

Mr. Andrew Cooper
State Water Resources Control Board
1001 I Street, 16th Floor
Sacramento, California 95814

Subject: Claim #16959
Philip Petre
428 East Haley Street
Santa Barbara, California
SBCPHD LUFT Case #90089
**COMMENT LETTER – PETRE INDUSTRIES
UST CASE CLOSURE SUMMARY**

Dear Mr. Cooper:

On behalf of the property owner, Ms. Doris Eastman Petre, TKO EnviroServices has provided the following comments pertaining to the Proposed Underground Storage Tank Case Closure for the subject site. The Notice for Public Comment and the attached UST Case Closure Review Summary Report (Exhibit A) contain several inaccuracies and factually incorrect statements that are addressed herein.

I. Summary

SWRCB: The site is an active warehouse.

Comment: The site is not an active warehouse, but instead contains light industrial and commercial businesses that occupy several buildings at the site (Units A through G). Furthermore, two of the buildings at the site are occupied by residences, and include the upstairs of Unit F (single residence) and Unit G (family with children). The adjacent parcels consist of a residential property (toward the west) and commercial businesses (restaurants, hardware store, auto body shop). Figure 2 depicts the site and adjacent properties (see Exhibit B).

SWRCB: Four USTs were removed in 1985 and an unknown volume of impacted soil was excavated to a depth of 8 feet and disposed of offsite.

Comment: The USTs were removed by the property owner, Mr. Philip Petre, without a permit. Mr. Petre did not dispose of petroleum-hydrocarbon impacted soil to an off-site facility. Impacted soil that was excavated during UST removal was placed back into the tankpit.

SWRCB: Soil vapor extraction and ozone sparging were installed in September 2012.

Comment: Initial remediation activities were performed between October 2011 and June 2012. These activities included the razing of a brick/concrete building, remediation well installation, and trenching and placement of conveyance piping/tubing and electrical piping/wiring. In January 2013, a two-day soil vapor extraction/air sparging field pilot test was performed at the site. Low-flow air sparging (biosparging) was conducted between December 2013 and December 2014. Soil vapor extraction has not been implemented. Free product removal was conducted intermittently between October 2011 and December 2014. Figure 4 shows the monitoring and remediation wells located on and adjacent to the site (see Exhibit B).

SWRCB: Remaining petroleum hydrocarbon constituents are limited and stable, and concentrations are decreasing. Corrective actions have been implemented and additional corrective actions are not necessary. Any remaining petroleum hydrocarbon constituents do not pose a significant risk to human health, safety, or the environment.

Comment: Groundwater monitoring conducted in 2011 and 2012 indicate that petroleum hydrocarbon constituents may have stabilized; however, sampling of groundwater has not been performed since December of 2012 to assess whether active remediation (biosparging) has successfully reduced or stabilized the dissolved plume. Furthermore, petroleum hydrocarbons in vapor phase and adsorbed phase cannot be definitively determined to be limited in extent or stable. The trend in vapor-phase and adsorbed-phase concentrations and plume stability are unknown and require additional sampling to fully assess the impacts to human health and the environment. Estimation of plume mass prior to site remediation, along with recent field soil vapor data collected during biosparging, show that further corrective action is warranted and necessary to reduce vapor-phase and adsorbed-phase concentrations in the vadose zone/capillary fringe to levels that protect human health and the environment.

The core of the adsorbed-phase plume is situated around the two former UST areas. The contaminant plume has migrated outward in all directions with preferential migration to the north-northwest and encompassing an area at least 8,600 square feet. The highest adsorbed-phase concentrations impact the vadose zone and the capillary fringe/saturated zone at depths at and above approximately 8 feet. The areal extent of the adsorbed-phase plume within the vadose zone/capillary fringe is unknown and inferred to extend off-site to the northeast beneath a commercial property and northwest beneath a residential property (Exhibit B, Figure 7). Analytical data collected between 2000 and 2012 shows that petroleum hydrocarbon concentrations (TPH) have been detected as high as 17,700 parts per million (ppm) at a depth of 1 foot and 19,400 ppm at a depth of 6½ feet (Exhibit B, Figure 14). The average TPH concentration has been estimated at 4,936 ppm with a mass of 21,180 pounds (Exhibit B, Table 6). Confirmation soil sampling has not been performed to determine whether reduction of the adsorbed plume concentrations and mass has occurred.

Soil vapor samples were collected from select wells at the site in January 2014. Benzene was detected as high as 380 micrograms per cubic meter (ug/m^3), naphthalene as high as $2,800 \text{ ug}/\text{m}^3$, and TPH as high as $2,700,000 \text{ ug}/\text{m}^3$. The most recent field monitoring data using a photoionization detector (PID) (December 2014) indicates that soil vapors extend offsite beneath the residential property to the west (Exhibit B, Figure 5). Monitoring wells are not located on the residential property to assess the soil vapor impacts to this property. The extent of the vapor-phase hydrocarbon plume is unknown. Follow-up vapor sampling has not been conducted to assess stability or reduction of soil vapor concentrations beneath the site.

II. Closure Rational

SWRCB: The case meets all eight Policy general criteria.

Comment: The site does not meet all eight of the Low-Threat Case Closure Policy general criteria because general criteria (f), as defined as “secondary source has been removed to the extent practicable,” has not been met. Petroleum impacted soils located adjacent to the UST were not excavated during removal of the USTs in 1985. Site assessment data generated between 2000 and 2012 show that significant contaminant concentrations remain in the

subsurface at depths as shallow as 1 foot below grade, documenting that a bioattenuation zone is not present at the site. The data indicates that approximately 20,000 pounds of contaminant mass (3,200 equivalent gallons of fuel) is present in the vadose zone/capillary fringe beneath the site (Appendix B, Table 6). No confirmation soil sampling has been conducted to establish whether the adsorbed-phase contaminant mass has been removed during biosparging.

Active remediation has been limited to date and soil vapor extraction has not yet been implemented, as required by the local agency, to removed elevated hydrocarbon concentrations from the vadose zone and capillary fringe.

SWRCB: Vapor Intrusion to Indoor Air: This case meets Policy Criterion 2b. Although no documented titled "Risk Assessment" was found in the files reviewed, a professional assessment of site-specific risk from potential exposure to petroleum constituents was performed by Fund staff. The assessment found that there is no significant risk of petroleum vapors adversely affecting human health.

Comment: Significant concentrations of vapor-phase and adsorbed-phase TPH and vapor-phase benzene and naphthalene have been detected in the vadose zone/capillary fringe at the site. Vapor samples collected from select monitoring wells in January 2014 showed that naphthalene was present as high as 2,800 ug/m³, an order of magnitude higher than the policy's criteria of 310 ug/m³ for a commercial /industrial property, and benzene was present as high as 380 ug/m³, exceeded the policy's criteria of 280 ug/m³ for commercial/industrial property and 85 ug/m³ for a residential property.

A preliminary risk assessment using the Environmental Screening Levels (ESLs), which was established by the State Water Resources Control Board (updated 2013), was conducted using site-specific data. Concentrations of petroleum hydrocarbon constituents' benzene, naphthalene, and TPH detected at the site were utilized as input parameters for the ESL evaluation. Results of the Tier 1 evaluation demonstrate that ESLs are exceeded in soil, soil gas, groundwater, and indoor air for one or more of these constituents and further evaluation (Tier 2/Tier 3) is recommended to assess the site-specific risk to human health and the environment. The ESL results are provided in Exhibit C.

Tenants at the site have voiced concerns of vapors in the workspace from the underlying soil. Site workers have complained of strong hydrocarbon odors when wells MW-11 (lower level of Unit F) and MW-12 (Unit C) are monitored. The tenant in Unit B has also expressed concerns of adverse health effects that may be associated with the site contamination. These anecdotes suggest that vapor intrusion is potentially likely unless site remediation efforts are undertaken.

Policy criterion 2b requires that a site-specific risk assessment for vapor intrusion pathway be conducted and demonstrates that human health is protected to the satisfaction of the regulatory agency. As acknowledged by the Fund, no Risk Assessment has been conducted for the site. The Fund has provided no documentation supporting their reported professional assessment of the site-specific risk for protection or the qualifications of the person(s) performing this assessment.

SWRCB: The onsite buildings are industrial and commercial facilities with multiple rollup doors that prevent the accumulation of soil vapors in the building.

Comment: Unit D is the only building with a roll-up door. Unit G has a garage door. The other units have standard doors, not roll-up doors. The site buildings have not been designed or constructed to mitigate intrusion of contaminant vapors. The presence of a roll-up door is not recognized in the industry as an adequate engineered system to mitigation vapor intrusion.

Additionally, site assessment and monitoring data indicates that the adsorbed-phase and vapor-phase contaminant plumes have migrated to the west beneath the adjacent residential property. Additional assessment on this adjacent property is necessary to determine the potential impacts and whether more stringent closure criteria (residential) are warranted.

SUMMARY

Eligibility for low-threat closure requires that a site must meet eight general criteria as well as media-specific criteria for groundwater, vapor intrusion to indoor air, and soil (direct contact) and outdoor air. There is no site-specific data to support the SWRCB's contention that the subject site meets general criteria (f) (secondary source removal to the extent possible) and vapor intrusion to indoor air. To the contrary, significant petroleum hydrocarbon concentrations and mass impact shallow soil where subsurface work will likely result in direct contact and exposure to contaminated soil, and significant benzene and naphthalene concentrations are present in soil vapor that have a potential for intrusion to indoor air into the onsite buildings. Furthermore, additional assessment is necessary to determine whether the adjacent residential property may be impacted by petroleum hydrocarbons in soil and/or soil vapor. Considerable effort and expense has been incurred to install remediation and monitoring wells and a remediation system (AS/SVE system) at the site. Operation of the system at full potential is required to mitigate petroleum hydrocarbons that pose risks to the environment and human health at and adjacent to the site.

EXHIBIT A

**SWRCB NOTICE FOR PUBLIC COMMENT/
UST CASE CLOSURE REVIEW SUMMARY REPORT**

State Water Resources Control Board

NOTICE OF OPPORTUNITY FOR PUBLIC COMMENT

PROPOSED UNDERGROUND STORAGE TANK CASE CLOSURE PURSUANT TO HEALTH AND SAFETY CODE SECTION 25296.10 AND THE STATE WATER RESOURCES CONTROL BOARD LOW-THREAT UNDERGROUND STORAGE TANK CASE CLOSURE POLICY
CLAIM NUMBER: 16959; SITE ADDRESS: 428 EAST HALEY STREET, SANTA BARBARA, CA 93101

NOTICE IS HEREBY GIVEN THAT the State Water Resources Control Board (State Water Board) will accept comments on the proposed underground storage tank (UST) case closure for Santa Barbara County Public Health Department, case number 90089, 428 East Haley Street, Santa Barbara, CA 93101. Written comments may be submitted as described below.

The State Water Board may close or require the closure of any UST case if it is determined that corrective action has been completed in accordance with Health & Safety Code section 25296.10. Pursuant to State Water Board Resolution No. 2012-0061, the Executive Director of the State Water Board may close or require closure of cases that meet the criteria specified in the State Water Board's Low-Threat Underground Storage Tank Case Closure Policy (Low-Threat Closure Policy) adopted by State Water Board Resolution No. 2012-0016.

State Water Board staff has completed a review of case information available on the State Water Board's GeoTracker database, determined that the above-referenced case meets the general and media-specific criteria of the Policy as documented in the UST Case Closure Summary, and made a recommendation to the Executive Director for UST case closure. A copy of the Case Closure Summary has been provided to the owner/operator, the environmental consultant of record, the local agency that has been overseeing corrective action, the local water purveyor, and the water district. Notification has been provided to all entities that require notice as specified in the Low-Threat Closure Policy.

SUBMISSION OF WRITTEN COMMENTS

The draft order, which includes the Case Closure Summary, is available on the State Water Board's website at:

http://www.waterboards.ca.gov/water_issues/programs/ustcf/prop_closure_cases.shtml.

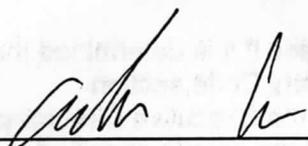
Written comments **must be received by 12:00 Noon on Wednesday, July 1, 2015.** Please provide the following information in the subject line: **"Comment Letter – Petre Industries UST Case Closure Summary."**

Comments must be addressed to:

Mr. Andrew Cooper
State Water Resources Control Board
1001 I Street, 16th Floor
Sacramento, CA 95814

Comments by email must be addressed to: USTClosuresComments@waterboards.ca.gov

Please direct questions about this notice to Bob Trommer, UST Cleanup Fund, at (916) 341-5684 (Bob.Trommer@waterboards.ca.gov) or Therese Barakatt, Senior Staff Counsel at (916) 341-5186 (Therese.Barakatt@waterboards.ca.gov).



Andrew Cooper
Executive Assistant
Division of Financial Assistance

4/27/15
Date

State Water Resources Control Board

UST CASE CLOSURE REVIEW SUMMARY REPORT

Agency Information

Agency Name: Santa Barbara County Public Health Department (County)	Address: 2125 South Centerpointe Parkway, Suite 333, Santa Maria, CA 93455
Agency Caseworker: Thomas Rejzek	Case No.: 90089

Case Information

USTCF Claim No.: 16959	GeoTracker Global ID: T0608323816
Site Name: Petre Industries	Site Address: 428 East Haley Street Santa Barbara, CA 93101
Responsible Party: Philip Petre	Address: Private Address
USTCF Expenditures to Date: \$396,522	Number of Years Case Open: 13

To view all public documents for this case available on GeoTracker use the following URL:

http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608323816

Summary

The Low-Threat Underground Storage Tank (UST) 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.

Highlights of the case follow:

This Site is an active warehouse. An unauthorized release was reported in June 2001 following a site investigation. Four USTs were removed in 1985 and an unknown volume of impacted soil was excavated to a depth of 8 feet and disposed offsite. Soil vapor extraction and ozone sparging were installed in September 2012. Since 2004, 17 groundwater monitoring wells have been installed and monitored; one well has been destroyed. According to groundwater data, water quality objectives have been achieved or nearly achieved for all constituents.

The petroleum release is limited to the soil and shallow groundwater. According to data available in GeoTracker, there are no public water supply wells or surface water bodies within 250 feet of the defined plume boundary. No other water supply wells have been identified within 250 feet of the defined plume boundary in files reviewed. The unauthorized release is located within the service area of a public water system, as defined in the Policy. The affected shallow groundwater is not currently being used as a source of drinking water, and it is highly unlikely that the affected shallow groundwater will be used as a source of drinking water in the foreseeable future. Other designated beneficial uses of the affected shallow groundwater are not threatened, and it is highly unlikely that they will be, considering these factors in the context of the site setting. Remaining petroleum hydrocarbon constituents are limited and stable, and concentrations are decreasing. Corrective actions have been implemented and additional corrective actions are not necessary. Any remaining petroleum hydrocarbon constituents do not pose a significant risk to human health, safety or the environment.

Rationale for Closure under the Policy

- General Criteria: The case meets all eight Policy general criteria.
- Groundwater Specific Criteria: The case meets Policy Criterion 1 by Class 1. The contaminant plume that exceeds water quality objectives is less than 100 feet in length. There is no free product. The nearest water supply well or surface water body is greater than 250 feet from the defined plume boundary.
- Vapor Intrusion to Indoor Air: This case meets Policy Criterion 2b. Although no document titled "Risk Assessment" was found in the files reviewed, a professional assessment of site-specific risk from potential exposure to petroleum constituents was performed by Fund staff. The assessment found that there is no significant risk of petroleum vapors adversely affecting human health. The onsite buildings are industrial and commercial facilities with multiple rollup doors that would prevent the accumulation of soil vapors in the building. Therefore, the pathway is incomplete.
- Direct Contact and Outdoor Air Exposure: The case meets Policy Criterion 3a. Maximum concentrations in soil are less than those in Policy Table 1 for Commercial/Industrial use, and the concentration limits for a Utility Worker are not exceeded.

Determination

Based on the review performed in accordance with Health & Safety Code Section 25296.10, the Fund Manager has determined that closure of the case is appropriate.

Recommendation for Closure

Based on available information, residual petroleum hydrocarbons at the Site do not pose a significant risk to human health, safety, or the environment, and the case meets the requirements of the Policy. Accordingly, the Fund Manager recommends that the case be closed. The State Water Board is conducting public notification as required by the Policy. The County has the regulatory responsibility to supervise the abandonment of monitoring wells.

Lisa Babcock
Lisa Babcock, P.G. 3939, C.E.G. 1235

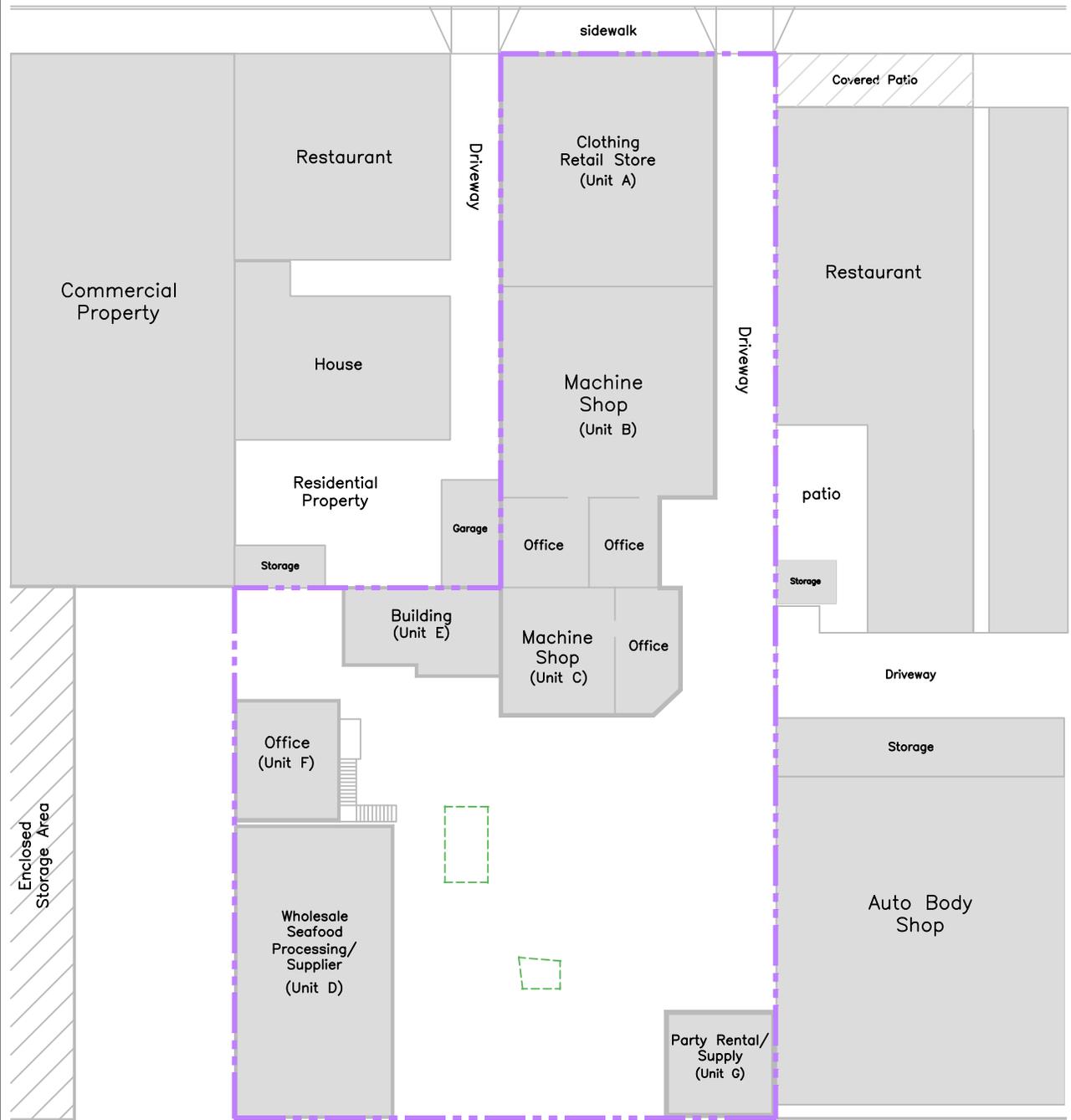
4/16/15
Date

Prepared by: Kirk Larson, P.G.

EXHIBIT B

SITE FIGURES

EAST HALEY STREET



Home Improvement
(Display/Storage Yard)

LEGEND



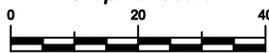
Former UST Area



Property Line



Graphic Scale



(In Feet)
1 Inch = 20 Feet

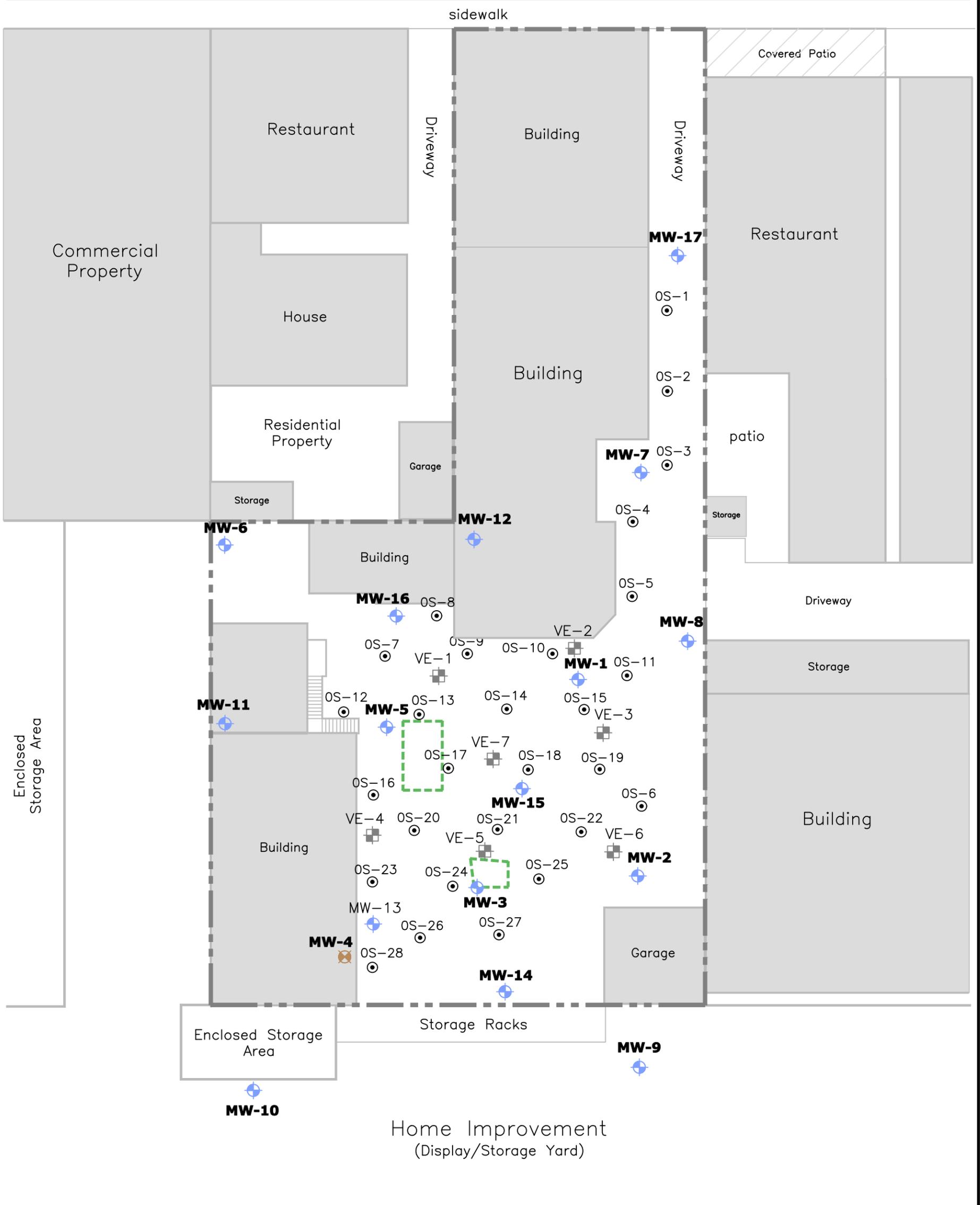
TKO
EnviroServices

SITE MAP

FORMER PETRE INDUSTRIES
428 East Haley Street
Santa Barbara, California
PROJECT NO. 0110-01

FIGURE 2

EAST HALEY STREET

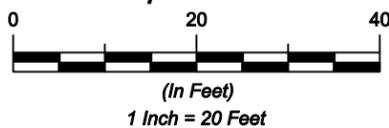


LEGEND

-  Groundwater Monitoring Well
-  Abandoned Monitoring Well
-  Ozone Sparge Well
-  Vapor Extraction Well
-  Former UST Area



Graphic Scale



HAYDEN
ENVIRONMENTAL
INCORPORATED

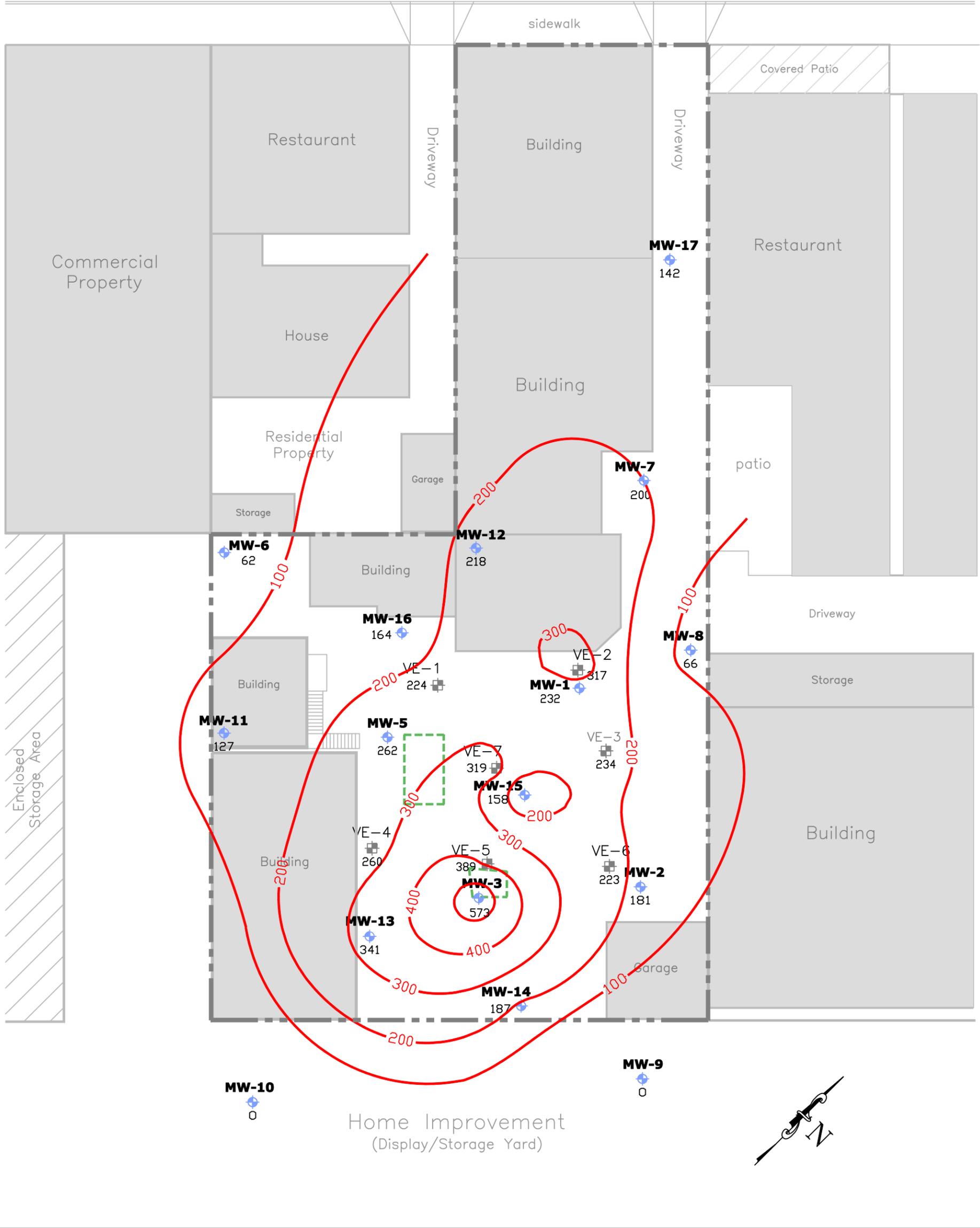
MONITORING/ REMEDICATION WELL FIELD MAP

FORMER PETRE INDUSTRIES
428 East Haley Street
Santa Barbara, California

PROJECT NO. 0110-01

FIGURE 4

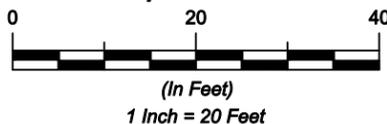
EAST HALEY STREET



LEGEND

- Groundwater Monitoring Well
- Vapor Extraction Well
- 34.2 PID Concentration (ppm)
- NA Not Accessible
- Line of Equal Concentration
- Former UST Area
- Property Line

Graphic Scale

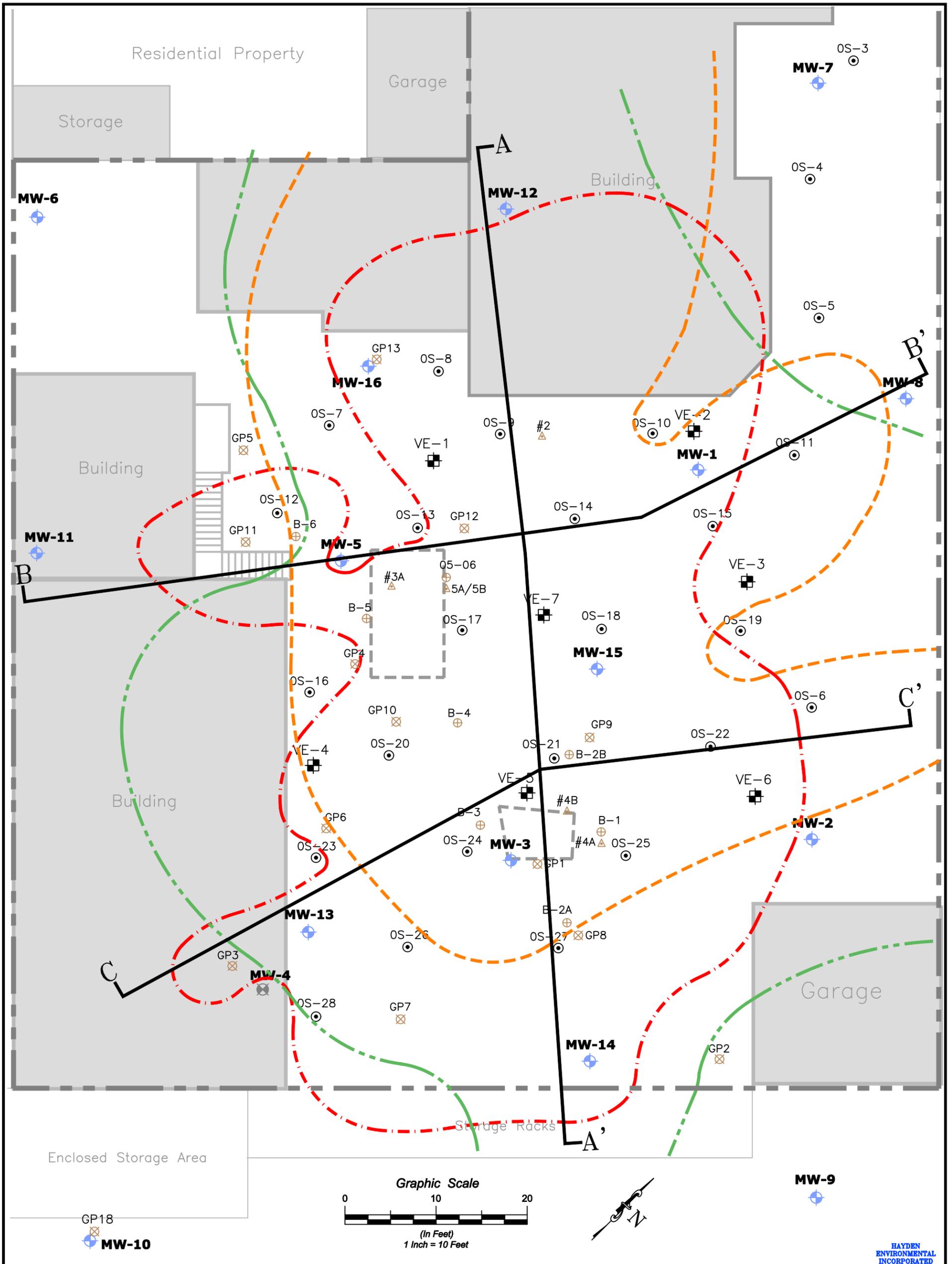


TKO
EnviroServices

SOIL VAPOR ISOCONCENTRATION MAP (December, 2014)

FORMER PETRE INDUSTRIES
428 East Haley Street
Santa Barbara, California
PROJECT NO. 0110-01

FIGURE 5



HAYDEN ENVIRONMENTAL INCORPORATED

LEGEND

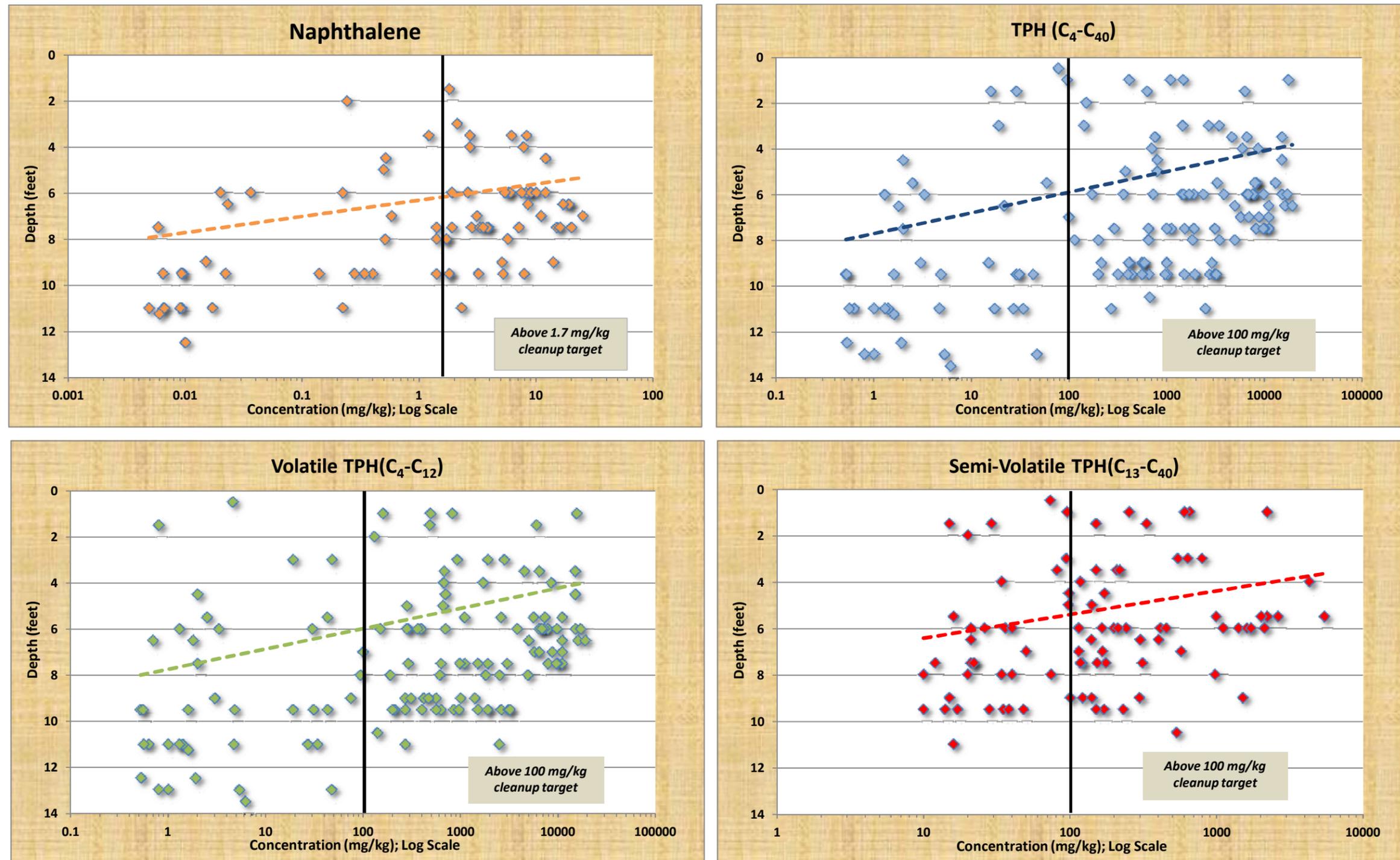
- | | |
|--------------------------------|---|
| △ ⊗ ⊕ Exploratory Soil Borings | — — — — — Inferred Extent of Vadose Zone Plume |
| ⊕ Groundwater Monitoring Well | — · — · — Inferred Extent of Capillary Fringe/Saturated Zone Plume |
| ⊙ Ozone Sparge Well | — · — · — Inferred Extent of Plume within Aquitard (Saturated Zone) |
| ⊕ Vapor Extraction Well | — — — — — Cross-Section Line |
| ⊔ Former UST Area | |
| — — — — — Property Line | |

ADSORBED-PHASE PLUME MAP

FORMER PETRE INDUSTRIES
 428 East Haley Street
 Santa Barbara, California
 PROJECT NO. 0110-01

FIGURE 7

ANALYTE CONCENTRATION VERSUS DEPTH PLOTS



Notes:
Dashed lines are best-fit regressions through the data
Graphs omit non-detects

TABLE 6
ADSORBED-PHASE PLUME DATA SUMMARY

Analyte	Vadose Zone	Capillary Fringe/ Upper Saturated Zone	Aquitard (Saturated Zone)	FPD ILs (ppm)
Average Concentration (ppm)				
Naphthalene	5.45	910	4.53	1.7
Volatile TPH(C ₄ -C ₁₂)	4,334	5,538	1,102	100
Semi-Volatile TPH(C ₁₃ -C ₄₀)	752	885	360	100
Full TPH(C ₄ -C ₄₀)	4,700	5,648	1,190	100
Area (ft²)				
Naphthalene	2,220	>5,500	2,925	
Volatile TPH(C ₄ -C ₁₂)	>5,125	>7,490	4,500	
Semi-Volatile TPH(C ₁₃ -C ₄₀)	>4,240	>5,300	1,575	
Full TPH(C ₄ -C ₄₀)	>5,400	>8,000	4,630	
Mass (lbs)				Total Mass (lbs)
Naphthalene	4.24	10.82	2.52	17.57
Volatile TPH(C ₄ -C ₁₂)	8,195	9,304	1,078	18,577
Semi-Volatile TPH(C ₁₃ -C ₄₀)	1,102	1,291	122	2,514
Full TPH(C ₄ -C ₄₀)	9,296	10,657	1,227	21,180

Footnotes:

FPD ILs –Santa Barbara County Fire Prevention Department LUFT Investigation Levels.

ppm –parts per million.

ft² – square feet.

lbs – pounds.

NA – Not Applicable.

> - Greater than.

EXHIBIT C

**ESL TIER 1 EVALUATIONS
(Benzene, Naphthalene, TPH-gas, TPH-diesel)**

Inputs for Environmental Screening Levels

Click in cell and use pull-down boxes to make selection.

Step 1: Select Contaminant

Benzene

Step 2: Select Site Scenario*

Land Use: Commercial or Industrial

Depth of Contaminated Soil: Shallow Soil (default)

Groundwater Use: Nondrinking Water Resource

* When all inputs are set to Default, the output is Tier 1 ESLs. The soil type only influences the groundwater to indoor air pathway.

Step 3: Drinking Water and Soil Type*

Drinking Water: Risk-Based

Soil Type: Fine-Coarse Mix (default)

ESLs:

Soil (mg/kg):	1.2E+00
Groundwater (µg/L):	4.6E+01
Soil Gas (µg/m ³):	4.2E+02
Indoor Air (µg/m ³):	4.2E-01

Step 4 (Optional): Enter site data

Soil concentration (mg/kg) - dry weight: 0.11

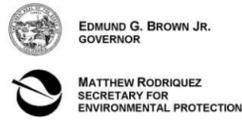
Soil gas concentration (µg/m³): 380.00

Groundwater concentration (µg/L): 10.10

Indoor Air concentration (µg/m³): NA



Environmental Screening Levels
 San Francisco Bay Regional Water Quality Control Board



Summary of Environmental Screening Levels

Site Name: *Petre Industries*
Site Address: 428 East Haley Street
 Santa Barbara
Site ID Number: LUFT #90089/Claim #16959
Date: 5/26/2015

Selected Site Scenario	
Land Use:	Commercial or Industrial
Depth to Impacted Soil:	Shallow Soil (default)
Groundwater Use:	Nondrinking Water Resource
Drinking Water:	Risk-Based
Soil Type:	Fine-Coarse Mix (default)

Selected Chemical: Benzene

Site Concentrations:
 Soil (mg/kg): 0.11
 Soil Gas ($\mu\text{g}/\text{m}^3$): 380.00
 Groundwater ($\mu\text{g}/\text{L}$): 10.10
 Indoor Air Concentration ($\mu\text{g}/\text{m}^3$): NA

Soil ESLs:	Units	ESL	ESL Exceeded?	Referenced Table
Direct Exposure:	mg/kg	3.7E+00	No	Table B-2
Terrestrial Ecological:	mg/kg	2.5E+01	No	
Ceiling Value:	mg/kg	8.7E+02	No	
Leaching:	mg/kg	1.2E+00	No	
Final Soil ESL:	mg/kg	1.2E+00		

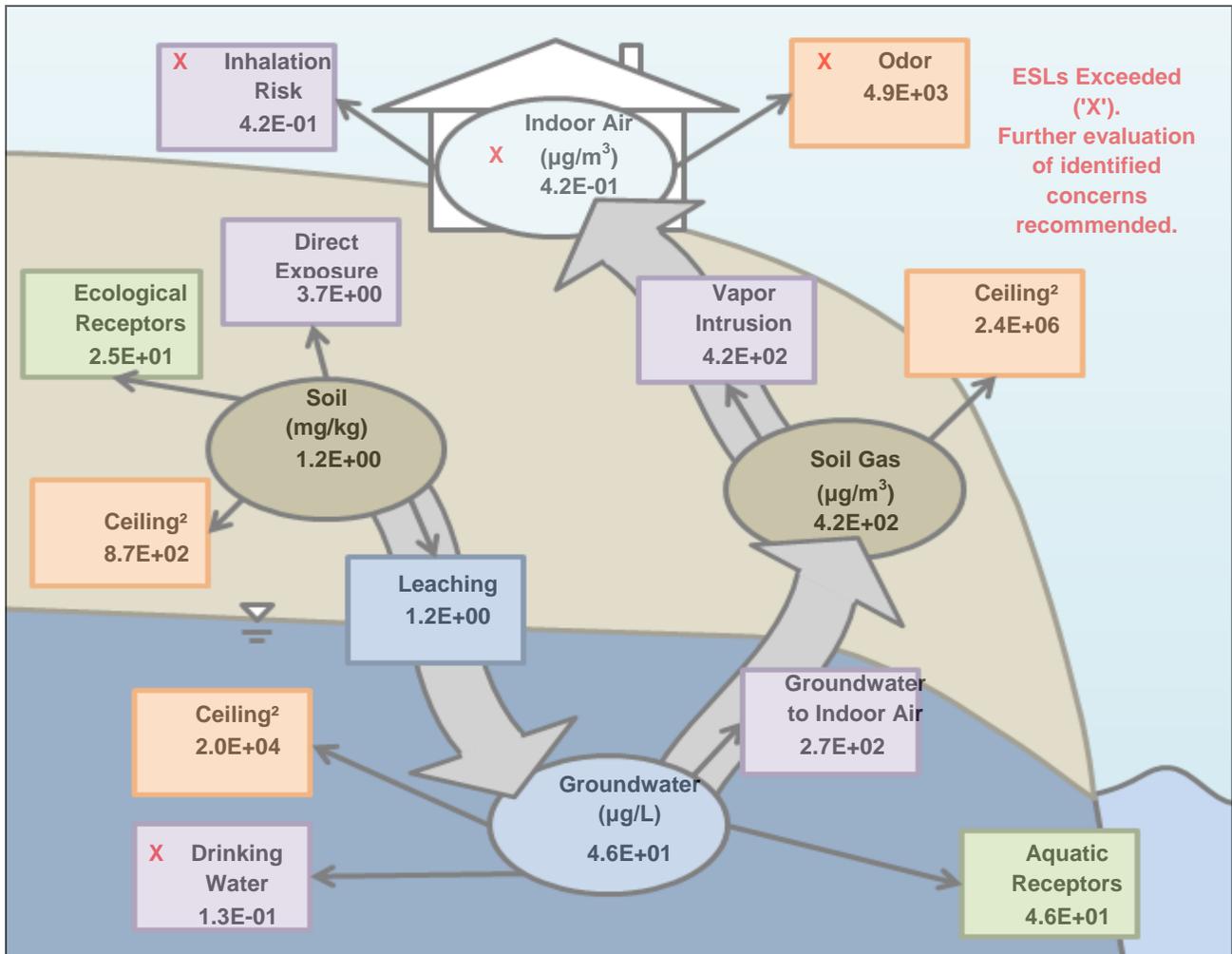
Groundwater ESLs:	Units	ESL	ESL Exceeded?	Referenced Table
Drinking Water:	$\mu\text{g}/\text{L}$	1.3E-01	Yes	Table F-3
Protection of Aquatic Habitats:	$\mu\text{g}/\text{L}$	4.6E+01	No	Table F-1b
Groundwater to Indoor Air:	$\mu\text{g}/\text{L}$	2.7E+02	No	
Ceiling Value:	$\mu\text{g}/\text{L}$	2.0E+04	No	
Final Groundwater ESL:	$\mu\text{g}/\text{L}$	4.6E+01		

Indoor Air ESLs:	Units	ESL	ESL Exceeded?	Referenced Table
Health Risk:	$\mu\text{g}/\text{m}^3$	4.2E-01	Yes	Table E-3
Odor Threshold:	$\mu\text{g}/\text{m}^3$	4.9E+03	Yes	
Final Indoor Air ESL:	$\mu\text{g}/\text{m}^3$	4.2E-01		

Soil Gas ESLs:	Units	ESL	ESL Exceeded?	Referenced Table
Health Risk:	$\mu\text{g}/\text{m}^3$	4.2E+02	No	Table E-2
Odor Threshold:	$\mu\text{g}/\text{m}^3$	2.4E+06	No	
Final Soil Gas ESL:	$\mu\text{g}/\text{m}^3$	4.2E+02		

Environmental Screening Levels for Specific Concerns

Benzene



Scenario Assumptions:	Entered Site Concentrations:
Commercial or Industrial	Indoor Air (µg/m³): NA
Shallow Soil (default)	Soil gas (µg/m³): 380
Nondrinking Water Resource	Soil (mg/kg): 0.11
Fine-Coarse Mix (default)	Groundwater (µg/L): 10.1

Legend:

- Purple - Human Health Risk
- Green - Ecological Risk
- Orange - Odor/Nuisance

¹ Direct exposure includes dermal contact, inhalation, and ingestion

² Ceiling Level is the lowest of the Nuisance Odor/Taste threshold (with an attenuation factor for soil gas), the soil saturation limit, 1/2 of the solubility, or 50,000 µg/L for groundwater.



ESLs Detailed Report

Selected Chemical: Benzene

Selected Site Scenario	
Land Use:	Commercial or Industrial
Depth to Impacted Soil:	Shallow Soil (default)
Groundwater Use:	Nondrinking Water Resource
Drinking Water:	Risk-Based
Soil Type:	Fine-Coarse Mix (default)
Site Soil Concentration (mg/kg):	0.11
Site Soil Gas Concentration ($\mu\text{g}/\text{m}^3$):	380.00
Site Groundwater Concentration ($\mu\text{g}/\text{L}$):	10.10
Site Indoor Air concentration ($\mu\text{g}/\text{m}^3$):	NA

Soil ESL Tables	Land Use	Depth to Impacted Soil	Selected?
Table A-1	Residential (default)	Shallow Soil (default)	NO
Table A-2	Commercial or Industrial	Shallow Soil (default)	NO
Table B-1	Residential (default)	Shallow Soil (default)	NO
Table B-2	Commercial or Industrial	Shallow Soil (default)	YES
Table C-1	Residential (default)	Deep Soil	NO
Table C-2	Commercial or Industrial	Deep Soil	NO
Table D-1	Residential (default)	Deep Soil	NO
Table D-2	Commercial or Industrial	Deep Soil	NO

*Default Shallow Soil $\leq 3\text{m}$ bgs, Deep Soil $>3\text{m}$ bgs

Soil Screening Levels (mg/kg)	
Table Referenced:	Table B-2
Residential:	7.4E-01
Commercial or Industrial:	3.7E+00
Construction/Trench Worker	7.1E+01
Direct Exposure:	3.7E+00
Drinking Water Resource:	4.4E-02
Nondrinking Water Resource:	1.2E+00
Leaching:	1.2E+00
Residential:	2.5E+01
Commercial or Industrial:	2.5E+01
Terrestrial Ecotoxicity:	2.5E+01
Residential Shallow Soil:	5.0E+02
Residential Deep Soil:	8.7E+02
Residential Action Level:	5.0E+02
Commercial/Industrial Shallow Soil:	8.7E+02
Commercial/Industrial Deep Soil:	8.7E+02
Commercial/Industrial Action Level:	8.7E+02
Ceiling Level:	8.7E+02
Final Soil ESL	1.2E+00

Indoor Air and Soil Gas Screening Levels ($\mu\text{g}/\text{m}^3$)	
Indoor Air Table Referenced:	Table E-3
Residential:	8.4E-02
Commercial or Industrial:	4.2E-01
Odor Threshold:	4.9E+03
Final Indoor Air:	4.2E-01
Soil Gas Table Referenced:	Table E-2
Residential:	4.2E+01
Commercial or Industrial:	4.2E+02
Odor Threshold:	2.4E+06
Final Soil Gas:	4.2E+02
Soil to Indoor Air:	
Residential/ Commercial/ Industrial (mg/kg):	Sample soil gas

Drinking Water Screening Levels ($\mu\text{g}/\text{L}$)	
Table Referenced:	Table F-3
Drinking water (MCL-priority)	1.0E+00
Drinking water (risk-based)	1.3E-01
Drinking Water ESL:	1.3E-01
Estuary Aquatic Ecotoxicity ESL:	4.6E+01
Groundwater to Indoor Air Screening Levels	
Table Referenced:	Table E-1
Residential (fine - coarse):	2.7E+01
Residential (all sand):	1.2E+00
Commercial or Industrial (fine - coarse):	2.7E+02
Commercial or Industrial (all sand):	1.2E+01
Groundwater to Indoor Air ESL:	2.7E+02
Groundwater Ceiling Value Screening Levels	
Tables Referenced:	Table F-1a and Table F-1b
Drinking Water Ceiling Value:	1.7E+02
Nondrinking Water Ceiling Value:	2.0E+04
Ceiling Value:	2.0E+04
Final Groundwater ESL:	4.6E+01

Inputs for Environmental Screening Levels

Click in cell and use pull-down boxes to make selection.

Step 1: Select Contaminant

Naphthalene

Step 2: Select Site Scenario*

Land Use: Commercial or Industrial

Depth of Contaminated Soil: Shallow Soil (default)

Groundwater Use: Nondrinking Water Resource

* When all inputs are set to Default, the output is Tier 1 ESLs. The soil type only influences the groundwater to indoor air pathway.

Step 3: Drinking Water and Soil Type*

Drinking Water: Risk-Based

Soil Type: Fine-Coarse Mix (default)

ESLs:

Soil (mg/kg):	4.8E+00
Groundwater (µg/L):	2.4E+01
Soil Gas (µg/m ³):	3.6E+02
Indoor Air (µg/m ³):	3.6E-01

Step 4 (Optional): Enter site data

Soil concentration (mg/kg) - dry weight: 7.28

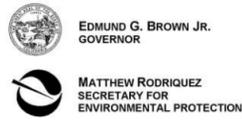
Soil gas concentration (µg/m³): 2,065.00

Groundwater concentration (µg/L): 94.11

Indoor Air concentration (µg/m³): NA



Environmental Screening Levels
 San Francisco Bay Regional Water Quality Control Board



Summary of Environmental Screening Levels

Site Name: *Petre Industries*
Site Address: 428 East Haley Street
 Santa Barbara
Site ID Number: LUFT #90089/Claim #16959
Date: 5/26/2015

Selected Site Scenario	
Land Use:	Commercial or Industrial
Depth to Impacted Soil:	Shallow Soil (default)
Groundwater Use:	Nondrinking Water Resource
Drinking Water:	Risk-Based
Soil Type:	Fine-Coarse Mix (default)

Selected Chemical: Naphthalene

Site Concentrations:

Soil (mg/kg): 7.28
 Soil Gas (µg/m³): 2,065.00
 Groundwater (µg/L): 94.11
 Indoor Air Concentration (µg/m³): NA

Soil ESLs:	Units	ESL	ESL Exceeded?	Referenced Table
Direct Exposure:	mg/kg	1.5E+01	No	Table B-2
Terrestrial Ecological:	mg/kg	4.0E+01	No	
Ceiling Value:	mg/kg	1.0E+03	No	
Leaching:	mg/kg	4.8E+00	Yes	
Final Soil ESL:	mg/kg	4.8E+00		

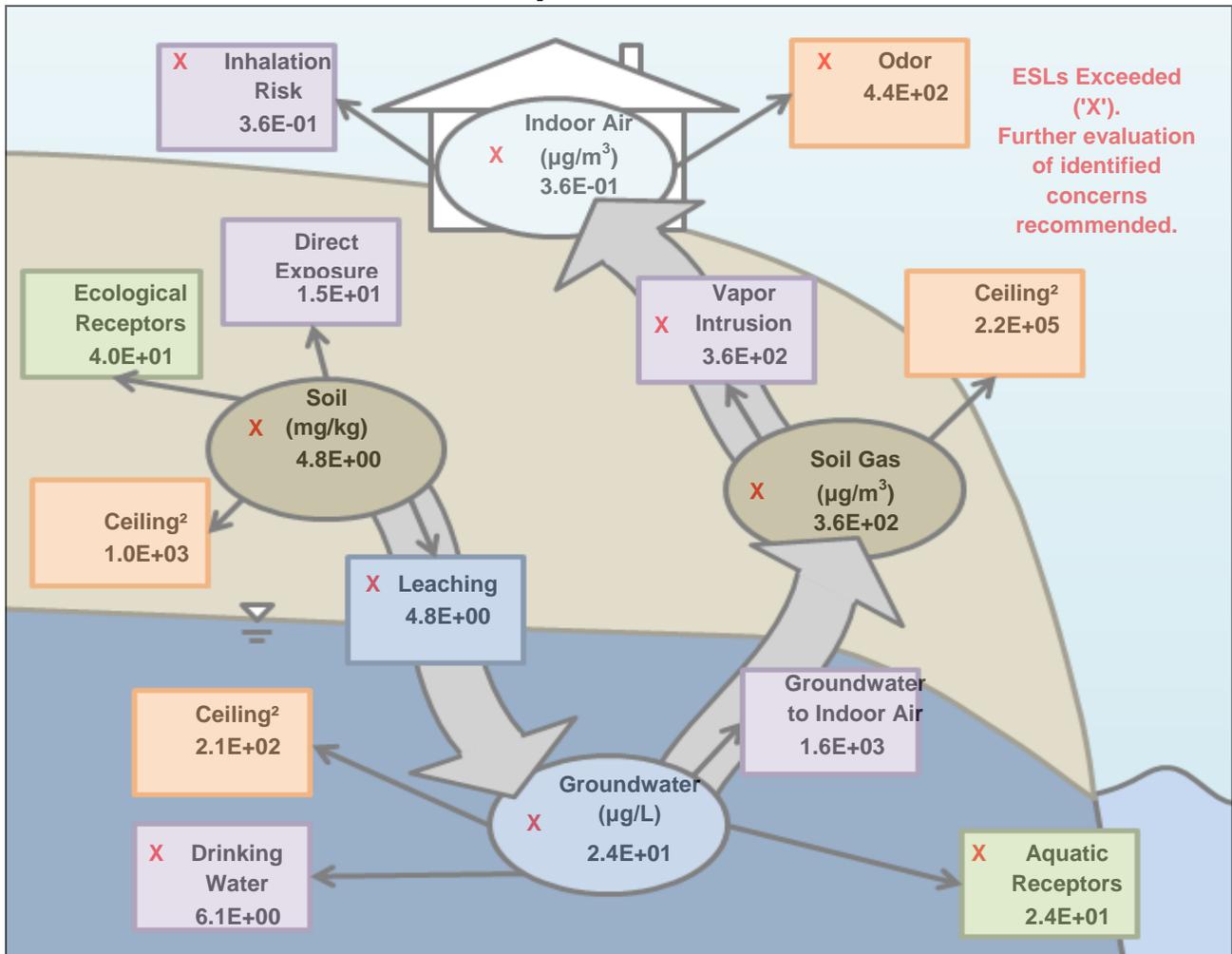
Groundwater ESLs:	Units	ESL	ESL Exceeded?	Referenced Table
Drinking Water:	µg/L	6.1E+00	Yes	Table F-3
Protection of Aquatic Habitats:	µg/L	2.4E+01	Yes	Table F-1b
Groundwater to Indoor Air:	µg/L	1.6E+03	No	
Ceiling Value:	µg/L	2.1E+02	No	
Final Groundwater ESL:	µg/L	2.4E+01		

Indoor Air ESLs:	Units	ESL	ESL Exceeded?	Referenced Table
Health Risk:	µg/m ³	3.6E-01	Yes	Table E-3
Odor Threshold:	µg/m ³	4.4E+02	Yes	
Final Indoor Air ESL:	µg/m³	3.6E-01		

Soil Gas ESLs:	Units	ESL	ESL Exceeded?	Referenced Table
Health Risk:	µg/m ³	3.6E+02	Yes	Table E-2
Odor Threshold:	µg/m ³	2.2E+05	No	
Final Soil Gas ESL:	µg/m³	3.6E+02		

Environmental Screening Levels for Specific Concerns

Naphthalene



Scenario Assumptions:	Entered Site Concentrations:
Commercial or Industrial	Indoor Air (µg/m³): NA
Shallow Soil (default)	Soil gas (µg/m³): 2065
Nondrinking Water Resource	Soil (mg/kg): 7.28
Fine-Coarse Mix (default)	Groundwater (µg/L): 94.11

Legend:

- Purple - Human Health Risk
- Green - Ecological Risk
- Orange - Odor/Nuisance

¹ Direct exposure includes dermal contact, inhalation, and ingestion

² Ceiling Level is the lowest of the Nuisance Odor/Taste threshold (with an attenuation factor for soil gas), the soil saturation limit, 1/2 of the solubility, or 50,000 µg/L for groundwater.



ESLs Detailed Report

Selected Chemical: Naphthalene

Selected Site Scenario	
Land Use:	Commercial or Industrial
Depth to Impacted Soil:	Shallow Soil (default)
Groundwater Use:	Nondrinking Water Resource
Drinking Water:	Risk-Based
Soil Type:	Fine-Coarse Mix (default)
Site Soil Concentration (mg/kg):	7.28
Site Soil Gas Concentration ($\mu\text{g}/\text{m}^3$):	2,065.00
Site Groundwater Concentration ($\mu\text{g}/\text{L}$):	94.11
Site Indoor Air concentration ($\mu\text{g}/\text{m}^3$):	NA

Soil ESL Tables	Land Use	Depth to Impacted Soil	Selected?
Table A-1	Residential (default)	Shallow Soil (default)	NO
Table A-2	Commercial or Industrial	Shallow Soil (default)	NO
Table B-1	Residential (default)	Shallow Soil (default)	NO
Table B-2	Commercial or Industrial	Shallow Soil (default)	YES
Table C-1	Residential (default)	Deep Soil	NO
Table C-2	Commercial or Industrial	Deep Soil	NO
Table D-1	Residential (default)	Deep Soil	NO
Table D-2	Commercial or Industrial	Deep Soil	NO

*Default Shallow Soil $\leq 3\text{m}$ bgs, Deep Soil $>3\text{m}$ bgs

Soil Screening Levels (mg/kg)	
Table Referenced:	Table B-2
Residential:	3.1E+00
Commercial or Industrial:	1.5E+01
Construction/Trench Worker	3.7E+02
Direct Exposure:	1.5E+01
Drinking Water Resource:	1.2E+00
Nondrinking Water Resource:	4.8E+00
Leaching:	4.8E+00
Residential:	4.0E+01
Commercial or Industrial:	4.0E+01
Terrestrial Ecotoxicity:	4.0E+01
Residential Shallow Soil:	5.0E+02
Residential Deep Soil:	1.0E+03
Residential Action Level:	5.0E+02
Commercial/Industrial Shallow Soil:	1.0E+03
Commercial/Industrial Deep Soil:	2.5E+03
Commercial/Industrial Action Level:	1.0E+03
Ceiling Level:	1.0E+03
Final Soil ESL	4.8E+00

Indoor Air and Soil Gas Screening Levels ($\mu\text{g}/\text{m}^3$)	
Indoor Air Table Referenced:	Table E-3
Residential:	7.2E-02
Commercial or Industrial:	3.6E-01
Odor Threshold:	4.4E+02
Final Indoor Air:	3.6E-01
Soil Gas Table Referenced:	Table E-2
Residential:	3.6E+01
Commercial or Industrial:	3.6E+02
Odor Threshold:	2.2E+05
Final Soil Gas:	3.6E+02
Soil to Indoor Air:	
Residential/ Commercial/ Industrial (mg/kg):	Sample soil gas

Drinking Water Screening Levels ($\mu\text{g}/\text{L}$)	
Table Referenced:	Table F-3
Drinking water (MCL-priority)	6.1E+00
Drinking water (risk-based)	6.1E+00
Drinking Water ESL:	6.1E+00
Estuary Aquatic Ecotoxicity ESL:	2.4E+01
Groundwater to Indoor Air Screening Levels	
Table Referenced:	Table E-1
Residential (fine - coarse):	1.6E+02
Residential (all sand):	2.2E+01
Commercial or Industrial (fine - coarse):	1.6E+03
Commercial or Industrial (all sand):	2.2E+02
Groundwater to Indoor Air ESL:	1.6E+03
Groundwater Ceiling Value Screening Levels	
Tables Referenced:	Table F-1a and Table F-1b
Drinking Water Ceiling Value:	2.1E+01
Nondrinking Water Ceiling Value:	2.1E+02
Ceiling Value:	2.1E+02
Final Groundwater ESL:	2.4E+01

Inputs for Environmental Screening Levels

Click in cell and use pull-down boxes to make selection.

Step 1: Select Contaminant

TPH gasoline

Step 2: Select Site Scenario*

Land Use: Commercial or Industrial

Depth of Contaminated Soil: Shallow Soil (default)

Groundwater Use: Nondrinking Water Resource

* When all inputs are set to Default, the output is Tier 1 ESLs. The soil type only influences the groundwater to indoor air pathway.

Step 3: Drinking Water and Soil Type*

Drinking Water: Risk-Based

Soil Type: Fine-Coarse Mix (default)

ESLs:

Soil (mg/kg):	5.0E+02
Groundwater (µg/L):	5.0E+02
Soil Gas (µg/m ³):	5.0E+04
Indoor Air (µg/m ³):	1.0E+02

Step 4 (Optional): Enter site data

Soil concentration (mg/kg) - dry weight: 4,936.00

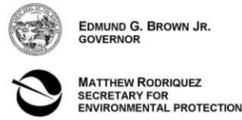
Soil gas concentration (µg/m³): 1,402,500.00

Groundwater concentration (µg/L): 11,140.00

Indoor Air concentration (µg/m³): NA



Environmental Screening Levels
San Francisco Bay Regional Water Quality Control Board



Summary of Environmental Screening Levels

Site Name: *Petre Industries*
Site Address: 428 East Haley Street
 Santa Barbara
Site ID Number: LUFT #90089/Claim #16959
Date: 5/26/2015

Selected Site Scenario	
Land Use:	Commercial or Industrial
Depth to Impacted Soil:	Shallow Soil (default)
Groundwater Use:	Nondrinking Water Resource
Drinking Water:	Risk-Based
Soil Type:	Fine-Coarse Mix (default)

Selected Chemical: TPH gasoline

Site Concentrations:

Soil (mg/kg): 4,936.00
 Soil Gas (µg/m³): 1,402,500.00
 Groundwater (µg/L): 11,140.00
 Indoor Air Concentration (µg/m³): NA

Soil ESLs:	Units	ESL	ESL Exceeded?	Referenced Table
Direct Exposure:	mg/kg	4.0E+03	Yes	Table B-2
Terrestrial Ecological:	mg/kg	No value	No	
Ceiling Value:	mg/kg	5.0E+02	Yes	
Leaching:	mg/kg	3.8E+03	Yes	
Final Soil ESL:	mg/kg	5.0E+02		

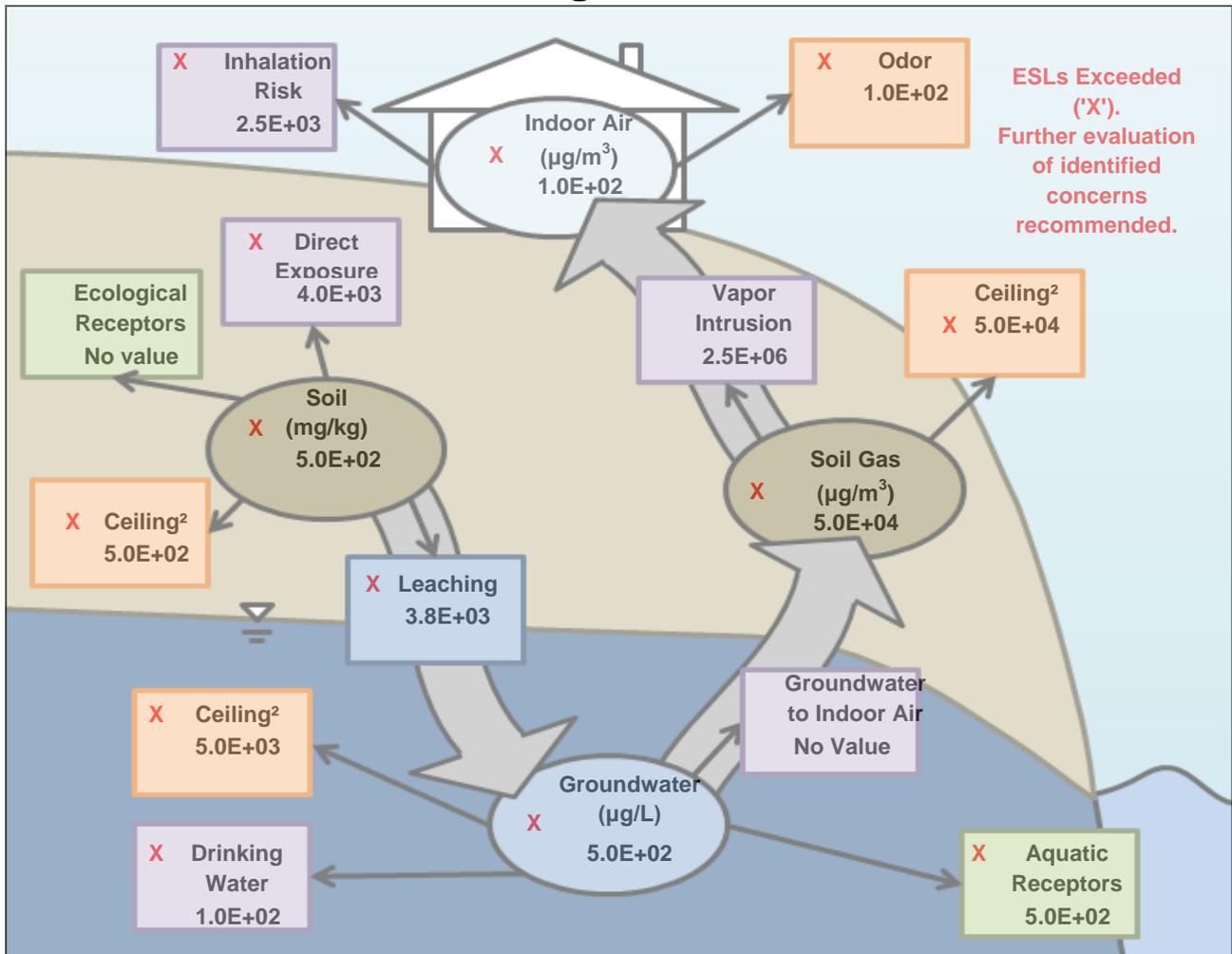
Groundwater ESLs:	Units	ESL	ESL Exceeded?	Referenced Table
Drinking Water:	µg/L	1.0E+02	Yes	Table F-3
Protection of Aquatic Habitats:	µg/L	5.0E+02	Yes	Table F-1b
Groundwater to Indoor Air:	µg/L	No Value	No	
Ceiling Value:	µg/L	5.0E+03	Yes	
Final Groundwater ESL:	µg/L	5.0E+02		

Indoor Air ESLs:	Units	ESL	ESL Exceeded?	Referenced Table
Health Risk:	µg/m ³	2.5E+03	Yes	Table E-3
Odor Threshold:	µg/m ³	1.0E+02	Yes	
Final Indoor Air ESL:	µg/m³	1.0E+02		

Soil Gas ESLs:	Units	ESL	ESL Exceeded?	Referenced Table
Health Risk:	µg/m ³	2.5E+06	No	Table E-2
Odor Threshold:	µg/m ³	5.0E+04	Yes	
Final Soil Gas ESL:	µg/m³	5.0E+04		

Environmental Screening Levels for Specific Concerns

TPH gasoline



Scenario Assumptions:	Entered Site Concentrations:
Commercial or Industrial	Indoor Air (µg/m³): NA
Shallow Soil (default)	Soil gas (µg/m³): 1E+06
Nondrinking Water Resource	Soil (mg/kg): 4936
Fine-Coarse Mix (default)	Groundwater (µg/L): 11140

Legend:

- Purple - Human Health Risk
- Green - Ecological Risk
- Orange - Odor/Nuisance

¹ Direct exposure includes dermal contact, inhalation, and ingestion

² Ceiling Level is the lowest of the Nuisance Odor/Taste threshold (with an attenuation factor for soil gas), the soil saturation limit, 1/2 of the solubility, or 50,000 µg/L for groundwater.



ESLs Detailed Report

Selected Chemical: TPH gasoline

Selected Site Scenario	
Land Use:	Commercial or Industrial
Depth to Impacted Soil:	Shallow Soil (default)
Groundwater Use:	Nondrinking Water Resource
Drinking Water:	Risk-Based
Soil Type:	Fine-Coarse Mix (default)
Site Soil Concentration (mg/kg):	4,936.00
Site Soil Gas Concentration ($\mu\text{g}/\text{m}^3$):	1,402,500.00
Site Groundwater Concentration ($\mu\text{g}/\text{L}$):	11,140.00
Site Indoor Air concentration ($\mu\text{g}/\text{m}^3$):	NA

Soil ESL Tables	Land Use	Depth to Impacted Soil	Selected?
Table A-1	Residential (default)	Shallow Soil (default)	NO
Table A-2	Commercial or Industrial	Shallow Soil (default)	NO
Table B-1	Residential (default)	Shallow Soil (default)	NO
Table B-2	Commercial or Industrial	Shallow Soil (default)	YES
Table C-1	Residential (default)	Deep Soil	NO
Table C-2	Commercial or Industrial	Deep Soil	NO
Table D-1	Residential (default)	Deep Soil	NO
Table D-2	Commercial or Industrial	Deep Soil	NO

*Default Shallow Soil $\leq 3\text{m}$ bgs, Deep Soil $> 3\text{m}$ bgs

Soil Screening Levels (mg/kg)	
Table Referenced:	Table B-2
Residential:	7.7E+02
Commercial or Industrial:	4.0E+03
Construction/Trench Worker	2.7E+03
Direct Exposure:	4.0E+03
Drinking Water Resource:	7.7E+02
Nondrinking Water Resource:	3.8E+03
Leaching:	3.8E+03
Residential:	No Value
Commercial or Industrial:	No value
Terrestrial Ecotoxicity:	No value
Residential Shallow Soil:	1.0E+02
Residential Deep Soil:	5.0E+02
Residential Action Level:	1.0E+02
Commercial/Industrial Shallow Soil:	5.0E+02
Commercial/Industrial Deep Soil:	1.0E+03
Commercial/Industrial Action Level:	5.0E+02
Ceiling Level:	5.0E+02
Final Soil ESL	5.0E+02

Indoor Air and Soil Gas Screening Levels ($\mu\text{g}/\text{m}^3$)	
Indoor Air Table Referenced:	Table E-3
Residential:	5.9E+02
Commercial or Industrial:	2.5E+03
Odor Threshold:	1.0E+02
Final Indoor Air:	1.0E+02
Soil Gas Table Referenced:	Table E-2
Residential:	3.0E+05
Commercial or Industrial:	2.5E+06
Odor Threshold:	5.0E+04
Final Soil Gas:	5.0E+04
Soil to Indoor Air:	
Residential/ Commercial/ Industrial (mg/kg):	Sample soil gas

Drinking Water Screening Levels ($\mu\text{g}/\text{L}$)	
Table Referenced:	Table F-3
Drinking water (MCL-priority)	1.0E+02
Drinking water (risk-based)	1.0E+02
Drinking Water ESL:	1.0E+02
Estuary Aquatic Ecotoxicity ESL:	5.0E+02
Groundwater to Indoor Air Screening Levels	
Table Referenced:	Table E-1
Residential (fine - coarse):	No Value
Residential (all sand):	No Value
Commercial or Industrial (fine - coarse):	No Value
Commercial or Industrial (all sand):	No Value
Groundwater to Indoor Air ESL:	No Value
Groundwater Ceiling Value Screening Levels	
Tables Referenced:	Table F-1a and Table F-1b
Drinking Water Ceiling Value:	1.0E+02
Nondrinking Water Ceiling Value:	5.0E+03
Ceiling Value:	5.0E+03
Final Groundwater ESL:	5.0E+02

Inputs for Environmental Screening Levels

Click in cell and use pull-down boxes to make selection.

Step 1: Select Contaminant

TPH diesel

Step 2: Select Site Scenario*

Land Use:

Commercial or Industrial

Depth of Contaminated Soil:

Shallow Soil (default)

Groundwater Use:

Nondrinking Water
Resource

* When all inputs are set to Default, the output is Tier 1 ESLs. The soil type only influences the groundwater to indoor air pathway.

Step 3: Drinking Water and Soil Type*

Drinking Water:

Risk-Based

Soil Type:

Fine-Coarse Mix (default)

ESLs:

Soil (mg/kg):	1.1E+02
Groundwater (µg/L):	6.4E+02
Soil Gas (µg/m ³):	5.0E+05
Indoor Air (µg/m ³):	5.7E+02

Step 4 (Optional): Enter site data

Soil concentration (mg/kg) - dry weight:

818.00

Soil gas concentration (µg/m³):

NA

Groundwater concentration (µg/L):

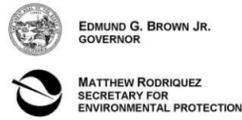
21,433.00

Indoor Air concentration (µg/m³):

NA



Environmental Screening Levels
 San Francisco Bay Regional Water Quality Control Board



Summary of Environmental Screening Levels

Site Name: <i>Petre Industries</i> Site Address: 428 East Haley Street Santa Barbara Site ID Number: LUFT #90089/Claim #16959 Date: 5/26/2015

Selected Site Scenario	
Land Use:	Commercial or Industrial
Depth to Impacted Soil:	Shallow Soil (default)
Groundwater Use:	Nondrinking Water Resource
Drinking Water:	Risk-Based
Soil Type:	Fine-Coarse Mix (default)

Selected Chemical: TPH diesel

Site Concentrations: Soil (mg/kg): 818.00 Soil Gas (µg/m ³): NA Groundwater (µg/L): 21,433.00 Indoor Air Concentration (µg/m ³): NA
--

Soil ESLs:	Units	ESL	ESL Exceeded?	Referenced Table
Direct Exposure:	mg/kg	1.1E+03	No	Table B-2
Terrestrial Ecological:	mg/kg	No value	No	
Ceiling Value:	mg/kg	1.1E+02	Yes	
Leaching:	mg/kg	3.6E+03	No	
Final Soil ESL:	mg/kg	1.1E+02		

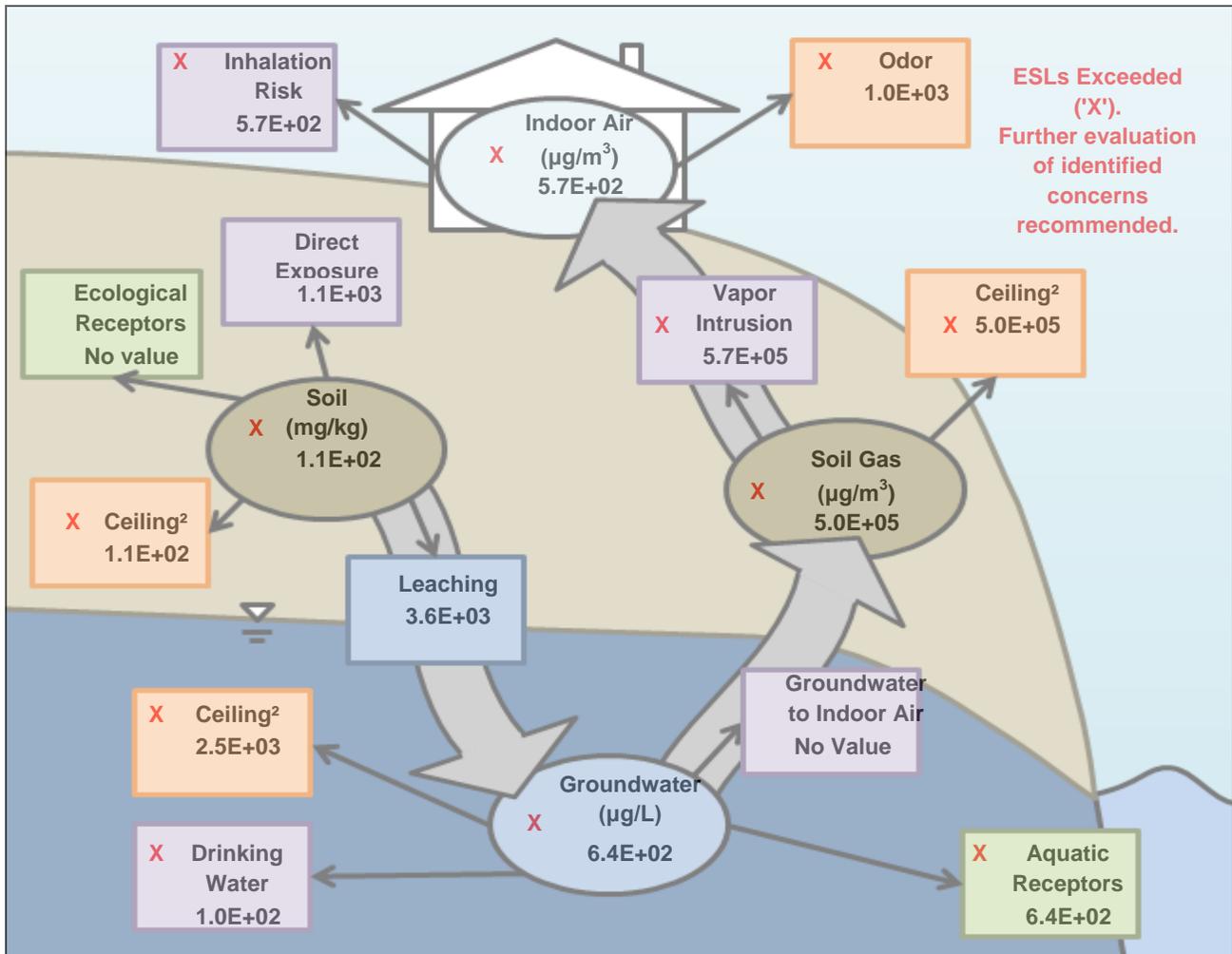
Groundwater ESLs:	Units	ESL	ESL Exceeded?	Referenced Table
Drinking Water:	µg/L	1.0E+02	Yes	Table F-3
Protection of Aquatic Habitats:	µg/L	6.4E+02	Yes	Table F-1b
Groundwater to Indoor Air:	µg/L	No Value	No	
Ceiling Value:	µg/L	2.5E+03	Yes	
Final Groundwater ESL:	µg/L	6.4E+02		

Indoor Air ESLs:	Units	ESL	ESL Exceeded?	Referenced Table
Health Risk:	µg/m ³	5.7E+02	Yes	Table E-3
Odor Threshold:	µg/m ³	1.0E+03	Yes	
Final Indoor Air ESL:	µg/m³	5.7E+02		

Soil Gas ESLs:	Units	ESL	ESL Exceeded?	Referenced Table
Health Risk:	µg/m ³	5.7E+05	Yes	Table E-2
Odor Threshold:	µg/m ³	5.0E+05	Yes	
Final Soil Gas ESL:	µg/m³	5.0E+05		

Environmental Screening Levels for Specific Concerns

TPH diesel



Scenario Assumptions:	Entered Site Concentrations:
Commercial or Industrial	Indoor Air ($\mu\text{g}/\text{m}^3$): NA
Shallow Soil (default)	Soil gas ($\mu\text{g}/\text{m}^3$): NA
Nondrinking Water Resource	Soil (mg/kg): 818
Fine-Coarse Mix (default)	Groundwater ($\mu\text{g}/\text{L}$): 21433

Legend:

- Purple - Human Health Risk
- Green - Ecological Risk
- Orange - Odor/Nuisance

¹ Direct exposure includes dermal contact, inhalation, and ingestion

² Ceiling Level is the lowest of the Nuisance Odor/Taste threshold (with an attenuation factor for soil gas), the soil saturation limit, 1/2 of the solubility, or 50,000 $\mu\text{g}/\text{L}$ for groundwater.



ESLs Detailed Report

Selected Chemical: TPH diesel

Selected Site Scenario	
Land Use:	Commercial or Industrial
Depth to Impacted Soil:	Shallow Soil (default)
Groundwater Use:	Nondrinking Water Resource
Drinking Water:	Risk-Based
Soil Type:	Fine-Coarse Mix (default)
Site Soil Concentration (mg/kg):	818.00
Site Soil Gas Concentration ($\mu\text{g}/\text{m}^3$):	NA
Site Groundwater Concentration ($\mu\text{g}/\text{L}$):	21,433.00
Site Indoor Air concentration ($\mu\text{g}/\text{m}^3$):	NA

Soil ESL Tables	Land Use	Depth to Impacted Soil	Selected?
Table A-1	Residential (default)	Shallow Soil (default)	NO
Table A-2	Commercial or Industrial	Shallow Soil (default)	NO
Table B-1	Residential (default)	Shallow Soil (default)	NO
Table B-2	Commercial or Industrial	Shallow Soil (default)	YES
Table C-1	Residential (default)	Deep Soil	NO
Table C-2	Commercial or Industrial	Deep Soil	NO
Table D-1	Residential (default)	Deep Soil	NO
Table D-2	Commercial or Industrial	Deep Soil	NO

*Default Shallow Soil $\leq 3\text{m}$ bgs, Deep Soil $> 3\text{m}$ bgs

Soil Screening Levels (mg/kg)	
Table Referenced:	Table B-2
Residential:	2.4E+02
Commercial or Industrial:	1.1E+03
Construction/Trench Worker	9.0E+02
Direct Exposure:	1.1E+03
Drinking Water Resource:	5.7E+02
Nondrinking Water Resource:	3.6E+03
Leaching:	3.6E+03
Residential:	No Value
Commercial or Industrial:	No value
Terrestrial Ecotoxicity:	No value
Residential Shallow Soil:	1.0E+02
Residential Deep Soil:	1.1E+02
Residential Action Level:	1.0E+02
Commercial/Industrial Shallow Soil:	1.1E+02
Commercial/Industrial Deep Soil:	1.1E+02
Commercial/Industrial Action Level:	1.1E+02
Ceiling Level:	1.1E+02
Final Soil ESL	1.1E+02

Indoor Air and Soil Gas Screening Levels ($\mu\text{g}/\text{m}^3$)	
Indoor Air Table Referenced:	Table E-3
Residential:	1.4E+02
Commercial or Industrial:	5.7E+02
Odor Threshold:	1.0E+03
Final Indoor Air:	5.7E+02
Soil Gas Table Referenced:	Table E-2
Residential:	6.8E+04
Commercial or Industrial:	5.7E+05
Odor Threshold:	5.0E+05
Final Soil Gas:	5.0E+05
Soil to Indoor Air:	
Residential/ Commercial/ Industrial (mg/kg):	Sample soil gas

Drinking Water Screening Levels ($\mu\text{g}/\text{L}$)	
Table Referenced:	Table F-3
Drinking water (MCL-priority)	1.0E+02
Drinking water (risk-based)	1.0E+02
Drinking Water ESL:	1.0E+02
Estuary Aquatic Ecotoxicity ESL:	6.4E+02
Groundwater to Indoor Air Screening Levels	
Table Referenced:	Table E-1
Residential (fine - coarse):	No Value
Residential (all sand):	No Value
Commercial or Industrial (fine - coarse):	No Value
Commercial or Industrial (all sand):	No Value
Groundwater to Indoor Air ESL:	No Value
Groundwater Ceiling Value Screening Levels	
Tables Referenced:	Table F-1a and Table F-1b
Drinking Water Ceiling Value:	1.0E+02
Nondrinking Water Ceiling Value:	2.5E+03
Ceiling Value:	2.5E+03
Final Groundwater ESL:	6.4E+02