ExxonMobil
Environmental Services Company
4096 Piedmont Avenue #194
Oakland, California 94611
510 547 8196 Telephone
510 547 8706 Facsimile

Jennifer C. Sedlachek
Project Manager

RECEIVED
By Alameda County Environmental Health at 2:56 pm, Sep 09, 2013

ExxonMobil

August 27, 2013

Ms. Barbara Jakub
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502-6577

Re: Former Mobil RAS #04FGN/14994 East 14th Street/San Leandro, California

Dear Ms. Jakub:

Attached for your review and comment is a copy of the letter report entitled ***Response to Comments,*** dated August 27, 2013, for the above-referenced site. The report was prepared by Cardno ERI of Petaluma, California, and responds to comments regarding activities at the subject site.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

If you have any questions or comments, please contact me at 510.547.8196.

Sincerely,

Jennifer C. Sedlachek
Project Manager

Attachment: Cardno ERI's ***Response to Comments,*** dated August 27, 2013

cc:

w/ attachment
Mr. George Lockwood, Alameda County Health Care Services Agency, Department of Environmental Health

w/o attachment
Ms. Rebekah A. Westrup, Cardno ERI

Cardno ERI
License A/C10/C36-611383

601 North McDowell Blvd.
Petaluma, CA 94954

Phone +1 707 766 2000
Fax +1 707 789 0414
www.cardno.com

www.cardnoeri.com

August 27, 2013
Cardno ERI 2785C.R02

Ms. Jennifer C. Sedlachek
ExxonMobil Environmental Services Company
4096 Piedmont Avenue #194
Oakland, California 94611

SUBJECT **Response To Comments**
Former Mobil Service Station 04FGN
14994 East 14th Street, San Leandro, California

Alameda County RO# 0000422

Ms. Sedlachek:

At the request of ExxonMobil Environmental Services (EMES), on behalf of ExxonMobil Oil Corporation, Cardno ERI prepared this response to comments for the subject site (Plate 1). The purpose of the response is to address the request for a data gap work plan with focused site conceptual model (Work Plan) in the Alameda County Environmental Health Services, Environmental Protection (ACEH), correspondence dated August 2, 2013 (Appendix A). The ACEH request was in response to Cardno ERI's *Soil Vapor Sampling and Evaluation of Low-Threat Closure Criteria*, dated November 5, 2012 (Cardno ERI, 2012), which concluded that the site adequately meets the criteria for closure according to the *Low-Threat Underground Storage Tank Case Closure Policy* (Low-Threat Policy) adopted by the State Water Resources Control Board (State Water Board) (SWRCB, 2012).

SITE DESCRIPTION

Former Mobil Service Station 04FGN is located at 14994 East 14th Street, on the northern corner of the intersection of East 14th Street and 150th Avenue in San Leandro, California (Plates 1 and 2). The surrounding

areas consist of commercial properties. The site is currently in use as a retail shopping center. Well construction details and groundwater monitoring and sampling data are presented in Appendix B. Soil vapor and soil analytical results are summarized in Tables 1A and 1B and 2, respectively. Well and boring locations are shown on Plate 2.

RESPONSE

The ACEH correspondence requested that a work plan be submitted by October 2, 2013, and disagrees with the conclusions that the site meets the criteria in the Low-Threat Policy (SWRCB, 2012). ACEH's comments are summarized in bold face type followed by a response.

ACEH notes that the requisite characteristics of the bioattenuation zone have not been met.

The criteria for the existence of the defined bioattenuation zone may not be explicitly met; however, the site appears to meet the criteria for no bioattenuation zone. The current (April 2012) soil vapor concentrations meets the criteria for commercial and residential land use and all of the samples meet the commercial criteria. The criteria and applicable data are summarized in the following table.

Constituent	Residential ($\mu g/m^3$)	Commercial ($\mu g/m^3$)	Maximum Reported Concentration ($\mu g/m^3$) [date]	Maximum Current Reported Concentration ($\mu g/m^3$) [date]
Benzene	<85	<280	120 [11/26/2010]	<32 [4/4/2012]
Ethylbenzene	<1,100	<3,600	140 [11/26/2010]	<44 [4/4/2012]
Naphthalene	<93	<310	<53 [4/12/2012]	<53 [4/12/2012]

Naphthalene was analyzed using TO-15.

The naphthalene samples were analyzed using EPA Method TO-15. The current regulatory guidance (DTSC, 2012) does mention that there are challenges associated with naphthalene analysis using EPA Method TO-15. The guidance also states that, "Many stationary laboratories are capable of obtaining naphthalene of acceptable quality using TO-15." Cardno ERI does not disagree that there are challenges associated with analyzing naphthalene by EPA Method TO-15; however, Cardno ERI does not agree that the case should be kept open based on the use of EPA Method TO-15.

Soil gas samples have been collected in a limited area. Therefore, any change in the footprint of the building or any utility work would trigger additional assessment.

Cardno ERI agrees that the site should be re-evaluated if the land use were to change in the future. Cardno ERI is currently unaware of plans to redevelop the site and does not see potential future development as a justifiable reason for keeping the case open. The existing five soil vapor sampling wells (Plate 2) are distributed around the existing building and near the former USTs and dispenser islands and appear to be reasonably positioned for the current land use.

Specifically, the concentration of ethylbenzene at 6.5 feet bgs exceeds the residential exposure level of 32 mg/kg and shallow soil has not been fully evaluated.

Cardno ERI agrees that the sample collected at 6.5 feet bgs from boring B-4 in 1994 had an ethylbenzene concentration (57 mg/kg) which exceeds the Low-Threat criteria for residential land use for soil between 0 and 5 feet bgs. Based on the location of the site, it appears unlikely that the site will be used for residential land use in the foreseeable future. In Cardno ERI's opinion, the commercial criteria are applicable to the site. According to the City of San Leandro's zoning code, the site is located in the zone referred to as South Area 3 which is, "To provide opportunities for larger commercial and office developments, and to promote additional commercial opportunities that would exhibit quality design" (City of San Leandro, 2001). A copy of the zoning map is included in Appendix C.

CONCLUSIONS

The State Water Board resolution 2012-0062 (Appendix C) states that the State Water Board will, "Review a regulatory agency's decision when the regulatory agency has denied a request by a responsible party for case closure pursuant to the Low-Threat Closure Policy, and propose case closure, as appropriate, within six months of the update to GeoTracker indicating closure denial."

Cardno ERI believes that the site meets the criteria established in the Low-Threat Policy and that the requested work plan should not be due prior to the State Water Board reviewing the case for closure and agreeing that the site does not meet the closure criteria in the Low-Threat Policy.

CONTACT INFORMATION

The responsible party contact is Ms. Jennifer C. Sedlachek, ExxonMobil Environmental Services Company, 4096 Piedmont Avenue #194, Oakland, California, 94611. The consultant contact is Ms. Rebekah A. Westrup, Cardno ERI, 601 North McDowell Boulevard, Petaluma, California, 94954. The agency contact is Ms. Barbara Jakub, P.G., Alameda County Health Care Services Agency, Department of Environmental Health, 1131 Harbor Bay Parkway, Room 250, Alameda, California, 94502-6577.

LIMITATIONS

For documents cited that were not generated by Cardno ERI, the data taken from those documents is used "as is" and is assumed to be accurate. Cardno ERI does not guarantee the accuracy of this data and makes no warranties for the referenced work performed nor the inferences or conclusions stated in these documents.

This document and the work performed have been undertaken in good faith, with due diligence and with the expertise, experience, capability, and specialized knowledge necessary to perform the work in a good and workmanlike manner and within all accepted standards pertaining to providers of environmental services in California at the time of investigation. No soil engineering or geotechnical references are implied or should be inferred. The evaluation of the geologic conditions at the site for this investigation is made from a limited number of data points. Subsurface conditions may vary away from these data points.

Please contact Ms. Rebekah A. Westrup, Cardno ERI's project manager for this site, at rebekah.westrup@cardno.com or at (707) 766-2000 with any questions regarding this report.

Sincerely,

SCANNED IMAGE

Rebekah A. Westrup
Project Manager
for Cardno ERI
707 766 2000
Email: rebekah.westrup@cardno.com

SCANNED IMAGE

PROFESSIONAL GEOLOGIST
DAVID RICHARD DANIELS
No. 8737
EXP. 7/31/15
STATE OF CALIFORNIA

David R. Daniels
P.G. 8737
for Cardno ERI
707 766 2000
Email: david.daniels@cardno.com

Enclosures:

References
Acronym List

Plate 1	Site Vicinity Map
Plate 2	Generalized Site Plan
Table 1A	Cumulative Soil Vapor Analytical Results
Table 1B	Additional Cumulative Soil Vapor Analytical Results
Table 2	Cumulative Soil Analytical Results
Appendix A	Correspondence
Appendix B	Well Construction Details and Groundwater Monitoring and Sampling Data
Appendix C	City of San Leandro Zoning Map
Appendix B	State Water Resources Control Board Resolution No. 2012-0062

cc: Ms. Barbara Jakub, P.G., Alameda County Health Care Services Agency, Department of Environmental Health, 1131 Harbor Bay Parkway, Room 250, Alameda, California, 94502-6577

Mr. George Lockwood, California State Water Resource Board, 1001 "I" Street, 15th Floor, Sacramento, California, 95814

REFERENCES

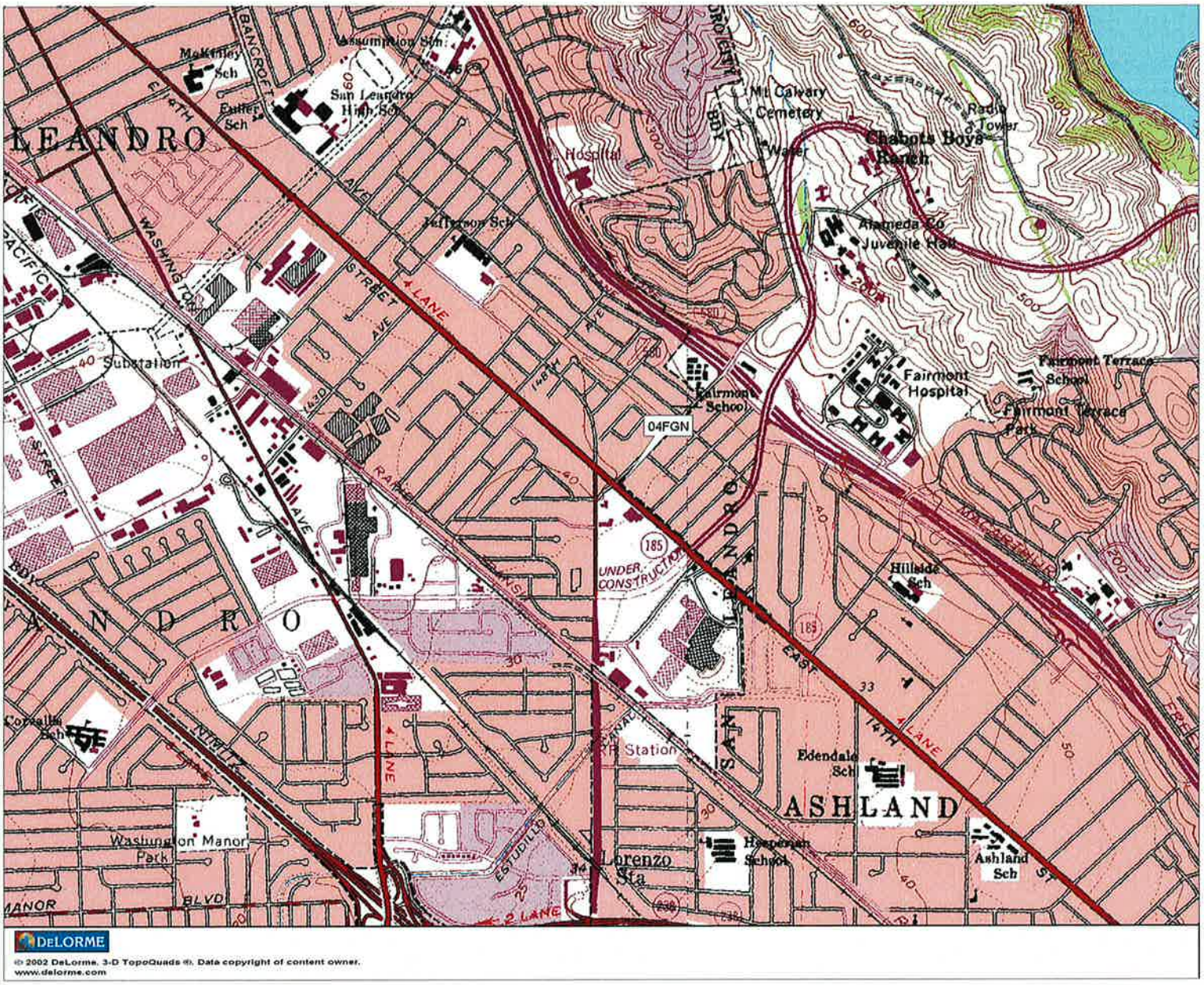
Cardno ERI. November 5, 2012. *Soil Vapor Sampling and Evaluation of Low-Threat Closure Criteria Report, Former Mobil Service Station 04FGN, 14994 East 14th Street, San Leandro, California.*

City of San Leandro. July 16, 2001. City of San Leandro Zoning Code http://www.sanleandro.org/depts/cd/plan/zonecodemap.asp last accessed August 14, 2013

State Water Resources Control Board (SWRCB). August 17, 2012. *Low-Threat Underground Storage Tank Case Closure Policy.* http://www.swrcb.ca.gov/ust/lt_cls_plcy.shtml

ACRONYM LIST

µg/L	Micrograms per liter
µs	Microsiemens
1,2-DCA	1,2-dichloroethane
acfm	Actual cubic feet per minute
AS	Air sparge
bgs	Below ground surface
BTEX	Benzene, toluene, ethylbenzene, and total xylenes
CEQA	California Environmental Quality Act
cfm	Cubic feet per minute
COC	Chain of Custody
CPT	Cone Penetration (Penetrometer) Test
DIPE	Di-isopropyl ether
DO	Dissolved oxygen
DOT	Department of Transportation
DPE	Dual-phase extraction
DTW	Depth to water
EDB	1,2-dibromoethane
EPA	Environmental Protection Agency
ESL	Environmental screening level
ETBE	Ethyl tertiary butyl ether
FID	Flame-ionization detector
fpm	Feet per minute
GAC	Granular activated carbon
gpd	Gallons per day
gpm	Gallons per minute
GWPTS	Groundwater pump and treat system
HVOC	Halogenated volatile organic compound
J	Estimated value between MDL and PQL (RL)
LEL	Lower explosive limit
LPC	Liquid-phase carbon
LRP	Liquid-ring pump
LUFT	Leaking underground fuel tank
LUST	Leaking underground storage tank
MCL	Maximum contaminant level
MDL	Method detection limit
mg/kg	Milligrams per kilogram
mg/L	Milligrams per liter
mg/m^3	Milligrams per cubic meter
MPE	Multi-phase extraction
MRL	Method reporting limit
msl	Mean sea level
MTBE	Methyl tertiary butyl ether
MTCA	Model Toxics Control Act
NAI	Natural attenuation indicators
NAPL	Non-aqueous phase liquid
NEPA	National Environmental Policy Act
NGVD	National Geodetic Vertical Datum
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
ORP	Oxidation-reduction potential
OSHA	Occupational Safety and Health Administration
OVA	Organic vapor analyzer
P&ID	Process & Instrumentation Diagram
PAH	Polycyclic aromatic hydrocarbon
PCB	Polychlorinated biphenyl
PCE	Tetrachloroethene or perchloroethylene
PID	Photo-ionization detector
PLC	Programmable logic control
POTW	Publicly owned treatment works
ppmv	Parts per million by volume
PQL	Practical quantitation limit
psi	Pounds per square inch
PVC	Polyvinyl chloride
QA/QC	Quality assurance/quality control
RBSL	Risk-based screening levels
RCRA	Resource Conservation and Recovery Act
RL	Reporting limit
scfm	Standard cubic feet per minute
SSTL	Site-specific target level
STLC	Soluble threshold limit concentration
SVE	Soil vapor extraction
SVOC	Semivolatile organic compound
TAME	Tertiary amyl methyl ether
TBA	Tertiary butyl alcohol
TCE	Trichloroethene
TOC	Top of well casing elevation; datum is msl
TOG	Total oil and grease
TPHd	Total petroleum hydrocarbons as diesel
TPHg	Total petroleum hydrocarbons as gasoline
TPHmo	Total petroleum hydrocarbons as motor oil
TPHs	Total petroleum hydrocarbons as stoddard solvent
TRPH	Total recoverable petroleum hydrocarbons
UCL	Upper confidence level
USCS	Unified Soil Classification System
USGS	United States Geologic Survey
UST	Underground storage tank
VCP	Voluntary Cleanup Program
VOC	Volatile organic compound
VPC	Vapor-phase carbon



FN 2785TOPO

EXPLANATION

1/2-mile radius circle

N

APPROXIMATE SCALE

0 0.5 1 mile

SOURCE:
Modified from a map provided by DeLorme 3-D TopoQuads

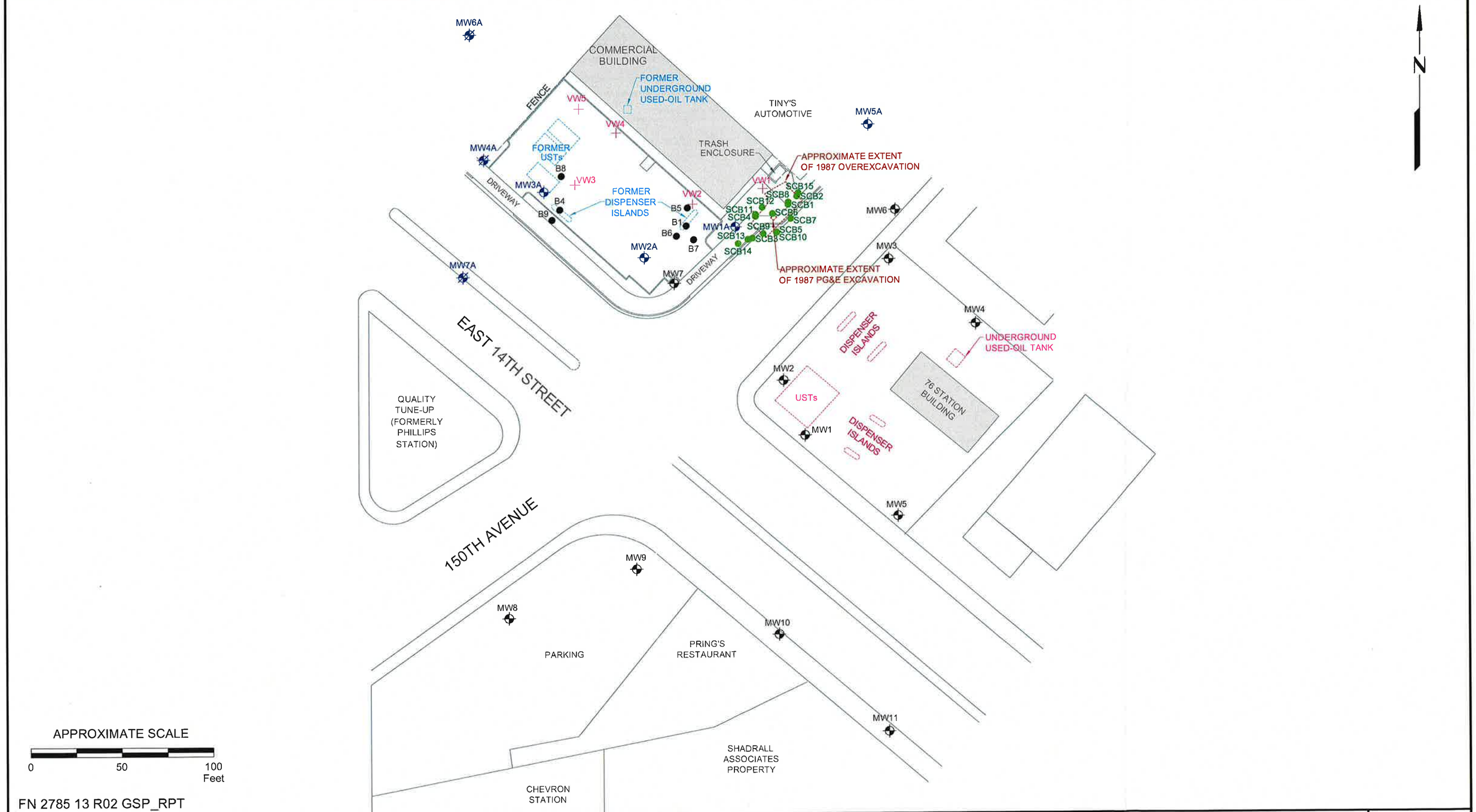
Cardno ERI
Shaping the Future

SITE VICINITY MAP

FORMER MOBIL SERVICE STATION 04FGN
14994 East 14th Street
San Leandro, California

PROJECT NO. 2785

PLATE 1



FN 2785 13 R02 GSP_RPT

Cardno ERI
Shaping the Future

GENERALIZED SITE PLAN

FORMER MOBIL SERVICE STATION 04FGN
14994 East 14th Street
San Leandro, California

EXPLANATION

- MW5A — Groundwater Monitoring Well
- VW5 — Soil Vapor Sampling Well
- SCB15 — Soil Borings
- MW7A — Destroyed Groundwater Monitoring Well
- MW11 — Groundwater Monitoring Well By Unocal
- B9 — Soil Borings By Unocal

PROJECT NO. 2785

PLATE 2

L:\EXXONMOBIL\ExxonMobil Projects\022785C (04FGN) San Leandro\2785 Autocad\REPORTS\13 R02\13 R02 GSP_RPT.dwg, mary.jones

TABLE 1A
CUMULATIVE SOIL VAPOR ANALYTICAL RESULTS
Former Mobil Service Station 04FGN
14994 East 14th Street
San Leandro, California
(Page 1 of 2)

Well ID	Sampling Date	Depth (feet bgs)	TPHg (µg/m³)	MTBE (µg/m³)	B (µg/m³)	T (µg/m³)	E (µg/m³)	o-X (µg/m³)	p,m-X (µg/m³)	X (µg/m³)	CO_2 (%V)	O_2 (%V)	Oxygen + Argon (%V)	Helium (%V)	Methane (%V)	Vacuum (in Hg)
VW1	11/26/10	5 - 6	<9,000	<9.9	18	18	5.7	---	---	18	4.71	---	12.7	---	<0.645	---
VW1	04/04/12	5 - 6	1,500	<3.6	<3.2	40h	<4.4	<4.4	<8.8	<13.2	6.2	12	---	<1.0	<0.0010	-3.4
VW2	11/26/10	5 - 6	580,000	<24	120	41	140	---	---	330	11.2	---	2.12	---	<0.670	---
VW2	04/04/12	5 - 6	150,000	<36	<32	<38h	<44	51	<88	<139	9.0	4.7	---	<1.0	0.048	-6.2
VW3	11/26/10	5 - 6	1,400,000	<170	<39	<46	<53	---	---	230	10.7	---	2.13	---	<0.755	---
VW3 (DUP)	11/26/10	5 - 6	1,500,000	<160	<36	<43	<49	---	---	220	10.9	---	2.21	---	<0.710	---
VW3	04/04/12	5 - 6	260,000	<36	<32	60h	<44	<44	<88	<132	6.4	4.5	---	<1.0	0.052	-4.8
VW4	11/26/10	5 - 6	15,000	<11	32	11	4.2	---	---	<13	9.77	---	4.26	---	<0.760	---
VW4	04/04/12	5 - 6	2,400	<3.6	<3.2	35h	<4.4	<4.4	9.5	<13.9	7.4	8.7	---	<1.0	<0.0010	-5.5
VW4 Dup	04/04/12	5 - 6	140	<3.6	<3.2	35h	<4.4	<4.4	<8.8	<13.2	8.0	7.9	---	<1.0	<0.0010	-5.0
VW5	11/26/10	5 - 6	<9,200	<9.9	9.5	5.4	<3.0	---	---	<12	9.95	---	11.8	---	<0.660	---
VW5	04/04/12	5 - 6	2,300	<3.6	4.2	71h	5.5	4.9	11	15.9	6.5	14	---	<1.0	<0.0010	-6.0

Notes:

TPHg	=	Total petroleum hydrocarbons as gasoline (reported as TPHv) analyzed using EPA Method TO-3M.
MTBE	=	Methyl tertiary butyl ether analyzed using EPA Method TO-15.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method TO-15.
CO_2	=	Carbon dioxide analyzed using ASTM 1945-96.
O_2	=	Oxygen analyzed using ASTM 1945-96.
Oxygen + Argon	=	Oxygen and argon analyzed using ASTM 1946.
Helium	=	Helium analyzed using ASTM D1945M.
Methane	=	Methane analyzed using EPA Method 8015M; prior to November 2009, analyzed using ASTM Method D-1946.
Vacuum	=	Vacuum analyzed in the field.
TBA	=	Tertiary butyl alcohol analyzed using EPA Method TO-15.
DIPE	=	Di-isopropyl ether analyzed using EPA Method TO-15.
ETBE	=	Ethyl tertiary butyl ether analyzed using EPA Method TO-15.
1,2-DCA	=	1,2-dichloroethane analyzed using EPA Method TO-15.
TAME	=	Tertiary amyl methyl ether analyzed using EPA Method TO-15.
EDB	=	1,2-dibromoethane analyzed using EPA Method TO-15.
Naphthalene	=	Napththalene analyzed using EPA Method TO-15.
Add'l VOCs	=	Additional volatile organic compounds analyzed using EPA Method TO-15. For complete list of analytes, see laboratory report.
bgs	=	Below ground surface.
µg/m³	=	Micrograms per meter cubed.
%v	=	Percent by volume.
in Hg	=	Inches of mercury volume.
ND	=	Not detected at or above the laboratory reporting limit.
<	=	Less than the stated method detection limit.
---	=	Not applicable.

TABLE 1A
CUMULATIVE SOIL VAPOR ANALYTICAL RESULTS
Former Mobil Service Station 04FGN
14994 East 14th Street
San Leandro, California

Notes (Cont.):

a	=	Acetone.
b	=	2-Butanone.
c	=	4-Ethyltoluene.
d	=	Tetrachloroethene.
e	=	1,3,5-Trimethylbenzene.
f	=	1,2,4-Trimethylbenzene.
g	=	Chloroform.
h	=	Analyte detected in Trip Blank.

TABLE 1B
ADDITIONAL CUMULATIVE SOIL VAPOR ANALYTICAL RESULTS
Former Mobil Service Station 04FGN
14994 East 14th Street
San Leandro, California

Well ID	Sampling Date	Depth (feet bgs)	TBA (µg/m³)	DIPE (µg/m³)	ETBE (µg/m³)	1,2-DCA (µg/m³)	TAME (µg/m³)	EDB (µg/m³)	Naphthalene (µg/m³)	Add'l VOCs (µg/m³)
VW1	11/26/10	5 - 6	<8.3	<11	<11	<2.8	<11	<5.3	---	---
VW1	04/12/12	5 - 6	<6.1	<4.2	<4.2	<4.1	<4.2	<7.8	<5.3	570a, 19d
VW2	11/26/10	5 - 6	58	<28	<28	<6.8	<28	<13	---	120a, 40b, 25c, 39d, 240e, 78f
VW2	04/12/12	5 - 6	<61	<42	<42	<41	<42	<78	<53	ND
VW3	11/26/10	5 - 6	<150	<200	<200	<49	<200	<93	---	---
VW3 (DUP)	11/26/10	5 - 6	<140	<190	<190	<46	<190	<87	---	---
VW3	04/12/12	5 - 6	<61	<42	<42	<41	<42	<78	<53	ND
VW4	11/26/10	5 - 6	<9.2	<13	<13	<3.1	<13	<5.8	---	20a, 7.4g, 15d
VW4	04/12/12	5 - 6	<6.1	<4.2	<4.2	<4.1	<4.2	<7.8	<5.3	6.0f
VW4 Dup	04/12/12	5 - 6	<6.1	<4.2	<4.2	<4.1	<4.2	<7.8	<5.3	ND
VW5	11/26/10	5 - 6	<8.3	<11	<11	<2.8	<11	<5.3	---	---
VW5	04/12/12	5 - 6	<6.1	<4.2	<4.2	<4.1	<4.2	<7.8	<5.3	260a, 7.8f

Notes:

TPHg	=	Total petroleum hydrocarbons as gasoline (reported as TPHv) analyzed using EPA Method TO-3M.
MTBE	=	Methyl tertiary butyl ether analyzed using EPA Method TO-15.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method TO-15.
CO_2	=	Carbon dioxide analyzed using ASTM 1945-96.
O_2	=	Oxygen analyzed using ASTM 1945-96.
Oxygen + Argon	=	Oxygen and argon analyzed using ASTM 1946.
Helium	=	Helium analyzed using ASTM D1945M.
Methane	=	Methane analyzed using EPA Method 8015M; prior to November 2009, analyzed using ASTM Method D-1946.
Vacuum	=	Vacuum analyzed in the field.
TBA	=	Tertiary butyl alcohol analyzed using EPA Method TO-15.
DIPE	=	Di-isopropyl ether analyzed using EPA Method TO-15.
ETBE	=	Ethyl tertiary butyl ether analyzed using EPA Method TO-15.
1,2-DCA	=	1,2-dichloroethane analyzed using EPA Method TO-15.
TAME	=	Tertiary amyl methyl ether analyzed using EPA Method TO-15.
EDB	=	1,2-dibromoethane analyzed using EPA Method TO-15.
Naphthalene	=	Napththalene analyzed using EPA Method TO-15.
Add'l VOCs	=	Additional volatile organic compounds analyzed using EPA Method TO-15. For complete list of analytes, see laboratory report.
bgs	=	Below ground surface.
µg/m³	=	Micrograms per meter cubed.

TABLE 1B
ADDITIONAL CUMULATIVE SOIL VAPOR ANALYTICAL RESULTS
Former Mobil Service Station 04FGN
14994 East 14th Street
San Leandro, California

Notes (Cont.):

%v	=	Percent by volume.
in Hg	=	Inches of mercury volume.
ND	=	Not detected at or above the laboratory reporting limit.
<	=	Less than the stated method detection limit.
---	=	Not applicable.
a	=	Acetone.
b	=	2-Butanone.
c	=	4-Ethyltoluene.
d	=	Tetrachloroethene.
e	=	1,3,5-Trimethylbenzene.
f	=	1,2,4-Trimethylbenzene.
g	=	Chloroform.
h	=	Analyte detected in Trip Blank.

TABLE 2
CUMULATIVE SOIL ANALYTICAL RESULTS
Former Mobil Service Station 04FGN
14994 East 14th Street
San Leandro, California

Sample ID	Date Collected	Sample Depth (feet bgs)	TPHd (mg/kg)	TPHg (mg/kg)	MTBE (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	TOG (mg/kg)	TBA (mg/kg)	TAME (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	EDB (mg/kg)	1,2-DCA (mg/kg)	Add'l VOCs (mg/kg)	Purgeable Organics (mg/kg)
Excavation Samples																		
1	December 1987	1.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.025i	---
2	December 1987	5.0	30	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.025i	---
3	December 1987	2.5	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.025i	---
4	December 1987	5.5	100	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.025i	---
5	December 1987	4.0	<100	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.025i	---
6	December 1987	5.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.025i	---
13	December 1987	5.0	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.001i	---
14	December 1987	5.0	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.001i	---
15	December 1987	4.0	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.001i	---
16	December 1987	4.5	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.001i	---
17	December 1987	7.5	<10	---	---	---	---	---	---	<50	---	---	---	---	---	---	<0.001i	---
19	December 1987	10.0	<10	---	---	---	---	---	---	<50	---	---	---	---	---	---	<0.001i	---
20	December 1987	7.0	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.001i	---
21	December 1987	5.0	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.001i	---
22	December 1987	6.5	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.001i	---
Soil Borings																		
SCB-1	09/29/87	4.0	200	72	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SCB-1	09/29/87	8.6	<50	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SCB-2	09/29/87	2.6	<50	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SCB-2	09/29/87	7.1	<50	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SCB-3	09/29/87	5.0	<50	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SCB-3	09/29/87	8.5	<50	320	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SCB-4	09/29/87	4.5	<50	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SCB-4	09/29/87	10.5	<50	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SCB-5	09/29/87	4.0	<50	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SCB-5	09/29/87	8.0	<50	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SCB-6	09/29/87	5.0	<50	<10	---	<0.2	<0.2	<0.2	---	---	---	---	---	---	---	---	8.0a, 6.6g, 15.0h	---
SCB-6	09/29/87	9.1	<50	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SCB7	11/05/87	4.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB7	11/05/87	8.0	---	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB8	11/05/87	4.0	---	---	---	ND	0.150	ND	---	---	---	---	---	---	---	---	ND	<1.0
SCB8	11/05/87	8.0	---	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB9	11/05/87	4.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB9	11/05/87	8.0	---	370	---	ND	ND	ND	---	---	---	---	---	---	---	---	ND	<1.0
SCB10	11/05/87	4.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB10	11/05/87	8.0	---	<10	---	ND	0.051	ND	---	---	---	---	---	---	---	---	ND	<1.0

TABLE 2
CUMULATIVE SOIL ANALYTICAL RESULTS
Former Mobil Service Station 04FGN
14994 East 14th Street
San Leandro, California

Sample ID	Date Collected	Sample Depth (feet bgs)	TPHd (mg/kg)	TPHg (mg/kg)	MTBE (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	TOG (mg/kg)	TBA (mg/kg)	TAME (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	EDB (mg/kg)	1,2-DCA (mg/kg)	Add'l VOCs (mg/kg)	Purgeable Organics (mg/kg)
SCB11	11/05/87	4.0	---	---	---	ND	ND	ND	---	---	---	---	---	---	---	---	ND	<1.0
SCB11	11/05/87	8.0	---	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB12	11/05/87	4.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB12	11/05/87	8.0	---	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB13	11/05/87	4.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB13	11/05/87	8.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB14	11/05/87	4.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB14	11/05/87	8.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB15	11/05/87	4.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB15	11/05/87	8.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
B-1	02/10/94	6.5	160	1,500	---	<0.005	2.9	18	85	160	---	---	---	---	---	---	---	---
B-1	02/10/94	11.5	120	580	---	1.2	1.1	5.5	18	<30	---	---	---	---	---	---	---	---
B-4	02/10/94	6.5	650	4,100	---	<0.005	15	57	390	130	---	---	---	---	---	---	---	---
B-4	02/10/94	11.5	62	460	---	<0.005	1.0	4.7	23	<30	---	---	---	---	---	---	---	---
B-5	06/01/95	6.5	<1.0k	2.5j	---	<0.0050	<0.0050	0.0076	0.17	---	---	---	---	---	---	---	---	---
B-5	06/01/95	11.5	2.1k,l	8.6j	---	0.025	0.025	0.020	0.11	---	---	---	---	---	---	---	---	---
B-6	06/01/95	6.5	4.3k,m	3.3j	---	<0.0050	<0.0050	0.068	0.16	---	---	---	---	---	---	---	---	---
B-6	06/01/95	11.5	2.7k,l	44j	---	0.053	0.078	1.4	5.3	---	---	---	---	---	---	---	---	---
B-7	06/01/95	6.5	<1.0k	<1.0j	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---
B-7	06/01/95	11.5	8.1k,l	130j	---	0.28	0.31	0.92	1.2	---	---	---	---	---	---	---	---	---
B-8	06/01/95	6.5	<1.0k	<1.0j	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---
B-8	06/01/95	11.5	<1.0k	<1.0j	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---
B-9	06/01/95	6.5	1.4k,n	<1.0j	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---
B-9	06/01/95	11.5	1.7k,n	2.5j	---	<0.0050	0.0053	0.0059	0.0052	---	---	---	---	---	---	---	---	---
Groundwater Monitoring Wells																		
B2 (MW-2)	02/10/94	7.5	1.6	1.4	---	<0.005	0.0065	<0.005	<0.005	<30	---	---	---	---	---	---	---	---
B2 (MW-2)	02/10/94	11.5	12	49	---	0.094	<0.005	0.18	0.33	<30	---	---	---	---	---	---	---	---
B3 (MW-3)	02/10/94	6.5	24	10	---	<0.005	0.028	0.027	0.049	100	---	---	---	---	---	---	---	---
B3 (MW-3)	02/10/94	11.5	31	190	---	0.70	0.11	2.5	0.52	<30	---	---	---	---	---	---	---	---
MW-4A	06/01/95	6.5	2.2k,n	<1.0j	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---
MW-4A	06/01/95	11.5	<1.0k	<1.0j	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---
MW-5A	06/01/95	6.5	1.6k,n	<1.0j	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---
MW-5A	06/01/95	11.5	<1.0k	<1.0j	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---

TABLE 2
CUMULATIVE SOIL ANALYTICAL RESULTS
Former Mobil Service Station 04FGN
14994 East 14th Street
San Leandro, California

Sample ID		Date Collected	Sample Depth (feet bgs)	TPHd (mg/kg)	TPHg (mg/kg)	MTBE (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	TOG (mg/kg)	TBA (mg/kg)	TAME (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	EDB (mg/kg)	1,2-DCA (mg/kg)	Add'l VOCs (mg/kg)	Purgeable Organics (mg/kg)
MW-6A		06/02/95	6.5	<1.0k	<1.0j	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---
MW-6A		06/02/95	11.5	<1.0k	<1.0j	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---
MW-7A		07/21/95	6.5	---	<1.0j	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---
MW-7A		07/21/95	11.5	---	<1.0j	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---
Soil Vapor Wells																			
VW1		11/24/10	5.5-6	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	---	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	ND	---
VW2	o	11/23/10	5.5-6	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	---	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	0.015b, 0.0036c, 0.00047d, 0.00047e, 0.0011f	---
VW3		11/24/10	5.5-6	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	---	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	ND	---
VW4	p	11/23/10	5.5-6	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	---	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	0.00030f	---
VW5		11/24/10	5.5-6	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	---	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	ND	---

TABLE 2
CUMULATIVE SOIL ANALYTICAL RESULTS
Former Mobil Service Station 04FGN
14994 East 14th Street
San Leandro, California

Notes:		Data provided by ETIC Engineering, Inc, Alisto Engineering Group, and Alton Geoscience in previous site reports.
TPHd	=	Total petroleum hydrocarbons as diesel analyzed using EPA Method 8015B.
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015 (modified) or 8015B. Samples SBC7 through SBC15 analyzed using EPA Method 8010, Extraction Method 5030
MTBE	=	Methyl tertiary butyl ether analyzed using EPA Method 8260B; prior to 2004, analyzed using EPA Method 8021B.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8020 or 8021B.
TOG	=	Total oil and grease.
TBA	=	Tertiary butyl alcohol.
TAME	=	Tertiary amyl methyl ether.
DIPE	=	Di-isopropyl ether.
ETBE	=	Ethyl tertiary butyl ether.
EDB	=	1,2-dibromoethane.
1,2-DCA	=	1,2-dichloroethane.
Purgeable Organics	=	Purgeable Organics analyzed using EPA Method 8010.
Add'l VOCs	=	Additional volatile organic compounds.
feet bgs	=	Feet below ground surface.
mg/kg	=	Milligrams per Kilogram.
ND	=	Not detected at or above the laboratory method reporting limit.
Blue	=	Samples removed from site through excavation activities.
<	=	Less than the stated laboratory reporting limit.
---	=	Not analyzed/Not applicable.
a	=	trans-1,2-dichloroethylene.
b	=	Acetone.
c	=	2-Butanone.
d	=	n-Butylbenzene
e	=	sec-Butylbenzene.
f	=	1,2,4-Trimethylbenzene.
g	=	Tetrachloroethene.
h	=	Trichloroethene.
i	=	Volatile halocarbons analyzed using EPA Method 8010; Extraction Method EPA 5030.
j	=	Reported as purgeable hydrocarbons.
k	=	Reported as extractable hydrocarbons.
l	=	Unidentified hydrocarbons <C15.
m	=	Unidentified hydrocarbons <C15 and >C20.
n	=	Discrete peaks.
o	=	Additional analyses: cadmium (<0.500 mg/kg), chromium (26.4 mg/kg), lead (6.88 mg/kg, analyte present in method blank), nickel (38.8 mg/kg), and zinc (31.9 mg/kg).
p	=	Additional analyses: cadmium (<0.500 mg/kg), chromium (26.7 mg/kg), lead (6.74 mg/kg, analyte present in method blank), nickel (38.1 mg/kg), and zinc (30.9 mg/kg).

APPENDIX A

CORRESPONDENCE

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

August 2, 2013

Ms. Jennifer Sedlachek
ExxonMobil
4096 Piedmont Ave.
Oakland, CA 94611 *(Sent via E-mail to: jennifer.c.sedlachek@exxonmobil.com)*

Jana Gluckman
2110 Stonehaven Drive
Los Altos, CA 94024

Fuk Kwan
20775 Scofield Drive
Cupertino, CA 95014

Subject: Fuel Leak Case No. RO0000422 and Geotracker Global ID T0600100912, Mobil #04-FGN, 14994 E 14th St, San Leandro, CA 94578

Dear Ms. Sedlachek, Ms. Gluckman and Mr. Kwan:

Alameda County Environmental Health (ACEH) staff has reviewed the case file including the *Soil Vapor Sampling and Evaluation of Low-Threat Closure Criteria Report*, dated November 5, 2012, which was prepared by Cardno ERI for the subject site on your behalf. The report presents results for soil vapor sampling and concludes that the concentrations are below the Low-Threat Closure Policy Vapor Intrusion to Indoor Air criteria.

ACEH has evaluated the data and recommendations presented in the above-mentioned report, in conjunction with the case files, and the State Water Resources Control Board's (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (LTCP). Based on ACEH staff review, we have determined that the site fails to meet the LTCP Media-Specific Criteria for Vapor Intrusion to Indoor Air, and Direct Contact and Outdoor Air Exposure unless a site management plan is placed on the property.

Therefore, at this juncture ACEH requests that you address the Technical Comment below and prepare a Data Gap Investigation Work Plan in accordance with the schedule provided in the Technical Report Section.

TECHNICAL COMMENTS

a. **Vapor Intrusion to Indoor Air –** The LTCP describes conditions, including bioattenuation zones, which if met will assure that exposure to petroleum vapors in indoor air will not pose unacceptable health risks to human occupants of existing or future site buildings, and adjacent parcels. Appendices 1 through 4 of the LTCP criteria illustrate four potential exposure scenarios and describe characteristics and criteria associated with each scenario.

   Our review of the case files indicates that the site data and analysis fail to support the requisite characteristics of one of the four scenarios as follows:

- The *Soil Vapor Sampling and Evaluation of Low-Threat Closure Criteria Report* compares the soil vapor data to Scenario 4 – Direct Measurement of Soil Gas Concentrations (with a bioattenuation zone). ACEH notes that the requisite characteristics of the bioattenuation zone have not been met due to a lack of total petroleum hydrocarbon (TPH) samples in the 0 to 5 feet below ground surface (bgs) interval. Scenario 4 of the LTCP Criteria for Vapor Intrusion to Indoor Air requires soil samples to be collected at two depths within the bioattenuation zone. ACEH notes that soil samples were only collected at one depth interval. Therefore, benzene concentrations should be screened against the LTCP criteria for direct measurement of soil gas concentrations without a bioattenuation zone. Under this scenario the benzene concentration in soil gas collected from VW-2 at 120 micrograms per cubic meter ($\mu g/m^3$) exceed the LTCP criteria of 85 $\mu g/m^3$. Additionally, the LTCP requires a greater than 4 percent by volume oxygen in the bioattenuation zone. Oxygen concentrations in soil gas samples collected from VW-2 have ranged from 2.1 to 4.7 percent by volume, and therefore, further sample collection is required to validate that the oxygen requirements are met.

- Naphthalene was analyzed using TO-15 and was not confirmed with TO-17 analysis as per the recommendations of the April 2012 DTSC Soil Gas Advisory.

- Soil gas samples have been collected in a limited area. Therefore, any change in the footprint of the building or any utility work would trigger additional assessment.

Therefore, please present a strategy in the Data Gap Investigation Work Plan (described in Item c below) to collect additional data to satisfy the bioattenuation zone characteristics of Scenarios 1, 2 or 3, or to collect soil gas data to satisfy Scenario 4.

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

Our review of the case files indicates that insufficient data and analysis has been presented to satisfy the media-specific criteria for direct contact and outdoor air exposure. Specifically, the concentration of ethylbenzene at 6.5 feet bgs exceeds the residential exposure level of 32 milligrams per kilogram (mg/kg) and shallow soil (0 to 5 ft bgs) has not been fully evaluated.

Therefore, please present a strategy in a Data Gap Investigation Work Plan (described in Item c below) to collect sufficient data to satisfy the direct contact and outdoor air exposure criteria in the areas near the former dispenser islands and other remaining uninvestigated areas.

Alternatively, please provide justification of why the site satisfies the Direct Contact and Outdoor Air Exposure Media-Specific Criteria in a focused SCM that assures that exposure to petroleum constituents in soil will have no significant risk of adversely affecting human health.

ACEH notes, a site management plan could be prepared for the site in order to close the site under the LTCP Direct Contact and Outdoor Air criteria under its current use and with the current building configuration. However, this scenario would require agreement from the property owner.

c. **Data Gap Investigation Work Plan and Focused Site Conceptual Model** – Please prepare a Data Gap Investigation Work Plan to address the technical comments listed above. Please support the scope of work in the Data Gap Investigation Work Plan with a focused SCM and Data Quality Objectives (DQOs) that relate the data collection to each LTCP criteria. For example please clarify which scenario within each Media-Specific Criteria a sampling strategy is intended to apply to.

   In order to expedite review, ACEH requests a focused SCM be presented in a tabular format that highlights the major SCM elements and associated data gaps, which need to be addressed to progress the site to case closure under the LTCP. Please see Attachment A "Site Conceptual Model Requisite Elements". Please sequence activities in the proposed data gap investigation scope of work to enable efficient data collection in the fewest mobilizations possible.

TECHNICAL REPORT REQUEST

Please upload technical reports to ACEH's ftp site and to the State Water Resources Control Board's Geotracker website, in accordance with the specified file naming convention below.

- **October 2, 2013** – Data Gap Investigation Work Plan with Focused Site Conceptual Model (File to be named: WP_SCM_R_yyyy-mm-dd)

Should you have any questions or concerns regarding this correspondence or your case, please call me at (510) 639-1287 or send me an electronic mail message at barbara.jakub@acgov.org.

Sincerely,

Barbara J. Jakub

Digitally signed by Barbara J. Jakub
DN: cn=Barbara J. Jakub, o, ou, email=barbara.jakub@acgov.org, c=US
Date: 2013.08.02 10:05:14 -07'00'

Barbara J. Jakub, P.G.
Hazardous Materials Specialist

Enclosure: Responsible Party(ies) Legal Requirements/Obligations
ACEH Electronic Report Upload (ftp) Instructions

Attachment A – Site Conceptual Model Requisite Elements

cc: Rebekah Westrup, Cardno ERI, 601 North McDowell Blvd., Petaluma, CA 94954 (*Sent via E-mail to:rebekah.westrup@cardno.com)*
Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032 (*Sent via E-mail to: lgriffin@oaklandnet.com*)
Dilan Roe, ACEH (*Sent via E-mail to: dilan.roe@acgov.org*)
Barbara Jakub, ACEH (*Sent via E-mail to: barbara.jakub@acgov.org*)
GeoTracker
File

Attachment 1
Responsible Party(ies) Legal Requirements/Obligations

REPORT/DATA REQUESTS

These reports/data are being requested pursuant to Division 7 of the California Water Code (Water Quality), Chapter 6.7 of Division 20 of the California Health and Safety Code (Underground Storage of Hazardous Substances), and Chapter 16 of Division 3 of Title 23 of the California Code of Regulations (Underground Storage Tank Regulations).

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (Local Oversight Program [LOP] for unauthorized releases from petroleum Underground Storage Tanks [USTs], and Site Cleanup Program [SCP] for unauthorized releases of non-petroleum hazardous substances) require submission of reports in electronic format pursuant to Chapter 3 of Division 7, Sections 13195 and 13197.5 of the California Water Code, and Chapter 30, Articles 1 and 2, Sections 3890 to 3895 of Division 3 of Title 23 of the California Code of Regulations (23 CCR). Instructions for submission of electronic documents to the ACEH FTP site are provided on the attached "Electronic Report Upload Instructions."

Submission of reports to the ACEH FTP site is in addition to requirements for electronic submittal of information (ESI) to the State Water Resources Control Board's (SWRCB) Geotracker website. In April 2001, the SWRCB adopted 23 CCR, Division 3, Chapter 16, Article 12, Sections 2729 and 2729.1 (Electronic Submission of Laboratory Data for UST Reports). Article 12 required electronic submittal of analytical laboratory data submitted in a report to a regulatory agency (effective September 1, 2001), and surveyed locations (latitude, longitude and elevation) of groundwater monitoring wells (effective January 1, 2002) in Electronic Deliverable Format (EDF) to Geotracker. Article 12 was subsequently repealed in 2004 and replaced with Article 30 (Electronic Submittal of Information) which expanded the ESI requirements to include electronic submittal of any report or data required by a regulatory agency from a cleanup site. The expanded ESI submittal requirements for petroleum UST sites subject to the requirements of 23 CCR, Division, 3, Chapter 16, Article 11, became effective December 16, 2004. All other electronic submittals required pursuant to Chapter 30 became effective January 1, 2005. Please visit the SWRCB website for more information on these requirements: (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 7835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, late reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	**REVISION DATE:** July 25, 2012
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (petroleum UST and SCP) require submission of all reports in electronic form to the county's FTP site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single Portable Document Format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

1) Obtain User Name and Password
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to deh.loptoxic@acgov.org
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

ATTACHMENT A

Site Conceptual Model Requisite Elements

ATTACHMENT A

Site Conceptual Model

The site conceptual model (SCM) is an essential decision-making and communication tool for all interested parties during the site characterization, remediation planning and implementation, and closure process. A SCM is a set of working hypotheses pertaining to all aspects of the contaminant release, including site geology, hydrogeology, release history, residual and dissolved contamination, attenuation mechanisms, pathways to nearby receptors, and likely magnitude of potential impacts to receptors.

The SCM is initially used to characterize the site and identify data gaps. As the investigation proceeds and the data gaps are filled, the working hypotheses are modified, and the overall SCM is refined and strengthened until it is said to be "validated". At this point, the focus of the SCM shifts from site characterization towards remedial technology evaluation and selection, and later remedy optimization, and forms the foundation for developing the most cost-effective corrective action plan to protect existing and potential receptors.

For ease of review, Alameda County Environmental Health (ACEH) requests utilization of tabular formats to (1) highlight the major SCM elements and their associated data gaps which need to be addressed to progress the site to case closure (see Table 1 of attached example), and (2) highlight the identified data gaps and proposed investigation activities (see Table 2 of the attached example). ACEH requests that the tables presenting the SCM elements, data gaps, and proposed investigation activities be updated as appropriate at each stage of the project and submitted with work plans, feasibility studies, corrective action plans, and requests for closures to support proposed work, conclusions, and/or recommendations.

The SCM should incorporate, but is not limited to, the topics listed below. Please support the SCM with the use of large-scaled maps and graphics, tables, and conceptual diagrams to illustrate key points. Please include an extended site map(s) utilizing an aerial photographic base map with sufficient resolution to show the facility, delineation of streets and property boundaries within the adjacent neighborhood, downgradient irrigation wells, and proposed locations of transects, monitoring wells, and soil vapor probes.

a. Regional and local (on-site and off-site) geology and hydrogeology. Include a discussion of the surface geology (e.g., soil types, soil parameters, outcrops, faulting), subsurface geology (e.g., stratigraphy, continuity, and connectivity), and hydrogeology (e.g., water-bearing zones, hydrologic parameters, impermeable strata). Please include a structural contour map (top of unit) and isopach map for the aquitard that is presumed to separate your release from the deeper aquifer(s), cross sections, soil boring and monitoring well logs and locations, and copies of regional geologic maps.

b. Analysis of the hydraulic flow system in the vicinity of the site. Include rose diagrams for depicting groundwater gradients. The rose diagram shall be plotted on groundwater elevation contour maps and updated in all future reports submitted for your site. Please address changes due to seasonal precipitation and groundwater pumping, and evaluate the potential interconnection between shallow and deep aquifers. Please include an analysis of vertical hydraulic gradients, and effects of pumping rates on hydraulic head from nearby water supply wells, if appropriate. Include hydraulic head in the different water bearing zones and hydrographs of all monitoring wells.

c. Release history, including potential source(s) of releases, potential contaminants of concern (COC) associated with each potential release, confirmed source locations, confirmed release locations, and existing delineation of release areas. Address primary leak source(s) (e.g., a tank, sump, pipeline, etc.) and secondary sources (e.g., high-

ATTACHMENT A

Site Conceptual Model (continued)

concentration contaminants in low-permeability lithologic soil units that sustain groundwater or vapor plumes). Include local and regional plan view maps that illustrate the location of sources (former facilities, piping, tanks, etc.).

d. Plume (soil gas and groundwater) development and dynamics including aging of source(s), phase distribution (NAPL, dissolved, vapor, residual), diving plumes, attenuation mechanisms, migration routes, preferential pathways (geologic and anthropogenic), magnitude of chemicals of concern and spatial and temporal changes in concentrations, and contaminant fate and transport. Please include three-dimensional plume maps for groundwater and two-dimensional soil vapor plume plan view maps to provide an accurate depiction of the contaminant distribution of each COC.

e. Summary tables of chemical concentrations in different media (i.e., soil, groundwater, and soil vapor). Please include applicable environmental screening levels on all tables. Include graphs of contaminant concentrations versus time.

f. Current and historic facility structures (e.g., buildings, drain systems, sewer systems, underground utilities, etc.) and physical features including topographical features (e.g., hills, gradients, surface vegetation, or pavement) and surface water features (e.g. routes of drainage ditches, links to water bodies). Please include current and historic site maps.

g. Current and historic site operations/processes (e.g., parts cleaning, chemical storage areas, manufacturing, etc.).

h. Other contaminant release sites in the vicinity of the site. Hydrogeologic and contaminant data from those sites may prove helpful in testing certain hypotheses for the SCM. Include a summary of work and technical findings from nearby release sites, including the two adjacent closed LUFT sites, (i.e., Montgomery Ward site and the Quest Laboratory site).

i. Land uses and exposure scenarios on the facility and adjacent properties. Include beneficial resources (e.g., groundwater classification, wetlands, natural resources, etc.), resource use locations (e.g., water supply wells, surface water intakes), subpopulation types and locations (e.g., schools, hospitals, day care centers, etc.), exposure scenarios (e.g. residential, industrial, recreational, farming), and exposure pathways, and potential threat to sensitive receptors. Include an analysis of the contaminant volatilization from the subsurface to indoor/outdoor air exposure route (i.e., vapor pathway). Please include copies of Sanborn maps and aerial photographs, as appropriate.

j. Identification and listing of specific data gaps that require further investigation during subsequent phases of work. Proposed activities to investigate and fill data gaps identified.

TABLE 1

INITIAL SITE CONCEPTUAL MODEL

CSM Element	CSM Sub-Element	Description	Data Gap	How to Address
Geology and Hydrogeology	Regional	The site is in the northwest portion of the Livermore Valley, which consists of a structural trough within the Diablo Range and contains the Livermore Valley Groundwater Basin (referred to as "the Basin") (DWR, 2006). Several faults traverse the Basin, which act as barriers to groundwater flow, as evidenced by large differences in water levels between the upgradient and downgradient sides of these faults (DWR, 2006). The Basin is divided into 12 groundwater basins, which are defined by faults and non-water-bearing geologic units (DWR, 1974). The hydrogeology of the Basin consists of a thick sequence of fresh-water-bearing continental deposits from alluvial fans, outwash plains, and lacustrine environments to up to approximately 5,000 feet bgs (DWR, 2006). Three defined fresh-water bearing geologic units exist within the Basin: Holocene Valley Fill (up to approximately 400 feet bgs in the central portion of the Basin), the Plio-Pleistocene Livermore Formation (generally between approximately 400 and 4,000 feet bgs in the central portion of the Basin), and the Pliocene Tassajara Formation (generally between approximately 250 and 5,000 or more feet bgs) (DWR, 1974). The Valley Fill units in the western portion of the Basin are capped by up to 40 feet of clay (DWR, 2006).	None	NA
	Site	***Geology:*** Borings advanced at the site indicate that subsurface materials consist primarily of finer-grained deposits (clay, sandy clay, silt and sandy silt) with interbedded sand lenses to 20 feet below ground surface (bgs), the approximate depth to which these borings were advanced. The documented lithology for one on-site boring that was logged to approximately 45 feet bgs indicates that beyond approximately 20 feet bgs, fine-grained soils are present to approximately 45 feet bgs. A cone penetrometer technology test indicated the presence of sandier lenses from approximately 45 to 58 feet bgs and even coarser materials (interbedded with finer-grained materials) from approximately 58 feet to 75 feet bgs, the total depth drilled. The lithology documented at the site is similar to that reported at other nearby sites, specifically the Montgomery Ward site (7575 Dublin Boulevard), the Quest laboratory site (6511 Golden Gate Drive), the Shell-branded Service Station site (11989 Dublin Boulevard), and the Chevron site (7007 San Ramon Road). ***Hydrogeology:*** Shallow groundwater has been encountered at depths of approximately 9 to 15 feet bgs. The hydraulic gradient and groundwater flow direction have not been specifically evaluated at the site.	As noted, most borings at the site have been advanced to approximately 20 feet bgs, and one boring has been advanced and logged to 45 feet bgs; CPT data was collected to 75 feet bgs at one location. Lithologic data will be obtained from additional borings that will be advanced on site to further the understanding of the subsurface, especially with respect to deeper lithology. The on-site shallow groundwater horizontal gradient has not been confirmed. Additionally, it is not known if there may be a vertical component to the hydraulic gradient.	Two direct push borings and four multi-port wells will be advanced to depth (up to approximately 75 feet bgs) and soil lithology will be logged. See items 4 and 5 on Table 2. Shallow and deeper groundwater monitoring wells will be installed to provide information on lateral and vertical gradients. See Items 2 and 5 on Table 2.
Surface Water Bodies		The closest surface water bodies are culverted creeks. Martin Canyon Creek flows from a gully west of the site, enters a culvert north of the site, and then bends to the south, passing approximately 1,000 feet east of the site before flowing into the Alamo Canal. Dublin Creek flows from a gully west of the site, enters a culvert approximately 750 feet south of the site, and then joins Martin Canyon Creek approximately 750 feet southeast of the site.	None	NA
Nearby Wells		The State Water Resources Control Board's GeoTracker GAMA website includes information regarding the approximate locations of water supply wells in California. In the vicinity of the site, the closest water supply wells presented on this website are depicted approximately 2 miles southeast of the site; the locations shown are approximate (within 1 mile of actual location for California Department of Public Health supply wells and 0.5 mile for other supply wells). No water-producing wells were identified within 1/4 mile of the site in the well survey conducted for the Quest Laboratory site (6511 Golden Gate Drive; documented in 2009); information documented in a 2005 report for the Chevron site at 7007 San Ramon Road indicates that a water-producing well may exist within 1/2 mile of the site.	A formal well survey is needed to identify water-producing, monitoring, cathodic protection, and dewatering wells.	Obtain data regarding nearby, permitted wells from the California Department of Water Resources and Zone 7 Water Agency (Item 11 on Table 2).

TABLE 2

DATA GAPS AND PROPOSED INVESTIGATION

Item	Data Gap	Proposed Investigation	Rationale	Analysis
5	Evaluate the possible presence of impacts to deeper groundwater. Evaluate deeper groundwater concentration trends over time. Obtain data regarding the vertical groundwater gradient. Obtain more lithological data below 20 feet bgs.	Install four continuous multichannel tubing (CMT) groundwater monitoring wells (aka multi-port wells) to approximately 65 feet bgs in the northern parking lot with ports at three depths (monitoring well locations may be adjusted pending results of shallow grab groundwater samples; we will discuss any potential changes with ACEH before proceeding). Groundwater monitoring frequency to be determined. Soil samples will be collected only if there are field indications of impacts. Soil lithology will be logged. However, information regarding the moisture content of soil may not be reliable using sonic drilling technology (two borings will be logged using direct push technology; see Item 4, above).	One well is proposed at the western (upgradient) property boundary to confirm that there are no deeper groundwater impacts from upgradient. Two wells are proposed near the center of the northern parking lot to evaluate potential impacts in an area where deeper impacts, if any, would most likely to be found. One well is proposed at the eastern (downgradient) property boundary to confirm that there are no impacts extending off-site. Port depths will be chosen based on the locations of saturated soils (as logged in direct push borings; see Item 4, above), but are expected at approximately 15, 45, and 60 feet bgs.	*Groundwater:* VOCs by EPA Method 8260, dissolved oxygen, oxidation/reduction potential, temperature, pH, and specific conductance.
6	Evaluate possible off-site migration of impacted soil vapor in the downgradient direction (east). Evaluate concentration trends over time.	Install 4 temporary nested soil vapor probes at approximately 4 and 8 feet bgs along the eastern property boundary. Based on the results of the sampling, two sets of nested probes will be converted to vapor monitoring wells to allow for evaluation of VOC concentration trends over time.	Available data indicate that PCE and TCE are present in soil vapor in the eastern portion of the northern parking lot. Samples are proposed on approximately 50-foot intervals along the eastern property boundary to provide a transect of concentrations through the vapor plume. The depths of 4 and 8 feet bgs are chosen to provide data closest to the source (i.e., groundwater) while avoiding saturated soil, and also provide shallower data to help evaluate potential attenuation within the soil column. Two sets of nested vapor probes will be converted into vapor monitoring wells (by installing well boxes at ground surface); the locations of the permanent wells will be chosen based on the results of samples from the temporary probes.	*Soil vapor*: VOCs by EPA Method TO-15.
7	Evaluate potential for off-site migration of impacted groundwater in the downgradient direction (east).	Advance two borings to approximately 20 feet bgs in the parking lot of the property east of the Crown site for collection of grab groundwater samples.	Two borings are proposed off-site, on the property east of the Crown site, just east of the building in the expected area of highest potential VOC concentrations.	*Groundwater:* VOCs by EPA Method 8260, dissolved oxygen, oxidation/reduction potential, temperature, pH, and specific conductance.
8	Evaluate VOC concentrations just north of the highest concentration area.	Advance two borings to approximately 20 feet bgs north of Building A for collection of soil and grab groundwater samples. Soil samples will be collected at two depths in the vadose zone. Soil samples will be collected based on field indications of impacts (PID readings, odor, staining) or, in the absence of field indications of impacts, at 5 and 10 feet bgs.	The highest concentrations of PCE in groundwater were detected at boring NM-B-32, just north of Building A. The nearest available data to the north are approximately 75 feet away. One of the borings will be advanced approximately 20 feet north of NM-B-32 to provide data close to the highest concentration area. A second boring will be advanced approximately halfway between the first boring and former boring NM-B-33 to provide additional spatial data for contouring purposes. These borings will be part of a transect in the highest concentration area.	*Groundwater:* VOCs by EPA Method 8260, dissolved oxygen, oxidation/reduction potential, temperature, pH, and specific conductance. *Soil:* VOCs by EPA Method 8260 (soil samples to be collected using field preservation in accordance with EPA Method 5035).
9	Evaluate VOC concentrations in soil vapor in the south parcel of the site.	Install four temporary soil vapor probes at approximately 5 feet bgs around boring SV-25, where PCE was detected in soil vapor at a low concentration.	PCE was detected in soil vapor sample SV-25 in the southern parcel, although was not detected in groundwater in that area. Three probes will be installed approximately 30 feet from of boring SV-25 to attempt to delineate the extent of impacts. A fourth probe is proposed west of the original sample, close to the property boundary and the location of mapped utility lines, which may be a potential conduit, to evaluate potential impacts from the west.	*Soil vapor*: VOCs by EPA Method TO-15.
10	Obtain additional information regarding subsurface structures and utilities to further evaluate migration pathways and sources.	Ground penetrating radar (GPR) and other utility locating methodologies will be used, as appropriate, to further evaluate the presence of unknown utilities and structures at the site.	Utilities have been identified at the site that include an on-site sewer lateral and drain line, and shallow water, electric, and gas lines. Given the current understanding of the distribution of PCE in groundwater at the site, it is possible that other subsurface utilities, and specifically sewer laterals, exist that may act as a source or migration pathway for distribution of VOCs in the subsurface.	NA

APPENDIX B

WELL CONSTRUCTION DETAILS AND GROUNDWATER MONITORING AND SAMPLING DATA

TABLE 1 WELL CONSTRUCTION DETAILS, FORMER MOBIL STATION 04FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Well Number		Well Installation Date	Elevation TOC (feet)	Casing Material	Total Depth (feet)	Well Depth (feet)	Borehole Diameter (inches)	Casing Diameter (inches)	Screened Interval (feet)	Slot Size (inches)	Filter Pack Interval (feet)	Filter Pack Material
MW1A	a	03/31/88	39.30	PVC	24	19	8	2	9 - 19	0.020	8 - 19 19 - 24 [c]	#3 Sand
MW2A	a	02/10/94	39.52	PVC	24	24	8	2	8.5 - 24	0.010	7 - 24	#2/12 Lonestar Sand
MW3A	a	02/10/94	39.82	PVC	23	23	8	2	8 - 23	0.010	6.5 - 23	#2/12 Lonestar Sand
MW4A	b	06/01/95	--	PVC	26.5	24	11	4	9 - 24	0.010	7 - 26.5	#2/12 Lonestar Sand
MW5A	b	06/01/95	--	PVC	26.5	24	11	4	9 - 24	0.010	7 - 26.5	#2/12 Lonestar Sand
MW6A	b	06/02/95	--	PVC	26.5	24	11	4	9 - 24	0.010	7 - 26.5	#2/12 Lonestar Sand
MW7A	b	07/28/95	--	PVC	26.5	24	11	4	9 - 24	0.010	7 - 26.5	#2/12 Lonestar Sand
VW1	**a**	**11/24/10**	--	**SS**	**6**	**6**	**4**	**0.25**	**5.25 - 5.75**	**0.0057**	**5 - 6**	**#2/12 Sand**
VW2	**a**	**11/23/10**	--	**SS**	**6**	**6**	**4**	**0.25**	**5.25 - 5.75**	**0.0057**	**5 - 6**	**#2/12 Sand**
VW3	**a**	**11/24/10**	--	**SS**	**6**	**6**	**4**	**0.25**	**5.25 - 5.75**	**0.0057**	**5 - 6**	**#2/12 Sand**
VW4	**a**	**11/23/10**	--	**SS**	**6**	**6**	**4**	**0.25**	**5.25 - 5.75**	**0.0057**	**5 - 6**	**#2/12 Sand**
VW5	**a**	**11/24/10**	--	**SS**	**6**	**6**	**4**	**0.25**	**5.25 - 5.75**	**0.0057**	**5 - 6**	**#2/12 Sand**

Notes:

a Well surveyed on 15 December 2010.

b Well destroyed.

c Depth of bentonite seal at the base of the boring.

TABLE 1 WELL CONSTRUCTION DETAILS, FORMER MOBIL STATION 04FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Well Number	Well Installation Date	Elevation TOC (feet)	Casing Material	Total Depth (feet)	Well Depth (feet)	Borehole Diameter (inches)	Casing Diameter (inches)	Screened Interval (feet)	Slot Size (inches)	Filter Pack Interval (feet)	Filter Pack Material

PVC Polyvinyl chloride.
SS Stainless steel.
TOC Top of casing.

-- Information not available.

TABLE 2 GROUNDWATER MONITORING DATA, FORMER MOBIL STATION 04FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	Concentrations (µg/L) TPH-g	TPH-d	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8020 or 8021)	MTBE (8240 or 8260)	VOCs (8260)
MW1A	03/31/88	36.35	—	—	29,000	ND	ND	ND	550	640	—	—	—
MW1A	01/31/89	36.35	—	—	11,200	—	260	ND	500	500	—	—	—
MW1A	02/24/94	36.35	9.42	26.93	11,000	2,500	70	ND	260	180	—	—	—
MW1A	08/03/94	36.35	12.00	24.35	13,000	7,100	61	50	280	230	—	—	—
MW1A	11/23/94	36.35	11.18	25.17	12,000	2,500	49	ND	300	190	—	—	—
MW1A	02/28/95	36.35	9.08	27.27	10,000	3,200	25	ND	110	67	—	—	—
MW1A	05/10/95	36.35	8.33	28.02	10,000	3,600	31	ND	140	81	—	—	—
MW1A	08/02/95	36.63	9.49	27.14	10,000	3,800	24	18	130	80	—	—	—
MW1A	11/02/95	36.63	11.05	25.58	12,000	3,400[a]	ND	ND	190	150	—	—	—
MW1A	02/08/96	36.63	7.55	29.08	8,000	3,600[a]	100	21	87	58	—	—	—
MW1A	05/08/96	36.63	7.52	29.11	9,200	—	11	ND	120	64	—	—	—
MW1A	08/09/96	36.63	9.63	27.00	—	—	—	—	—	—	—	—	—
MW1A	08/20/96	36.63	—	—	6,800	—	64	22	100	55	130	ND	—
MW1A	11/07/96	36.63	11.01	25.62	7,900	—	100	12	70	34	95	ND	—
MW1A	02/10/97	36.63	7.58	29.05	5,800	—	36	15	67	29	58	ND	—
MW1A	05/07/97	36.63	9.15	27.48	1,400	—	13	ND	11	ND	ND	—	—
MW1A	09/10/97	36.63	10.88	25.75	7,800	—	64	ND	70	26	120	ND	—
MW1A	02/12/98	36.63	5.52	31.11	ND	—	ND	ND	ND	ND	ND	—	—
MW1A	08/12/98	36.63	8.80	27.83	500	—	41	12	1.8	20	ND	—	—
MW1A	12/10/99	36.63	10.86	25.77	1,700	—	ND	1.4	6.2	3.3	ND	—	—
MW1A	01/14/00	36.63	11.33	25.30	4,600	—	ND	30	28	ND	ND	—	—
MW1A	10/27/00	36.63	10.30	26.33	3,500	—	<10	2.6	13	6.4	18	<5	—
MW1A	01/18/01	36.63	10.45	26.18	4,500	—	<10	3.9	12	4.7	<20	—	—
MW1A	07/10/01	36.63	10.72	25.91	2,000	—	<20	18	9.6	18	<20	<2	—
MW1A	11/27/01	16.34	Well resurveyed to new reference point										—
MW1A	01/16/02	16.34	9.02	7.32	2,690	—	11.7	1.60	6.80	6.00	23.9	—	—
MW1A	07/08/02	16.34	10.43	5.91	1,570	—	12.0	11.0	<5.0	<5.0	24.0	<0.50	—
MW1A	01/23/03	16.34	8.84	7.50	2,040	—	16.5	3.5	8.70	5.90	—	<0.50	—
MW1A	07/09/03	16.34	9.97	6.37	1,440	—	8.60	1.0	7.3	5.2	13.6	<0.5	—
MW1A	01/15/04	16.34	9.39	6.95	1,640	—	0.70	5.2	4.0	2.8	—	<0.5	—
MW1A	07/07/04	16.34	10.75	5.59	2,210	—	18.7	2.9	3.7	1.5	—	<0.5	—
MW1A	12/17/08	16.34	11.92	4.42	2,400	—	<0.50	<0.50	1.6	<0.50	—	<0.50	ND
MW2A	02/24/94	36.61	9.52	27.09	6,400	4,500	31	ND	58	42	—	—	—
MW2A	08/23/94	36.61	12.05	24.56	7,500	7,100	42	21	71	53	—	—	—
MW2A	11/23/94	36.61	11.25	25.36	7,000	1,800	33	11	39	ND	—	—	—
MW2A	02/28/95	36.61	9.10	27.51	9,000	1,600	29	36	96	45	—	—	—

TABLE 2 GROUNDWATER MONITORING DATA, FORMER MOBIL STATION 04FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	Concentrations (µg/L) TPH-g	TPH-d	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8020 or 8021)	MTBE (8240 or 8260)	VOCs (8260)
MW2A	05/10/95	36.61	8.42	28.19	5,100	1,600	20	27	32	35	—	—	—
MW2A	08/02/95	36.62	9.54	27.08	4,300	1,800	36	ND	11	16	—	—	—
MW2A	11/02/95	36.62	11.08	25.54	4,300	3,000[a]	22	ND	10	11	—	—	—
MW2A	02/08/96	36.62	7.68	28.94	2,900	940[a]	32	13	13	ND	—	—	—
MW2A	05/08/96	36.62	8.64	27.98	2,500	—	13	12	19	26	—	—	—
MW2A	08/09/96	36.62	9.71	26.91	—	—	—	—	—	—	—	—	—
MW2A	08/20/96	36.62	—	—	2,500	—	19	11	6.8	8.1	36	—	—
MW2A	11/07/96	36.62	11.04	25.58	4,700	—	58	7.3	5.3	ND	55	—	—
MW2A	02/10/97	36.62	7.75	28.87	2,600	—	12	10	35	15	ND	—	—
MW2A	05/07/97	36.62	9.23	27.39	3,300	—	25	18	16	11	ND	—	—
MW2A	09/10/97	36.62	10.91	25.71	2,800	—	24	ND	ND	ND	43	—	—
MW2A	02/12/98	36.62	5.59	31.03	3,800	—	10	11	30	14	ND	—	—
MW2A	08/12/98	36.62	8.85	27.77	1,300	—	0.8	8.7	2.4	4.7	ND	—	—
MW2A	12/10/99	36.62	10.90	25.72	1,300	—	ND	2.2	ND	ND	ND	—	—
MW2A	01/14/00	36.62	11.39	25.23	2,700	—	1.3	18	2.4	ND	ND	—	—
MW2A	10/27/00	36.62	10.48	26.14	2,600	—	9.6	2.4	<5.0	<5.0	7.9	—	—
MW2A	01/18/01	36.62	10.61	26.01	3,800	—	<5.0	2.1	3.0	2.0	<10	—	—
MW2A	07/10/01	36.62	10.78	25.84	2,100	—	<10	2.6	2.8	3.4	<10	—	—
MW2A	11/27/01	16.12	Well resurveyed to new reference point										—
MW2A	01/16/02	16.12	9.11	7.01	2,500	—	9.80	5.10	6.50	9.80	16.0	—	—
MW2A	07/08/02	16.12	10.48	5.64	682	—	6.3	0.7	0.9	3.3	8.5	—	—
MW2A	01/23/03	16.12	8.94	7.18	1,180	—	8.8	3.1	4.8	5.8	—	<0.50	—
MW2A	07/09/03	16.12	10.03	6.09	1,430	—	7.80	1.5	3.1	3.4	10.5	<0.5	—
MW2A	01/15/04	16.12	9.48	6.64	1,530	—	0.50	4.8	2.2	2.9	—	<0.5	—
MW2A	07/07/04	16.12	10.80	5.32	797	—	5.70	1.3	1.7	1.1	—	<0.5	—
MW2A	12/17/08	16.12	12.03	4.09	1,300	—	<0.50	<0.50	<0.50	<0.50	—	<0.50	ND
MW3A	02/24/94	36.92	9.85	27.07	19,000	10,000	52	30	690	290	—	—	—
MW3A	08/23/94	36.92	12.33	24.59	14,000	11,000	44	24	1,000	100	—	—	—
MW3A	11/23/94	36.92	11.56	25.36	13,000	2,600	30	18	690	52	—	—	—
MW3A	02/28/95	36.92	9.35	27.57	8,500	—	11	ND	340	24	—	—	—
MW3A	05/10/95	36.92	8.55	28.37	7,600	3,800	ND	ND	400	45	—	—	—
MW3A	08/02/95	36.93	9.75	27.18	9,200	3,800	17	13	340	34	—	—	—
MW3A	11/02/95	36.93	11.29	25.64	9,200	4,400[a]	31	ND	360	72	—	—	—
MW3A	02/08/96	36.93	7.97	28.96	6,900	3,800[a]	38	ND	230	43	—	—	—
MW3A	05/08/96	36.93	8.82	28.11	7,700	—	ND	ND	270	38	—	—	—
MW3A	08/09/96	36.93	9.95	26.98	—	—	—	—	—	—	—	—	—

TABLE 2 GROUNDWATER MONITORING DATA, FORMER MOBIL STATION 04FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	Concentrations (µg/L) TPH-g	TPH-d	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8020 or 8021)	MTBE (8240 or 8260)	VOCs (8260)
MW3A	08/20/96	36.93	—	—	5,600	—	8.0	29	180	23	12	—	—
MW3A	11/07/96	36.93	11.28	25.65	8,600	—	47	ND	150	29	ND	—	—
MW3A	02/10/97	36.93	7.95	28.98	8,300	—	28	ND	130	23	ND	—	—
MW3A	05/07/97	36.93	9.45	27.48	37,000	—	230	110	630	ND	ND	—	—
MW3A	09/10/97	36.93	11.13	25.80	5,500	—	16	ND	75	11	ND	—	—
MW3A	02/12/98	36.93	5.72	31.21	10,000	—	37	ND	84	25	ND	—	—
MW3A	08/12/98	36.93	9.05	27.88	5,600	—	4	18	39	19	ND	—	—
MW3A	12/10/99	36.93	11.21	25.72	5,900	—	ND	3.0	22	5.0	ND	—	—
MW3A	01/14/00	36.93	11.64	25.29	6,500	—	7.5	27	37	ND	ND	—	—
MW3A	10/27/00	36.93	10.78	26.15	6,300	—	<10	3.8	17	5.6	<20	—	—
MW3A	01/18/01	36.93	10.87	26.06	7,300	—	<20	3.1	14	3.3	<10	—	—
MW3A	07/10/01	36.93	11.03	25.90	5,200	—	7.3	8.0	11	9.6	<10	—	—
MW3A	11/27/01	16.42	Well resurveyed to new reference point										—
MW3A	01/16/02	16.42	9.38	7.04	4,900	—	19.0	<5.00	16.0	14.0	28.0	<5	—
MW3A	07/08/02	16.42	10.75	5.67	2,470	—	9.1	1.8	8.8	4.1	17.5	—	—
MW3A	01/23/03	16.42	9.20	7.22	2,240	—	12.5	4.5	7.9	28.0	—	<0.50	—
MW3A	07/09/03	16.42	10.28	6.14	2,850	—	10.8	2.8	8.3	5.5	15.7	<0.5	—
MW3A	01/15/04	16.42	9.77	6.65	2,810	—	1.20	8.2	5.9	9.1	—	<0.5	—
MW3A	07/07/04	16.42	11.07	5.35	2,250	—	15.9	2.7	5.8	1.8	—	<0.5	—
MW3A	12/17/08	16.42	12.45	3.97	1,500	—	<0.50	<0.50	0.58	<0.50	—	<0.50	ND
MW4A	08/02/95	37.18	9.63	27.55	ND	ND	ND	ND	ND	ND	—	—	—
MW4A	11/02/95	37.18	11.48	25.70	ND	ND	ND	ND	ND	ND	—	—	—
MW4A	02/08/96	37.18	8.18	29.00	ND	ND	ND	1.1	ND	0.92	—	—	—
MW4A	05/08/96	37.18	8.49	28.69	ND	—	ND	ND	ND	ND	—	—	—
MW4A	08/09/96	37.18	10.05	27.13	—	—	—	—	—	—	—	—	—
MW4A	08/20/96	37.18	—	—	ND	—	ND	ND	ND	ND	ND	—	—
MW4A	11/07/96	37.18	11.48	25.70	ND	—	ND	ND	ND	0.88	ND	—	—
MW4A	02/10/97	37.18	8.11	29.07	ND	—	ND	2.4	ND	ND	ND	—	—
MW4A	05/07/97	37.18	9.64	27.54	ND	—	ND	ND	ND	ND	ND	—	—
MW4A	09/10/97	37.18	11.32	25.86	—	—	—	—	—	—	—	—	—
MW4A	02/12/98	37.18	5.90	31.28	ND	—	ND	ND	ND	ND	ND	—	—
MW4A	08/12/98	37.18	9.21	27.97	—	—	—	—	—	—	—	—	—
MW4A	12/10/99	37.18	11.46	25.72	ND	—	ND	0.39	ND	0.95	ND	—	—
MW4A	03/09/00	Well destroyed											
MW5A	08/02/95	35.91	8.74	27.17	1,300	220	16	0.68	1.3	4.3	—	—	—
MW5A	11/02/95	35.91	10.34	25.57	180	ND	1.9	1.2	ND	ND	—	—	—

TABLE 2 GROUNDWATER MONITORING DATA, FORMER MOBIL STATION 04FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	Concentrations (µg/L)								
					TPH-g	TPH-d	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8020 or 8021)	MTBE (8240 or 8260)	VOCs (8260)
MW5A	02/08/96	35.91	6.67	29.24	160	150	1.9	2.2	ND	0.89	—	—	—
MW5A	05/08/96	35.91	7.35	28.56	260	—	2.4	6.7	2.0	9.6	—	—	—
MW5A	08/09/96	35.91	8.81	27.10	—	—	—	—	—	—	—	—	—
MW5A	08/20/96	35.91	—	—	ND	—	ND	1.8	ND	ND	9.4	—	—
MW5A	11/07/96	35.91	10.25	25.66	—	—	—	—	—	—	—	—	—
MW5A	02/10/97	35.91	6.93	28.98	ND	—	ND	1.2	ND	ND	ND	—	—
MW5A	05/07/97	35.91	8.42	27.49	—	—	—	—	—	—	—	—	—
MW5A	09/10/97	35.91	10.15	25.76	—	—	—	—	—	—	—	—	—
MW5A	02/12/98	35.91	5.32	30.59	ND	—	ND	ND	ND	ND	ND	—	—
MW5A	08/12/98	35.91	8.19	27.72	—	—	—	—	—	—	—	—	—
MW5A	12/10/99	35.91	10.10	25.81	ND	—	ND	ND	ND	ND	ND	—	—
MW5A	03/09/00	Well destroyed											
MW6A	08/02/95	37.10	9.68	27.42	ND	ND	ND	ND	ND	ND	—	—	—
MW6A	11/02/95	37.10	11.26	25.84	ND	ND	ND	ND	ND	ND	—	—	—
MW6A	02/08/96	37.10	7.79	29.31	ND	ND	ND	1.3	ND	1.3	—	—	—
MW6A	05/08/96	37.10	8.38	28.72	ND	—	ND	1.6	ND	1.2	—	—	—
MW6A	08/09/96	37.10	9.82	27.28	—	—	—	—	—	—	—	—	—
MW6A	08/20/96	37.10	—	—	ND	—	ND	ND	ND	ND	ND	—	—
MW6A	11/07/96	37.10	11.02	26.08	—	—	—	—	—	—	—	—	—
MW6A	02/10/97	37.10	7.70	29.40	ND	—	ND	3.4	ND	ND	ND	—	—
MW6A	05/07/97	37.10	9.31	27.79	—	—	—	—	—	—	—	—	—
MW6A	09/10/97	37.10	11.08	26.02	—	—	—	—	—	—	—	—	—
MW6A	02/12/98	37.10	5.52	31.58	ND	—	ND	ND	ND	ND	ND	—	—
MW6A	08/12/98	37.10	8.91	28.19	—	—	—	—	—	—	—	—	—
MW6A	12/10/99	37.10	11.24	25.86	ND	—	ND	0.32	ND	ND	ND	—	—
MW6A	03/09/00	Well destroyed											
MW7A	11/02/95	37.39	11.77	25.62	ND	ND	ND	ND	ND	ND	—	—	—
MW7A	02/08/96	37.39	8.68	28.71	ND	75	ND	1.4	ND	1.5	—	—	—
MW7A	05/08/96	37.39	9.00	28.39	ND	—	2.2	6.3	1.4	7.9	—	—	—
MW7A	08/09/96	37.39	10.31	27.08	—	—	—	—	—	—	—	—	—
MW7A	08/20/96	37.39	—	—	ND	—	ND	ND	ND	ND	ND	—	—
MW7A	11/07/96	37.39	11.81	25.58	ND	—	ND	0.96	ND	1.6	ND	—	—
MW7A	02/10/97	37.39	8.57	28.82	ND	—	ND	2.4	ND	ND	ND	—	—
MW7A	05/07/97	37.39	10.05	27.34	ND	—	ND	ND	ND	ND	ND	—	—
MW7A	09/10/97	37.39	11.66	25.73	ND	—	ND	ND	ND	ND	ND	—	—
MW7A	02/12/98	37.39	6.55	30.84	ND	—	ND	ND	ND	ND	ND	—	—

TABLE 2 GROUNDWATER MONITORING DATA, FORMER MOBIL STATION 04FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	Concentrations (µg/L) TPH-g	TPH-d	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8020 or 8021)	MTBE (8240 or 8260)	VOCs (8260)
MW7A	08/12/98	37.39	9.65	27.74	ND	—	0.5	ND	ND	ND	ND	—	—
MW7A	12/10/99	37.39	11.80	25.59	ND	—	ND	ND	ND	ND	ND	—	—
MW7A	03/09/00	Well destroyed											
MW-7	12/17/08	—	—	—	7,700	—	0.80	1.2	350	13	—	<0.50	ND

Notes: Well MW-7 was installed for the 76 Station site located to the southeast.
Adopted from ETIC, 2009a. Quarterly Groundwater Monitoring Report, January.

a Unidentified hydrocarbons <C10

MTBE Methyl tertiary butyl ether.
ND Not detected at or above laboratory reporting limit.
TOC Top of casing.
TPH-d Total Petroleum Hydrocarbons as diesel.
TPH-g Total Petroleum Hydrocarbons as gasoline.
VOCs Volatile organic compounds including tetrachlorethene, trichlorethene, and 1,2-dichloroethene.

µg/L Micrograms per liter.
— Not analyzed or not provided.

TABLE 3 GROUNDWATER ANALYTICAL RESULTS FOR OXYGENATES AND ADDITIVES,
FORMER MOBIL STATION 04FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Well ID	Date	Concentrations (µg/L)						
		Tertiary butyl alcohol	Methyl tertiary butyl ether	Diisopropyl ether	Ethyl tertiary butyl ether	Tertiary amyl methyl ether	1,2-Dichloro-ethane	1,2-Dibromo-ethane
MW1A	08/20/96	--	ND	--	--	--	--	--
MW1A	11/07/96	--	ND	--	--	--	--	--
MW1A	02/10/97	--	ND	--	--	--	--	--
MW1A	09/10/97	--	ND	--	--	--	--	--
MW1A	10/27/00	--	<5	--	--	--	--	--
MW1A	07/10/01	--	<2	--	--	--	--	--
MW1A	07/08/02	--	<0.50	--	--	--	--	--
MW1A	01/23/03	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW1A	01/15/04	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW1A	07/07/04	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW1A	12/17/08	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW2A	01/23/03	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW2A	01/15/04	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW2A	07/07/04	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW2A	12/17/08	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW3A	01/16/02	--	<5	--	--	--	--	--
MW3A	01/23/03	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW3A	01/15/04	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW3A	07/07/04	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW3A	12/17/08	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-7	12/17/08	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

Notes: Well MW-7 was installed for the 76 Station site located to the southeast.
Adopted from ETIC, 2009a. Quarterly Groundwater Monitoring Report, January.

ND Not detected at or above laboratory reporting limit.

-- Not analyzed or not provided.

µg/L Micrograms per liter.

APPENDIX C

CITY OF SAN LEANDRO ZONING MAP

City of San Leandro
Zoning

City of Oakland

Lake Chabot

Castro Valley

Ashland

San Lorenzo

San Francisco Bay

C-RM	Commercial - Regional Mall District
CC	Commercial Community District
CN	Commercial Neighborhood District
CR	Commercial Recreation District
CS	Commercial Services District
DA-1	Downtown Area 1
DA-2	Downtown Area 2
DA-3	Downtown Area 3
DA-4	Downtown Area 4
DA-5	Downtown Area 5
DA-6	Downtown Area 6
IG	Industrial General District
IL	Industrial Limited District
IP	Industrial Park District
NA-1	North Area 1 District
NA-2	North Area 2 District
OS	Open Space District
P	Professional Office District
PHD	Professional High Density Office District
PS	Public and Semipublic District
RD	Residential Duplex District
RM-1800	Residential Multi-Family District - 24 dwellings per gross acre
RM-2000	Residential Multi-Family District - 22 dwellings per gross acre
RM-2500	Residential Multi-Family District - 17.5 dwellings per gross acre
RM-3000	Residential Multi-Family District - 14.5 dwellings per gross acre
RO	Residential Outer District
RS	Residential Single-Family District
RS-40	Residential Single-Family District - 40 ft front yard setback
RS-VP	Residential Single-Family District - view preservation
SA-1	South Area 1 District
SA-2	South Area 2 District
SA-3	South Area 3 District

N W E S

0 1/8 1/4 1/2 3/4 1 Mile

5/21/13

CAUTION

WHEN USING THIS MAP

Information shown hereon is a compilation of data from sources of varying accuracy and is provided as a convenience to the user. The City of San Leandro does not guarantee its completeness or accuracy.

It is the user's responsibility to verify all information to their own satisfaction.

APPENDIX D

STATE WATER RESOURCES CONTROL BOARD RESOLUTION NO. 2012-0062

STATE WATER RESOURCES CONTROL BOARD
RESOLUTION NO. 2012-0062

DIRECTING ADDITIONAL ACTIONS TO IMPROVE THE
UNDERGROUND STORAGE TANK CLEANUP PROGRAM

WHEREAS:

1. Resolution Nos. 2009-0042 and 2009-0081 were adopted by the State Water Resources Control Board (State Water Board) on May 19, 2009, and November 17, 2009, respectively, and directed numerous actions to improve the administration of the Underground Storage Tank (UST) Cleanup Program finding that UST cleanups are taking too long to complete.

2. Resolution No. 2012-0016 was adopted by State Water Board on May 1, 2012, adopting the Low-Threat Underground Storage Tank Case Closure Policy (Low-Threat Closure Policy), which is a state policy for water quality control. The Low-Threat Closure Policy became effective on August 17, 2012. Corrective action directed pursuant to Health and Safety Code 25296.10 must be consistent with state policies for water quality control, including the Low-Threat Closure Policy.

3. Chapter 16 of Title 23 of the California Code of Regulations (UST Regulations) contains corrective action requirements. The UST Regulations require that Corrective Action Plans (CAPs) submitted to Regional Water Boards and local agencies by responsible parties include cost-effective methods for cleanup of unauthorized releases. Regional Water Boards and local agencies shall concur with CAPs that adequately protect human health, safety and the environment, and beneficial uses of water or direct that the CAP be modified. The implementation of the CAP consists of carrying out the cost-effective method for cleanup.

4. Under Health and Safety Code authority, the Regional Water Boards and local agencies, including Local Oversight Program (LOP) agencies (collectively, "regulatory agencies"), direct corrective actions to remediate soil and groundwater at petroleum UST sites that have had unauthorized releases.

5. A number of regulatory agencies have already made significant progress in closing their low-threat cases.

6. Water Code section 13360 prohibits Regional Water Boards from specifying, but not from suggesting, methods that a responsible party may use to achieve compliance with cleanup requirements.

7. Improvements to the UST cleanup program are necessary and must be verified and tracked with performance measures and appropriate reporting.

8. The Health and Safety Code section 25299.39.2 requires that the State Water Board's manager of the UST Cleanup Fund perform reviews of claims open for five years or more and recommend case closure to the State Water Board for appropriate cases. It also provides for closure by the State Water Board of these UST cases.

9. The State Water Board has the authority to review and close petroleum UST cases under its own authority, pursuant to Health and Safety Code section 25296.10.

10. The Low-Threat Closure Policy is intended to increase UST cleanup process efficiency and to preserve limited resources for the mitigation of releases posing a greater threat to human and environmental health. The Low-Threat Closure Policy specifies criteria for closure of low-threat UST cases.

11. There are limited resources available for cleanup of USTs. The UST Cleanup Fund is the primary funding source for regulatory oversight of UST cleanups by (1) Water Board staff as direct funding, (2) LOP agencies through contracts, and (3) other local agencies through reimbursement of their fees to Fund claimants. For regulatory oversight and UST Cleanup Fund administration, more than $597 million have been expended since the inception of the UST Cleanup Fund, and the current annual cost is more than $43 million.

12. The UST Cleanup Fund also reimburses reasonable and necessary costs for corrective action of those cases that are eligible for the UST Cleanup Fund. More than 15,500 claims have been found eligible over the 20-year life of the UST Cleanup Fund. Of the eligible claims, more than 8,000 have been closed, with a total reimbursement of approximately $1.4 billion (average $180,000/case). More than 3,400 claims are currently active and have been reimbursed $1.8 billion (average $500,000/case) to date. The UST Cleanup Fund has reimbursed about $3.2 billion to date. There are also more than 4,500 claims that are on the Priority List (waiting list for claim activation).

13. In addition to the $3.2 billion reimbursed to date, the additional cost to reimburse the active claims and Priority List claims is projected to be about $3.5 billion. This includes about $1 billion in projected reimbursements to close out the currently active claims. This is in addition to the $1.8 billion already expended on active claims. The total cost to reimburse active claims is estimated to be about $2.8 billion (average claim estimated $750,000/claim). The cost to reimburse the Priority List claims is estimated to be about $2.5 billion.

14. The UST Cleanup Fund is scheduled to sunset on January 1, 2016. The projected funding available for claim reimbursement through the sunset date is about $660 million. This leaves a funding shortfall of about $2.84 billion of the estimated $3.5 billion in corrective action costs that claimants may expect to be reimbursed by the UST Cleanup Fund. The current approach to corrective action contributes significantly to these high corrective action costs.

15. U.S. EPA data indicate that the average UST case has been open 17 years. For UST cases with claims active for over five years, reviews by the UST Cleanup Fund manager recommend that approximately one-third pursue the current work phase, approximately one-third take additional corrective action to address UST releases, and approximately one-third pursue closure. Cases that are appropriate for closure remain open, unnecessarily burdening responsible parties and the UST Cleanup Fund. Appropriate closure also makes available resources to agency staff to oversee necessary corrective action. Remaining funds should reimburse corrective action for releases that have affected beneficial uses of public supply wells and domestic wells, and other uses that significantly affect human health.

16. The ultimate disposition of all cleanup sites is case closure when they no longer pose a significant impact on human health, safety or the environment. In the very short term, regulatory agencies should focus on evaluating cases under the Low-Threat Closure Policy, closing those that meet the criteria of the Low Threat Closure Policy or the requirements of Resolution 92-49 as soon as they do. The goal is to clean up the higher-threat cases so that these cases become low-threat cases that can then be closed.

17. Regulatory agencies, which perform direct oversight of corrective action at these sites, are in the best position to ensure that case closure related activities required by the Policy, such as monitoring well destruction, are completed.

18. AB 1701 (chapter 536, statutes of 2012) will take effect January 1, 2013.

19. AB 1715 (chapter 237, statutes of 2012) will take effect January 1, 2013. It limits new directives by regulatory agencies for cases that the Fund Manager has recommended for closure.

THEREFORE BE IT RESOLVED THAT:

The State Water Board:

1. Approves the Plan for Implementation of Low-Threat Underground Storage Tank Case Closure Policy and Additional Program Improvements (Plan).

2. Directs the Executive Director or designee to update the Plan as appropriate and to inform the State Water Board of each update.

3. Directs State Water Board staff to:

   a. Aggressively implement the Plan and this Resolution.

   b. Review a regulatory agency's decision when the regulatory agency has denied a request by a responsible party for case closure pursuant to the Low-Threat Closure Policy, and propose case closure, as appropriate, within six months of the update to GeoTracker indicating closure denial.

   c. Implement performance measures as follows:

      i. In consultation with regulatory agencies, develop performance measures for the implementation of Resolution No. 2012-0016 and this Resolution, as well as additional elements contained in the Plan, including measures for timely oversight of monitoring well destruction and waste removal;
      ii. By means of GeoTracker, track performance measures; and
      iii. Report results to the State Water Board on the performance measures on a semi-annual basis in the Executive Director's report and in the UST updates directed by Resolution No. 2009-0042.

   d. Notify regulatory agencies regarding the enactment of AB 1715 (chapter 237, statutes of 2012) and AB 1701 (chapter 536, statutes of 2012).

e. Take all appropriate steps to implement AB 1701 and AB 1715.

4. Repeals section 5 of Resolution No. 2012-0016 and adopts the following:

   Directs the regulatory agencies to review all cases in the petroleum UST Cleanup Program using the framework provided in the Low-Threat Closure Policy, except those cases that a UST Cleanup Fund Review Summary Report has recommended be considered for closure. This first annual review shall be accomplished within existing budgets and be performed no later August 16, 2013. These case reviews shall, at a minimum, include the following for each UST case:

   a. Determination of whether or not each UST case meets the criteria in the Low-Threat Closure Policy or is otherwise appropriate for closure based on a site-specific analysis. Documentation of this determination in GeoTracker is required if the case is not closed by August 16, 2013; and

   b. If the case does not satisfy the criteria in the Low-Threat Closure Policy or does not present a low-risk based upon a site-specific analysis, impediments to closure shall be identified using the "Online Checklist" in GeoTracker, which is publicly available on the State Water Board's web site.

5. Commends those regulatory agencies that have already made significant progress in closing their low-threat UST cases, and directs all regulatory agencies to:

   a. Aggressively implement the State Water Board Low-Threat UST Case Closure Policy, the Plan, and this Resolution; and

   b. Pursuant to AB 1715, upon receipt of UST Cleanup Fund manager Review Summary Report recommending case closure, refrain from issuing new corrective action directives or enforcing existing directives at the site before the State Water Board issues a decision on closure, unless one or more of the conditions in Health and Safety Code section 25299.39.2(a)(4)(A-D) is met.

6. Additionally directs each Regional Water Board and LOP to:

   a. Implement procedures and strategies that will achieve the following results:

      i. Minimize the number of open UST cleanup cases that will remain at the time the Fund sunsets;
      ii. Minimize the number of water supply wells whose beneficial uses are impacted by releases from USTs;
      iii. Control human health exposure to releases from USTs as soon as feasibly possible;
      iv. Minimize the cost of compliance with agency directives; and
      v. Minimize the agency response time to closure requests, workplan approvals, and other related items.

   b. Proactively manage each case under its jurisdiction as set forth in the Plan and this Resolution.

i. Assist responsible parties by providing technical assistance when requested, including assistance with identifying cost-effective cleanup methods that may be used to achieve compliance with regulatory cleanup requirements;
ii. Prior to issuing new directives, review the Policy criteria and, for cases that are eligible for the UST Cleanup Fund, the most recent Review Summary Report and the annual UST Cleanup Fund budget for the case;
iii. Oversee closure activities including monitoring well destruction so that they are completed within six months after the State Water Board orders case closure; and
iv. Promptly close each case that meets the criteria in the Policy or the requirements of Resolution 92-49.

c. Additionally, for cases that remain open after August 16, 2013:

i. Develop a Path to Closure Plan by December 31, 2013, that addresses the impediments to closure identified pursuant to Section 4.b. It is the responsibility of each agency to ensure that all UST cleanup cases have a Path to Closure Plan with milestone dates by calendar quarter, which will achieve site cleanup and case closure in a timely and efficient manner that minimizes the cost of corrective action;
ii. After the appropriate field has been created in GeoTracker, use GeoTracker to promptly identify cases that receive a closure request from a responsible party; and
iii. Prioritize cases as follows:
- Cases where beneficial uses of drinking water wells have been affected or there are significant impacts to human health;
- Cases where the sources of free product are still in place; and
- Other cases where corrective action is critical prior to sunset of the UST Cleanup Fund (i.e., high-threat cases with no viable responsible party).

CERTIFICATION

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on November 6, 2012.

AYE:	Vice Chair Frances Spivy-Weber Board Member Tam M. Doduc Board Member Steven Moore Board Member Felicia Marcus
NAY:	None
ABSENT:	Chairman Charles R. Hoppin
ABSTAIN:	None

Jeanine Townsend
Clerk to the Board