Ultramar, Inc.

September 9, 2010

Mr. Jerry Wickham
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502

SUBJECT: WORK PLAN ADDENDUM FOR SUBUSRFACE INVESTIGATION
FORMER BEACON STATION NO. 12574
22315 REDWOOD ROAD RWQCB Case No. 01-0167
CASTRO VALLEY, CALIFORNIA ACDEH: RO0000355

Mr. Wickham:

Please find enclosed the **Work Plan Addendum for Subsurface Investigation** for the above-referenced facility. Pursuant to your requests, I declare, under penalty of perjury, that the following information and/or recommendations contained in the attached report are true and correct to the best of my knowledge.

Please call if you have any questions or comments regarding this letter or the enclosed report (210) 345-4663.

Sincerely,
ULTRAMAR INC.

C. Shay Wideman
Director – Environmental Liability Management

Enclosures

cc w/o encl. Mr. Ken Mateik, Horizon Environmental

HORIZON ENVIRONMENTAL INC.

Specialists in Site Assessment, Remedial Testing, Design and Operation

September 9, 2010

Mr. Jerry Wickham, Haz Mat Specialist
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502

Subject: **Work Plan Addendum for Subsurface Investigation**
Former Beacon Station No. 12574 RWQCB Case No. 01-0167
22315 Redwood Road, Castro Valley, California ACDEH: RO0000355

Mr. Wickham:

On behalf of Ultramar Inc. (Ultramar), Horizon Environmental (Horizon) has prepared this Work Plan Addendum to describe sampling and analytical methods for the proposed onsite vapor probes, and for the sampling of offsite soil gas survey (SGS) sampling location SG-7 related to the subject site (Site) located in Castro Valley, California, as shown on the Site Vicinity Map (Figure 1). The Alameda County Department of Enviromental Health (ACDEH) requested a Work Plan addendum describing vapor sampling and analytical methods for three proposed soil vapor probes (VP-1, VP-2 and VP-3) in a letter dated July 19, 2010 (attached) following the ACDEH review of the Work Plan for Subsurface Investigation (Horizon, May 27, 2010).

In addition to discussing the vapor probe sampling and analytical methods in this Work Plan Addendum, Horizon also describes changes in the sampling methods for the offsite soil gas survey (SGS) sampling location (SG-7) from what was presented in the Soil and Groundwater Assessment and Soil Gas Survey (Horizon, January 29, 2010). The purpose of the SGS is to provide soil vapor analytical data to evaluate potential vapor exposure pathways, and to evaluate potential human health risks from potentially affected offsite areas.

Soil Vapor Probe Sampling

Horizon proposed the installation of onsite vapor probes VP-1, VP-2 and VP-3 to evaluate soil vapor data and the effectiveness of future remediation at the Site. Horizon proposes the following sampling and analytical methods for onsite vapor probes VP-1, VP-2 and VP-3 at the Site:

Task 2 Install a water-tight top cap or well plug to each monitoring well, vapor well, and vapor probe casing.

Task 3 Prior to purging and sampling, temporarily replace the top cap or well plug with a slip cap equipped with a threaded sample port in each vapor probe

casing. A valve will be installed in the threaded sample port in the slip cap for purging and vapor sampling. An air sampling pump and tubing will be connected to the valve, which will then be opened for vapor purging and the collection of vapor samples. The volume of vapor present in the vapor probe casing will be calculated by multiplying the depth of the probe casing (proposed to be 8 feet) by Pi (3.143) times the radius of the casing (proposed to be 2 inches) squared.

Casing volume (in cubic inches)= (depth of casing) x (Pi) x (radius of casing)^2
= 96 inches x 3.143 x 1 inch^2 = 302 inches^3
Casing volume (in cubic feet) = divide the volume in cubic inches by 1728
= 302 / 1728 = 0.175 cubic feet

The volume of vapor to be purged from each probe casing will be 1½ times the calculated casing volume or approximately 0.26 cubic feet. As the vapor is purged from each probe casing with an air sampling pump, it will be monitored with a flow meter and a photo-ionization detector (PID) or comparable device to observe the hydrocarbon concentrations. After each casing has been sufficiently purged, vapor samples will be collected in 250 milliliter Summa canisters at flow rates less than 200 milliliters per minute (ml/min) utilizing a laboratory-calibrated flow controller. To reduce cross-contamination between samples, the tubing will be removed from the sampling pump, and new tubing will be used to collect the next vapor sample.

Submit the vapor samples under chain-of-custody documentation to a State-certified analytical laboratory to be analyzed for total petroleum hydrocarbons as gasoline (TPHg) and the volatile aromatics benzene, toluene, ethylbenzene, total xylenes (BTEX), and the fuel additive methyl-t-butyl ether (MTBE) utilizing Environmental Protection Agency (EPA) Modified Method TO-15; request analytical reporting limits to be, at most, the values for volatile organic compounds (VOC) in shallow soil gas as listed in the environmental screening levels (ESLs) presented in Table E (Interim Final San Francisco Bay RWQCB - November 2007).

Offsite SGS Location SG-7

In December 2009, Horizon performed field work for an onsite SGS (onsite sampling locations SG-1 through SG-5) and reported the findings and conclusions in the Soil and Groundwater Assessment and Soil Gas Survey (Horizon, January 29, 2010). Since 2009, Horizon has pursued offsite access for two offsite soil gas sampling locations (SG-6 and SG-7) with the following offsite property owners:

Location SG-6: Mr. Phillip and Mrs. Meeiru Tai
APN# 415-100-127 33366 Croatian Way, Union City, CA 94587

Location SG-7: Mr. Ali Kashikar
APN# 415-100-122-3 P.O. Box 20307, Castro Valley, CA 94546

On May 1, 2010, Mr. Ali Kashikar agreed to allow access for proposed SGS sampling location SG-7 and continued monitoring of groundwater monitoring well MW-6 on his property south of the Site. To date, no access has been allowed for proposed SGS sampling location SG-6 on the Tai property west of the Site.

Offsite soil gas sampling location SG-7, as shown on Figure 2, was selected on the basis of accessibility in the area of the estimated impacted groundwater plume based on groundwater monitoring data collected in February 2009. Groundwater data collected since February 2009 has indicated similar plume geometry, so the proposed SG-7 location will remain as proposed. Because only the one location will be sampled, it will not be cost-effective to utilize a truck-mounted direct-push sampling rig and a mobile laboratory for sampling location SG-7. Instead, the soil gas sample will be collected utilizing the methods described below:

Task 1 Obtain a boring permit from the Alameda County Public Works Agency (ACPWA); notify Underground Services Alert (USA) to mark underground utility locations; notify the property owner of the proposed work; and update the site-specific Health and Safety Plan.

Task 2 Advance one offsite boring (SG-7) at the location shown on Figure 2; hand-auger the first three feet to prevent conflicts with underground utilities; set a temporary soil gas probe to a maximum depth of approximately 5 feet bsg; follow the attached Horizon Field Methods and Procedures for Soil Gas Investigations for all phases of installation, purging and sampling; abort sampling and select an adjacent soil gas sampling location if soil vapor flow rates are less than 10 milliliters per minute or the vacuum exceeds 10 inches of mercury (Hg); utilize one sampling equipment purge volume based on the purge test determination from the December 2009 onsite soil gas investigation; conduct a leak check test utilizing a tracer compound; purge and sample at flow rates less than 200 ml/min utilizing a laboratory-calibrated flow controller; collect soil gas samples in 250 milliliter Summa canisters.

Task 3 Collect one Method (Equipment) Blank vapor sample and one Duplicate soil gas sample in 250 milliliter Summa canisters to support quality control requirements; analyze soil gas samples for the following: TPHg, BTEX, the fuel additive methyl-t-butyl ether (MTBE), and the leak detection tracer compound utilizing EPA Modified Method TO-15; request analytical reporting limits to be, at most, the values for volatile organic compounds (VOC) in shallow soil gas as listed in the environmental screening levels (ESLs) presented in Table E (Interim Final San Francisco Bay RWQCB - November 2007).

Task 4 Remove the temporary soil gas sampling probe after completion of the soil gas sampling, and backfill boring SG-7 with hydrated bentonite and neat cement.

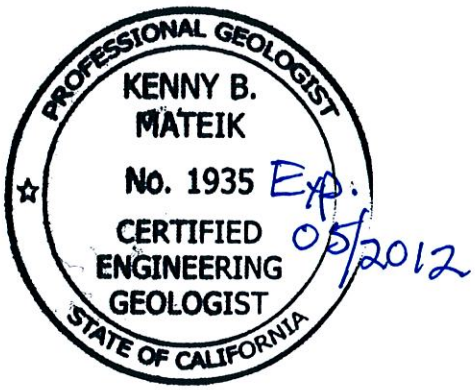
Task 5 Update the onsite soil gas information presented in the Soil and Groundwater Assessment and Soil Gas Survey (Horizon, January 29, 2010) report to include the soil gas analytical results from offsite sampling location SG-7. This information will be included in the Subsurface Investigation report to be generated for the work proposed for the Site in May 2010.

If you have any questions please contact Horizon at (916) 939-2170.

Sincerely,
HORIZON ENVIRONMENTAL INC.

Gary D. Barker
Senior Project Manager

Kenny B. Mateik
Professional Geologist, C.E.G. No. 1935

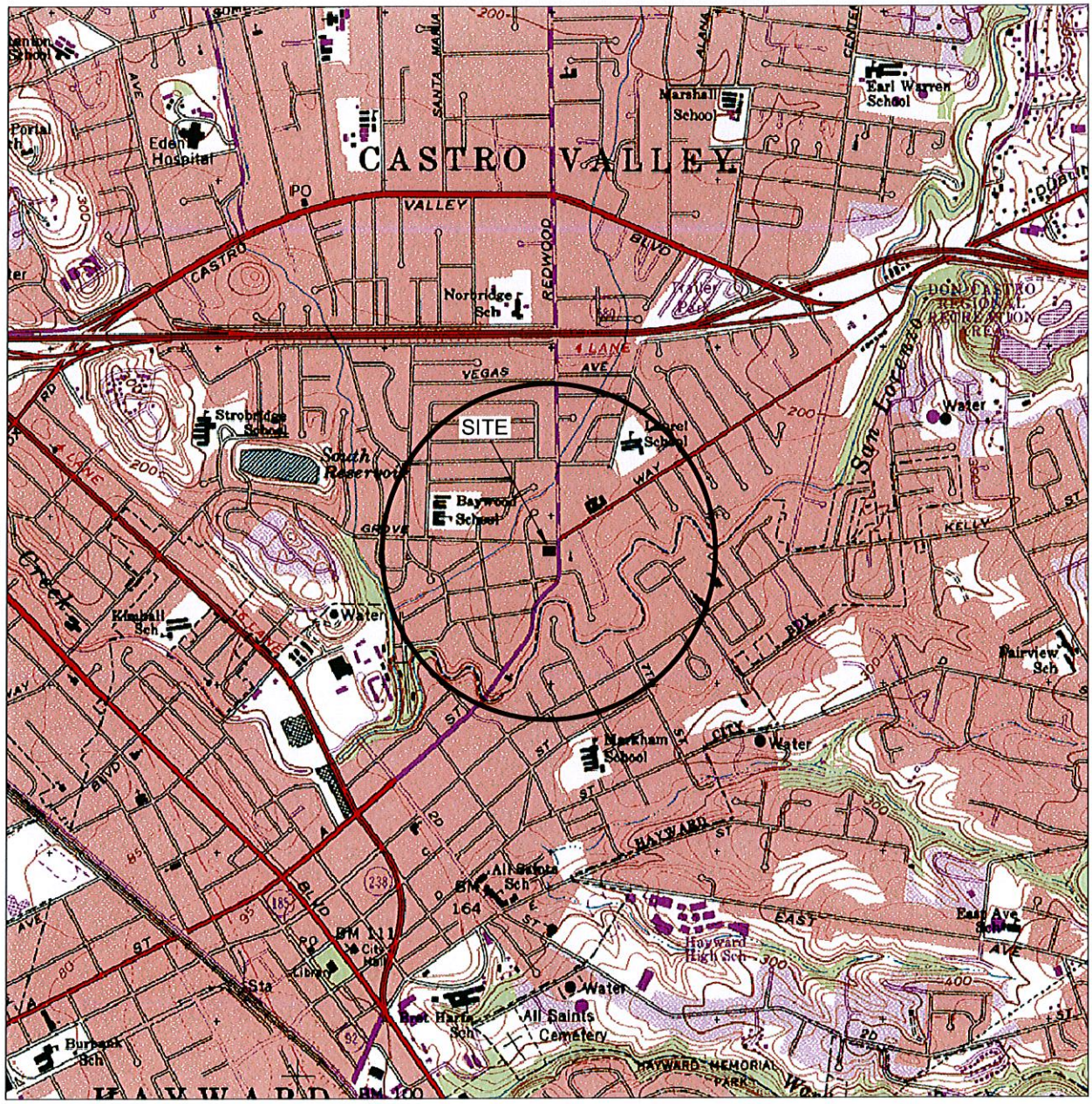


Attachments:

Figure 1: Site Vicinity Map
Figure 2: Site Map

ACDEH Correspondence
Horizon Field Methods and Procedures

c: Mr. C. Shay Wideman, Valero Energy Corp.
Mr. Bill Courtney, Property Manager
Mr. Allen Shin, Banya Investment LLC
Mr. Ali Kashikar
Mr. Phillip and Mrs. Meeiru Tai



T.3 S.

R.2 W.

GENERAL NOTES:
BASE MAP FROM U.S.G.S.
HAYWARD, CA.
7.5 MINUTE TOPOGRAPHIC
PHOTOREVISED 1980

QUADRANGLE LOCATION

0 2000 FT

SCALE 1:24,000

NORTH

HORIZON ENVIRONMENTAL INC.

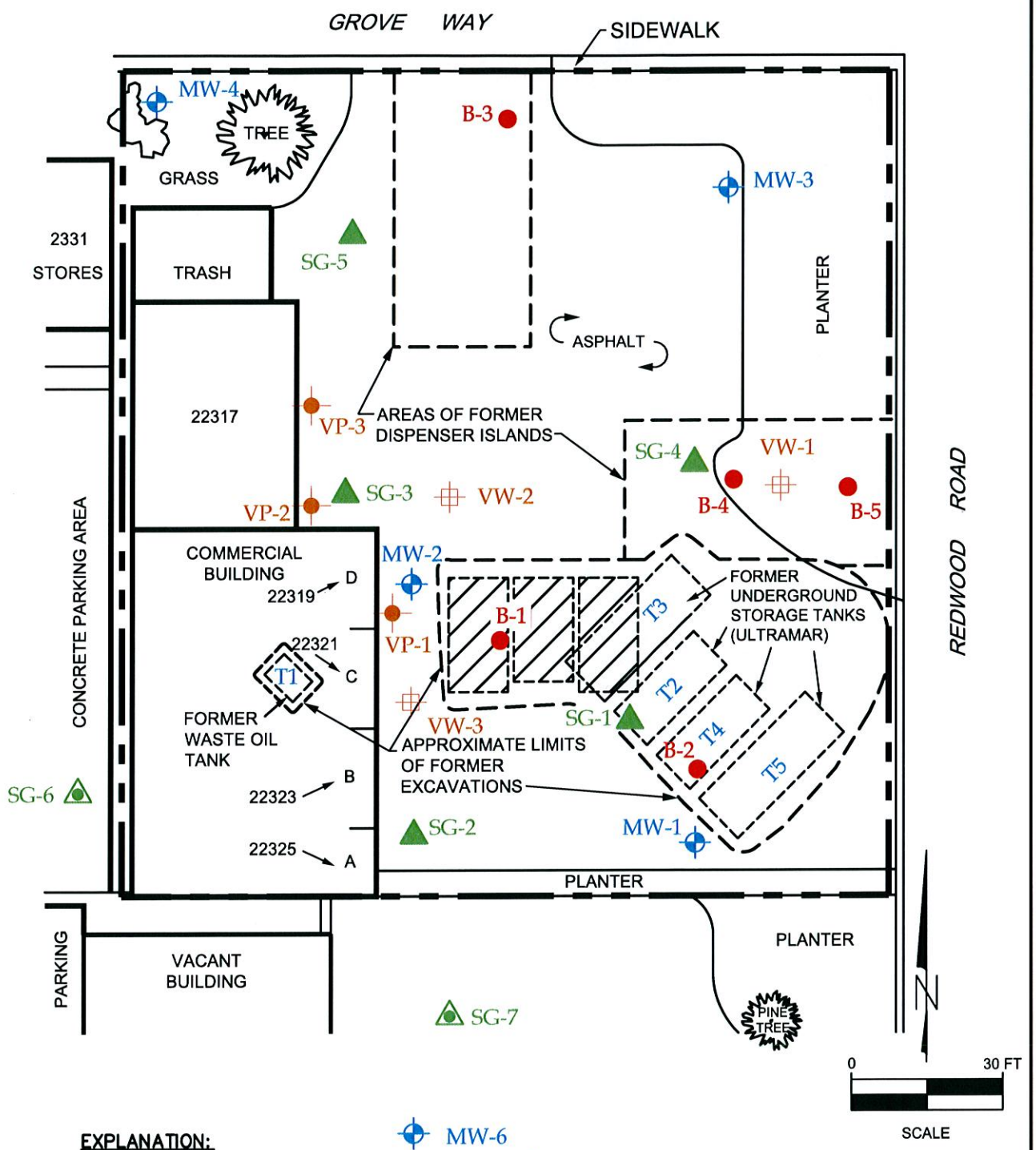
Project Number: 1574.41	Drawn By: M. LaCoste
Prepared By: K. Liptak	Date: 10/7/04
Reviewed By: K. Mateik	Revised Date:

SITE LOCATION MAP

FORMER BEACON STATION NO. 12574
22315 REDWOOD ROAD
CASTRO VALLEY, CA.

FIGURE

1



EXPLANATION:

- MW-4 Groundwater Monitoring Well
- SG-5 Soil Gas Survey Sample Location
- B-5 Boring Locations
- Former Shell Oil USTs
- MW-6
- SG-7 Proposed Soil Gas Location
- VW-3 Proposed Vapor Extraction Well
- VP-3 Proposed Soil Vapor Probe

Source: Figure Modified From Survey Drawing Prepared By Others For Ultramar

HORIZON ENVIRONMENTAL INC.		SITE MAP	FIGURE
Project Number: 1574.13 Prepared By: K. Mateik Reviewed By: G. Barker	Drawn By: C. Bechtell Date: 05/10 Revised Date:	FORMER BEACON STATION NO. 12574 22315 REDWOOD ROAD CASTRO VALLEY, CA.	2

Ken Mateik

From: Wickham, Jerry, Env. Health [jerry.wickham@acgov.org]
Sent: Tuesday, August 31, 2010 5:57 PM
To: Ken Mateik
Cc: Wideman, Shay
Subject: RE: Submittal of Work Plan Addendum for Soil Vapor Sampling at Former Beacon #12574, Castro Valley -- Case #RO0355

Mr. Mateik,

Based upon your request, the schedule for submittal of the above referenced Work Plan Addendum is extended to September 15, 2010.

Regards,

Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
510-567-6791
jerry.wickham@acgov.org

From: Ken Mateik [mailto:kmateik@horizonenvironmental.net]
Sent: Tuesday, August 31, 2010 3:32 PM
To: Wickham, Jerry, Env. Health
Cc: Wideman, Shay
Subject: Submittal of Work Plan Addendum for Soil Vapor Sampling at Former Beacon #12574, Castro Valley -- Case #RO0355
Importance: High

Mr. Wickham,

Horizon is currently experiencing problems with its computer system, and we will be unable to meet the submittal deadline of **08/31/10** for the Work Plan Addendum for Soil Vapor Sampling for Former Beacon #12574 in Castro Valley, CA (ACDEH Case #RO0355). We are hoping to be able to submit (or completely rewrite) this Work Plan in the next 7 to 10 days.

Sincerely,

Ken Mateik
Horizon Enviromental Inc.
916-939-2170 (Office)

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

July 19, 2010

Mr. C. Shay Wideman
Ultramar, Inc.
One Valero Way
San Antonio, TX 78249-1616

Castro Group LLC
2021 Francisco Street
Berkeley, CA 94709-2213

1574.13

Ms. Mary Moore
EMB Group LLC & Mary Moore
Re Trust 611 Marlin Court
Redwood City, CA 94065-1214

Mr. Allen Shin
Banya Investments LLC
3011 Cabrillo Avenue
San Ramon, CA 94583

Mr. Paul Wilson
1238 Stanyan Street
San Francisco, CA 94117

Subject: Conditional Work Plan Approval for Fuel Leak Case No. RO0000355 and Geotracker Global ID T0600100155, Beacon #12574, 22315 Redwood Road, Castro Valley, CA 94546

Dear Mr. Wideman, Castro Group LLC, Ms. Moore, Mr. Shin, and Mr. Wilson:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site including the recently submitted document entitled, *"Work Plan for Subsurface Investigation,"* dated May 27, 2010 (Work Plan). The Work Plan, which was prepared on your behalf by Horizon Environmental, Inc., proposes the installation of three soil vapor probes, two vapor extraction wells, and one groundwater monitoring well.

The proposed scope of work is conditionally approved and may be implemented provided that the technical comments below are incorporated during the proposed activities. Submittal of a revised Work Plan or Work Plan Addendum is not required unless an alternate scope of work outside that described in the Work Plan and technical comments below is proposed. We request that you address the following technical comment, perform the proposed work, and send us the reports described below.

TECHNICAL COMMENTS

1. **Replacement Well MW-5A.** The proposed installation of downgradient well MW-5A is acceptable. Please include sampling of well MW-5A in the semi-annual groundwater monitoring program. Please present results from well installation in the Subsurface Investigation report requested below.

2. **Installation of Vapor Extraction Wells.** The proposed locations for the vapor extraction wells are acceptable. We request that soils be continuously sampled for logging purposes during the installation of vapor extraction wells in order to provide sufficient information for evaluation of the performance of the wells and to adjust the screen intervals if necessary based on encountered soil conditions during well installation. Please present results from well installation and sampling in the Subsurface Investigation Report requested below.

3. **Sampling of Vapor Probes.** We request that the soil vapor probes be sampled following installation. Please submit a brief Work Plan Addendum describing the sampling and analytical methods for soil vapor samples from the probes.

4. **Preparation of SCM/CAP.** The preparation of a SCM/Draft CAP will be necessary for cleanup of the site. We request that you prepare a Draft Corrective Action Plan (Draft CAP) 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:

   - Proposed cleanup goals and the basis for cleanup goals.
   - Summary of site characterization data.
   - Receptor information including likely future land use scenarios, adjacent land use and sensitive receptors, and potential groundwater receptors.
   - Evaluation of remedial alternatives including discussion of feasibility and limitations for each remedial alternative.
   - Detailed description of proposed remediation including confirmation sampling and monitoring during implementation.
   - Post-remediation monitoring.
   - Schedule for implementation of cleanup.

   Public participation is a requirement for the Corrective Action Plan process. Therefore, we request that you submit a Draft CAP for ACEH review. Upon ACEH approval of a Draft CAP, 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 Draft CAP. Public comments on the proposed remediation will be accepted for a 30-day period.

5. **Detailed Well Survey.** In order to identify potential receptors for the fuel hydrocarbon plume from your site, we request that you locate all water supply wells within a radius of 2,000 feet of the subject site. We recommend that you obtain well information from both Alameda County Public Works Agency and the State of California Department of Water Resources. Submittal of maps showing the location of all wells identified in your study, and the use of tables to report the data collected as part of your survey are required. Please provide a table that includes the well designation, location, total depth, diameter, screen interval, date of well installation, current status, historic use, and owner of the wells. In addition, please provide well logs and completion records for wells downgradient from the site that are potential receptors. Results of the detailed well survey are to be included in the SCM/Draft CAP discussed in technical comment 4.

6. **Groundwater Monitoring.** Please continue the groundwater monitoring program on the current semi-annual basis. Please present the groundwater sampling results in the Groundwater Monitoring Reports requested below.

7. **Off-site Soil Gas Sampling Locations.** We understand that an access agreement has been completed for sampling at proposed off-site soil vapor sampling location SG-7. Please present results from sampling of SG-7 in the Subsurface Investigation Report requested below. Based on communications to date with ACEH, it appears that the land owner for proposed soil vapor sampling

location SG-6 is continuing to refuse access. You may discontinue attempts to obtain an access agreement for SG-6 at this time. ACHE will respond to the off-site land owner's latest communications.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- ~~**August 31,**~~ Sept. 15 **2010** – Work Plan Addendum for Soil Vapor Sampling and Analyses
- **October 13, 2010** – Third Quarter 2010, Semi-Annual Groundwater Monitoring Report
- **November 19, 2010** – Subsurface Investigation Report
- **December 21, 2010** – SCM/Draft CAP

If you have any questions, please call me at 510-567-6791 or send me an electronic mail message at jerry.wickham@acgov.org.

Sincerely,

Digitally signed by Jerry Wickham
DN: cn=Jerry Wickham, o, ou, email=Jerry.wickham@acgov.org, c=US
Date: 2010.07.20 15:47:12 -07'00'

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Gary Barker, Horizon Environmental, Inc., 4970 Windplay Drive, #C5, El Dorado Hills, CA 95762

Kenny Mateik, Horizon Environmental, Inc., 4970 Windplay Drive, #C5, El Dorado Hills, CA 95762

Robert Ehlers, Valero, 685 West Third Street, Hanford, CA 93230

Donna Drogos, ACEH (*Sent via E-mail to: donna.drogos@acgov.org*)
Jerry Wickham, ACEH

Geotracker, File

HORIZON ENVIRONMENTAL INC.

FIELD METHODS AND PROCEDURES
HAND - DRIVEN SOIL GAS INVESTIGATIONS

The following section describes general field procedures employed by Horizon Environmental Inc. (Horizon) in performance of soil gas investigations.

1.0 HEALTH AND SAFETY PLAN

Horizon and subcontractors at the site shall conduct fieldwork in compliance with guidelines established in a Site Health and Safety Plan (SHSP). The SHSP is a document that describes the hazards that may be encountered in the field and specifies protective equipment, work procedures, and emergency information. A copy of the SHSP shall be available at the site for reference by appropriate parties during site work.

2.0 LOCATING UNDERGROUND UTILITIES

The location of underground utilities shall be researched with the assistance of Underground Service Alert (USA) prior to commencement of subsurface work. Horizon shall outline the proposed excavation areas and otherwise label the site with white paint according to USA requirements. USA contacts the owners of the various utilities in the vicinity of the site and requests marking of underground utility locations. Soil gas sample locations shall be manually cleared by hand-augering to a depth of approximately 3 feet below surface grade.

3.0 SOIL GAS PROBE INSTALLATION

Soil gas probe installation shall be conducted by Horizon or with oversight by Horizon personnel. Manual hand-augering at each sampling location shall precede soil gas probe advancement. Soil descriptions and observations shall be recorded.

Following hand auger utility clearance, a length of Teflon tubing shall be cut from the tubing stock approximately 6 inches longer than the appropriately assembled soil gas probe. The soil gas probe shall be assembled from the sampling tip by attaching one end of the Teflon tubing, cut to an appropriate length, to the barbed nipple of the Dedicated Sampling Tip. The tubing shall be fed through the Tip Drive End, the appropriate number of hollow extension rods, and through the Extension Drive Adapter, and exiting through the slot on the side of the adapter. The end of tubing exposed through the Extension Drive Adapter shall be sealed with a plastic tight fitting cap or safety valve, and kept clean by wrapping the tubing in a clean plastic bag.

The upper end of the sample tubing shall be secured with a clean wire tie, and the drive tip end of the soil gas probe assembly shall be placed at the bottom of the hand-augered boring. The Slide Hammer shall be attached to the Slide Hammer Adapter and the soil gas probe shall be hand-driven to the target depth.

After the probe is driven to target depth, the Tip Drive End shall be retracted by applying an upward force to the hollow extension rods either manually or with a mechanical jack. The Extension Drive Adapter shall be retracted approximately one inch to expose the inlet ports in the Dedicated Tip. A manual vacuum pump shall be used to confirm flow and a vacuum of less than 10 inches of mercury (Hg). If maximum vacuum values are exceeded, the Dedicated Tip may be driven an additional distance or an alternate sampling location may be selected.

If the maximum vacuum values are not exceeded, the Tip Drive End, the hollow extension rods, and the Extension Drive Adapter shall be retracted completely leaving the Dedicated Tip attached to the sample tubing in place in the bottom of the boring. After the drive assembly is removed, approximately one inch of sand shall be placed at the bottom of the hand auger boring and around the sample tubing. One foot of dry bentonite chips and sufficient hydrated bentonite shall be placed around the sample tubing to within two feet of the ground surface to prevent ambient air intrusion into the soil gas sample interval.

Subsurface conditions shall be allowed to equilibrate for at least 40 minutes following probe installation, and prior to purge volume and leak tests, and soil gas sampling. A purge volume versus soil gas concentration test shall be conducted as the first soil gas sampling activity at the presumed highest concentration test point to purge stagnant or ambient air from the sampling system and to assure soil gas samples are representative of subsurface conditions. The purge volume test shall be conducted in accordance with the Advisory - Active Soil Gas Investigation document (DTSC/ Los Angeles RWQCB, January 28, 2003).

Leak tests shall be conducted at every soil gas test location using the Advisory document recommendations. Purging, flow rate evaluation, and soil gas sampling shall also conform to the Advisory document recommendations. Sample collection and soil gas sample analyses shall be performed by qualified personnel and a mobile analytical laboratory.

4.0 SOIL GAS PROBE ABANDONMENT

After collection of the last soil gas sample and completion of QA/QC confirmation from the mobile laboratory, the sample tubing shall be abandoned in place along with the Dedicated Sampling Tip. The above-ground portion of the sample tubing shall be cut off, securely crimped off, and folded over within the open borehole.

5.0 BOREHOLE ABANDONMENT AND SURFACE RESTORATION

The upper 12 inches of the hand-augered borehole shall be backfilled with hand-compacted native soil or, alternately, with hydrated bentonite, over the abandoned tubing up to and within the level of the pavement or concrete. The boring surface shall be restored to pre-existing conditions utilizing either cold patch asphalt for surrounding asphalt paving or quick-set cement tinted to match the surrounding concrete or pavement surface.