STATE OF CALIFORNIA

STATE WATER RESOURCES CONTROL BOARD

ORDER WQ 2013-0091-UST

In the Matter of Underground Storage Tank Case Closure Pursuant to Health and Safety Code Section 25296.10 and the Low-Threat Underground Storage Tank Case Closure Policy

---

BY THE EXECUTIVE DIRECTOR:[1]

By this order, the Executive Director directs closure of the underground storage tank (UST) case at the site listed below, pursuant to section 25296.10 of the Health and Safety Code.[2] The name of the responsible party, the site name, the site address, the Underground Storage Tank Cleanup Fund (Fund) claim number if applicable, the lead agency, and case number are as follows:

Chevron Environmental Management Company
Chevron Service Station #9-3969
650 Laurel Drive East, Salinas, Monterey County
Central Coast Regional Water Quality Control Board, Case No. 2916

I. STATUTORY AND PROCEDURAL BACKGROUND

Upon review of a UST case, the State Water Resources Control Board (State Water Board) may close or require closure of a UST case where an unauthorized release has occurred, if the State Water Board determines that corrective action at the site is in compliance with all of the requirements of subdivisions (a) and (b) of section 25296.10. The State Water Board, or in certain cases the State Water Board Executive Director, may close a case or require the closure of a UST case. Closure of a UST case is appropriate where the corrective action ensures the protection of human health, safety, and the environment and where the

[1] State Water Board Resolution No. 2012-0061 delegates to the Executive Director the authority to close or require the closure of any UST case if the case meets the criteria found in the State Water Board's Low Threat Underground Storage Tank Case Closure Policy adopted by State Water Board Resolution No. 2012-0016.

[2] Unless otherwise noted, all references are to the California Health and Safety Code.

corrective action is consistent with: 1) Chapter 6.7 of division 20 of the Health and Safety Code and implementing regulations; 2) Any applicable waste discharge requirements or other orders issued pursuant to division 7 of the Water Code; 3) All applicable state policies for water quality control; and 4) All applicable water quality control plans.

State Water Board staff has completed a review of the UST case identified above, and recommends that this case be closed. The recommendation is based upon the facts and circumstances of this particular UST case. A UST Case Closure Summary has been prepared for the case identified above and the basis for determining compliance with the Water Quality Control Policy for Low-Threat Underground Storage Tank Case Closures (Low-Threat Closure Policy or Policy) are explained in the Case Closure Summary.

Low-Threat Closure Policy

In State Water Board Resolution No. 2012-0016, the State Water Board adopted the Low-Threat Closure Policy. The Policy became effective on August 17, 2012. The Policy establishes consistent statewide case closure criteria for certain low-threat petroleum UST sites. In the absence of unique attributes or site-specific conditions that demonstrably increase the risk associated with residual petroleum constituents, cases that meet the general and media-specific criteria in the Low-Threat Closure Policy pose a low-threat to human health, safety, the environment, and are appropriate for closure under Health and Safety Code section 25296.10. The Policy provides that if a regulatory agency determines that a case meets the general and media-specific criteria of the Policy, then the regulatory agency shall notify responsible parties and other specified interested persons that the case is eligible for case closure. Unless the regulatory agency revises its determination based on comments received on the proposed case closure, the Policy provides that the agency shall issue a uniform closure letter as specified in Health and Safety Code section 25296.10. The uniform closure letter may only be issued after the expiration of the 60-day comment period, proper destruction or maintenance of monitoring wells or borings, and removal of waste associated with investigation and remediation of the site.

Health and Safety Code section 25299.57, subdivision (l)(1) provides that claims for reimbursement of corrective action costs that are received by the Fund more than 365 days after the date of a uniform closure letter or a letter of commitment, whichever occurs later, shall not be reimbursed unless specified conditions are satisfied.

II. FINDINGS

Based upon the UST Case Closure Summary prepared for the case attached hereto, the State Water Board finds that corrective action taken to address the unauthorized release of petroleum at the UST release site identified as:

Chevron Environmental Management Company
Chevron Service Station #9-3969
650 Laurel Drive East, Salinas, Monterey County
Central Coast Regional Water Quality Control Board, Case No. 2916

ensures protection of human health, safety, and the environment and is consistent with Chapter 6.7 of division 20 of the Health and Safety Code and implementing regulations, the Low-Threat Closure Policy and other water quality control policies and applicable water quality control plans.

Pursuant to the Low-Threat Closure Policy, notification has been provided to all entities that are required to receive notice of the proposed case closure, a 60-day comment period has been provided to notified parties, and any comments received have been considered by the State Water Board in determining that the case should be closed.

Pursuant to section 21080.5 of the Public Resources Code, environmental impacts associated with the adoption of this Order were analyzed in the substitute environmental document (SED) the State Water Board approved on May 1, 2012. The SED concludes that all environmental effects of adopting and implementing the Low Threat Closure Policy are less than significant, and environmental impacts as a result of complying with the Policy are no different from the impacts that are reasonably foreseen as a result of the Policy itself. A Notice of Decision was filed August 17, 2012. No new environmental impacts or any additional reasonably foreseeable impacts beyond those that were addressed in the SED will result from adopting this Order.

The UST case identified above may be the subject of orders issued by the Regional Water Quality Control Water Board (Regional Water Board) pursuant to division 7 of the Water Code. Any orders that have been issued by the Regional Water Board pursuant to division 7 of the Water Code, or directives issued by a Local Oversight Program (LOP) agency for this case should be rescinded to the extent they are inconsistent with this Order.

III. ORDER

IT IS THEREFORE ORDERED that:

A. The UST case identified in Section II of this Order, meeting the general and media-specific criteria established in the Low-Threat Closure Policy, be closed in accordance with the following conditions and after the following actions are complete. Prior to the issuance of a uniform closure letter, the responsible party is ordered to:

1. Properly destroy monitoring wells and borings unless the owner of real property on which the well or boring is located certifies that the wells or borings will be maintained in accordance with local or state requirements;

2. Properly remove from the site and manage all waste piles, drums, debris, and other investigation and remediation derived materials in accordance with local or state requirements; and

3. Within six months of the date of this Order, submit documentation to the regulatory agency overseeing the UST case identified in Section II of this Order that the tasks in subparagraphs (1) and (2) have been completed.

B. The tasks in subparagraphs (1) and (2) of Paragraph (A) are ordered pursuant to Health and Safety Code section 25296.10 and failure to comply with these requirements may result in the imposition of civil penalties pursuant to Health and Safety Code section 25299, subdivision (d)(1). Penalties may be imposed administratively by the State Water Board or Regional Water Board.

C. Within 30 days of receipt of proper documentation from the responsible party that requirements in subparagraphs (1) and (2) of Paragraph (A) are complete, the regulatory agency that is responsible for oversight of the UST case identified in Section II of this Order shall notify the State Water Board that the tasks have been satisfactorily completed.

D. Within 30 days of notification from the regulatory agency that the tasks are complete pursuant to Paragraph (C), the Deputy Director of the Division of Water Quality shall issue a uniform closure letter consistent with Health and Safety Code section 25296.10, subdivision (g) and upload the uniform closure letter and UST Case Closure Summary to GeoTracker.

E. Any Regional Water Board or LOP agency directive or order that directs corrective action or other action inconsistent with case closure for the UST case identified in Section II is rescinded, but only to the extent the Regional Water Board order or LOP agency directive is inconsistent with this Order.

Thomas Howard
Executive Director

9/26/13
Date

State Water Resources Control Board

UST CASE CLOSURE SUMMARY

Agency Information

Agency Name: Central Coast Regional Water Quality Control Board (Regional Water Board)	Address: 895 Aerovista Place, Suite 101 San Luis Obispo, CA 93401
Agency Caseworker: John Goni	Case No.: 2916

Case Information

USTCF Claim No.: None	Global ID: T0605300215
Site Name: Chevron Service Station #9-3969	Site Address: 650 Laurel Drive East Salinas, CA 93905 (Site)
Responsible Party: Chevron Environmental Management Company	Address: 145 S. State College Boulevard, #400 Brea, CA 92821-5818
USTCF Expenditures to Date: $0	Number of Years Case Open: 16

URL: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0605300215

Summary

The Low-Threat Underground Storage Tank Case Closure Policy (Policy) contains general and media-specific criteria, and cases that meet those criteria are appropriate for closure pursuant to the Policy. This Case meets all of the required criteria of the Policy. A summary evaluation of compliance with the Low-Threat Policy is shown in **Attachment 1: Compliance with State Water Board Policies and State Law**. The Conceptual Site Model upon which the evaluation of the Case has been made is described in **Attachment 2: Summary of Basic Site Information.** Highlights of the Conceptual Site Model of the Case are as follows:

The release at the Site was discovered when hydrocarbon-affected soil was encountered during station upgrade activities in March 1997. Five underground storage tanks (USTs) were removed and replaced in March 1997. Approximately 1,071 cubic yards (cy) of soil and 443 cy of pea gravel were removed from the Site during the UST removal. Three gasoline USTs were removed in March 2005 when the station was demolished. Approximately 260 cy of impacted soil and 50 cy of pea gravel were removed during the March 2005 UST removal. During the risk assessment performed in 2006, approximately 609 tons of soil were removed from the Site. The Site currently includes two commercial buildings. No USTs are currently on-site.

A soil vapor extraction and treatment (SVET) and air sparging (AS) system operation began in May 2007. An estimated 14,323 pounds of total petroleum hydrocarbons as gasoline (TPHg), 249 pounds of benzene, and 290 pounds of methyl tert-butyl ether (MTBE) have been extracted from soil and groundwater beneath the Site since May 2007. The SVET/AS system was shut-down in December 2011 due to very low petroleum hydrocarbon mass recovery.

Rationale for Closure under the Policy

- General Criteria – Site meets all eight general criteria under the Policy.
- Groundwater Media-Specific Criteria – Site meets the Policy Groundwater-Specific Class "1."
- Petroleum Vapor Intrusion to Indoor Air – Site meets Policy Class "a."
- Direct Contact and Outdoor Air Exposure – Site meets the Policy Class "a." Maximum concentrations of petroleum constituents in soil are less than or equal to those listed in Table 1 of the Policy. The estimated naphthalene concentrations in soil meet the thresholds in Table 1 for direct contact by a factor of eight. It is highly unlikely that naphthalene concentrations in the soil, if any, exceed the threshold.

Objections to Closure

Regional Water Board staff objected to UST case closure because confirmation groundwater samples are needed from multiple-level completion monitoring well MW-8. In the absence of the availability of well MW-8, direct push type grab samples from the three water bearing zones will be needed.

RESPONSE:

Well MW-8 has not been sampled since 2008 due to an obstruction in the well casing. Groundwater results from the prior two years sampling events before 2008 for well MW-8 were either non-detect, detected at the concentration below the water quality objectives (WQOs), or detected at the concentration slightly above the WQO. Analytical data from soil and groundwater samples indicate that petroleum constituents in soil and groundwater have naturally attenuated. Total petroleum hydrocarbons as diesel (TPHd), TPHg, benzene, and MTBE in groundwater have currently been either non-detect or have established a decreasing concentration trend at or near WQOs in all monitoring wells that are available for sampling.

Remedial actions undertaken at the Site have reduced the residual petroleum constituents mass to low or non-detect level. The remaining mass of residual petroleum constituents is limited to the vicinity of the former dispenser islands and the former USTs.

Based on these considerations, the residual petroleum contaminants that remain only pose a low risk to human health, safety, or the environment. Therefore, continuation of groundwater sampling or collecting grab samples from well MW-8 is not necessary.

Recommendation for Closure

The corrective action performed at this Site ensures the protection of human health, safety, the environment and is consistent with Chapter 6.7 of the Health and Safety Code and implementing regulations, applicable state policies for water quality control and the applicable water quality control plan, and case closure is recommended.

Prepared By: Trinh pham 5/29/2013
Trinh Pham
Water Resource Control Engineer
Date

Reviewed By: George Lockwood 5/29/2013
George Lockwood, PE#59556
Senior Water Resource Control Engineer
Date

ATTACHMENT 1: COMPLIANCE WITH STATE WATER BOARD POLICIES AND STATE LAW

The site complies with State Water Resources Control Board policies and state law. Section 25296.10 of the Health and Safety Code requires that sites be cleaned up to protect human health, safety, and the environment. Based on available information, any residual petroleum constituents at the site do not pose significant risk to human health, safety, or the environment.

The site complies with the requirements of the Low-Threat Underground Storage Tank (UST) Case Closure Policy as described below.[1]

Is corrective action consistent with Chapter 6.7 of the Health and Safety Code and implementing regulations? The corrective action provisions contained in Chapter 6.7 of the Health and Safety Code and the implementing regulations govern the entire corrective action process at leaking UST sites. If it is determined, at any stage in the corrective action process, that UST case closure is appropriate, further compliance with corrective action requirements is not necessary. Corrective action at this site has been consistent with Chapter 6.7 of the Health and Safety Code and implementing regulations and, since this case meets applicable case-closure requirements, further corrective action is not necessary, unless the activity is necessary for case closure.	☒ Yes ☐ No
Have waste discharge requirements or any other orders issued pursuant to Division 7 of the Water Code been issued at this site?	☐ Yes ☒ No
If so, was the corrective action performed consistent with any order?	☐ Yes ☐ No ☒ NA
General Criteria General criteria that must be satisfied by all candidate sites:	
Is the unauthorized release located within the service area of a public water system?	☒ Yes ☐ No
Does the unauthorized release consist only of petroleum?	☒ Yes ☐ No
Has the unauthorized ("primary") release from the UST system been stopped?	☒ Yes ☐ No
Has free product been removed to the maximum extent practicable?	☐ Yes ☐ No ☒ NA
Has a conceptual site model that assesses the nature, extent, and mobility of the release been developed?	☒ Yes ☐ No

[1] Refer to the Low-Threat Underground Storage Tank Case Closure Policy for closure criteria for low-threat petroleum UST sites.

Has secondary source been removed to the extent practicable?	☒ Yes ☐ No
Has soil or groundwater been tested for MTBE and results reported in accordance with Health and Safety Code, Section 25296.15?	☒ Yes ☐ No
Does nuisance as defined by Water Code, section 13050 exist at the site?	☐ Yes ☒ No
Are there unique site attributes or site-specific conditions that demonstrably increase the risk associated with residual petroleum constituents?	☐ Yes ☒ No
Media-Specific Criteria Candidate sites must satisfy all three of these media-specific criteria: **1. 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:	
Is the contaminant plume that exceeds water quality objectives stable or decreasing in areal extent?	☒ Yes ☐ No ☐ NA
Does the contaminant plume that exceeds water quality objectives meet all of the additional characteristics of one of the five classes of sites? If YES, check applicable class: ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	☒ Yes ☐ No ☐ NA
For sites with releases that have not affected groundwater, do mobile constituents (leachate, vapors, or light non-aqueous phase liquids) contain sufficient mobile constituents to cause groundwater to exceed the groundwater criteria?	☐ Yes ☐ No ☒ NA
2. Petroleum Vapor Intrusion to Indoor Air: The site is considered low-threat for vapor intrusion to indoor air if site-specific conditions satisfy all of the characteristics of one of the three classes of sites (a through c) or if the exception for active commercial fueling facilities applies.	
Is the site an active commercial petroleum fueling facility? Exception: Satisfaction of the media-specific criteria for petroleum vapor intrusion to indoor air is not required at active commercial petroleum fueling facilities, except in cases where release characteristics can be reasonably believed to pose an unacceptable health risk.	☐ Yes ☒ No
a. Do site-specific conditions at the release site satisfy all of the applicable characteristics and criteria of scenarios 1 through 3 or all of the applicable characteristics and criteria of scenario 4? If YES, check applicable scenarios: ☐ 1 ☐ 2 ☐ 3 ☒ 4	☒Yes ☐ No ☐ NA

b. Has a site-specific risk assessment for the vapor intrusion pathway been conducted and demonstrates that human health is protected to the satisfaction of the regulatory agency?	☐ Yes ☐ No ☒ NA
c. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, has the regulatory agency determined that petroleum vapors migrating from soil or groundwater will have no significant risk of adversely affecting human health?	☐ Yes ☐ No ☒ NA
3. Direct Contact and Outdoor Air Exposure: The site is considered low-threat for direct contact and outdoor air exposure if site-specific conditions satisfy one of the three classes of sites (a through c).	
a. Are maximum concentrations of petroleum constituents in soil less than or equal to those listed in Table 1 for the specified depth below ground surface (bgs)?	☒ Yes ☐ No ☐ NA
b. Are maximum concentrations of petroleum constituents in soil less than levels that a site specific risk assessment demonstrates will have no significant risk of adversely affecting human health?	☐ Yes ☐ No ☒ NA
c. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, has the regulatory agency determined that the concentrations of petroleum constituents in soil will have no significant risk of adversely affecting human health?	☐ Yes ☐ No ☒ NA

ATTACHMENT 2: SUMMARY OF BASIC INFORMATION (Conceptual Site Model)

Site Location/ History

- Location: The Site currently includes two commercial buildings. No USTs are currently on-site. The Site is located at the southwest corner of the intersection of East Laurel Drive and Natividad Road in Salinas.
- Nature of Contaminants of Concern: Petroleum hydrocarbons only.
- Primary Source of Release: UST system.
- Discovery Date: 1997.
- Release Type: Petroleum[2].
- Free Product: None reported.

Table A: USTs

Tank No.	Size in Gallons	Contents	Status	Date
1	6,000	Diesel	Removed	1997
2	10,000	Gasoline	Removed	1997
3	10,000	Gasoline	Removed	1997
4	10,000	Gasoline	Removed	1997
5	1,500	Used-oil	Removed	1997
6	12,000	Gasoline	Removed	2005
7	12,000	Gasoline	Removed	2005
8	12,000	Gasoline	Removed	2005

Receptors

- Groundwater Basin: Salinas Valley Groundwater Basin (East Side Aquifer Sub-basin).
- Groundwater Beneficial Uses: Municipal and domestic supply (MUN); agricultural supply (AGR); industrial service supply (IND); and industrial process supply (PRO).
- Designated Land Use: Commercial and residential.
- Public Water System: California Water Service Company.
- Distance to Nearest Surface Waters: Gabilan Creek and Natividad Creek are both located approximately ½ to one mile east of the Site.
- Distance to Nearest Supply Wells: There are no supply wells within 1,000-foot radius of the Site.

Geology/ Hydrogeology

- Average Groundwater Depth: ~45 feet bgs.
- Maximum Groundwater Depth: ~46 feet bgs.
- Geology: The Site is underlain by predominantly clay, silty clay, sandy clay, gravelly clay, and silt to depths of approximately 12 to 17.5 feet bgs, 32 to 38.5 feet bgs, and 95.5 to 96 feet bgs. Silty sand and discontinuous lenses of sand were observed from 12 to 27 feet bgs and from 42 to 52 feet bgs.
- Hydrogeology: Regionally, the shallow groundwater flow direction is to the southwest to west. Locally, the groundwater flow direction is generally to the west to south.

[2] "Petroleum" means crude oil, or any fraction thereof, which is liquid at standard conditions of temperature and pressure, which means at 60 degrees Fahrenheit and 14.7 pounds per square inch absolute. (Health & Saf. Code, § 25299.2.)

Corrective Actions

- Five USTs were removed and replaced during station upgrade activities in 1997. Approximately 1,071 cy of soil and 443 cy of pea gravel were removed during the UST removal.
- Three gasoline USTs were removed in 2005 when the station was demolished. Approximately 260 cy of impacted soil and 50 cy of pea gravel were removed during the UST removal.
- In May 2006, approximately 609 tons of impacted soil were removed in the vicinity of the former eastern dispenser during the risk assessment.
- Eleven monitoring wells, nine AS wells, and seven SVE wells have been installed at the Site.
- An SVET/AS system operation began on May 2007. An estimated 14,323 pounds of TPHg, 249 pounds of benzene, and 290 pounds of MTBE have been extracted from soil and groundwater beneath the Site since May 2007. The SVET/AS system was shut-down in December 2011 due to very low petroleum hydrocarbon mass recovery.

Table B: Concentrations of Petroleum Constituents in Soil

Constituent	Maximum 0-5 feet bgs (mg/kg)	Maximum 5-10 feet bgs (mg/kg)
Benzene	0.001	0.002
Ethylbenzene	0.002	16
Naphthalene	Not Analyzed	Not Analyzed
PAHs*	Not Analyzed	Not Analyzed

*Poly-aromatic hydrocarbons as benzo(a)pyrene toxicity equivalent

Table C: Groundwater Sampling Results

Well No.	Date Sampled	TPHd (µg/L)	TPHg (µg/L)	Benzene (µg/L)	MTBE (µg/L)
MW-1	9/13/2012	<50	<50	<0.5	<0.5
MW-2	9/13/2012	<50	<50	<0.5	1
MW-3	9/13/2012	<50	<50	<0.5	<0.5
MW-4R	9/13/2012	<50	<50	<0.5	<0.5
MW-5	9/13/2012	<50	83	<0.5	<0.5
MW-6	9/13/2012	<50	<50	<0.5	<0.5
MW-7R	9/13/2012	99	<50	<0.5	<0.5
MW-8-49	11/7/2008[1]	<50	<50	<0.5	17
MW-8-64	2/7/2008[1]	66	<50	<0.5	<0.5
MW-8-78.5	2/7/2008[1]	75	<50	<0.5	<0.5
MW-9-50	11/2/2007[1]	110	<50	<0.5	<0.5
MW-9-67	5/8/2009[1]	Not Available	<50	<0.5	<0.5
MW-9-82	11/2/2007[1,2]	490	<50	<0.5	<0.5
MW-10	9/13/2012	<50	<50	<0.5	<0.5
MW-12-50	5/2/2011[1]	<50	<50	<0.5	<0.5
MW-12-67	2/7/2008[1]	78	<50	<0.5	<0.5
MW-12-83	2/7/2008[1]	58	<50	<0.5	<0.5
WQO		100[3]	5[4]	1[5]	5[6]

See footnotes on the next page

Table C: Groundwater Sampling Results (Cont'd)

1	Unable to sample after this sampling event due to an obstruction in the well casing
2	Insufficient water to collect sample for TPHd
3	Taste and odor threshold (USEPA Health Advisory)
4	Taste and odor threshold (McKee and Wolf)
5	California Primary Maximum Contaminant Level (MCL)
6	California Secondary MCL
µg/L	Micrograms per liter

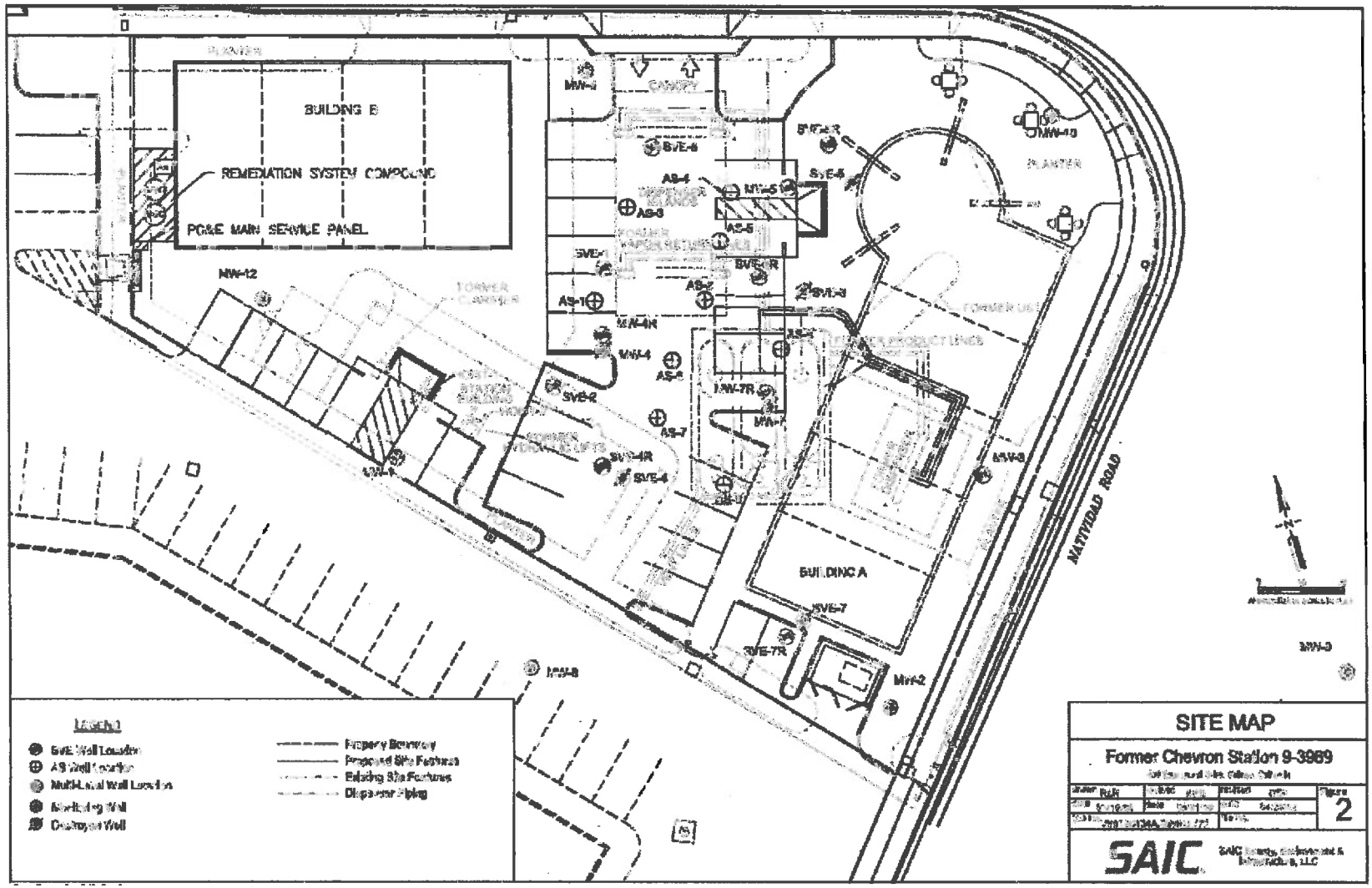
Evaluation of Risk Criteria

- Maximum Petroleum Constituent Plume Length above WQOs: The groundwater plume for TPHg is approximately 20 feet.
- Petroleum Constituent Plume Determined Stable or Decreasing: Yes.
- Soil/Groundwater Sampled for MTBE: Yes, see Table C above.
- Residual Petroleum Constituents Pose Significant Risk to the Environment: No.
- Residual Petroleum Constituents Pose Significant Vapor Intrusion Risk to Human Health: No. Petroleum constituents most likely to pose a threat for vapor intrusion were removed during soil excavation and remediation. Site conditions demonstrate that the residual petroleum constituents in soil and groundwater are protective of human health.
- Residual Petroleum Constituents Pose a Nuisance[3] at the Site: No.
- Residual Petroleum Constituents in Soil Pose Significant Risk of Adversely Affecting Human Health: No.
- Residual Petroleum Constituents Pose Significant Direct Contact and Outdoor Air Exposure to Human Health: No. There are no soil samples results in the case record for naphthalene. However, the relative concentration of naphthalene in soil can be conservatively estimated using the published relative concentrations of naphthalene and benzene in gasoline. Taken from Potter and Simmons (1998), gasoline mixtures contain approximately 2% benzene and 0.25% naphthalene. Therefore, benzene concentrations can be directly substituted for naphthalene concentrations with a safety factor of eight. Benzene concentrations from the Site are below the naphthalene thresholds in Table 1 of the Policy. Therefore, estimated naphthalene concentrations meet the thresholds in Table 1 and the Policy criteria for direct contact by a factor of eight. It is highly unlikely that naphthalene concentrations in the soil, if any, exceed the threshold.

[3] Nuisance as defined in California Water Code, section 13050, subdivision (m).

Chevron Service Station #9-3969
650 East Laurel Drive, Salinas, Monterey County

SITE MAP



TPHg IN GROUNDWATER (µG/L) – SEPTEMBER 2012