -07'00'

Karel Detterman, PG
Hazardous Materials Specialist

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

cc: Drew Van Allen, Environmental Compliance Group, LLC, 270 Vintage Drive, Turlock, CA 95382 (Sent via E-mail to: ecg.ust@gmail.com)

Dilan Roe, ACDEH, (Sent via E-mail to: dilan.roe@acgov.org)
Karel Detterman, ACDEH, (Sent via E-mail to: karel.detterman@acgov.org)
Paresh Khatri, ACDEH, (Sent via E-mail to: paresh.khatri@acgov.org)
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ALAMEDA COUNTY
HEALTH CARE SERVICES
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Rebecca Gebhart, Interim Director

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August 11, 2017

Rashid Ghafoor (Sent via e-mail to: rashidz1@aol.com)
226 Havenwood Circle
Pittsburg, CA 94567

Subject: Fuel Leak Case No. RO0002931 and GeoTracker Global ID T0600174667, Shore Acres Gas, 403 E. 12th St., Oakland, CA 94606

Dear Mr. Ghafoor:

Alameda County Department of Environmental Health (ACDEH) staff has reviewed the case file including the August 1, 2016 *Fourth Quarter 2015 Groundwater Monitoring and Remediation System Evaluation Report* (Evaluation Report) and the *Third Quarter 2016 Groundwater Monitoring and Rebound Report* (Rebound Report) dated December 29, 2016, prepared and submitted on your behalf by Environmental Compliance Group, LLC (ECG). Both reports and the case file have been evaluated in conjunction with the State Water Resources Control Board's (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (LTCP) adopted by the SWRCB on May 1, 2012 for the closure of leaking petroleum underground storage tank (UST) sites. The Policy applies to petroleum UST sites subject to Chapter 6.7 of the Health and Safety Code. The Policy establishes both general and media-specific criteria. If the general and applicable media-specific criteria are satisfied, then the leaking UST case is generally considered to present a low threat to human health, safety, and the environment.

ACDEH understands that the site is currently leased to a Hand Car Wash business, which started operation in January 2015. The Hand Car Wash facility is comprised of an existing site trailer and numerous portable canopies arranged on the paved site. ACDEH understands that redevelopment is not currently under consideration and commercial property usage will continue.

Site Background

Three USTs were removed in August 2009. The UST removal was documented in the September 2009 *Underground Storage Tank Removal at 403 East 12th Street Oakland California* (UST Report) prepared by Wright Environmental Services, Inc., on your behalf.

The UST Report described the removal of three pump islands and associated piping, two 12,000 gallon USTs used for gasoline storage and one 12,000 gallon UST previously used for diesel storage in August 2009. The USTs had been installed in 1982, were placed out of service in July 2008 when the USTs were emptied, of product, cleaned, sealed, and placed under temporary closure with a permit from the Oakland Fire Department. As described in the UST Report, fuel system piping was removed from Pump Islands designated 1 and 2. Pump Island 3 was excavated, but not found to contain fuel system piping; however did contain two large diameter pipes thought to be associated with abandoned utilities from prior uses. The former pump islands trenches were backfilled with clean imported fill.

After the three USTs were removed, the UST Report notes that evidence of gross contamination was found from the top of each UST, approximately 4 feet below ground surface (bgs) to two feet below the bottom of each UST (approximately 14 feet bgs). Soil contamination was also observed around each turbine and fill riser directly below the concrete pavement. Following the UST removal, the UST excavation was first backfilled with TPH-impacted soil previously removed and stockpiled from the excavation, then covered with plastic. The balance of excavation, above the plastic, was backfilled with imported fill, then paved with asphalt concrete.

ACDEH approved a Feasibility Study/Corrective Action Plan (FS/CAP) on February 7, 2013 and upon completion of the 30-day public notification period, ACDEH approved implementation of the CAP on March 22, 2013. A portable Dual Phase Extraction System (DPE) was operated at the site periodically from April 30, 2014 through April 2016, followed by one year of groundwater rebound monitoring. The data presented in the Rebound Report and the Remediation Report indicates that the chosen CAP was not effective in advancing the case to closure and it is likely the DPE's ineffectiveness was due in part to the presence of the secondary source. At the present time it is not appropriate to resume DPE operation due to the failure to remove secondary source to the extent practicable as required by the LTCP. Alternative corrective actions will likely be requested to be evaluated in the future, including, but not limited to, removal of the secondary source.

ACDEH has determined that the site does not meet the LTCP General Criteria d (Free Product Removal), e (Site Conceptual Model), f (Secondary Source Removal), Media-Specific Criteria for Groundwater, Media-Specific Criteria for Vapor Intrusion to Indoor Air, and the Media-Specific Criteria for Direct Contact. Site-specific details are provided in the following Technical Comments.

To continue progress on the path to closure, ACDEH requests preparation of a Data Gap Investigation Work Plan that is supported by a Site Conceptual Model (SCM) to address the data gaps listed in the following technical comments.

TECHNICAL COMMENTS

1. **LTCP General Criteria d (Free Product)** – The LTCP requires free product to be removed to the extent practicable at release sites where investigations indicate the presence of free product by removing in a manner that minimizes the spread of the unauthorized release into previously uncontaminated zones by using recovery and disposal techniques appropriate to the hydrogeologic conditions at the site, and that properly treats, discharges, or disposes of recovery byproducts in compliance with applicable laws. Additionally, the LTCP requires that abatement of free product migration be used as a minimum objective for the design of any free product removal system.

   The *Technical Justification for Vapor Intrusion (VI) Media Specific Criteria* (Technical Justification Paper) included with the LTCP provides criteria for direct and indirect evidence of the presence of light non-aqueous phase liquid (LNAPL) or free product in soil and groundwater. The Rebound Report provided direct evidence of free product observed in MW-5. Indirect evidence, as described in the LTCP Technical Justification Paper includes groundwater concentrations of benzene, toluene, ethylbenzene, or xylenes (BTEX) and/or Total Petroleum Hydrocarbon as gasoline (TPHg) greater than 20,000 micrograms per liter (ug/L). Well MW-1 detected 20,000 ug/L TPHg, MW-5 detected 10,000 ug/L TPHg, and MW-6 detected 7,700 ug/L TPHg. Please present a strategy in the Data Gap Work Plan described in Technical Comment 7 below to collect sufficient data to satisfy the LTCP General Criteria d (Free Product Removal) criteria.

2. **General Criteria f – Secondary Source Has Been Removed to the Extent Practicable** – "Secondary source" is defined as petroleum-impacted soil or groundwater located at or immediately beneath the point of release from the primary source. Unless site attributes prevent secondary source removal (e.g. physical or infrastructural constraints exist whose removal or relocation would be technically or economically infeasible), petroleum-release sites are required to undergo secondary source removal to the extent practicable as described in the policy. "To the extent

practicable" means implementing a cost-effective corrective action which removes or destroys-in-place the most readily recoverable fraction of source-area mass. It is expected that most secondary mass removal efforts will be completed in one year or less. Following removal or destruction of the secondary source, additional removal or active remedial actions shall not be required by regulatory agencies unless (1) necessary to abate a demonstrated threat to human health or (2) the groundwater plume does not meet the definition of low threat as described in this policy.

The UST Report provides documentation of the existence of three pump islands at the site and that the UST excavation was backfilled with TPH-impacted soil, precluding compliance with General Criteria f. Please add the location of the third pump island to all figures in all future reports. Please present a strategy in the Data Gap Work Plan described in Technical Comment 7 below to collect sufficient data to determine if secondary source has been removed to the extent practicable to satisfy the LTCP General Criteria f.

3. **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.

ACDEH's review of the case files indicates that insufficient data and analysis has been presented to assess compliance with Media Specific Criteria for Groundwater. The rose diagram included in the Rebound Report indicates that the prevalent groundwater gradient direction on site is to the southeast and several residences and commercial business are located downgradient of the site. Free product is present in MW-5, and benzene was detected at 1,400 ug/L in MW-1 and has fluctuated between 4,500 ug/L to 530 ug/L since June 2011. Wells EW-4 and MW-2 detected TPHg and benzene and are located in the down gradient portion of the property proximal to the southeastern property boundary, and indicate that the plume length is unknown. Currently it is unknown if free product has migrated southeast and downgradient off site.

As requested in ACDEH's February 18, 2016 Directive Letter, the Evaluation Report provided a brief description of the surface drains connected to the sanitary sewer to dispose of water generated by the hand car wash. Please locate all site drains on all site figures commencing with submittal of the Data Gap Work Plan and SCM described in Technical Comment 7.

Please present a strategy in the Data Gap Work Plan described in Technical Comment 7 below to collect sufficient data to satisfy the LTCP Media Specific Criteria for Groundwater criteria.

4. **LTCP Media Specific Criteria for Vapor Intrusion to Indoor Air** – The LTCP describes conditions, including bioattenuation (unsaturated) 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.

ACDEH's review of the case files indicates that insufficient data and analysis has been presented to assess compliance with Media Specific Criteria for Vapor Intrusion to Indoor Air. As previously mentioned, the rose diagram indicates the prevalent groundwater gradient direction is to the

southeast and benzene was detected at 1,400 ug/L in MW-1. Additionally, naphthalene concentrations in shallow soil, 0 to 5 feet and 5 to 10 feet below ground surface (bgs) intervals across the site and groundwater are unknown as naphthalene has not been included in the list of analytes. ACDEH notes that benzene and naphthalene are both contaminants that the LTCP uses to assess risk from vapor intrusion to indoor air. In accordance with the LTCP, since benzene is detected between 100 ug/L and 1,000 ug/L in groundwater, the bioattenuation zone must greater than 10 feet thick. Review of the site's boring logs indicate a bioattenuation zone greater than 5 feet bgs but less than 10 feet bgs, and indicates the potential for vapor intrusion to indoor air to the neighboring residences and business. As previously requested in Technical Comment 5 of ACDEH's February 18, 2016 Directive Letter, ACDEH requests preparation of a Data Gap Work Plan to assess potential vapor intrusion to indoor air of the on-site trailer and adjacent downgradient businesses and residences. Please present a strategy in the described in Technical Comment 7 below to collect sufficient data to satisfy the Media Specific Criteria for Vapor Intrusion to Indoor Air. Please ensure that your strategy is consistent with the field sampling protocols described in the Department of Toxic Substances Control's (DTSC's) *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance) (October 20011)* and DTSC's *Advisory Active Soil Gas Investigations* (July 2015). Consistent with the guidance, ACDEH requires installation of permanent vapor wells to assess temporal and seasonal variations in soil gas concentrations.

5. **LTCP Media Specific Criteria for Direct Contact and Outdoor Air Criteria** – The LTCP describes conditions where direct contact with contaminated soil or inhalation of contaminants volatized to outdoor air poses a low threat to human health. According to the policy, release sites where human exposure may occur satisfy the media-specific criteria for direct contact and outdoor air exposure and shall be considered low-threat if the maximum concentrations of petroleum constituents in soil are less than or equal to those listed in Table 1 for the specified depth bgs. Alternatively, the policy allows for a site specific risk assessment that demonstrates that maximum concentrations of petroleum constituents in soil will have no significant risk of adversely affecting human health, or controlling exposure through the use of mitigation measures, or institutional or engineering controls.

   ACDEH's review of the case files indicates that insufficient data and analysis has been presented to assess compliance with Media Specific Direct Contact and Outdoor Air Criteria. Naphthalene concentrations in shallow soil, 0 to 5 feet and 5 to 10 feet below ground surface (bgs) intervals across the site are unknown as analysis for naphthalene has not been included in historic site investigations.

   Please present a strategy in the Data Gap Work Plan described in Technical Comment 7 below to collect sufficient data to satisfy the LTCP Media Specific Criteria for Direct Contact and Outdoor Air Criteria.

6. **LTCP General Criteria e (Site Conceptual Model)** – According to the LTCP, the SCM is a fundamental element of a comprehensive site investigation. The SCM establishes the source and attributes of the unauthorized release, describes all affected media (including soil, groundwater, and soil vapor as appropriate), describes local geology, hydrogeology and other physical site characteristics that affect contaminant environmental transport and fate, and identifies all confirmed and potential contaminant receptors (including water supply wells, surface water bodies, structures

and their inhabitants). The SCM is relied upon by practitioners as a guide for investigative design and data collection. All relevant site characteristics identified by the SCM shall be assessed and supported by data so that the nature, extent and mobility of the release have been established to determine conformance with applicable criteria in this policy.

To facilitate review, ACDEH requests the 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. Please see Attachment A, *Site Conceptual Model Requisite Elements in Tabular Format*.

As a part of the SCM, please perform a Sensitive Receptor Study to determine if sensitive receptors are present within a radius of 1,500 feet of the site. ACDEH acknowledges that the well survey performed in 2011 using the Department of Water Resources (DWR) well data base, but requests review of Alameda County Public Works Agency (ACPWA) well data base for a complete inventory of vicinity water supply wells. The ACPWA and DWR data bases provide considerably different results that warrant review of both data bases. ACDEH requests the identification and location on a site vicinity figure all active, inactive, decommissioned, and abandoned (improperly decommissioned or lost) wells including irrigation, water supply, industrial, dewatering, and cathodic protection wells within a 1,500-foot radius of the site. Please be aware that well locations are not confidential, however well construction details are and must not be included with the requested report. Additionally, please identify on the same figure beneficial resources and other sensitive receptors including, but not limited to, surface water bodies, schools, hospitals, day care centers, elder care facilities, etc. Please plot the numbered well locations on an aerial photography-based figure and provide a table listing the same numbered well locations and information similar to the example provided in Attachment B, *Sample Well Survey Figure and Table*. Please include the SCM with the Data Gap Work Plan described in Technical Comment 7 below to satisfy the LTCP General Criteria e Site Conceptual Model.

7. **Data Gap Investigation Work Plan and Site Conceptual Model** – Please prepare a Data Gap Work Plan and Site Conceptual Model 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. Please specify which scenario within each General and Media-Specific Criteria the sampling strategy is intended to apply to so that ACDEH can verify the appropriateness of the proposed sample locations.

8. **Groundwater Monitoring Analyses** - ACDEH's July 26, 2017 Directive Letter provided a submittal schedule for semiannual groundwater monitoring and sampling reports and the schedule is consolidated below in the Technical Report Request Section. Because one of the USTs was used to store diesel, ACDEH requests the following analyses for all groundwater samples collected from the six site monitoring wells (MW-1 through MW-6) and four extraction wells (EW-1, EW-2, EW-3, EW-4) for the 2nd Half 2017, 1st Half of 2018, and 2nd Half of 2018 semiannual groundwater monitoring and sampling events.

Please note going forward, any and all proposed changes to the groundwater monitoring and sampling program, including sampling periodicity and changes to groundwater sample analyses, must be approved in writing by ACDEH prior to implementation. Non-compliance with ACDEH Directive Letters jeopardizes Underground Storage Tank Cleanup Fund (USTCF) reimbursement.

Please submit the semiannual groundwater and sampling reports by the dates provided in the Technical Request Section below:

- Total Petroleum Hydrocarbons (TPH)-Gasoline and TPH-Diesel (TPH-D) by EPA Method 8015B;

- Benzene, toluene, ethylbenzene, and xylenes (BTEX), naphthalene, ethylene dibromide (EDB), ethylene dichloride (EDC), methyl tertiary-butyl ether (MTBE), tert-amyl-methyl ether (TAME), ethyl tert-butyl ether (ETBE), di-isopropyl ether (DIPE), and t-Butyl alcohol (TBA) and fuel oxygenates by EPA Method 8260B.

9. **Request for information -** The ACDEH case file for the subject site contains only the electronic files listed on our web site at *http://www.acgov.org/aceh/lop/ust.htm*. Please review it to ensure that all reports and other documents and communications have been provided to ACDEH. You are requested to submit electronic copies of missing boring logs for EW-3 and EW-4, and off-site soil borings SB-10 through SB-21 and their respective ACPWA permits for this property by the date specified in the Technical Report Request Section below. ACDEH requests e-mail notification of the documents uploaded to Geotracker by the date listed below.

10. **Electronic Submittal of Information (ESI) Compliance** - Site data and documents are maintained in two separate electronic databases – ACDEH's ftp site and the SWRCB's GeoTracker database. Both databases act as repositories for regulatory directives and reports; however, only GeoTracker has the functionality to store electronic compliance data including analytical laboratory data for soil, vapor and water samples, monitoring well depth-to-water measurements, and surveyed location and elevation data for permanent sampling locations. Although the SWRCB is responsible for the overall operation and maintenance of the GeoTracker System, ACDEH, as lead regulatory agency, is responsible to ensure the GeoTracker database is complete and accurate for sites regulated under ACDEH's Environmental Cleanup Oversight Programs (SWRCB March 2011 document entitled *Electronic Reporting Roles and Responsibilities*).

    A review of the case file and the State's GeoTracker database indicates that the site is not in compliance with California Code of Regulations, Title 23, Division 3, Chapter 16, Article 12, Sections 2729 and 2729.1, stating that beginning September 1, 2001, all analytical data, including monitoring well samples, submitted in a report to a regulatory agency as part of the UST or LUST program, must be transmitted electronically to the SWRCB GeoTracker system via the internet. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs, including the Site Cleanup Program (SCP) cases. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites was required in GeoTracker. At present missing data and documents include, but may not be limited to, EDF submittals, depth to groundwater data (GEO_WELL files), well data (GEO_XY, and GEO_Z files), work plans, and older reports (GEO_REPORT files).

    Please upload requisite documents to GeoTracker. See Attachment 1 and the State's GeoTracker website for further details. ACDEH requests e-mail notification of, and a list of, the documents uploaded to Geotracker. Please upload all submittals to GeoTracker and to ACDEH's ftp website by the date specified below.

Please be aware that failure to comply with Geotracker requirements jeopardizes reimbursement from the USTCF.

TECHNICAL REPORT REQUEST

ACDEH's July 26, 2017 Directive Letter provided a submittal schedule for semiannual groundwater monitoring and sampling reports and the schedule is consolidated below with the data gap work plan and SCM requested in this Directive Letter. Please upload technical reports to the ACDEH ftp site (Attention: Karel Detterman), and to the State Water Resources Control Board's Geotracker website, in accordance with the following specified file naming convention and schedule:

- **August 11, 2017**: Semiannual Groundwater Monitoring and Sampling Report, 1st Half 2017
  File to be named: RO2931_GWM_R_yyyy-mm-dd

- **September 9, 2017**: Boring logs and ACPWA permits for EW-3, EW-4, off-site borings SB-10 through SB-21
  File to be named: RO2931_MISC_R_yyyy-mm-dd

- **October 9, 2107**: Data Gap Investigation Work Plan and Site Conceptual Model
  File to be named: RO2931_WP_SCM_R_yyyy-mm-dd

- **November 30, 2017**: Semiannual Groundwater Monitoring and Sampling Report, 2nd Half 2017
  File to be named: RO2931_GWM_R_yyyy-mm-dd

- **May 31, 2018**: Semiannual Groundwater Monitoring and Sampling Report, 1st Half 2018
  File to be named: RO2931_GWM_R_yyyy-mm-dd

- **November 30, 2018**: Semiannual Groundwater Monitoring and Sampling Report, 2nd Half 2018
  File to be named: RO2931_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.

Thank you for your cooperation. Should you have any questions or concerns regarding this correspondence or your case, please send me an e-mail message at: karel.detterman@acgov.org or call me at (510) 567-6708.

Sincerely,

Karel Detterman

Digitally signed by Karel Detterman
DN: cn=Karel Detterman, o, ou, email=karel.detterman@acgov.org, c=US
Date: 2017.08.11 11:04:43 -07'00'

Karel Detterman, PG
Hazardous Materials Specialist

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

Attachment A, Site Conceptual Model Requisite Elements in Tabular Format

Attachment B, Sample Well Survey Figure and Table

cc: Drew Van Allen, Environmental Compliance Group, LLC, 270 Vintage Drive, Turlock, CA 95382
(Sent via E-mail to: ecg.ust@gmail.com)

Dilan Roe, ACDEH, (Sent via E-mail to: dilan.roe@acgov.org)
Karel Detterman, ACDEH, (Sent via E-mail to: karel.detterman@acgov.org)
Paresh Khatri, ACDEH, (Sent via E-mail to: paresh.khatri@acgov.org)
GeoTracker, eFile