



PORT OF OAKLAND

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By Alameda County Environmental Health at 2:58 pm, Apr 11, 2014

April 4, 2014

Mr. Keith Nowell
Hazardous Materials Specialist
Alameda County Environmental Health Department
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Subject: Low-Threat Closure Request
RO0000101
Kaiser Yard UST, Berth 30
2801 Seventh Street
Port of Oakland
Oakland, California

Dear Mr. Nowell:

ARCADIS U.S., Inc. (ARCADIS) has prepared this Low-Threat Closure Request on the behalf of the Port of Oakland (Port) regarding an underground storage tank (UST) site. The UST site is in the former Kaiser Steel Yard, which today is part of the Port's Berth 30-32 container terminals. The Kaiser UST Site contained one UST, which was identified as located at 2801 7th Street, Oakland, California. The documents that accompany this letter includes the signatory page of the responsible professional geologist and the March 27, 2014 Low-Threat Closure Request.

I declare, to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached document are true and correct.

If you have any questions or comments regarding the content of this report, please contact me at 510.627.1373 or by e-mail at jprall@portoakland.com.

Sincerely,

John Prall, PG
Port Associate Environmental Scientist
Environmental Programs & Planning Division

Enclosures noted in text

CC: William Semel, ARCADIS
Anne Whittington, Port of Oakland
Michele Heffes, Port of Oakland
Jeff Rubin, Port of Oakland



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Hazardous Materials Specialist
Alameda County Environmental Health Department
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1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Subject:

Low-Threat Closure Request

Kaiser Yard UST, Berth 30
Port of Oakland
2801 7th Street
Oakland, California

Dear Mr. Nowell:

ARCADIS U.S., Inc. (ARCADIS) has prepared this Low-Threat Closure Request (LTC Request) for the Port of Oakland's (the Port's) Kaiser Yard UST, Berth 30 site (Kaiser Yard), located at 2801 7th street in Oakland, California. At Kaiser Yard, a total of four underground storage tanks (USTs) have been removed from the Site during two separate events (three USTs removed in April 1992 and one UST removed in July 1992). This LTC Request is for the one UST removed in July 1992 (the "Site"; Attachment 1). This LTC Request was prepared in response to the State Water Resources Control Board's (SWRCB's) resolution 2012-0016 adopted on May 1, 2012, and effective on August 17, 2012, known as the Low-Threat Underground Storage Tank Case Closure Policy (Low-Threat Closure Policy; SWRCB 2012).

The purpose of this LTC Request is to present an evaluation of Site-specific conditions to support that the concentrations of residual Site-related constituents in environmental media are not expected to pose adverse health effects to potential current and future receptors. The SWRCB Low-Threat Closure Policy Checklist is included as Attachment 2. This letter presents the evaluation of site conditions against the LTC Policy criteria. Based on this evaluation, the Site qualifies for Low-Threat Closure.

Brief Site History

Berths 30/32 (of which the Site is a part) historically operated as the Albers Brothers Milling Company, Nestle USA, Inc. (grain milling and storage), Powerine Oil Co.

Imagine the result

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ENVIRONMENT

Date:

April 8, 2014

Contact:

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Our ref:

04656020.LTCP

(gasoline storage and distribution), and Kaiser Steel Corporation (“Kaiser”) (steel fabrication yard). During redevelopment of the three sites, now Berths 30/32 in July 1992, an unidentified underground storage tank (UST) was discovered during construction activities in the former Kaiser Steel Corporation yard. This UST was a 2,500-gallon steel tank.

When the UST was discovered, no piping was connected to the UST and it contained approximately 400 gallons of liquid which appeared to be water. The UST was reportedly not in use at the time of its discovery and the UST’s installation and operation record were not available. However, based on a map of the Site from 1940, a UST containing distillates appeared to be located in the vicinity of the unidentified UST (Geomatrix 1992).

While the aerial and vertical extent of the UST excavation was not documented, approximations were made based on soil sample depths and dimensions of the UST. The top of the UST was approximately 1.5 feet below ground surface (bgs) and the UST was 5 feet in diameter and 16.5 feet in length. Therefore, the UST bottom was located approximately 6.5 feet bgs. Soil samples were collected from approximately 2 feet below the bottom of the UST, at approximately 8.5 feet bgs. Therefore, the UST excavation appears to be at least approximately 16.5 feet long, 5 feet wide, and 8.5 feet deep (Geomatrix 1992).

During UST removal activities, groundwater was not encountered. Several holes were observed in the UST, including one-inch-diameter holes on the side and end of the UST. Visual and olfactory observations of the soils surrounding the UST did not indicate the presence of petroleum hydrocarbons, nor did the use of a field photoionization detector (PID) detect the presence of any volatile petroleum hydrocarbon constituents (Geomatrix 1992).

On August 7, 1992, a sample of the fluid found inside the UST (UST-1) was collected and analyzed for total petroleum hydrocarbons (TPH) as diesel (TPH-d), TPH as gasoline (TPH-g), and benzene, toluene, ethylbenzene, and total xylenes (BTEX, collectively). These constituents of concern (COCs) were not detected above their laboratory reporting limit (LRL) in the sample collected from the fluid inside the UST. On August 13, 1992, approximately 400 gallons of fluid were pumped from the tank and transported off-Site for recycling (Geomatrix 1992).

After the UST was excavated, two soil samples were collected from native sediments in the floor of the excavation at the west end (EX-1) and east end (EX-2) of the excavation pit. The soil samples were collected at approximately 8.5 feet bgs (approximately 2 feet below the UST) and analyzed for TPH-d, TPH-g, oils and

grease, BTEX, and total lead. Oils and grease (O&G) were detected in one soil sample collected (EX-2) at a concentration of 90 milligrams per kilogram (mg/kg). All other COCs were not detected above their laboratory reporting limit (Geomatrix 1992).

Soil sample EX-1 was also analyzed for halogenated volatile organic compounds, PCBs, semivolatile organic compounds, and metals. Concentrations of metals were within the typical range of background concentrations, with the exception of zinc (460 mg/kg), which was slightly higher than the typical background concentration for soil (120-400 mg/kg; Geomatrix 1992). All other additional COCs analyzed in the soil sample collected from EX-1 were not detected above their LRLs (Geomatrix 1992). There was no documentation of sampling from stockpiled soil, if it was used as backfill, or if it was transported off-Site for disposal.

A summary of the historical soil and water analytical results are shown in Tables 1 and 2, respectively. The approximate location of the UST and historical sampling locations are presented in Attachment 1.

Assessment of Site Conditions Relative to Low-Threat Closure Policy Criteria

The Low-Threat Closure Policy outlines eight General Criteria to assess whether sites are candidates for low-threat case closure, and three categories of Media-Specific Criteria (groundwater, petroleum vapor intrusion to indoor air, and direct contact and outdoor air exposure) that also must be met. Here, current Site conditions are evaluated against the corresponding General and Media-Specific Criteria. Based on this evaluation, ARCADIS concludes that the Site meets the requirements for Low-Threat Closure.

Evaluation of Low-Threat Closure General Criteria

Criteria a - The unauthorized release is located within the service area of a public water system

The Site is located within the service area of the East Bay Municipal Utility District (EBMUD) public water system. Ninety percent of water within the EBMUD public water system, which includes drinking water at the site, is supplied by the Mokelumne Watershed. Local runoff stored in reservoirs supplements that supply, and water from the Sacramento River is available when needed during dry years (EBMUD 2011).

Criteria b - The unauthorized release consists only of petroleum

Based on laboratory results of the liquid in the UST and the soil collected from beneath the UST, it does not appear a release of petroleum has occurred. While oil and grease was detected in soil sample EX-2 from the excavation pit at a concentration of 90 mg/kg, the concentration detected is not indicative of an unauthorized release. In addition, oil and grease is not an indicator compound in the LTC Policy.

Criteria c - The unauthorized release has been stopped

If there was an unauthorized release of petroleum hydrocarbons at the Site associated with the UST, it stopped when the UST was removed in August 1992 (Geomatrix 1992).

Criteria d - Free product has been removed to the maximum extent practicable

Free product or groundwater was not observed during the excavation of the UST at the Site.

Criteria e - A conceptual site model that assesses the nature, extent, and mobility of the release has been developed

A brief Conceptual Site Model has been completed for the Site below.

Limited geological information is available at the Site; however, a geotechnical investigation of Berth 30 (of which the Site is a part) was conducted in 1990, 1992 and 2006 (Woodward-Clyde Consultants 1990; Kaldveer Associates Geoscience Consultants 1992; Fugro West, Inc. 2006). A review of the boring logs from the Berth 30 geotechnical investigations showed poorly-graded sands, gravels, and fill from the ground surface to approximately five feet bgs. Below five feet bgs to the maximum depth of the investigations (approximately 84.5 feet bgs) the lithology generally consists of interbedded sands and clays. Clays in one boring (WCC-4A) were identified as Bay Mud and occurred interbedded with silty sand from 18 to 35 feet bgs. At the Site during UST removal activities, field personnel observed a brown, medium-grained sand containing shells in the excavation area (Geomatrix 1992).

The Site consists of one UST which may have contained distillates and was removed in August 1992. Based on the non-detect concentrations of COCs in the soil samples collected at the floor of the excavation, the lateral and vertical extent of soil contamination is fully delineated. The fluid within the UST did not contain concentrations of COCs above the LRL and there were no impacts suggesting that

groundwater was affected. Therefore, groundwater at the Site does not appear to be impacted.

A review of potential receptors at the Site was conducted based on the Site's location and current and expected land use. The Site is paved with asphalt and located within the yard of an active marine container terminal. Therefore, reasonably anticipated current and future receptors include on- and off-Site commercial workers. In addition, should utility work or redevelopment occur at the Site, on- and off-Site construction and utility workers could be potential receptors.

An analysis of exposure pathways was also conducted for the Site. COCs may be retained in site soils, or become subject to transport mechanisms, such as wind erosion and transport, volatilization into indoor air of current or future buildings or outdoor air, percolation to groundwater, migration in groundwater and biodegradation/attenuation in subsurface soil and/or groundwater.

Given that the Site is completely paved, inhalation of COCs from dust produced by wind is not considered a complete exposure pathway for any of the receptors identified above. In addition to the lack of buildings present on- and off-Site (nearest building located approximately 600 feet northwest of the Site), the vapor intrusion exposure pathway is considered to be incomplete for all receptors.

Commercial workers will not encounter groundwater or soil at the Site because the Site is paved. In addition, commercial workers will not ingest groundwater at the Site due to drinking water supply being provided by EBMUD (see General Criteria A above).

Construction/Utility workers may encounter surface and subsurface soil during redevelopment or utility work at the Site; however, this exposure pathway is considered to be insignificant as the historical concentrations of benzene and ethylbenzene in soil are below the No Significant Risk Values (NSRVs) for utility and construction workers (see Table A below). Therefore, the incidental ingestion or inhalation of surface and subsurface soils is deemed to be insignificant for current and future, on- and off-Site construction and utility workers.

Finally, construction/utility workers may also encounter groundwater during work. However, as stated above, groundwater does not appear to be impacted. Therefore, dermal contact and incidental ingestion of groundwater for construction/utility workers is determined to be complete, but insignificant.

Given the current and past land use at the Site and surrounding areas, it is unlikely that water supply wells are located with 1,000 feet from the Site. The nearest surface water bodies are the Oakland Middle Harbor, located approximately 800 feet west-southwest of the Site, and the Oakland Outer Harbor, located approximately 1,100 feet north-northwest of the Site. Since groundwater does not appear to be affected impacts to the Oakland Outer Harbor are not anticipated.

A summary of the potential receptors and exposure pathways are presented in Figure 1.

Criteria f - Secondary source has been removed to the extent practicable

The soil samples collected from the excavation floor were non-detect for COCs analyzed. While there is no documentation of whether the excavated soil was re-used as fill at the Site, the non-detect concentrations in the soil samples and UST fluid collected indicate that a secondary source was not present at the Site. Therefore, the lack of documentation on the excavated soil does not constitute a data gap regarding removal of a secondary source.

Criteria g - Soil and groundwater have been tested for methyl tert-butyl ether (MTBE) and results reported in accordance with Health and Safety Code section 25296.15

Soil and groundwater samples collected at the Site were not analyzed for MTBE. While the historical operations of the UST are unknown, it was likely installed before 1940 (Geomatrix 1992), Because no piping was connected when it was discovered in 1992 it is unlikely it was in-use for some time prior to that and therefore it is assumed to be active prior to 1989.

Prior to around 1989, MTBE was used primarily as an octane booster in a small percentage of the gasoline pool, usually in newly introduced premium unleaded blends. To achieve an increase in octane and a reduction in engine knocking, MTBE was added to gasoline in small quantities (up to 2%; Stout et al. 2006). After circa 1988, MTBE was added to gasoline at higher quantities (up to 15%), per a mandate by the United States Environmental Protection Agency (USEPA), to reduce smog in many major metropolitan areas across the United States. Thus MTBE is not anticipated to have been a significant component of the contents that were stored in the UST. Additionally, non-detect concentrations of benzene in the soil and water sample collected suggest that MTBE are not likely to be present at all. Therefore, the absence of MTBE analytical data for the soil and water samples collected does not constitute a data gap.

Criteria h - Nuisance as defined by Water Code section 13050 does not exist at the site

Nuisance does not exist at the Site. Site conditions and the treatment and disposal of site wastes are not injurious to health, indecent or offensive to the senses, do not obstruct free use of property or interfere with the comfortable enjoyment of life or property. Site conditions and the treatment and disposal of Site wastes do not affect an entire community or neighborhood or any considerable number of persons. Site impacts are restricted to the subsurface, and are present in a limited area that does not adversely affect the community at large.

Evaluation of Low-Threat Closure (LTC) Media Specific Criteria

1. Groundwater

Given that the residual fluid found in the UST did not have concentrations of COCs detected above the LRL, groundwater is not likely to be impacted. Therefore, this Site is considered to not have affected groundwater (a soils only case) and is not subject to the requirements stated in the Groundwater Specific Criteria outline in the Low-Threat Closure Policy (SWRCB 2012).

2. Petroleum Vapor Intrusion to Indoor Air

As described in the Low-Threat Closure Policy, satisfaction of the Vapor Intrusion Media-Specific Criteria (RWQCB 2012a) is not required for sites with: 1) no existing buildings currently occupied or that may be occupied in the future and 2) no buildings for human occupancy expected to be constructed in the future above the plume. The Site is currently a shipping container storage area, with non-occupancy structures present. In phone conversations between Mr. John Prall of the Port and Mr. William Semel of ARCADIS on October 7, 2013, Mr. Prall stated that there are no plans to redevelop the Site in the future (see General Criteria E). Therefore, because no buildings are present or proposed to be present at the Site, vapor intrusion to indoor air is not considered an exposure pathway and the Site is not subject to the requirements stated in this Media-Specific Criterion.

3. Direct Contact and Outdoor Air Exposure

As described in the Low-Threat Closure Policy, sites will meet the Media-Specific Criteria for direct contact with contaminated soil or inhalation of contaminants volatilized to outdoor air if:

- 1) The maximum concentrations of COCs in soil are less than or equal to those listed in Table 1 of the Low-Threat Closure Policy.
- 2) A site-specific risk assessment shows that COCs present in soil will not adversely affect human health.
- 3) Exposure to COCs is mitigated through engineering controls.

The Site meets the first criteria as summarized below:

Benzene and ethylbenzene concentrations were evaluated using concentrations for commercial/industrial exposure because the Site is not anticipated to be re-developed for residential use (Table 1, SWRCB 2012). No waste-oil USTs were on-Site; therefore, analysis of polycyclic aromatic hydrocarbons (PAHs) is not required. Given the low concentrations of benzene, it is assumed that naphthalene concentrations would likely also be low. Therefore, the lack of naphthalene data does not constitute a data gap.

Table A. Comparison of maximum concentrations of benzene and ethylbenzene in soil against the No Significant Risk Values

Chemical	Commercial/Industrial				Utility Worker	
	0 to 5 feet bgs mg/kg		Volatilization to outdoor air (5 to 10 feet bgs) mg/kg		0 to 10 feet bgs mg/kg	
	LTC Policy Table 1	Site Maximum	LTC Policy Table 1	Site Maximum	LTC Policy Table 1	Site Maximum
Benzene	8.2	NS	12	<0.005	14	<0.005
Ethylbenzene	89	NS	134	<0.005	314	<0.005

NS = Not sampled.

As shown in Table A above, the maximum concentrations of benzene and ethylbenzene are below the Low-Threat Closure Policy Table 1 NSRVs for Commercial/Industrial direct contact and volatilization to outdoor air pathways and the Utility Worker direct contact pathway in soil samples collected from 5 to 10 feet bgs. Therefore, benzene and ethylbenzene are below the NSRVs (Table 1; SWRCB 2012).

It should be noted that soil samples were not collected from ground surface to 5 feet bgs during UST excavation activities. However, during excavation activities, visual and olfactory observations of the soils surrounding the UST did not indicate the presence of petroleum hydrocarbons, nor did the use of a field PID detect the presence of any volatile petroleum hydrocarbon constituents. In addition, given that the fluid inside the UST was non-detect for COCs, the contents of the UST do not

appear to have impacted surface and/or subsurface soils. Furthermore, the exposure pathway for the ingestion and dermal contact with surface soils was determined to be incomplete for future on- and off-Site commercial workers. And, since redevelopment of the Site is unlikely in the foreseeable future, the exposure pathways for utility/construction workers are also considered to be incomplete. Therefore, the lack of soil analytical data from 0 to 5 feet bgs does not constitute a data gap.

Conclusions and Recommendations

Site conditions meet all the general and media-specific criteria established in the Low-Threat Closure Policy, and therefore, pose a low threat to human health, safety, and the environment, satisfy the case-closure requirements of Health and Safety Code Section 25296.10, and case closure is consistent with Resolution 92-49. Based on the results of this evaluation, Low-Threat Closure is recommended for this Site.

If you have any questions or comments regarding the contents of this document, please contact Katherine Brandt of ARCADIS at 510.596.9675 or by e-mail at Katherine.Brandt@arcadis-us.com.

Sincerely,
 ARCADIS U.S., Inc.

Katherine Brandt

Katherine Brandt, P.G.
 Project Geologist



William Semel

William Semel
 Staff Environmental Engineer

Copies:

- Mr. John Prall
- Mr. Jeff Rubin
- GeoTracker

Figures:

- Figure 1 Conceptual Site Model – Human Exposure Pathways

Tables:

- Table 1 Historical Soil Analytical Results
- Table 2 Historical Groundwater Analytical Results

Attachments:

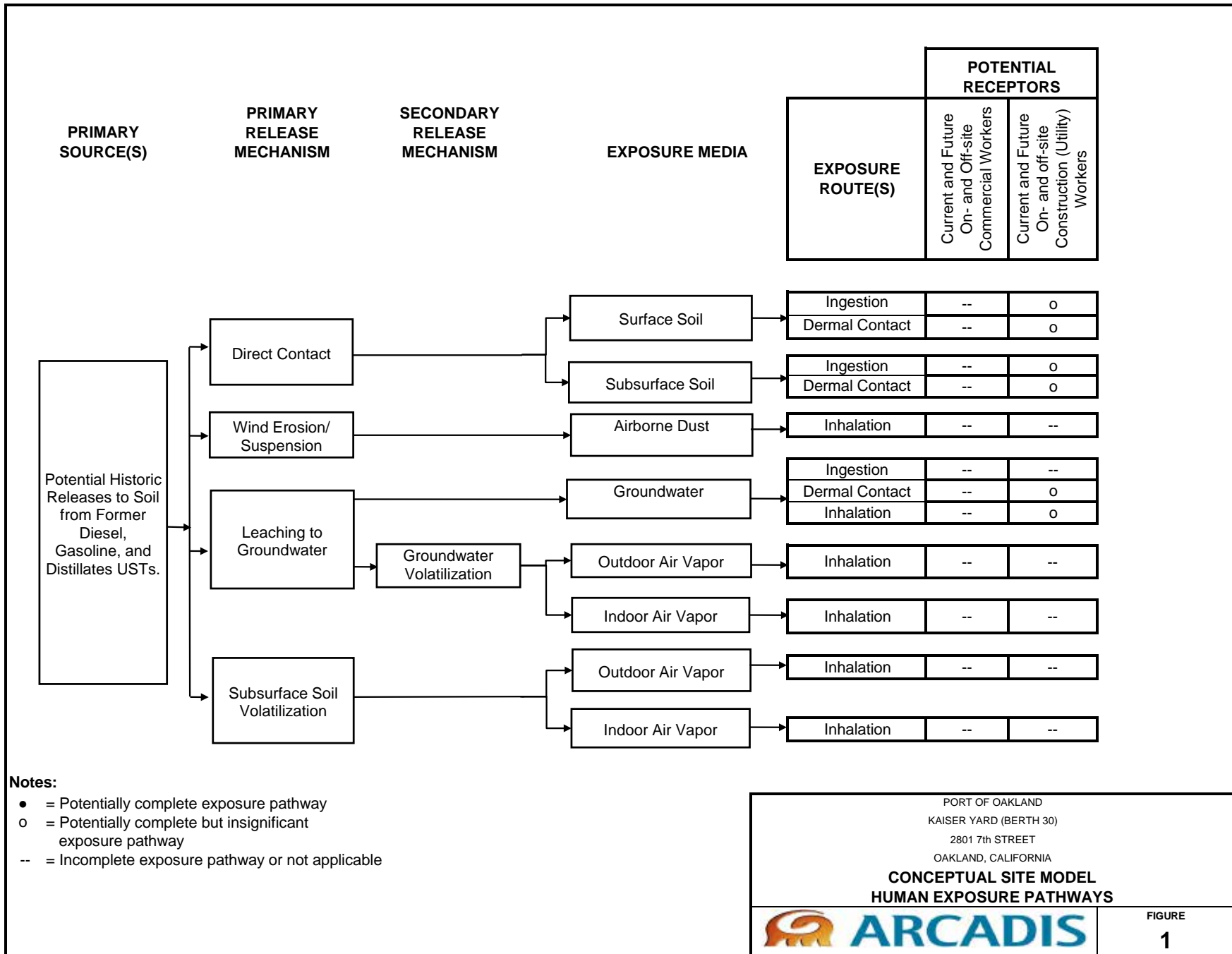
- Attachment 1 Historical Soil Sampling Locations and Site Maps
- Attachment 2 State Water Resource Control Board LTC Policy Checklist

References:

- Arthur D. Little Limited. 2001. MTBE and the Requirements for Underground Storage Tank Construction and Operation in Member States: A Report to the European Commission. April 19.
- California Regional Water Quality Control Board, San Francisco Region. 2013. Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater. Volume 2: Background Documentation for the Development of Tier 1 Environmental Screening Levels. Interim Final. May. Online at <http://www.swrcb.ca.gov/sanfranciscobay/esl.shtml>.
- East Bay Municipal Utility District 2011. All About EBMUD, PUB. 132 (Rev 4/11 RP 4/11) 2M.2011.
- Fugro West, Inc. 2006. Geotechnical Study, Berth 30 Yard Reconstruction, Port of Oakland, California. Fugro Project No. 1698.004. October.
- Geomatrix. 1992. Underground Storage Tank Closure Report, Kaiser Yard, 8201 Seventh Street, Oakland, California. October 29.
- Kaldveer Associates Geoscience Consultants. 1992. Geotechnical Investigation for Berth 30 Terminal Improvements, Oakland, California. Project No. K431-108-996. January.
- Regional Water Quality Control Board (RWQCB). 2012a. Technical Justification for Vapor Intrusion Media-Specific Criteria. March 21.
- RWQCB. 2012b. Technical Justification for Groundwater Media-Specific Criteria. April 24.
- State Water Resources Control Board. 2012. Low-Threat Underground Storage Tank Case Closure Policy, Adopted May 1, 2012, Effective August 17, 2012.
- Stout, S., G. Douglad, and A. Uhler. 2006. Automotive Gasoline. In: Environmental Forensics Contaminant Specific Guide, R. Morrison and B Murphy eds., Elsevier, Amsterdam.
- Woodward-Clyde Consultants. 1990. Geotechnical Engineering Study, 7th Street Realignment and Carnation Terminal Yard, Port of Oakland, California. Project No. 90C0023A. October.

ARCADIS

Figures



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Tables

Table 1 - Historical Soil Analytical Results
 Port of Oakland
 Kaiser Yard UST, Berth 30
 2801 7th Street, Oakland, California

Sample ID	Sample Date	Location of Sample	Sample Depth (feet bgs)	TPH-d (mg/kg)	TPH-g (mg/kg)	Oils and Grease (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total Lead (mg/kg)
EX-1	7/15/1992	Excavation Floor	8.5	<0.1	<0.3	<50	<0.005	<0.005	<0.005	<0.005	5
EX-2		Excavation Floor	8.5	<20	<2	90	< 0.005	<0.007	< 0.005	<0.02	--

Notes:

bgs - below ground surface

mg/kg - milligrams per kilogram

TPH-d - Total petroleum hydrocarbons as diesel

TPH-g - Total petroleum hydrocarbons as gasoline

Bold - value exceeds laboratory reporting limit

< - Not detected at the indicated laboratory reporting limit

-- = Not analyzed/Not applicable

Table 2 - Historical Groundwater Analytical Results

Port of Oakland
Kaiser Yard UST, Berth 30
2801 7th Street, Oakland, California

Sample ID	Sample Date	Location of Sample	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
UST-1	7/7/1992	Liquid found in UST	<50	<0.4	<0.3	<0.3	<0.8

Notes:

µg/L - micrograms per liter

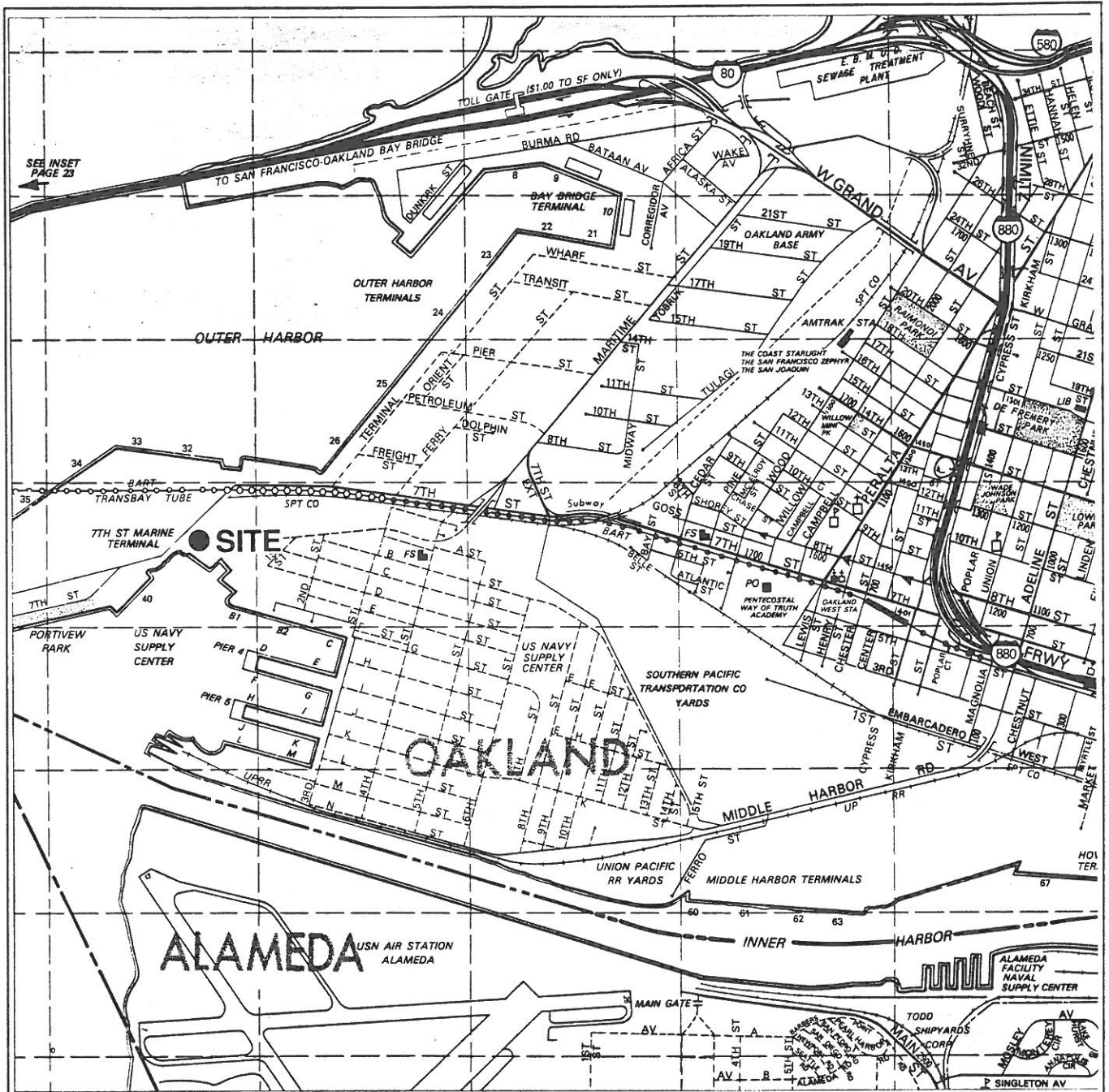
TPH-g - Total petroleum hydrocarbons as gasoline

UST - underground storage tank

< - Not detected at or above the concentration identified

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Attachment 1
Historical Soil Sampling Locations
and Site Maps



SEE INSET
PAGE 23



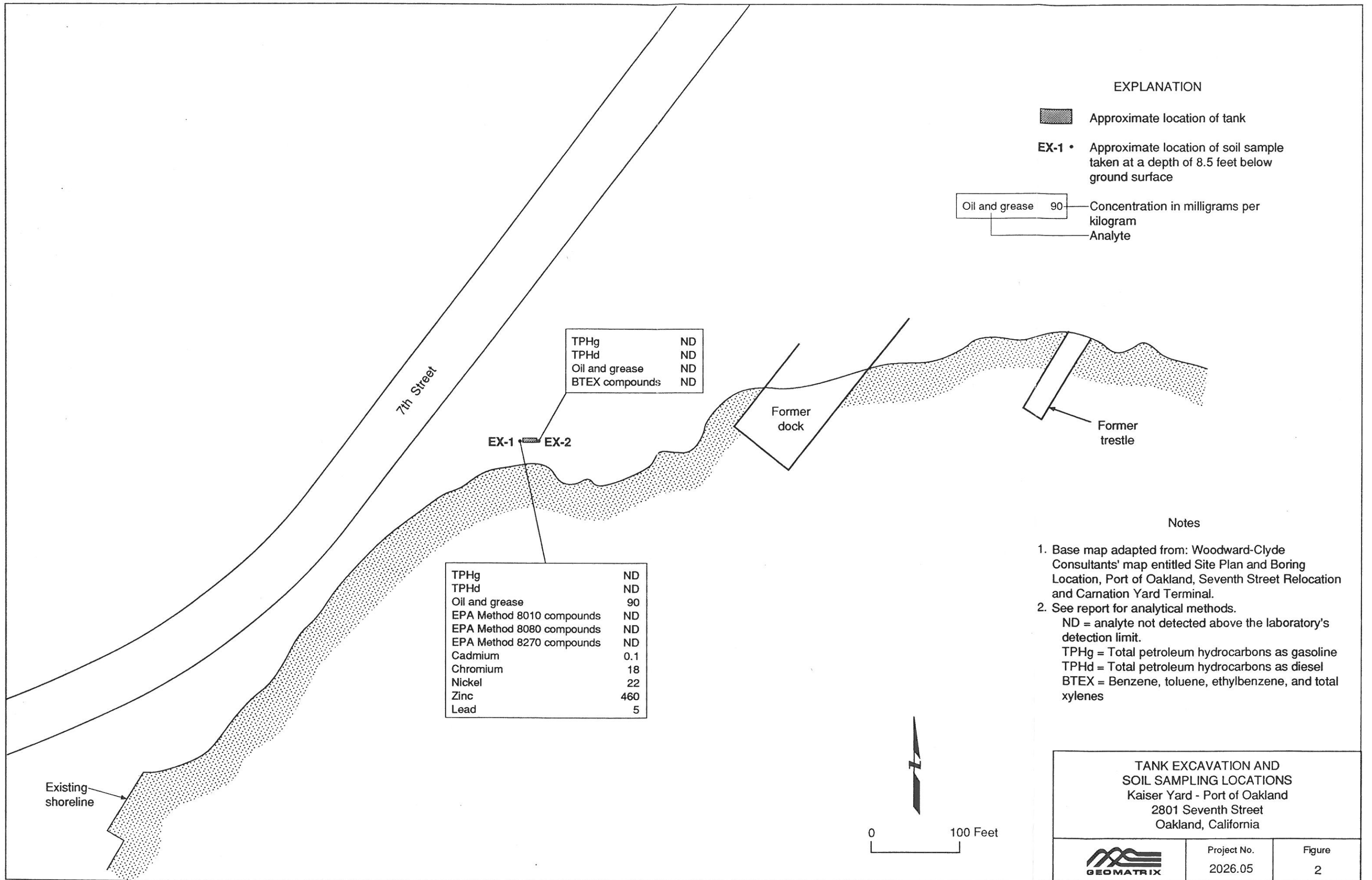
SITE LOCATION MAP
Kaiser Yard - Port of Oakland
2801 Seventh Street
Oakland, California

Figure


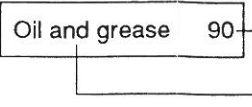
1

Project No.

2026.05



EXPLANATION

-  Approximate location of tank
- EX-1** • Approximate location of soil sample taken at a depth of 8.5 feet below ground surface
-  Concentration in milligrams per kilogram
Analyte

TPHg	ND
TPHd	ND
Oil and grease	ND
BTEX compounds	ND

TPHg	ND
TPHd	ND
Oil and grease	90
EPA Method 8010 compounds	ND
EPA Method 8080 compounds	ND
EPA Method 8270 compounds	ND
Cadmium	0.1
Chromium	18
Nickel	22
Zinc	460
Lead	5

Notes

1. Base map adapted from: Woodward-Clyde Consultants' map entitled Site Plan and Boring Location, Port of Oakland, Seventh Street Relocation and Carnation Yard Terminal.
2. See report for analytical methods.
 ND = analyte not detected above the laboratory's detection limit.
 TPHg = Total petroleum hydrocarbons as gasoline
 TPHd = Total petroleum hydrocarbons as diesel
 BTEX = Benzene, toluene, ethylbenzene, and total xylenes

TANK EXCAVATION AND SOIL SAMPLING LOCATIONS Kaiser Yard - Port of Oakland 2801 Seventh Street Oakland, California		
	Project No. 2026.05	Figure 2

ARCADIS

Attachment 2
State Water Resources Control
Board LTC Policy Checklist

Site Name:
 Site Address:

Site meets the criteria of the Low-Threat Underground Storage Tank (UST) Case Closure Policy as described below.¹

<p><u>General Criteria</u> General criteria that must be satisfied by all candidate sites:</p> <p>Is the unauthorized release located within the service area of a public water system?</p> <p>Does the unauthorized release consist only of petroleum?</p> <p>Has the unauthorized (“primary”) release from the UST system been stopped?</p> <p>Has free product been removed to the maximum extent practicable?</p> <p>Has a conceptual site model that assesses the nature, extent, and mobility of the release been developed?</p> <p>Has secondary source been removed to the extent practicable?</p> <p>Has soil or groundwater been tested for MTBE and results reported in accordance with Health and Safety Code Section 25296.15?</p> <p>Does nuisance as defined by Water Code section 13050 exist at the site?</p> <p>Are there unique site attributes or site-specific conditions that demonstrably increase the risk associated with residual petroleum constituents?</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p><u>Media-Specific Criteria</u> Candidate sites must satisfy all three of these media-specific criteria:</p> <p>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:</p> <p>Is the contaminant plume that exceeds water quality objectives stable or decreasing in areal extent?</p> <p>Does the contaminant plume that exceeds water quality objectives meet all of the additional characteristics of one of the five classes of sites?</p> <p>If YES, check applicable class: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p>

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

Site Name:
 Site Address:

<p>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?</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p>
<p>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.</p> <p>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.</p> <p>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: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4</p> <p>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?</p> <p>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?</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p>
<p>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).</p> <p>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)?</p> <p>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?</p> <p>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?</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p>