

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

ALEX BRISCOE, Director



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

June 26, 2014

Athan Magganas
Bruder, LLC
2550 Appain Way, #201
Pinole, CA 94564
Sent via E-mail to: magganas@prodigy.net

Ali Reza Khashabi
4220 Clayton Road
Clayton, CA 94520

Subject: Case Closure for Fuel Leak Case No. RO3066 and GeoTracker Global ID T10000002456, Gas Station/East Bay Smog Center & Auto Repair, 6501 Shattuck Avenue, Oakland, CA 94609

Dear Gentlemen:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25296.10[g]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Health (ACEH) is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed. This case closure letter and the case closure summary can also be viewed on the State Water Resources Control Board's Geotracker website (<http://geotracker.waterboards.ca.gov>) and the Alameda County Environmental Health website (<http://www.acgov.org/aceh/index.htm>).

If you have any questions, please call Karel Detterman at (510) 567-6708. Thank you.

Sincerely,

A handwritten signature in blue ink that reads "Dilan Roe". The signature is fluid and cursive.

Dilan Roe, P.E.
LOP and SCP Program Manager

Enclosures: 1. Remedial Action Completion Certification
2. Case Closure Summary

cc with enclosures:

Ann Clevenger, Planner III, City of Oakland Planning and Building Department, 250 Frank H. Ogawa Plaza, Suite 2114, Oakland, CA 94612 (sent via e-mail to: aclevenger@oaklandnet.com)

Mansour Sepehr, SOMA Environmental Engineering, Inc., 6620 Owens Drive, Pleasanton, CA 94588 (sent via e-mail to: msepehr@somaenv.com)

Dilan Roe, ACEH, (sent via e-mail to: dilan.roe@acgov.org)

Karel Detterman (sent via electronic mail to: karel.detterman@acgov.org)
eFile, GeoTracker



REMEDIAL ACTION COMPLETION CERTIFICATION

June 26, 2014

Athan Magganas
Bruder, LLC
2550 Appain Way, #201
Pinole, CA 94564
Sent via E-mail to: magganas@prodigy.net

Ali Reza Khashabi
4220 Clayton Road
Clayton, CA 94520

Subject: Case Closure for Fuel Leak Case No. RO3066 and GeoTracker Global ID T10000002456, Gas Station/East Bay Smog Center & Auto Repair, 6501 Shattuck Avenue, Oakland, CA 94609

Dear Gentlemen:

This letter confirms the completion of a site investigation and remedial action for the underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tank(s) are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25296.10 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.3 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

Please be aware that claims for reimbursement of corrective action costs submitted to the Underground Storage Tank Cleanup Fund more than 365 days after the date of this letter or issuance or activation of the Fund's Letter of Commitment, whichever occurs later, will not be reimbursed unless one of the following exceptions applies:

- Claims are submitted pursuant to Section 25299.57, subdivision (k) (reopened UST case); or
- Submission within the timeframe was beyond the claimant's reasonable control, ongoing work is required for closure that will result in the submission of claims beyond that time period, or that under the circumstances of the case, it would be unreasonable or inequitable to impose the 365-day time period.

This notice is issued pursuant to subdivision (g) of Section 25296.10 of the Health and Safety Code. Please contact our office if you have any questions regarding this matter.

Sincerely,

Ariu Levi
Director

CASE CLOSURE SUMMARY
LEAKING UNDERGROUND FUEL STORAGE TANK - LOCAL OVERSIGHT PROGRAM

I. AGENCY INFORMATION

Date: June 26, 2014

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 567-6708
Responsible Staff Person: Karel Detterman	Title: Hazardous Materials Specialist

II. CASE INFORMATION

Site Facility Name: East Bay Smog Center and Auto Repair		
Site Facility Address: 6501 Shattuck Ave., Oakland, CA		
RB Case No.: ---	Previous Case STiD No.: ---	LOP Case No.: RO0003066
GeoTracker ID: T10000002456		APN: 16-1428-11-2
Current Land Use: Closed auto repair business, Commercial		
Responsible Parties	Addresses	Phone Numbers
Bruder LLC	2550 Appian Way, Suite 201, Pinole, CA 94564	510-520-1482

This Case Closure Summary along with the Case Closure Transmittal letter and the Remedial Action Completion Certification provides documentation of the case closure. This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions. Additional information on the case can be viewed in the online case file. The entire case file can be viewed over the Internet on the Alameda County Environmental Health (ACEH) website (<http://www.acgov.org/aceh/lop/ust.htm>) or the State of California Water Resources Control Board GeoTracker website (<http://geotracker.waterboards.ca.gov>). Not all historic documents for the fuel leak case may be available on GeoTracker. A more complete historic case file for this site is located on the ACEH website.

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Release from underground storage tank (UST) system.		
Number of monitoring wells installed: 3	Number of monitoring wells destroyed: 3	Number of monitoring wells remaining: 0
Highest Groundwater Depth Below Ground Surface: 2.94 feet bgs	Lowest Depth: 8.60 feet bgs	Flow Direction: Southwest
Most Sensitive Current Groundwater Use: Potential drinking water source		

<p>Summary of Production Wells in Vicinity: No sensitive receptor survey has been performed for the site. However a sensitive receptor survey conducted for nearby Fuel Leak Case (RO0000078) located at 6407 Telegraph Ave, Oakland indicated one irrigation well was located at 3215 Adeline Street, Berkeley, a distance of approximately 1,300 feet downgradient from subject site. Based on the non-detect contaminant levels, this irrigation well is not expected to be a receptor for the site. No other water supply wells were identified within 2,000 feet of the site.</p>	
Are drinking water wells affected? No	Aquifer Name: East Bay Plain
Is surface water affected? No	Nearest Surface Water Name: Claremont Creek is located approximately 950 feet upgradient and northeast of the site.

LTCP GROUNDWATER SPECIFIC CRITERIA

LTCP Groundwater Specific Scenario under which case was closed: Scenario 1

Site Data		LTCP Scenario 1 Criteria (ppb)	LTCP Scenario 2 Criteria (ppb)	LTCP Scenario 3 Criteria (ppb)	LTCP Scenario 4 Criteria (ppb)
Plume Length	<100 feet	<100 feet	<250 feet	<250 feet	<1,000 feet
Free Product	No free product	No free product	No free product	Removed to maximum extent practicable	No free product
Plume Stable or Decreasing	Stable	Stable or decreasing	Stable or decreasing	Stable or decreasing for minimum of 5 Years	Stable or decreasing
Distance to Nearest Water Supply Well	Approximately 1,300 feet downgradient	>250 feet	>1,000 feet	>1,000 feet	>1,000 feet
Distance to Nearest Surface Water and Direction	Claremont Creek 950 feet upgradient	>250 feet	>1,000 feet	>1,000 feet	>1,000 feet
Property Owner Willing to Accept a Land Use Restriction?	Not Applicable	Not applicable	Not applicable	Yes	Not applicable

GROUNDWATER CONCENTRATIONS

Constituent	Historic Site Maximum (ppb)	Current Site Maximum (ppb)	LTCP Scenario 1 Criteria (ppb)	LTCP Scenario 2 Criteria (ppb)	LTCP Scenario 3 Criteria (ppb)	LTCP Scenario 4 Criteria (ppb)
Benzene	59	<0.5	No criteria	3,000	No criteria	1,000
MTBE	1.9	<0.5	No criteria	1,000	No criteria	1,000
<i>List other chemicals of specific concern</i>						

Scenario 5: If the site does not meet scenarios 1 through 4, has a determination been made that under current and reasonably expected future scenarios, the contaminant plume poses a low threat to human health and safety and to the environment and water quality objectives will be achieved within a reasonable time frame?

LTCP VAPOR SPECIFIC CRITERIA

LTCP Vapor Specific Scenario under which case was closed: Scenario 3A

Active Fueling Station Active as of ----

Site Data		LTCP Scenario 1 Criteria	LTCP Scenario 2 Criteria	LTCP Scenario 3A Criteria	LTCP Scenario 3B Criteria	LTCP Scenario 3C Criteria	LTCP Scenario 4 Criteria
Unweathered NAPL	No NAPL	LNAPL in groundwater	LNAPL in soil	No NAPL	No NAPL	No NAPL	No criteria
Thickness of Bioattenuation Zone Beneath Foundation	15 feet	≥30 feet	≥30 feet	≥5 feet	≥10 feet	≥5 feet	≥5 feet
Total TPH in Bioattenuation Zone	67 ppm	<100 ppm	<100 ppm	<100 ppm	<100 ppm	<100 ppm	<100 ppm
Maximum Current Benzene Concentration in Groundwater	<0.5 ppb	No criteria	No criteria	<100 ppb	≥100 and <1,000 ppb	<1,000 ppb	No criteria
Oxygen Data within Bioattenuation Zone	No oxygen data	No criteria	No criteria	No oxygen data or <4%	No oxygen data or <4%	≥4% at lower end of zone	≥4% at lower end of zone
Depth of soil vapor measurement beneath foundation	---	No criteria	No criteria	No criteria	No criteria	No criteria	≥5 feet

SCENARIO 4 DIRECT MEASUREMENT OF SOIL VAPOR CONCENTRATIONS

Site Soil Vapor Data			No Bioattenuation Zone		Bioattenuation Zone	
Constituent	Historic Maximum (µg/m³)	Current Maximum (µg/m³)	Residential	Commercial	Residential	Commercial
Benzene	---	---	<85	<280	<85,000	<280,000
Ethylbenzene	---	---	<1,100	<3,600	<1,100,000	<3,600,000
Naphthalene	---	---	<93	<310	<93,000	<310,000

If the site does not meet scenarios 1 through 4, does a site-specific risk assessment for the vapor intrusion pathway demonstrate that human health is protected?

If the site does not meet scenarios 1 through 4, has a determination been made that petroleum vapors from soil or groundwater will have no significant risk of adversely affecting human health as a result of controlling exposure through the use of mitigation measures or through the use of institutional controls?

LTCP DIRECT CONTACT AND OUTDOOR AIR EXPOSURE CRITERIA

LTCP Direct Contact and Outdoor Air Exposure Specific Scenario under which case was closed: Maximum concentrations of petroleum hydrocarbons are less than or equal to those in Table 1 below

Are maximum concentrations less than those in Table 1 below?

Yes

Constituent		Residential		Commercial/Industrial		Utility Worker
		0 to 5 feet bgs (ppm)	Volatilization to outdoor air (5 to 10 feet bgs) ppm.	0 to 5 feet bgs (ppm)	Volatilization to outdoor air (5 to 10 feet bgs) ppm	0 to 10 feet bgs (ppm)
Site Maximum	Benzene	---	<0.15	---	<0.15	<0.15
LTCP Criteria	Benzene	≤1.9	≤2.8	≤8.2	≤12	≤14
Site Maximum	Ethylbenzene	---	0.18	---	0.18	0.18
LTCP Criteria	Ethylbenzene	<21	≤32	≤89	≤134	≤314
Site Maximum	Naphthalene	---	<0.0047	---	<0.0047	<0.0047
LTCP Criteria	Naphthalene	≤9.7	≤9.7	≤45	≤45	≤219
Site Maximum	PAHs	---	0.093	---	0.093	0.093
LTCP Criteria	PAHs	≤0.063	NA	≤0.68	NA	≤4.5
If maximum concentrations are greater than those in Table 1, are they less than levels from a site-specific risk assessment?				Not Applicable		
If maximum concentrations are greater than those in Table 1, has a determination been made that the concentrations of petroleum in soil will have no significant risk of adversely affecting human health as a result of controlling exposure through the use of mitigation measures or through the use of institutional controls?				Not Applicable		

IV. CLOSURE

Does corrective action protect public health for current land use? Alameda County Environmental Health staff does not make specific determinations concerning public health risk. However, based upon the information available in our files to date, closure of this site appears to be consistent with the policies established by the State Water Resources Control Board Low-Threat Underground Storage Tank Closure Policy which became effective on August 17, 2012.

Site Management Requirements:

This fuel leak case has been evaluated for closure consistent with the State Water Resource Control Board Low-Threat Underground Storage Tank Closure Policy (LTCP). Based on this evaluation, no site management requirements appear to be necessary. However, excavation or construction activities in areas of residual contamination require planning and implementation of appropriate health and safety procedures by the responsible party prior to and during excavation and construction activities.

This site is to be entered into the City of Oakland Permit Tracking System due to the residual contamination on site.

Should corrective action be reviewed if land use changes? Yes

Was a deed restriction or deed notification filed? No

Date Recorded: ----

V. ADDITIONAL COMMENTS AND CONCLUSION

Conclusion:

Alameda County Environmental Health staff believe that the site meets the conditions for case closure under the State Water Resources Control Board Low-Threat Underground Storage Tank Closure Policy. Based upon the information available in our files to date, no further investigation or cleanup for the fuel leak case is necessary at this time.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Karel Detterman, PG	Title: Hazardous Materials Specialist
Signature: <i>Karel Detterman</i>	Date: <i>6/26/2014</i>
Approved by: Dilan Roe, PE	Title: LOP and SCP Program Manager
Signature: <i>Dilan Roe</i>	Date: <i>6/30/2014</i>

VII. REGIONAL BOARD AND PUBLIC NOTIFICATION

Regional Board Staff Name: Cherie McCaulou	Title: Engineering Geologist
Regional Board Notification Date: 3/27/2014	
Public Notification Date: 3/14/2014	

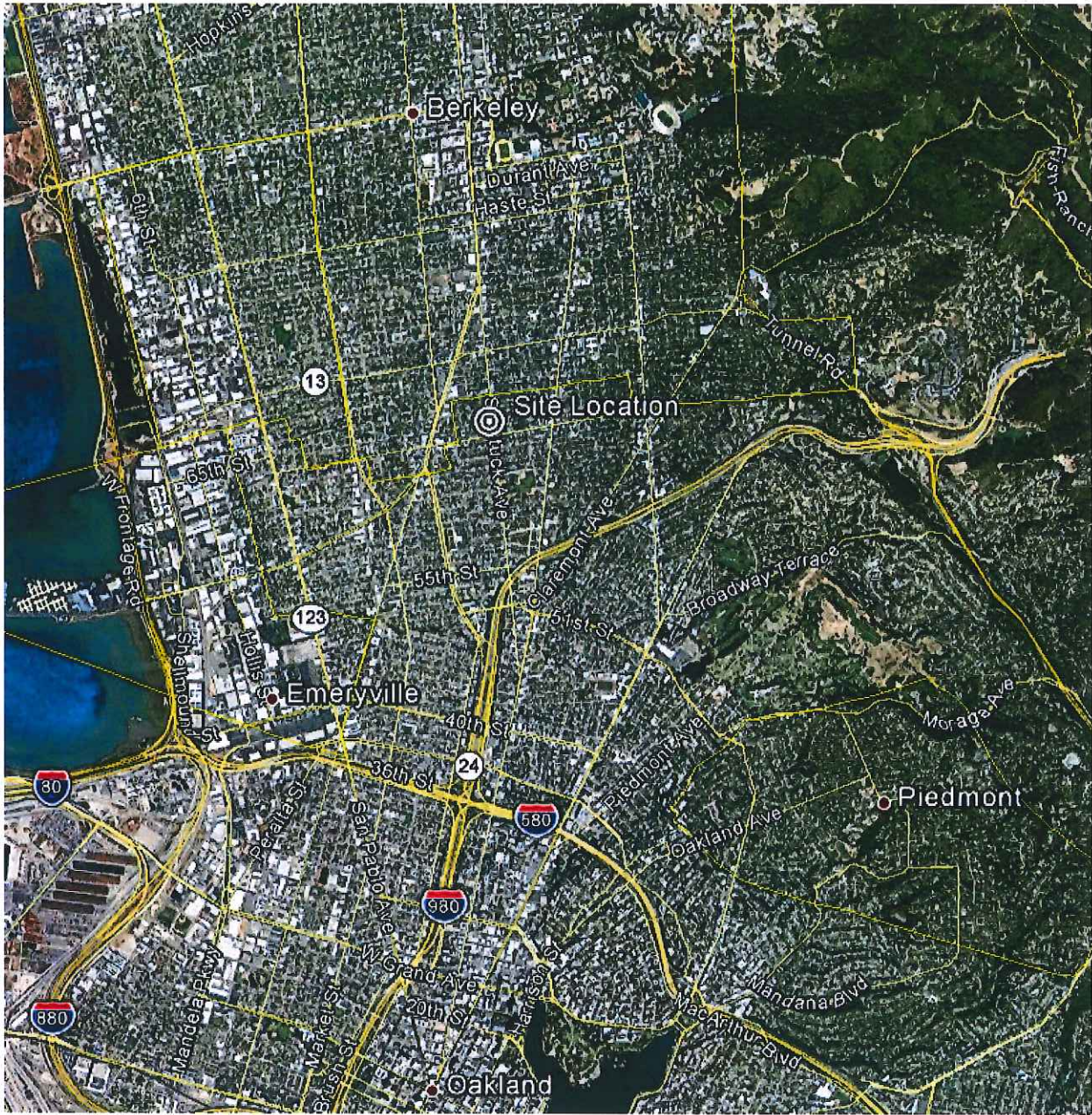
VIII. MONITORING WELL DESTRUCTION

Date Requested by ACEH: 03/12/2014	Date of Well Destruction Report: 06/03/2014	
All Monitoring Wells Destroyed: Yes	Number Destroyed: 3	Number Retained: 0
Reason Wells Retained: ----		
Additional requirements for submittal of groundwater data from retained wells: ----		
ACEH Concurrence - Signature: <i>Karel Delle</i>		Date: <i>6/26/2014</i>

Attachments:

1. Site Vicinity Map and Aerial Photo (2 pp)
2. Site Plan (1 p)
3. Groundwater Contour and Chemical Concentration Maps (2 pp)
4. Soil Analytical Data (4 pp)
5. Groundwater Analytical Data (3 pp)

ATTACHMENT 1



(Google Earth, 2013)

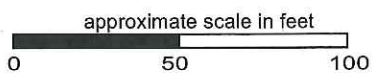
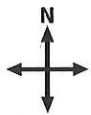


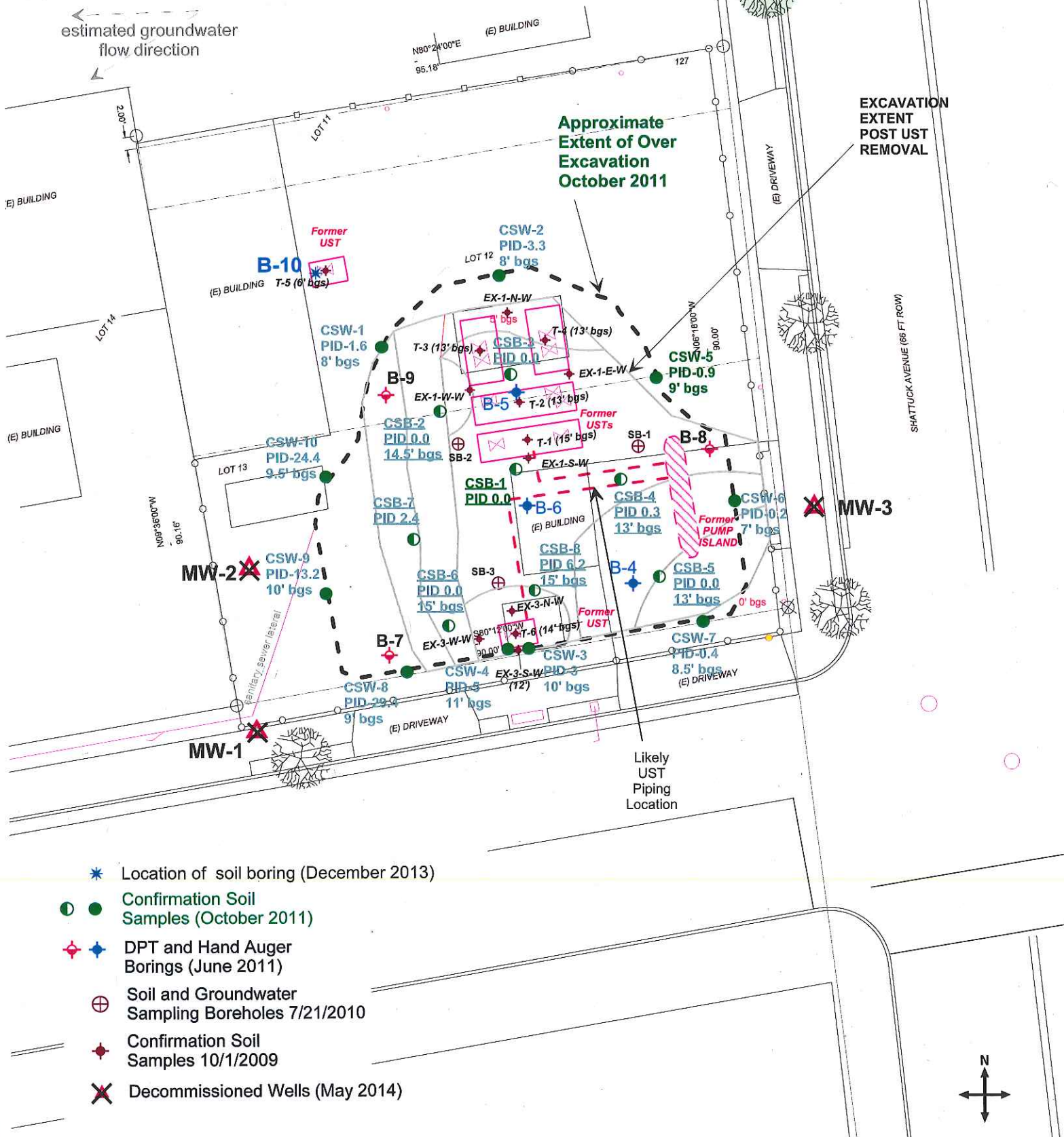
Figure 1: Site vicinity map.

ATTACHMENT 2

2996 SHATTUCK AVENUE-
groundwater flow predominantly
westerly, DTW 2.3-8.5' bgs

6407 TELEGRAPH-
groundwater flow southwest,
DTW 5-8' bgs

←
estimated groundwater
flow direction



- ★ Location of soil boring (December 2013)
- Confirmation Soil Samples (October 2011)
- ◆ DPT and Hand Auger Borings (June 2011)
- ⊕ Soil and Groundwater Sampling Boreholes 7/21/2010
- ◆ Confirmation Soil Samples 10/1/2009
- ✕ Decommissioned Wells (May 2014)

approximate scale in feet

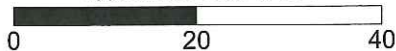


Figure 2: Site Plan

ATTACHMENT 3

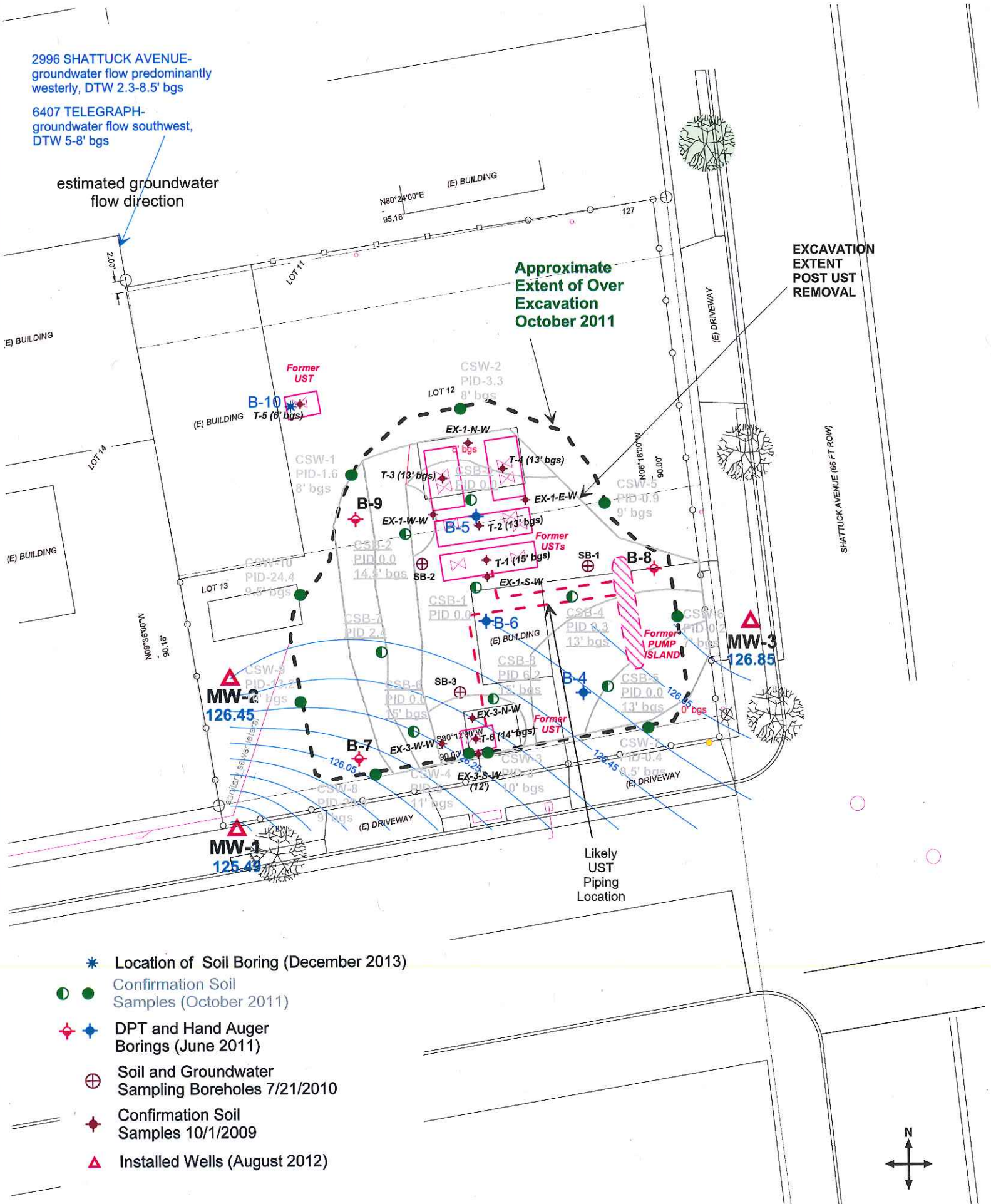
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estimated groundwater
flow direction

Approximate
Extent of Over
Excavation
October 2011

EXCAVATION
EXTENT
POST UST
REMOVAL



- * Location of Soil Boring (December 2013)
- Confirmation Soil Samples (October 2011)
- ◆ DPT and Hand Auger Borings (June 2011)
- ⊕ Soil and Groundwater Sampling Boreholes 7/21/2010
- ◆ Confirmation Soil Samples 10/1/2009
- ▲ Installed Wells (August 2012)

approximate scale in feet



Figure 3: Groundwater elevation contour map in feet,
March 3, 2014

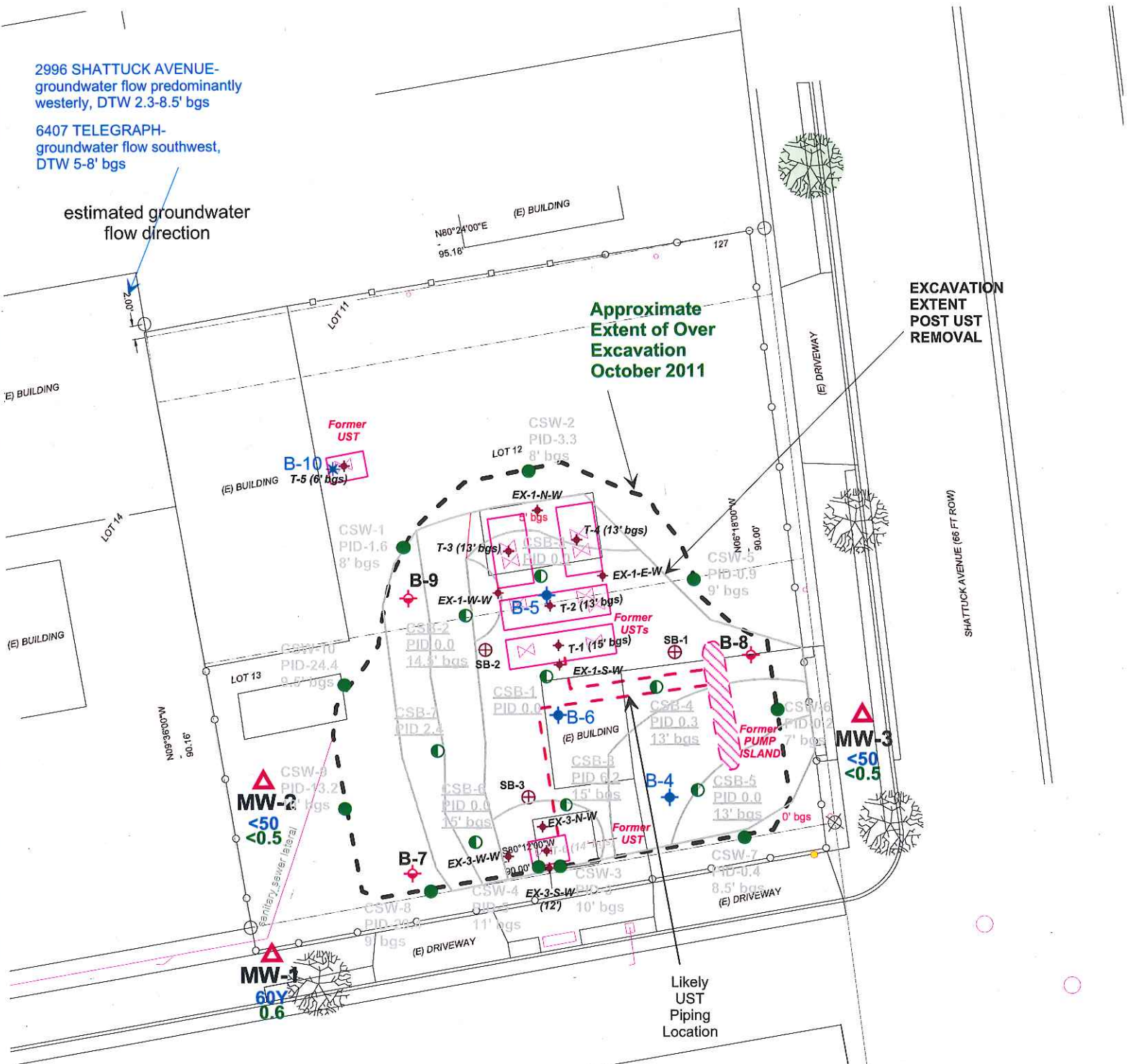
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Approximate
Extent of Over
Excavation
October 2011

EXCAVATION
EXTENT
POST UST
REMOVAL



- 0.0 TPH-d Concentrations (ug/L)
- 0.0 1,2-DCA Concentrations (ug/L)
- * Location of Soil Boring (December 2013)
- Confirmation Soil Samples (October 2011)
- ◆ DPT and Hand Auger Borings (June 2011)
- ⊕ Soil and Groundwater Sampling Boreholes 7/21/2010
- ◆ Confirmation Soil Samples 10/1/2009
- ▲ Installed Wells (August 2012)

approximate scale in feet

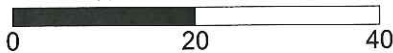
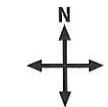


Figure 4: Map showing TPH-d and 1,2-DCA concentrations in groundwater, March 3, 2014



ATTACHMENT 4

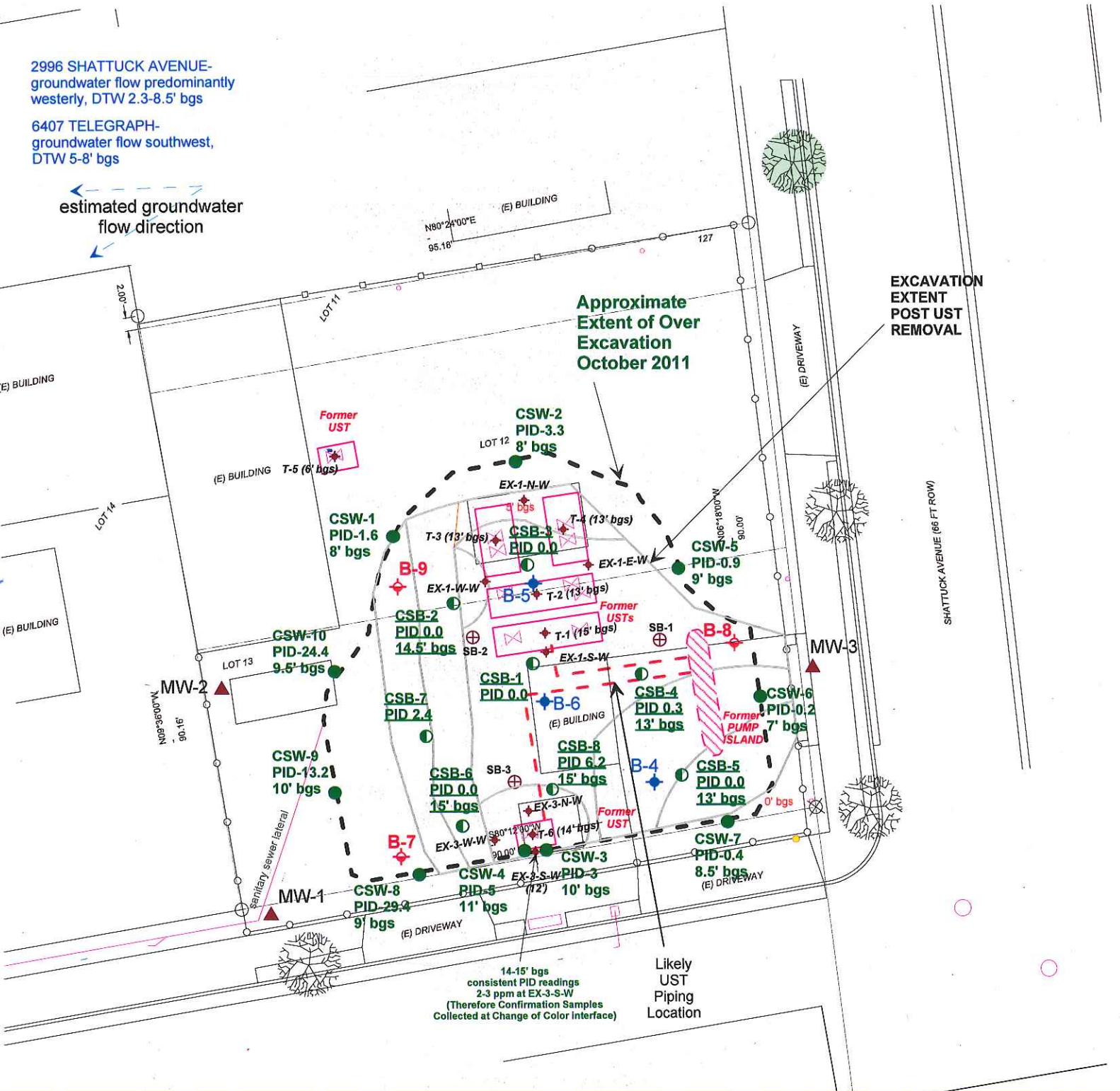
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flow direction

Approximate
Extent of Over
Excavation
October 2011

EXCAVATION
EXTENT
POST UST
REMOVAL



- Confirmation Soil Samples (October 2011)
- ◆ DPT and Hand Auger Borings (June 2011)
- ⊕ Soil and Groundwater Sampling Boreholes 7/21/2010
- ◆ Confirmation Soil Samples 10/1/2009
- ▲ Proposed Wells

approximate scale in feet



Figure 3: Site Map Showing Excavated Area and Confirmation Soil Sampling

Table 1
UST Confirmation Soil Analytical Data (10/1/2009)
6501 Shattuck Ave, Oakland, CA

Sample ID	Soil Sample Depth (feet bgs)	TPH-g (mg/kg)	TPH-d (mg/kg)	TPH-mo (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	MtBE 8260B (mg/kg)	Lead 6010 (mg/kg)	Zinc 6010 (mg/kg)	Minimum anticipated over-excavation depth (ft bgs)
T-1	15	8.2	2.6	NA	<0.5	<0.5	<0.5	0.013	<5	6.5	66	-
T-2	13	420	270	NA	0.16	<0.1	<0.1	0.72	<1	14	220	- per conf B-5 results
T-3	13	100	58	NA	<0.1	<0.1	0.24	1.4	<1	14	99	13.5
T-4	13	1.8	2.5	NA	<0.5	<0.5	0.02	0.09	<5	7	63	-
T-5	6	8	11	44	<0.5	<0.5	<0.5	0.02	<5	12	45	-
T-6	14	280	230	NA	0.45	1.9	2.7	15	<2.5	95	290	15
EX-1-E-W	13	93	76	NA	<0.1	0.18	<0.1	0.15	<1	8.7	21	13.5
EX-1-N-W	10	8.2	3.5	NA	<0.5	0.0099	<0.5	0.035	<5	9.9	31	-
EX-1-S-W	12	490	170	NA	0.54	0.12	3.6	1.6	<1	8.9	58	13
EX-1-W-W	13	1,700	1,800	NA	<0.25	<0.25	1.9	5.9	<2.5	92	580	14.5
EX-3-E-W	13	2,100	680	NA	2.7	3	15	60	<5	4,200	3,900	14.5
EX-3-N-W	13	180	48	NA	0.71	5.9	2.7	17	<1	320	480	14
EX-3-S-W	12	2,900	780	NA	5	27	36	200	<5	240	560	13
EX-3-W-W	12	95	41	NA	0.42	<0.1	0.11	0.28	<1	10	25	12.5
ESL DHT King Water		100	100	100	0.044	2.9	5.9	2.8	0.023	80	600	NA
ESL Non-Drinking Water		500	140	500	1.2	9.3	4.7	11	8.4	320	600	NA

Notes:

ESL: California Regional Water Quality Control Board, Environmental Screening Levels, Interim Final 2013

< : below Laboratory Detection Limits

Y: Sample exhibits chromatographic pattern which does not resemble standard

NA: Not Analyzed

Table 2
Soil Analytical Results
6501 Shattuck Ave, Oakland, CA

Sample ID	Soil Sample Depth (feet bgs)	Depth to Water (feet bgs)	Date	TPH-g (mg/kg)	TPH-d (mg/kg)	TPH-mo (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	MtBE 8260B (mg/kg)
SB-1@2.5ft	9	10	7/21/2010	23Y	20	<5.0	<0.25	<0.25	<0.25	<0.25	<0.25
SB-2@3ft	9	10	7/21/2010	510Y	50	<5.0	<0.5	<0.5	0.65	<0.5	<0.5
SB-3@1.5ft	8.5	8.5	7/21/2010	3.2Y	24	48	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048
B-4	9	13.22	6/10/2011	<1.0	<1.0	<5.0	<0.005	<0.005	<0.005	<0.005	<0.005
B-5	8	NA	6/10/2011	18 Y	59 Y	<5.0	<0.25	<0.25	<0.25	<0.25	<0.25
B-6	7	NA	6/10/2011	<1.0	<1.0	<5.0	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048
B-7	10	12.45	6/10/2011	180	35 Y	<5.0	<0.25	<0.25	<0.25	<0.25	<0.25
B-7	12	12.45	6/10/2011	<0.98	NA	NA	NA	NA	NA	NA	NA
B-8	4.5	NA	6/10/2011	<1.1	3.2 Y	23	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049
B-9	8	11.5	6/10/2011	140	58 Y	6.1	<0.25	<0.25	<0.25	<0.25	<0.25
B-9	10	11.5	6/10/2011	<1.0	NA	NA	NA	NA	NA	NA	NA
CSW-1	10	NA	10/13/2011	1.7 Y	4.3 Y	<5.0	<0.005	<0.005	<0.005	<0.005	<0.005
CSW-2@8ft	8	NA	10/17/2011	<0.017	<0.759	8.9	<0.0015	<0.00098	<0.00086	<0.0019	<0.0026
CSW-3@10'	10	NA	10/14/2011	38	7.8	<1.65	<0.15	<0.098	0.18	<0.19	<0.26
CSW-4@11'	11	NA	10/14/2011	<0.017	<0.759	<1.65	<0.0015	<0.00098	<0.00086	<0.0019	<0.0026
CSW-5@9ft	9	NA	10/17/2011	<0.017	<0.759	<1.65	<0.0015	<0.00098	<0.00086	<0.0019	<0.0026
CSW-6@7ft	7	NA	10/17/2011	<0.017	<0.759	<1.65	<0.0015	<0.00098	<0.00086	<0.0019	<0.0026
CSW-7@8.5ft	8.5	NA	10/17/2011	<0.017	<0.759	<1.65	<0.0015	<0.00098	<0.00086	<0.0019	<0.0026
CSW-8@9ft	9	NA	10/24/2011	0.56 X	2.9 X	10	<0.0038	<0.0025	<0.0022	<0.0046	<0.0065
CSW-9@10ft	10	NA	10/24/2011	<0.017	<0.759	<1.65	<0.0015	<0.00098	<0.00086	<0.0019	<0.0026
CSW-10@9.5ft	9.5	NA	10/24/2011	3.4 X	8.2 X	7.5	<0.0075	<0.0049	<0.0043	<0.0093	<0.013
CSB-1	14	NA	10/13/2011	<1.0	<1.0	<5.0	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049
CSB-2	14.5	NA	10/13/2011	<1.0	<1.0	<5.0	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049
CSB-3	13	NA	10/13/2011	<1.1	<1.0	<5.0	<0.005	<0.005	<0.005	<0.005	<0.005
CSB-4	13	NA	10/17/2011	<0.0017	<0.759	<1.65	<0.0015	<0.00098	<0.00086	<0.0019	<0.0026
CSB-5	13	NA	10/17/2011	<0.0017	<0.759	<1.65	<0.0015	<0.00098	<0.00086	<0.0019	<0.0026
CSB-6	15	NA	10/24/2011	<0.0017	<0.759	<1.65	<0.0015	<0.00098	<0.00086	<0.0019	<0.0026
CSB-7	14.5	NA	10/24/2011	5.4 X	24 X	25	<0.0075	<0.0049	<0.0043	<0.0093	<0.013
CSB-8	15	NA	10/24/2011	<0.0017	<0.759	<1.65	<0.0015	<0.00098	<0.00086	<0.0019	<0.0026
Fill Black-1	NA	NA	10/14/2011	<0.0017	<0.759	23	<0.0015	<0.00098	<0.00086	<0.0019	<0.0026
Fill Black-2	NA	NA	10/14/2011	<0.0017	<0.759	7.6	<0.0015	<0.00098	<0.00086	<0.0019	<0.0026
Fill Brown-1	NA	NA	10/14/2011	<0.017	<0.759	42	<0.0015	<0.00098	<0.00086	<0.0019	<0.0026
Fill Brown-2	NA	NA	10/14/2011	<0.017	<0.759	28	<0.0015	<0.00098	<0.00086	<0.0019	<0.0026
Compfill-3	NA	NA	10/28/2011	<0.017	<0.759	<1.65	<0.0015	<0.00098	<0.00086	<0.0019	NA
B-10	7	17	12/20/2013	7.1 Y	NA	NA	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049
B-10	9	17	12/20/2013	3.5 Y	NA	NA	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048
B-10	10	17	12/20/2013	<1.0	NA	NA	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049
B-10	15	17	12/20/2013	<1.0	NA	NA	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047
B-10	21	17	12/20/2013	<0.98	NA	NA	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048
ESL Drinking Water (Residential)				100	100	100	0.04	2.9	3.3	2.3	0.023
ESL Non-Drinking Water (Commercial)				500	10	500	1.2	3.0	4.7	1	0.4

Table 2
Soil Analytical Results
6501 Shattuck Ave, Oakland, CA

Sample ID	Soil Sample Depth (feet bgs)	Depth to Water (feet bgs)	Date	Phenanthrene (mg/kg)	Pyrene (mg/kg)	Chrysene (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)
SB-1@2.5ft	9	10	7/21/2010	NA	NA	NA	NA	NA	7.9	NA	NA
SB-2@3ft	9	10	7/21/2010	NA	NA	NA	NA	NA	5.7	NA	NA
SB-3@1.5ft	8.5	8.5	7/21/2010	NA	NA	NA	NA	NA	58	NA	NA
B-4	9	13.22	6/10/2011	NA	NA	NA	NA	NA	NA	NA	NA
B-5	8	NA	6/10/2011	NA	NA	NA	NA	NA	<0.25	NA	NA
B-6	7	NA	6/10/2011	NA	NA	NA	NA	NA	<0.0048	NA	NA
B-7	10	12.45	6/10/2011	NA	NA	NA	NA	NA	<0.25	NA	NA
B-7	12	12.45	6/10/2011	NA	NA	NA	NA	NA	NA	NA	NA
B-8	4.5	NA	6/10/2011	NA	NA	NA	NA	NA	<0.0049	NA	NA
B-9	8	11.5	6/10/2011	NA	NA	NA	NA	NA	<0.25	NA	NA
B-9	10	11.5	6/10/2011	NA	NA	NA	NA	NA	NA	NA	NA
B-10	7	17	12/20/2013	0.061	0.093	0.076	0.55	31	7.5	36	54
B-10	9	17	12/20/2013	<0.0051	0.0065	<0.0051	0.54	33	5.6	36	48
B-10	10	17	12/20/2013	<0.005	0.0083	<0.005	0.95	41	10	62	52
B-10	15	17	12/20/2013	<0.005	<0.005	<0.005	0.67	44	9	68	52
B-10	21	17	12/20/2013	<0.0049	<0.0049	<0.0049	0.48	30	7.9	37	47
ESL Drinking Water (Residential)				1	85	15	2	2,500	320	50	800
ESL Non-Drinking Water (Commercial)				1	85	15	2	2,500	320	50	800

Notes:

ESL: California Regional Water Quality Control Board, Environmental Screening Levels, Interim Final 2013

< : below Laboratory Detection Limits

Y: Sample exhibits chromatographic pattern which does not resemble standard

X: Does not match pattern of reference Gasoline standard. Reported value is the result of contribution from hydrocarbons heavier than requested fuel in range of C5-C12 quantified as gasoline

X: Not typical of Diesel standard pattern (possibly fuel lighter than diesel)

Note: Depth to groundwater is tentative, since some locations had slower water recovery rates, and does not represent the actual stabilized groundwater elevation across the site

NA: Not Analyzed

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Table 3
Grab Groundwater Analytical Results
6501 Shattuck Ave, Oakland, CA

Sample ID	Date	TPH-g (µg/L)	TPH-d (µg/L)	TPH-mo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B (µg/L)
SB-1	7/21/2010	1,500	930	<300	5.1	1.8	32	25	1.9
SB-2	7/21/2010	1,700	5,300	1,400	59	4.8	18	13.7	0.66
SB-3	7/21/2010	4,000	11,000	800	30	4.1	15	10.9	<0.5
B-4	6/10/2011	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5
B-5	6/10/2011	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5
B-6	6/16/2011	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5
B-7	6/10/2011	160 Y	61 Y	<300	1.1	0.9	1.2	0.9	<0.5
B-8	6/10/2011	<50	<63	<380	<0.5	<0.5	<0.5	<0.5	<0.5
B-9	6/10/2011	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5
ESL Drinking Water (Residential)		100	100	100	1	40	30	20	5
ESL Non-Drinking Water (Commercial)		210	210	210	46	130	43	100	1800

Sample ID	Date	Cadmium (µg/L)	Chromium (µg/L)	Lead (µg/L)	Nickel (µg/L)	Zinc (µg/L)
SB-1	7/21/2010	<5.0	<5.0	<5.0	<5.0	<20
SB-2	7/21/2010	<5.0	<5.0	<5.0	12	41
SB-3	7/21/2010	<5.0	<5.0	<5.0	19	350
ESL Drinking Water (Residential)		0.25	50	2.5	8.2	81
ESL Non-Drinking Water (Commercial)		0.25	180	2.5	8.2	81

Notes:

ESL: California Regional Water Quality Control Board, Environmental Screening Levels, Interim Final 2013

< : below Laboratory Detection Limits

Y: Sample exhibits chromatographic pattern which does not resemble standard

Table 4
Groundwater Analytical Results
6501 Shattuck Ave, Oakland, CA

Monitoring Well	Date	Top of Casing Elevation (Ft.)	Depth to Groundwater (Ft.)	Groundwater Elevation	TPH-g µg/L	TPH-d µg/L	TPH-mo µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MtBE µg/L	1,2-DCA µg/L	EDB µg/L
MW-1	9/11/2012	128.70	6.14	122.56	<50	<52	<310	<0.5	<0.5	<0.5	<0.5	<0.5	1.30	<0.5
	12/20/2012	128.70	2.94	125.76	<50	<51	<310	<0.5	<0.5	<0.5	<0.5	<0.5	0.90	<0.5
	3/25/2013	128.70	4.48	124.22	<50	<56	<330	<0.5	<0.5	<0.5	<0.5	<0.5	1.00	<0.5
	6/12/2013	128.70	5.35	123.35	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5	1.00	<0.5
	9/5/2013	128.70	6.31	122.39	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5	0.80	<0.5
	12/4/2013	128.70	5.79	122.91	<50	<52	<310	<0.5	<0.5	<0.5	<0.5	<0.5	0.80	<0.5
	3/3/2014	128.70	3.21	125.49	<50	60 Y	<300	<0.5	<0.5	<0.5	<0.5	<0.5	0.60	<0.5
MW-2	9/11/2012	130.32	7.81	122.51	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	12/20/2012	130.32	6.61	123.71	76 Y	<51	<310	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	3/25/2013	130.32	7.65	122.67	<50	<57	<340	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	6/12/2013	130.32	8.60	121.72	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	9/5/2013	130.32	7.62	122.70	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	12/4/2013	130.32	6.95	123.37	<50	<52	<310	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	3/3/2014	130.32	3.87	126.45	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	9/11/2012	131.34	7.89	123.45	<50	<53	<320	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	12/20/2012	131.34	4.55	126.79	<50	<51	<310	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	3/25/2013	131.34	4.99	126.35	<50	<58	<350	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	6/12/2013	131.34	5.95	125.39	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	9/5/2013	131.34	6.70	124.64	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	12/4/2013	131.34	6.23	125.11	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	3/3/2014	131.34	4.49	126.85	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Note:

< : Below Laboratory Reporting Limit (Method Detection Limit)

All other VOCs were below laboratory-reporting limits in groundwater samples