

Detterman, Mark, Env. Health

From: Detterman, Mark, Env. Health
Sent: Wednesday, January 20, 2016 6:23 PM
To: 'Leonard Niles'; 'Patrick Ellwood'; 'Marc Cunningham'
Cc: Roe, Dilan, Env. Health
Subject: FW: 500 Grand Avenue, Oakland; Meeting Followup
Attachments: Example Figures and Tables From RO199.pdf

Leonard,

I been able to refocus on the 500 Grand Ave site, and am following up on your email of January 11th to Dilan and other emails from that date as well. I am forwarding a copy of one of my previous emails in order to keep the example figures and tables together with this response.

ACEH expects to shortly have a standard letter requesting site specific variations to the attached figures and tables from project proponents and their consultants to efficiently communicate the scope of the redevelopment, including depth of excavations, and remaining proposed residual contamination after excavation. There may be none, but these tables and figures very quickly and efficiently indicate this. These are requested to include:

- Plan view of historic borings, current bores, and any proposed bores and infrastructure related to contamination, or areas of groundwater contamination of concern, etc.
- Plan view of proposed redevelopment related to historic, current, and proposed bore locations. This may require several figures at complex data sites; fewer is better, but at the risk of too complex a figure that decreases the communication effort.
- Multiple cross sections across a site that depict proposed excavation base elevation, foundation elevation depth, proposed cut / fill lines, old soil bore locations along that cross section, and depth-correct residual analytical proposed to remain below the foundation. Below the future proposed foundation elevation, lithology can be depicted if it plays an important role; however, one intent is to depict the location of residual contamination relative to the proposed building foundation and the proposed lowest level (or higher if appropriate), proposed uses (commercial / residential / day care / senior care / etc.). Groundwater depth and analytical should also be depicted as well. Lithology or data above the proposed excavation depth can be removed if it decreases the clutter of the figure; it won't be of consequence to the future development, but the analytical data will remain in the tables.
- An appropriate number of detailed cross section through areas of interest, such as former sources (waste oil UST, residual contamination along Grand Ave, unexplored areas of potential contamination [under or beyond the Grand Ave sidewalk, near or past the eastern retaining wall], elevator sumps or stairways [potential for VI], or other areas identified as potential areas of concern needing clearer illumination). The intent is to quickly illustrate residual contamination, or the lack of data, and once investigated and determined why it is protective of future occupants. These detailed cross sections may support the use of flow through planters on the western edge of the project, or may not, and as we discussed in the meeting these may be removed if appropriate. These cross sections must include, if known currently, offsite improvements, such as permeable pavers over residual contamination, infrastructure improvements such as utilities through residual contamination (such as a storm drain drop box, etc.), or other items that can / will affect users, construction workers, or the public.
- A table by parcel (I recall potentially two parcels at this site, although that was confused as I recall statements of one) with historic infrastructure, proposed uses (comm. / res), historic / current borings, proposed bores, rational for future bores in the area, etc.
- Phase 1 for all parcels (I don't think one has been submitted for the uphill "parcel", unless it was included in the one submitted).
- A table with all historic and current analytical data, with removed soil (historic and future) indicated by shading or strike out (but still legible). If you want to distinguish between historic removed and proposed, you might use different shadings. Many of the example tables (pg 8 and beyond of the attached scan) tabulates data by "soil to be removed / soil proposed to remain".

- All ND tabulated analytical listed by individual chemical detection limit (<x), and highlighting / bolding of detects, or of concentrations over ESLs (or other goals). Can partly be combined with a professional signed statement that AllWest has reviewed all analytical data and has found it is below ESLs or other goals for the site.
- Project schedule – where is project in entitlement project planning, CEQA, building and planning department approvals, when construction is hoped to realistically begin, a realistic time frame for regulatory review (60 days; we'll try for better if we can), when and what project proponents will need something in writing from ACEH for financing, and recognition that if mitigation measures are involved closure cannot be provided until a final confirmation sampling report is submitted and reviewed (60 days). The submittal of a Gantt chart is appropriate so that we can all set realistic time frames, and incorporate changes as events happen.
- An understanding that the Porter-Cologne Water Quality Act requires that any regulatory agency in California use a deed restriction / land use covenant (LUC) if contamination above goals (ESLs or other) is proposed to remain at a site. LUCs take time to word, sign, and record at the County. Potential planning to remove any such contamination prior to site development, or provided that the extent is well characterized, potentially with the use of a Site Management Plan (SMP) to manage the removal of the contamination at the time of redevelopment, may be appropriate. Please be aware that a large removal is essentially a Corrective Action, and a 30 day public notification may be required per state requirements (affecting the Gantt chart inputs). Minor cleanup of inappropriate contamination is not a CA.
- Appropriate use of ESLs relative to the future proposed foundation depth (groundwater or a vapor sample at a site may have been 10 feet bgs, may now be 2 ft below the foundation, and would not meet the 10 foot separation distance groundwater ESLs assume or 5 ft separation that VI ESLs assume).
- If mitigation measures are required, then the site will need a RAP and / or a HHRA to evaluate risk with and without mitigation measures (assuming no removal of residual contamination below the future foundation). The RAP must be approved by ACEH and then incorporated into the building plans, which requires coordination with ACEH, building department, and the consultant throughout the final plan approval to ensure changes made during building department or planning review do not conflict with ACEH approved plans. This is a perennial issue ACEH has. All plan changes will also require a professional signed statement from AllWest that the changes do not affect the proposed mitigation measures.
- Generation of a SMP to deal with known or unexpected contamination found during redevelopment (potential for USTs may suggest a contact for the ACEH CUPA program; Oakland CUPA does not exist anymore, etc.).

You should review the attached tables and figures for additional ways to effectively communicate with ACEH, project proponents, and eventually the public, potentially at a CAP notification (if needed) and at closure. This effort is to build the case that residual contamination is appropriate to leave (if any), is protective of future occupants, and the general public.

As we discussed in the meeting AllWest will assemble these or other figures / tables, etc. that illustrate / communicate data at the site, with a data gap work plan. As discussed in the meeting, there were a significant number of issues ACEH had with data generated at the site. Briefly, these include insufficient data to the east to characterize the extent or affect of contamination (soil, groundwater, and soil vapor) relative to the proposed redevelopment, or on construction / utility workers, insufficient data to the south of the site including beneath the sidewalk and beyond it to characterize the affect of contamination (soil, groundwater, soil vapor) relative to the proposed redevelopment or on construction / utility workers, the lack of non-compromised (tracer leak) soil vapor or other vapor data, or use of alternative approaches to investigate those concerns (current groundwater analytical [i.e. rebound] or other), useful soil data at the location of the former waste oil UST, sufficient HVOC analysis in soil and groundwater, and others. I know your notes are fairly comprehensive and are sufficient to provide appropriate next steps at the site; however, I can provide additional specific detail if requested.

Once you have a chance to digest this let me know and we can identify a submittal date in order to keep the project moving to the best of our abilities.

Let me know if you have questions; hopefully this helps.

Mark Detterman
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Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
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PDF copies of case files can be downloaded at:

<http://www.acgov.org/aceh/lop/ust.htm>

From: Detterman, Mark, Env. Health
Sent: Friday, January 08, 2016 5:51 PM
To: 'Patrick Ellwood'
Cc: Marc Cunningham; Leonard Niles
Subject: RE: 500 Grand

Patrick,

I had thought Dilan would get back to me; but I was clearly mistaken! I sought out the data and have scanned it. Sorry for the delay.

I've highlighted several areas, but guaranteed not all important areas that need to be included. These are from a pretty large scale project with a great deal of excavation so there may be elements that are not needed for the site, but I'd evaluate that closely. Key elements include sample depth below proposed grade, future grade elevation, segregating soil analytical to be removed from soil analytical to remain, alternatively shading or line out of analytical data to be removed (still including the data in the tables), highlighting residual that does not meet defined goals for the site, cross sections indicate residual contamination to remain, depth below proposed foundation elevation, water levels, and probably something else.

Hope this helps; let me know if you have questions.

Mark Detterman
Senior Hazardous Materials Specialist, PG, CEG
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
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Fax: 510.337.9335
Email: mark.detterman@acgov.org

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From: Patrick Ellwood [<mailto:patrick@ellwoodcommercial.com>]
Sent: Friday, January 08, 2016 11:28 AM
To: Detterman, Mark, Env. Health
Cc: Marc Cunningham; Leonard Niles
Subject: 500 Grand

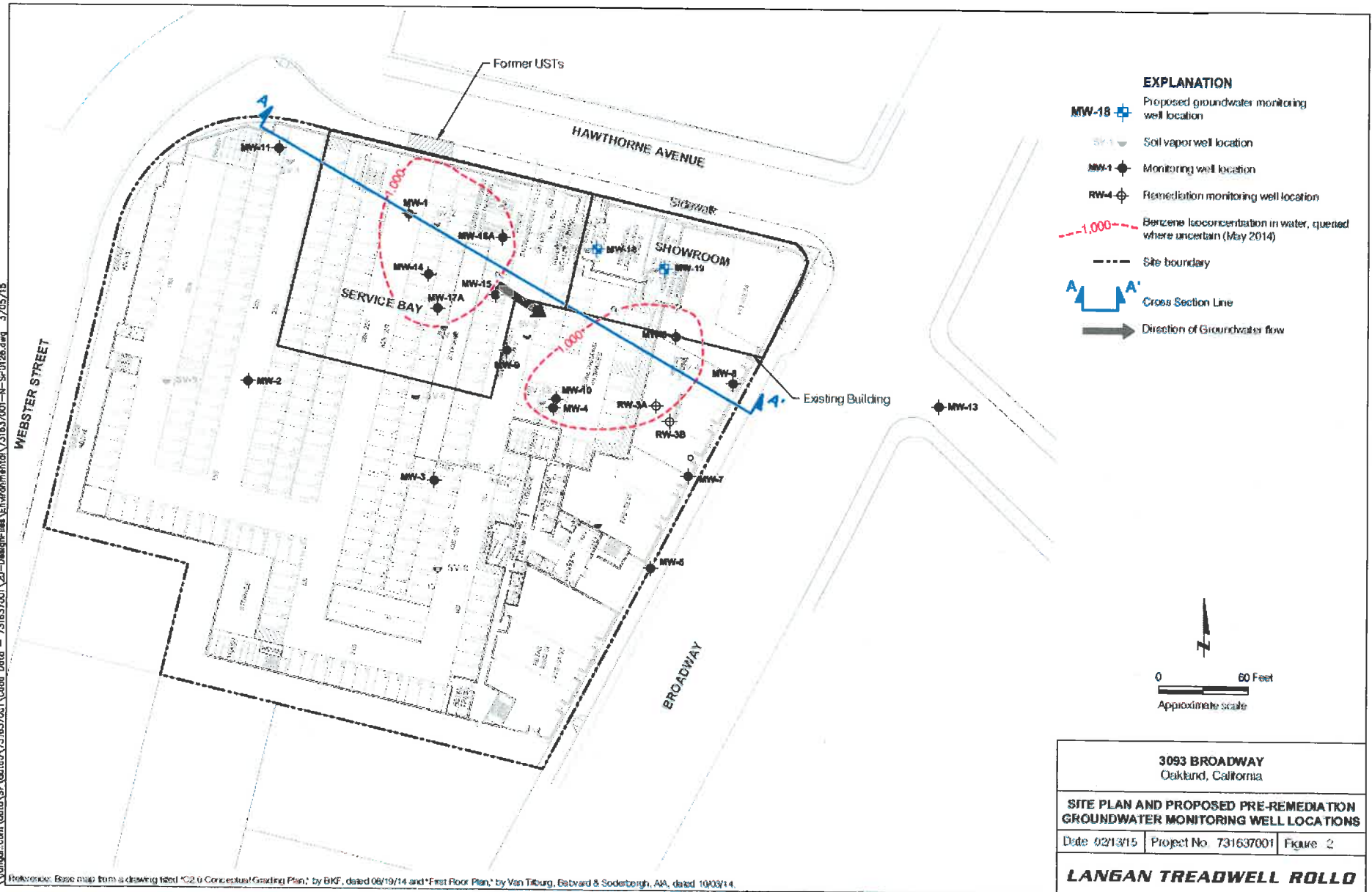
Mark: Just checking in with you to see if you have had a chance to send us the copy of the drawing/report from another job that Dillon referenced that we could use as a model for our project.

Thanks!

Patrick Ellwood
Ellwood Commercial Real Estate
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510-238-9131 fax
patrick@ellwoodcommercial.com

DRE License #00471233

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Reference: Base map from a drawing titled "C2.0 Conceptual Grading Plan," by BKF, dated 08/19/14 and "First Floor Plan," by Van Tilburg, Babward & Soderburgh, AA, dated 10/03/14.

- EXPLANATION**
- MW-18 Proposed groundwater monitoring well location
 - SV-1 Soil vapor well location
 - MW-1 Monitoring well location
 - RW-4 Remediation monitoring well location
 - 1,000 Benzene isocentration in water, queried where uncertain (May 2014)
 - Site boundary
 - A-A' Cross Section Line
 - Direction of Groundwater flow

3093 BROADWAY Oakland, California		
SITE PLAN AND PROPOSED PRE-REMEDATION GROUNDWATER MONITORING WELL LOCATIONS		
Date 02/13/15	Project No. 731637001	Figure 2
LANGAN TREADWELL ROLLO		

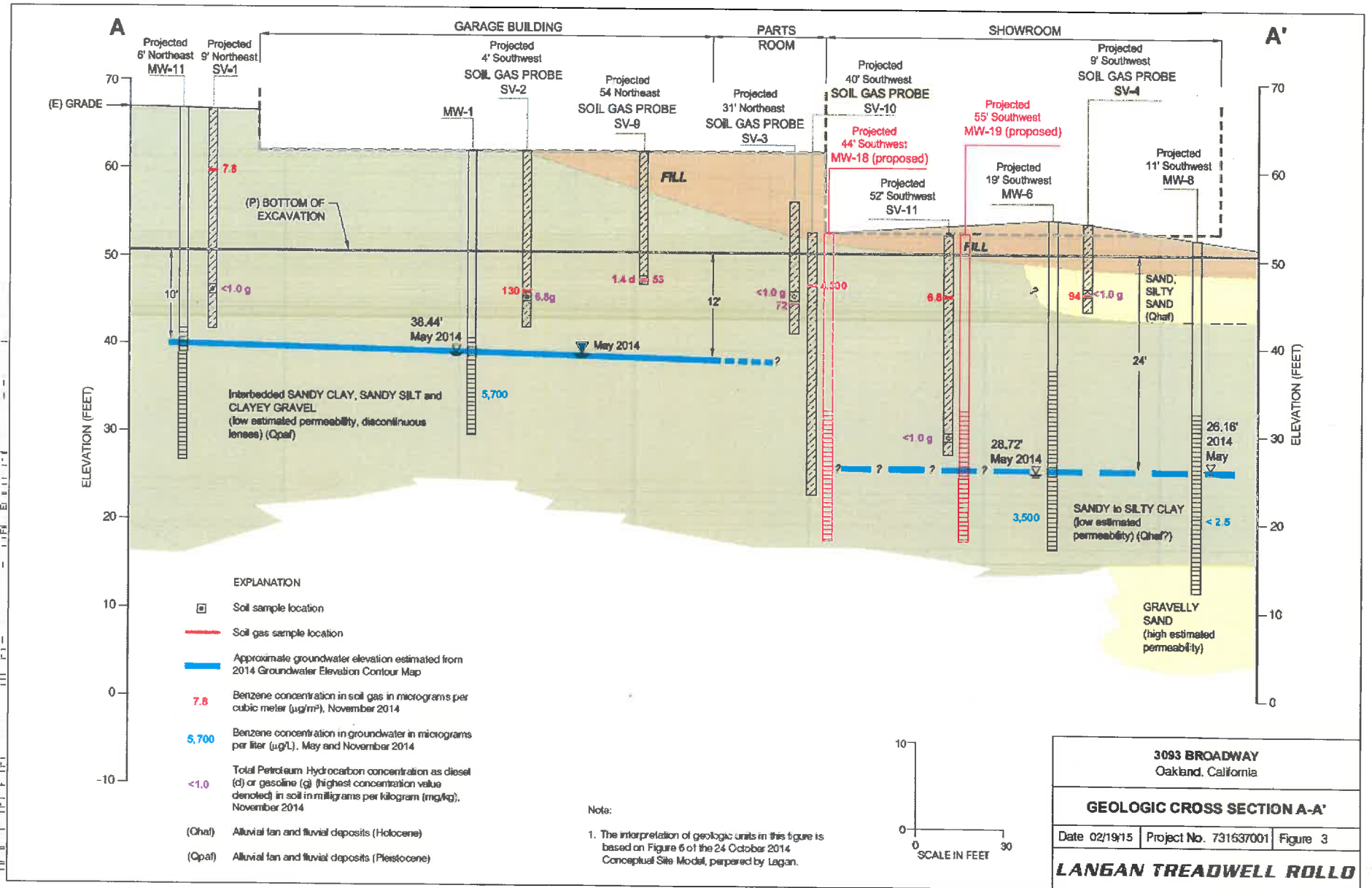


Table 1
Summary of Soil Sampling and Analysis
May 2015
3093 Broadway
Oakland, California

Sample ID	Sampling Location	Sample Depth	Ground Elevation ¹	Future Grade Elevation	Sample Elevation	Analytes							pH
						TPH- gasoline, diesel, motor oil	BTEX	PAHs (including naphthalene)	VOCs	SVOCs	PCBs and Pesticides	CAM-17 metals	
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
B-1	Service Bay	2.5	64.02	52	61.52	X		X	X	X	X	X	X
		7.5	64.02	52	58.52	X		X	X	X	X	X	X
		12.5	64.02	52	51.52	X	X	X	X	X	X	X	X
		17.5	64.02	52	46.52	X	X	X					
B-2	Service Bay	2.5	61.96	52	59.36								
		7.5	61.96	52	54.36								
		12.5	61.96	52	49.36	X	X	X					
		17.5	61.96	52	44.36	X	X	X					
B-3	Service Bay	2.5	61.96	52	59.36								
		7.5	61.96	52	54.36								
		12.5	61.96	52	49.36	X	X	X					
		17.5	61.96	52	44.36	X	X	X					
B-4	Service Bay	2.5	61.78	52	59.28								
		7.5	61.78	52	54.28								
		12.5	61.78	52	49.28	X	X	X					
		17.5	61.78	52	44.28	X	X	X					
B-5	Service Bay	2.5	61.77	52	59.27								
		7.5	61.77	52	54.27								
		12.5	61.77	52	49.27	X	X	X					
		17.5	61.77	52	44.27	X	X	X					
B-6	Service Bay	2.5	61.82	52	59.32								
		7.5	61.82	52	54.32								
		12.5	61.82	52	49.32	X	X	X					
		17.5	61.82	52	44.32	X	X	X					
B-7	Service Bay	2.5	61.81	52	59.31								
		7.5	61.81	52	54.31								
		12.5	61.81	52	49.31	X	X	X					
		17.5	61.81	52	44.31	X	X	X					
B-8	Service Bay	2.5	61.77	52	59.27								
		7.5	61.77	52	54.27								
		12.5	61.77	52	49.27	X	X	X					
		17.5	61.77	52	44.27	X	X	X					
B-9	Service Bay	2.5	61.66	52	59.16								
		7.5	61.66	52	54.16								
		12.5	61.66	52	49.16	X	X	X					
		17.5	61.66	52	44.16	X	X	X					
B-10	Service Bay	2.5	61.72	52	59.22	X	X	X	X	X	X	X	X
		7.5	61.72	52	54.22	X	X	X	X	X	X	X	X
		12.5	61.72	52	49.22	X	X	X	X	X	X	X	X
		17.5	61.72	52	44.22	X	X	X					
B-11	Service Bay	2.5	61.74	52	59.24								
		7.5	61.74	52	54.24								
		12.5	61.74	52	49.24	X	X	X					
		17.5	61.74	52	44.24	X	X	X					
B-12	Service Bay	2.5	61.73	52	59.23								
		7.5	61.73	52	54.23								
		12.5	61.73	52	49.23	X	X	X					
		17.5	61.73	52	44.23	X	X	X					

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						TPH: gasoline, diesel, motor oil	BTEX	PAHs (including naphthalene)	VOCs	SVOCs	PCBs and Pesticides	CAM-17 metals	
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
B-13	Service Bay	2.5	61.76	52	59.26								
		7.5	61.76	52	54.26								
		12.5	61.76	52	49.26	X	X	X					
		17.5	61.76	52	44.26	X	X	X					
B-14	Service Bay	2.5	61.77	52	59.27								
		7.5	61.77	52	54.27								
		12.5	61.77	52	49.27	X	X	X					
		17.5	61.77	52	44.27	X	X	X					
B-15	Service Bay	2.5	61.51	52	59.01								
		7.5	61.51	52	54.01								
		12.5	61.51	52	49.01	X	X	X					
		17.5	61.51	52	44.01	X	X	X					
B-16	Service Bay	2.5	61.76	52	59.26								
		7.5	61.76	52	54.26								
		12.5	61.76	52	49.26	X	X	X					
		17.5	61.76	52	44.26	X	X	X					
B-17	Service Bay	2.5	61.73	52	59.23								
		7.5	61.73	52	54.23								
		12.5	61.73	52	49.23	X	X	X					
		18	61.73	52	43.73	X	X	X					
B-18	Service Bay	2.5	61.77	52	59.27								
		7.5	61.77	52	54.27								
		12.5	61.77	52	49.27	X	X	X					
		17.5	61.77	52	44.27	X	X	X					
B-19	Service Bay	2.5	61.77	52	59.27								
		7.5	61.77	52	54.27								
		12.5	61.77	52	49.27	X	X	X					
		17.5	61.77	52	44.27	X	X	X					
B-20	Service Bay	2.5	61.73	52	59.23								
		7.5	61.73	52	54.23	X	X	X	X	X	X	X	X
		12.5	61.73	52	49.23	X	X	X	X	X	X	X	X
		17.5	61.73	52	44.23	X	X	X					
B-21	Service Bay	2.5	61.76	52	59.26								
		7.5	61.76	52	54.26								
		12.75	61.76	52	49.01	X	X	X					
		17.75	61.76	52	44.01	X	X	X					
B-22	Service Bay	2.5	61.76	52	59.26								
		7.5	61.76	52	54.26								
		12.5	61.76	52	49.26	X	X	X					
		17.5	61.76	52	44.26	X	X	X					
B-23	Service Bay	2.5	61.75	52	59.25								
		7.5	61.75	52	54.25								
		12.5	61.75	52	49.25	X	X	X					
		17.5	61.75	52	44.25	X	X	X					
B-24	Service Bay	2.5	61.75	52	59.25								
		7.5	61.75	52	54.25								
		12.5	61.75	52	49.25	X	X	X					
		17.5	61.75	52	44.25	X	X	X					

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Sample ID	Sampling Location	Sample Depth	Ground Elevation ¹	Future Grade Elevation	Sample Elevation	Analytes							pH
						TPH, gasoline, diesel, motor oil	BTEX	PAHs (including naphthalene)	VOCs	SVOCs	PCBs and Pesticides	CAM-17 metals	
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
B-25	Service Bay	2.5	61.78	52	59.28								
		7.5	61.78	52	54.28								
		12.5	61.78	52	49.28	X	X	X					
		17.5	61.78	52	44.28	X	X	X					
B-28	Service Bay	2.5	61.72	52	59.22								
		7.5	61.72	52	54.22								
		12.5	61.72	52	49.22	X	X	X					
		17.5	61.72	52	44.22	X	X	X					
B-27	Service Bay	2.5	61.69	52	59.19								
		7.5	61.69	52	54.19								
		12.5	61.69	52	49.19	X	X	X					
		17.5	61.69	52	44.19	X	X	X					
B-28	Service Bay	2.5	61.77	52	59.27								
		7.5	61.77	52	54.27								
		12.5	61.77	52	49.27	X	X	X					
		17.5	61.77	52	44.27	X	X	X					
B-29	Service Bay	2.5	61.77	52	59.27								
		7.5	61.77	52	54.27								
		12.5	61.77	52	49.27	X	X	X					
		17.5	61.77	52	44.27	X	X	X					
B-30	Service Bay	20	61.77	52	33.77	X	X						
		2.5	61.74	52	59.24	X	X	X	X	X	X	X	X
		7.5	61.74	52	54.24	X	X	X	X	X	X	X	X
		12.5	61.74	52	49.24	X	X	X					
		17.5	61.74	52	44.24	X	X	X					
B-31	Service Bay	27	61.74	52	34.74	X	X						
		2.5	61.77	52	59.27								
		7.5	61.77	52	54.27								
		12.75	61.77	52	49.02	X	X	X					
		17.75	61.77	52	44.02	X	X	X					
B-32	Service Bay	2.5	61.8	52	59.3								
		7.5	61.8	52	54.3								
		12.5	61.8	52	49.3	X	X	X					
		17.75	61.8	52	44.05	X	X	X					
B-33	Service Bay	2.5	61.78	52	59.28								
		7.5	61.78	52	54.28								
		12.5	61.78	52	49.28	X	X	X					
		17.5	61.78	52	44.28	X	X	X					
B-34	Service Bay	2.5	61.73	52	59.23								
		7.5	61.73	52	54.23								
		12.5	61.73	52	49.23	X	X	X					
		17.5	61.73	52	44.23	X	X	X					
B-35	Service Bay	2.5	61.75	52	59.25								
		7.5	61.75	52	54.25								
		12.5	61.75	52	49.25	X	X	X					
		17.5	61.75	52	44.25	X	X	X					

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May 2015
3093 Broadway
Oakland, California

Sample ID	Sampling Location	Sample Depth	Ground Elevation ¹	Future Grade Elevation	Sample Elevation	Analytes							pH
						TPH-gasoline, diesel, motor oil	BTEX	PAHs (including naphthalene)	VOCs	SVOCs	PCBs and Pesticides	CAM-17 metals	
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
B-36	Site - NW Quadrant	2.5	65.57	52	63.07	X		X	X	X	X	X	X
		7.5	65.57	52	58.07	X		X	X	X	X	X	X
		12.5	65.57	52	53.07	X		X	X	X	X	X	X
		17.5	65.57	52	48.07	X		X	X	X	X	X	X
		22.5	65.57	52	43.07	X		X	X	X	X	X	X
B-37	Site - Center	2.5	63.95	52	61.45	X		X	X	X	X	X	X
		7.5	63.95	52	56.45	X		X	X	X	X	X	X
		12.5	63.95	52	51.45	X		X	X	X	X	X	X
		17.5	63.95	52	46.45	X		X	X	X	X	X	X
		22.5	63.95	52	41.45	X		X	X	X	X	X	X
B-38	Site - Center North	2.5	59.08	52	56.58	X		X	X	X	X	X	X
		7.5	59.08	52	51.58	X		X	X	X	X	X	X
		12.5	59.08	52	46.58	X		X	X	X	X	X	X
B-39	Site - Center South	2.5	57.6	52	55.10	X		X	X	X	X	X	X
		7.5	57.6	52	50.10	X		X	X	X	X	X	X
		12.5	57.6	52	45.10	X		X	X	X	X	X	X
B-40	Showroom	2.5	52.68	52	50.18	X		X	X	X	X	X	X
		7.5	52.68	52	45.18	X		X	X	X	X	X	X
		12.5	52.68	52	40.18	X		X	X	X	X	X	X
B-41	Site - NE Quadrant	2.5	54.21	52	51.71	X		X	X	X	X	X	X
		7.5	54.21	52	46.71	X		X	X	X	X	X	X
		12.5	54.21	52	41.71	X		X	X	X	X	X	X
B-42	Site - Center East	2.5	54.45	52	51.95	X		X	X	X	X	X	X
		7.5	54.45	52	46.95	X		X	X	X	X	X	X
		12.5	54.45	52	41.95	X		X	X	X	X	X	X
B-43	Site - SE Quadrant	2.5	53.33	52	50.83	X		X	X	X	X	X	X
		7.5	53.33	52	45.83	X		X	X	X	X	X	X
MW-18	Showroom	2.5	52.51	52	50.01								
		7.5	52.51	52	45.01	X ²	X		X ²				
		12.5	52.51	52	40.01	X ²	X		X ²				
		17.5	52.51	52	35.01	X ²	X		X ²				
		21.5	52.51	52	31.01	X ²	X		X ²				
		26.5	52.51	52	26.01	X ²	X		X ²				
MW-19	Showroom	2.5	52.35	52	49.85								
		7.5	52.35	52	44.85	X ²	X		X ²				
		12.5	52.35	52	39.85	X ²	X		X ²				
		14	52.35	52	38.35								
		17.5	52.35	52	34.85	X ²	X		X ²				
		22	52.35	52	30.35	X ²	X		X ²				
		27.5	52.35	52	24.85	X ²	X		X ²				
32.5	52.35	52	19.85										

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May 2015
3093 Broadway
Oakland, California

Sample ID	Sampling Location	Sample Depth ¹	Ground Elevation ¹	Future Grade Elevation	Sample Elevation	Analytes							
						TPH- gasoline, diesel, motor oil	BTEX	PAHs (including, naphthalene)	VOCs	SVOCs	PCBs and Pesticides	CAM-17 metals	pH
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
RB-2	Service Bay	22	61.78	52	39.78	X			X				
		24	61.78	52	37.78	X			X				
		28	61.78	52	35.78	X			X				
		30	61.78	52	33.78	X			X				
		32	61.78	52	29.78	X			X				
		34	61.78	52	27.78	X			X				
		36	61.78	52	25.78	X			X				
		38	61.78	52	23.78	X			X				
		40	61.78	52	21.78	X			X				
RB-6	Service Bay	3	61.71	52	58.71	X ²	X		X ³				
		22	61.71	52	39.71	X			X				
		24	61.71	52	37.71	X			X				
		26	61.71	52	35.71	X			X				
		28	61.71	52	33.71	X			X				
		30	61.71	52	31.71	X			X				
		32	61.71	52	29.71	X			X				
		34	61.71	52	27.71	X			X				
		36	61.71	52	25.71	X			X				
38	61.71	52	23.71	X			X						
40	61.71	52	21.71	X			X						

Notes:

Soil samples located at elevations above 52 feet a-msl will be removed during site development

Soil samples located at elevations below 42 feet a-msl will be greater than 10 feet below the future site grade

¹Ground surface and top of casing (TOC) elevations for boring and monitoring well locations, respectively, were collected by BKF on 28 May 2015

²Samples analyzed for TPHg and TPHd

³Samples analyzed for select VOCs including 1,2-dichloroethane (1,2-DCA), MTBE and naphthalene

a-msl - above mean sea level

bgs - below ground surface

BTEX - Benzene, toluene, ethylbenzene and xylenes using EPA Method 8260B

CAM-17 - California Assessment Metals using EPA Method 3050B

MTBE - Methyl tertiary butyl ether using EPA Method 8260

TPHg - Total Petroleum Hydrocarbons as Gasoline using EPA Method 8015M

TPHd - Total Petroleum Hydrocarbons as Diesel Range using EPA Method 8015M

TPHmo - Total Petroleum Hydrocarbons as Motor Oil using EPA Method 8015M

PAHs - Polycyclic Aromatic Hydrocarbons using EPA Method 8270C SIM

PCBs - Polychlorinated biphenyls and Pesticides using EPA Method 8081A/8082

Pesticides using EPA Method 8081A/8082

pH using method 9045D

SVOCs - Semi-Volatile Organic Compounds using EPA Method 8270C

VOCs - Volatile Organic Compounds using EPA Method 8260B

Table 2
Soil Analytical Results for TPH, BTEX, Naphthalene and MTBE
2082 Broadway
Oakland, California

Sample ID	Sample Date	Sample Elevation feet a-msl	TPHd	TPHg	TPHmo	Benzene	Ethylbenzene	Toluene	Xylenes	MTBE	Naphthalene
B-36-17.5	5/20/2015	46.07	<1	<1	<5	< 0.0091	< 0.0091	< 0.0091	< 0.0091	< 0.0091	< 0.0091
B-36-22.5	5/20/2015	43.97	<1	<1	<5	< 0.0093	< 0.0093	< 0.0093	< 0.0093	< 0.0093	< 0.0093
B-37-12.5	5/20/2015	51.46	<1	<1	<5	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009
B-37-17.5	5/20/2015	46.46	<1	<1	<5	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
B-38-7.5	5/20/2015	51.55	<1	<1	<5	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084
B-38-12.5	5/20/2015	46.58	<1	<1	<5	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084
B-39-7.5	5/20/2015	50.1	<1	<1	<5	< 0.0089	< 0.0089	< 0.0089	< 0.0089	< 0.0089	< 0.0089
B-39-12.5	5/20/2015	46.1	<1	<1	<5	< 0.0082	< 0.0082	< 0.0082	< 0.0082	< 0.0082	< 0.0082
B-40-2.5	5/13/2015	50.18	<1	<1	<5	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
B-40-7.5	5/13/2015	45.18	1.4	<1	<5	< 0.0093	< 0.0093	< 0.0093	< 0.0093	< 0.0093	< 0.0093
B-41-2.5	5/20/2015	51.71	3.1	<1	94	< 0.0085	< 0.0085	< 0.0085	< 0.0085	< 0.0085	< 0.0085
B-41-7.5	5/20/2015	46.71	<1	<1	<5	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081
B-42-2.5	5/20/2015	51.85	15	<1	93	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084	< 0.0084
B-42-7.5	5/20/2015	46.96	<1	<1	<5	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009
B-43-2.5	5/20/2015	50.93	40	<1	410	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
B-43-7.5	5/20/2015	46.83	5.9	<1	91	< 0.0085	< 0.0085	< 0.0085	< 0.0085	< 0.0085	< 0.0085
MW-18-7.5	5/13/2015	46.91	<1	<1	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
MW-18-7.5	5/13/2015	44.86	<1	<1	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Soil to Remain in Place ² - Results for Future Deeper Soil (greater than 10 feet below future grade)											
B-28-28	5/11/2015	33.77	<1	<1	<5	< 0.006	< 0.006	< 0.006	< 0.006	-	-
B-30-27	5/11/2015	34.74	<1	<1	<5	< 0.006	< 0.006	< 0.006	< 0.006	-	-
B-37-22.5	5/20/2015	41.45	1.1	<1	<5	< 0.0093	< 0.0093	< 0.0093	< 0.0093	< 0.0093	< 0.0093
B-40-12.5	5/13/2015	40.18	<1	<1	<5	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098
B-41-12.5	5/23/2015	41.71	<1	<1	<5	< 0.0089	< 0.0089	< 0.0089	< 0.0089	< 0.0089	< 0.0089
B-42-12.5	5/20/2015	41.86	<1	<1	<5	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009
MW-18-12.6	5/13/2015	40.01	<1	<1	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
MW-18-17.5	5/13/2015	35.01	2	13	-	0.18	0.11	< 0.010	0.17	< 0.010	0.18
MW-18-21.6	5/13/2015	31.01	37	620	-	< 0.6	2	< 0.6	1.9	< 0.6	1.9
MW-18-28.5	5/13/2015	26.01	<1	<1	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
MW-18-31.5	5/13/2015	21.09	<1	<1	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
MW-19-12.5	5/13/2015	39.86	<1	<1	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
MW-19-17.5	5/13/2015	34.35	<1	<1	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
MW-19-22	5/13/2015	33.56	<1	<1	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
MW-19-27.6	5/13/2015	24.66	<1	<1	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
RB-2-32	5/15/2015	39.78	1,600	10,000	130	< 20	160	250	940	< 20	55
RB-2-34	5/15/2015	37.78	2,800	13,000	240	120	190	640	850	< 50	87
RB-2-26	5/15/2015	35.78	7,700	22,000	860	100	140	640	770	< 100	< 160
RB-2-28	5/15/2015	33.78	630	5,100	< 50	11	70	150	400	< 10	24
RB-2-30	5/15/2015	31.78	160	3,100	< 50	< 10	28	74	160	< 10	11
RB-2-32	5/15/2015	29.78	3.2	11	< 5	0.24	0.061	0.06	0.37	< 0.025	0.055
RB-2-34	5/15/2015	27.78	16	29	< 5	0.1	< 0.1	< 0.1	0.49	< 0.1	0.26
RB-2-38	5/15/2015	25.78	52	950	< 50	< 2	2.1	< 2	14	< 2	< 2
RB-2-38	5/15/2015	23.78	1.7	16	< 5	0.48	0.16	0.066	0.74	< 0.025	0.079
RB-2-40	5/15/2015	21.78	2	7.7	< 5	0.69	0.26	0.34	0.29	< 0.05	< 0.05
RB-6-22	5/15/2015	39.71	<1	<1	<5	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
RB-6-24	5/15/2015	37.71	<1	<1	<5	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
RB-6-26	5/15/2015	35.71	500	2,100	< 50	< 5	50	50	50	< 5	25
RB-6-28	5/15/2015	33.71	1,200	7,200	< 25	14	77	210	360	< 10	40
RB-6-30	5/15/2015	31.71	460	1,600	< 50	< 5	13	< 6	43	< 5	8.7
RB-6-32	5/15/2015	29.71	<1	<1	<5	0.0065	0.009	< 0.006	< 0.006	< 0.006	< 0.006
RB-6-34	5/15/2015	27.71	<1	1	<5	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
RB-6-36	5/15/2015	25.71	<1	<1	<5	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
RB-6-38	5/15/2015	23.71	<1	<1	<5	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
RB-6-40	5/15/2015	21.71	<1	<1	<5	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
Residential LTCP	-	-	-	-	-	1.9	-	21	-	-	9.7
Residential ESL	-	-	100	100	100	0.242	3.3	2.9	2.3	0.023	1.2
Commercial ESL	-	-	110	500	500	0.242	3.3	2.9	2.3	0.023	1.2
Construction Worker ESL	-	-	900	2,700	28,000	71	4,300	480	2,500	3,500	370

Notes:

- ¹Soil samples located above the future site grade elevation of 52 feet a-msl
- ²Shallow (upper 10 feet bgs) and deep (greater than 10 feet bgs) soil samples located below the proposed future site grade elevation of 52 feet a-msl

Results for soil to be removed and shallow soil (0 to 10 feet below future grade) to remain in place were screened against ESLs; bolded values exceed Residential ESLs. Results for soil to be removed and shallow soil (0 to 10 feet below future grade) to remain in place were screened against Residential LTCP criteria; shaded values exceed the Residential LTCP criteria.

- a-msl - above mean sea level
- bgs - below ground surface
- BTEX - Benzene, toluene, ethylbenzene and xylenes using EPA Method 8260B
- ESLs - Environmental Screening Levels
- LTCP = Low Threat Underground Storage Tank Case Closure Policy, State Water Resources Control Board, May 2012
- mg/kg - milligrams per kilogram
- MTBE = Methyl tertiary butyl ether by EPA Method 8260.
- TPHg - Total Petroleum Hydrocarbons as Gasoline using EPA Method 8015M
- TPHd - Total Petroleum Hydrocarbons as Diesel Range using EPA Method 8015M
- TPHmo - Total Petroleum Hydrocarbons as Motor Oil using EPA Method 8015M
- < 1.0 - Analyte was not detected above the laboratory reporting limit (1.0 mg/kg)
- -not analyzed, not applicable or criteria not established

Residential LTCP = Table 1 - Concentrations of Petroleum Constituents in Soil That Will Have No Significant Risk of Adversely Affecting Human Health, State Water Resources Control Board, May 2012; the 0 to 5 feet bgs depth interval protects potential receptors from ingestion, dermal contact and inhalation of potentially contaminated soil.
 Residential ESL = Table A-1 - Environmental Screening Levels for Shallow Soil (<3 meters), Residential Land Use, where groundwater is a current or potential drinking water resource, as established by the San Francisco Regional Water Quality Control Board, December 2013.
 Commercial ESL = Table A-2 - Environmental Screening Levels for Shallow Soil (<3 meters), Commercial Land Use, where groundwater is a current or potential drinking water resource, as established by the San Francisco Regional Water Quality Control Board, December 2013.
 Construction Worker ESL = Table K-3 - Direct Exposure Soil Screening Levels, Construction/Trench Worker Exposure Scenario, as established by the San Francisco Regional Water Quality Control Board, December 2013.

Table 3
Soil Analytical Results for VOCs
3093 Broadway
Oakland, California

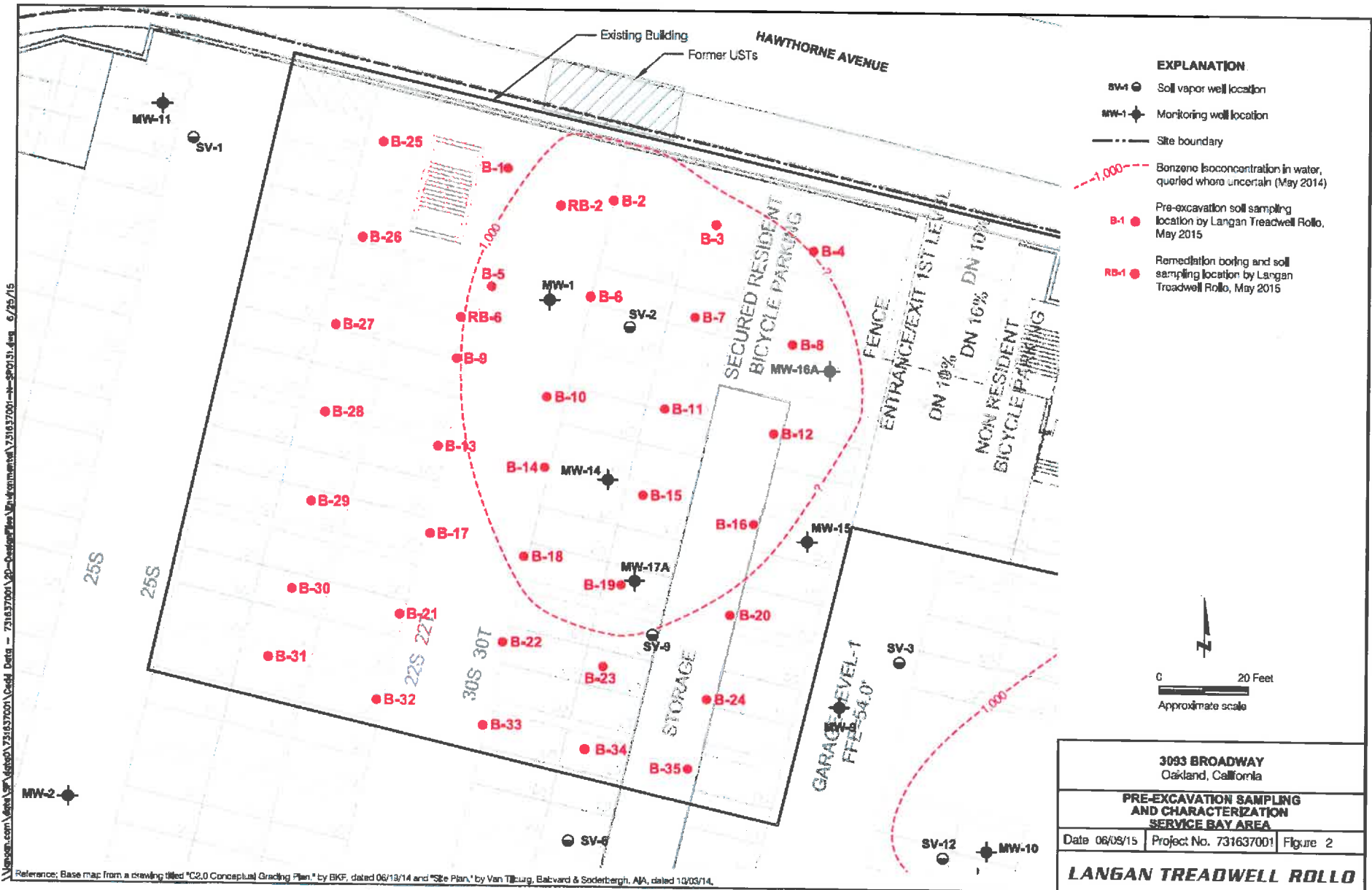
Langan Project: 731637001
 July 2015

Sample ID	Sample Date	Sample Elevation feet a-mal	1,2,4-Trimethyl- benzene	1,2-Dichloroethane (1,2-DCA)	1,3,5-Trimethyl- benzene	2-Butanone (MEK)	4-Isopropyl toluene	4-Methyl-2- pentanone (MIBK)	Isopropyl- benzene	n-Butyl benzene	n-Propyl benzene	t-Butyl alcohol (TBA)	All Other VOCs
			mg/kg										
Soil to be Removed¹													
B-1-2.5	5/12/2015	61.52	<0.0088	<0.0088	<0.0088	<0.035	<0.0088	<0.0088	<0.0088	<0.0088	<0.0088	<0.0088	ND
B-1-7.5	5/15/2015	56.52	<0.005	<0.004	<0.005	<0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	ND
B-10-2.5	5/18/2015	59.22	<0.0083	<0.0083	<0.0083	<0.033	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	ND
B-10-7.5	5/18/2015	54.22	<0.0083	<0.0083	<0.0083	<0.033	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	ND
B-20-2.5	5/19/2015	59.23	<0.0086	<0.0086	<0.0086	<0.034	<0.0086	<0.0086	<0.0086	<0.0086	<0.0086	<0.0086	ND
B-20-7.5	5/19/2015	54.23	<0.0088	<0.0088	<0.0088	<0.035	<0.0088	<0.0088	<0.0088	<0.0088	<0.0088	<0.0088	ND
B-30-2.5	5/11/2015	59.24	<0.0091	<0.0091	<0.0091	<0.036	<0.0091	<0.0091	<0.0091	<0.0091	<0.0091	<0.0091	ND
B-30-7.5	5/11/2015	54.24	<0.0087	<0.0087	<0.0087	<0.035	<0.0087	<0.0087	<0.0087	<0.0087	<0.0087	<0.0087	ND
B-36-2.5	5/20/2015	63.07	<0.0097	<0.0097	<0.0097	<0.039	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	ND
B-36-7.5	5/20/2015	58.07	<0.0093	<0.0093	<0.0093	<0.033	<0.0093	<0.0093	<0.0093	<0.0093	<0.0093	<0.0093	ND
B-36-12.5	5/20/2015	53.07	<0.0091	<0.0091	<0.0091	<0.035	<0.0091	<0.0091	<0.0091	<0.0091	<0.0091	<0.0091	ND
B-37-2.5	5/20/2015	61.45	<0.008	<0.008	<0.008	<0.032	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	ND
B-37-7.5	5/20/2015	56.45	<0.0086	<0.0086	<0.0086	<0.034	<0.0086	<0.0086	<0.0086	<0.0086	<0.0086	<0.0086	ND
B-38-2.5	5/20/2015	56.58	<0.0092	<0.0092	<0.0092	<0.037	<0.0092	<0.0092	<0.0092	<0.0092	<0.0092	<0.0092	ND
B-39-2.5	5/20/2015	55.10	<0.0084	<0.0084	<0.0084	<0.034	<0.0084	<0.0084	<0.0084	<0.0084	<0.0084	<0.0084	ND
RB-6.3	5/15/2015	58.71	-	<0.2	-	-	-	-	-	-	-	<2.5	ND
Soil to Remain in Place² - Results for Future Shallow Soil (0 to 10 feet below future grade)													
B-36-17.5	5/20/2015	48.07	<0.0091	<0.0091	<0.0091	<0.038	<0.0091	<0.0091	<0.0091	<0.0091	<0.0091	<0.0091	ND
B-36-22.5	5/20/2015	43.07	<0.0083	<0.0083	<0.0083	<0.033	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	ND
B-37-12.5	5/20/2015	51.45	<0.009	<0.009	<0.009	<0.036	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	ND
B-37-17.5	5/20/2015	46.45	<0.01	<0.01	<0.01	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND
B-39-7.5	5/20/2015	51.58	<0.0084	<0.0084	<0.0084	<0.034	<0.0084	<0.0084	<0.0084	<0.0084	<0.0084	<0.0084	ND
B-38-12.5	5/20/2015	46.58	<0.0084	<0.0084	<0.0084	<0.034	<0.0084	<0.0084	<0.0084	<0.0084	<0.0084	<0.0084	ND
B-39-7.5	5/20/2015	50.10	<0.0089	<0.0089	<0.0089	<0.036	<0.0089	<0.0089	<0.0089	<0.0089	<0.0089	<0.0089	ND
B-39-12.5	5/20/2015	45.10	<0.0082	<0.0082	<0.0082	<0.033	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	ND
B-40-2.5	5/13/2015	50.18	<0.0095	<0.0095	<0.0095	<0.038	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	ND
B-40-7.5	5/13/2015	45.18	<0.0093	<0.0093	<0.0093	<0.037	<0.0093	<0.0093	<0.0093	<0.0093	<0.0093	<0.0093	ND
B-41-2.5	5/20/2015	51.71	<0.0085	<0.0085	<0.0085	<0.034	<0.0085	<0.0085	<0.0085	<0.0085	<0.0085	<0.0085	ND
B-41-7.5	5/20/2015	46.71	<0.0081	<0.0081	<0.0081	<0.033	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	ND
B-42-2.5	5/20/2015	51.95	<0.0084	<0.0084	<0.0084	<0.034	<0.0084	<0.0084	<0.0084	<0.0084	<0.0084	<0.0084	ND
B-42-7.5	5/20/2015	46.95	<0.009	<0.009	<0.009	<0.036	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	ND
B-43-2.5	5/20/2015	50.83	<0.009	<0.009	<0.009	<0.036	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	ND
B-43-7.5	5/20/2015	45.83	<0.0085	<0.0085	<0.0085	<0.034	<0.0085	<0.0085	<0.0085	<0.0085	<0.0085	<0.0085	ND
MW-18-7.5	5/13/2015	45.01	-	<0.004	-	-	-	-	-	-	-	-	ND
MW-19-7.5	5/13/2015	44.85	-	<0.004	-	-	-	-	-	-	-	-	ND

Table 4
Soil Analytical Results for PAHs
3093 Broadway
Oakland, California

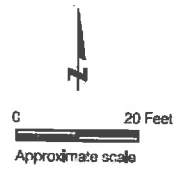
Langan Project: 731637001
 July 2015

Sample ID	Sample Date	Sample Elevation feet a-msl	1-Methyl-naphthalene	2-Methyl-naphthalene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Fluoranthene	Indeno (1,2,3-c,d)pyrene	Phenanthrene	Pyrene	Other PAHs
Soil to be Removed¹															
B-1-2.5	5/12/2015	61.52	<0.05	<0.05	0.18	0.33	0.34	0.28	0.17	0.16	0.29	0.21	0.22	0.27	ND
B-1-7.5	5/15/2015	56.52	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND
B-10-2.5	5/18/2015	59.22	<0.01	<0.01	0.014	0.022	0.019	0.018	0.012	<0.01	0.018	0.012	<0.01	0.013	ND
B-10-7.5	5/18/2015	54.22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND
B-20-2.5	5/19/2015	59.23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND
B-20-7.5	5/19/2015	54.23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND
B-30-2.5	5/11/2015	59.24	<0.01	<0.01	0.012	0.012	0.014	<0.01	<0.01	<0.01	0.011	<0.01	<0.01	0.013	ND
B-30-7.5	5/11/2015	54.24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND
B-36-2.5	5/20/2015	63.07	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	ND
B-36-7.5	5/20/2015	58.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND
B-36-12.5	5/20/2015	53.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND
B-37-2.5	5/20/2015	61.45	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND
B-37-7.5	5/20/2015	56.45	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND
B-38-2.5	5/20/2015	56.58	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	ND
B-39-2.5	5/20/2015	55.10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	ND
Shallow Soil to Remain in Place² - Results for Future Shallow Soil (0 to 10 feet below future grade)															
B-1-12.5	5/15/2015	61.52	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND
B-1-17.5	5/15/2015	46.52	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND
B-2-12.5	5/15/2015	49.36	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND
B-2-17.5 ³	5/15/2015	44.36	16	27	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
B-3-12.5	5/19/2015	49.36	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	ND
B-3-17.5	5/19/2015	44.36	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	ND
B-4-12.5	5/19/2015	49.28	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND
B-4-17.5	5/19/2015	44.28	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND
B-5-12.5	5/15/2015	49.27	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND
B-5-17.5	5/15/2015	44.27	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND
B-6-12.5	5/15/2015	49.32	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND
B-6-17.5	5/15/2015	44.32	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND
B-7-12.5	5/19/2015	49.31	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	ND
B-7-17.5	5/19/2015	44.31	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	ND
B-8-12.5	5/19/2015	49.27	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND
B-8-17.5	5/19/2015	44.27	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND
B-9-12.5	5/12/2015	49.16	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND



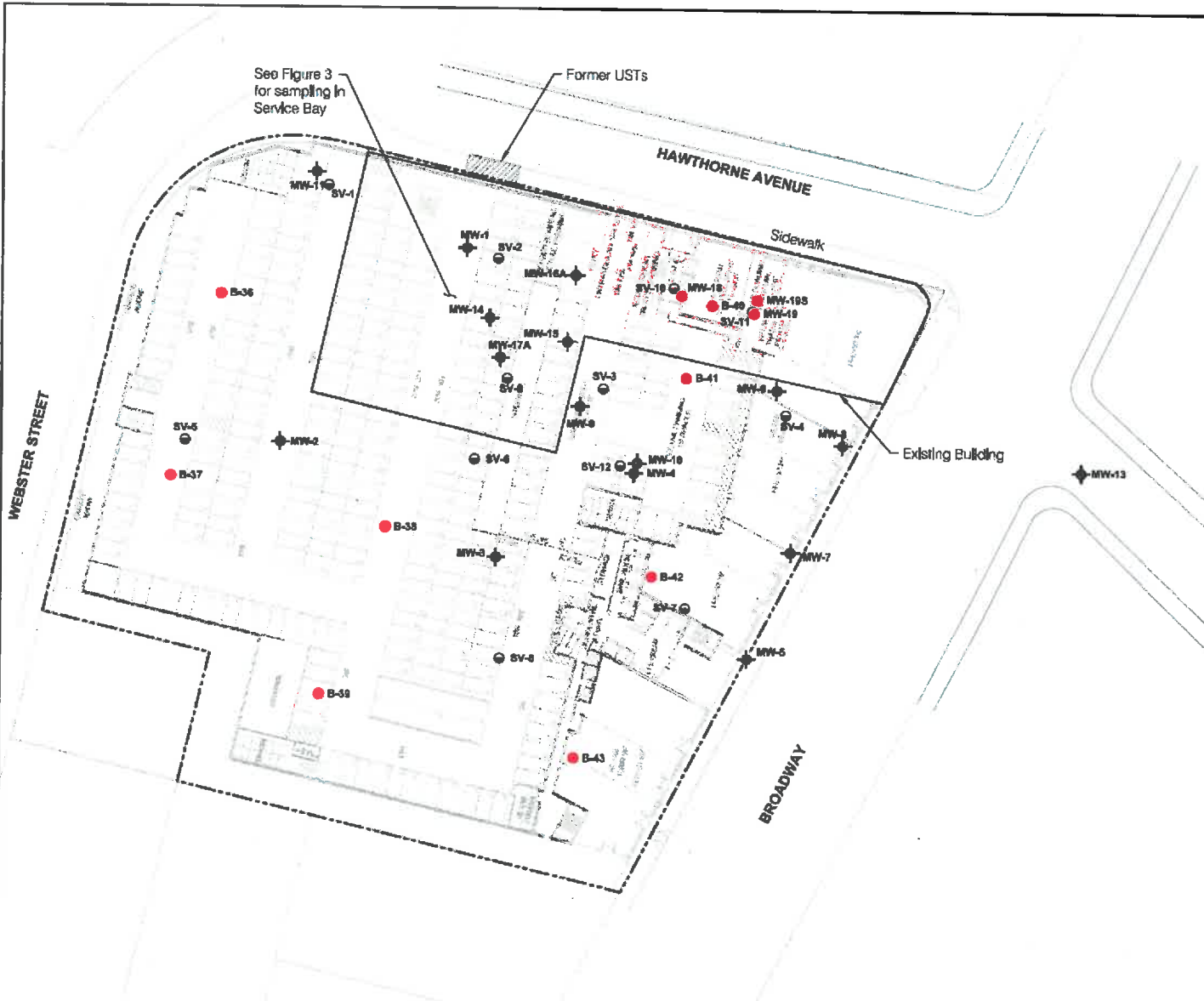
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 Reference: Base map from a drawing titled "C2.0 Conceptual Grading Plan." by BKF, dated 06/19/14 and "Site Plan," by Van Tilburg, Babvard & Soderbergh, AIA, dated 12/03/14.

- EXPLANATION**
- MW-1 ● Soil vapor well location
 - MW-1 ◆ Monitoring well location
 - Site boundary
 - - - 1,000 Benzene Isoconcentration in water, queried where uncertain (May 2014)
 - B-1 ● Pre-excavation soil sampling location by Langan Treadwell Rollo, May 2015
 - RB-1 ● Remediation boring and soil sampling location by Langan Treadwell Rollo, May 2015



3093 BROADWAY Oakland, California		
PRE-EXCAVATION SAMPLING AND CHARACTERIZATION SERVICE BAY AREA		
Date 06/09/15	Project No. 731637001	Figure 2
LANGAN TREADWELL ROLLO		

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See Figure 3 for sampling in Service Bay

Former USTs

HAWTHORNE AVENUE

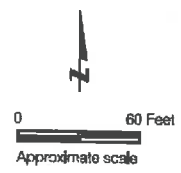
BROADWAY

Existing Building

EXPLANATION

- B-36** ● Pro-excavation soil sampling location by Langan Treadwell Rollo, May 2015
- SV-1** ⊙ Soil vapor well location
- MW-1** ◆ Monitoring well location
- Site boundary
- MW-18** ● Groundwater monitoring well and soil sampling location by Langan Treadwell Rollo, May 2015

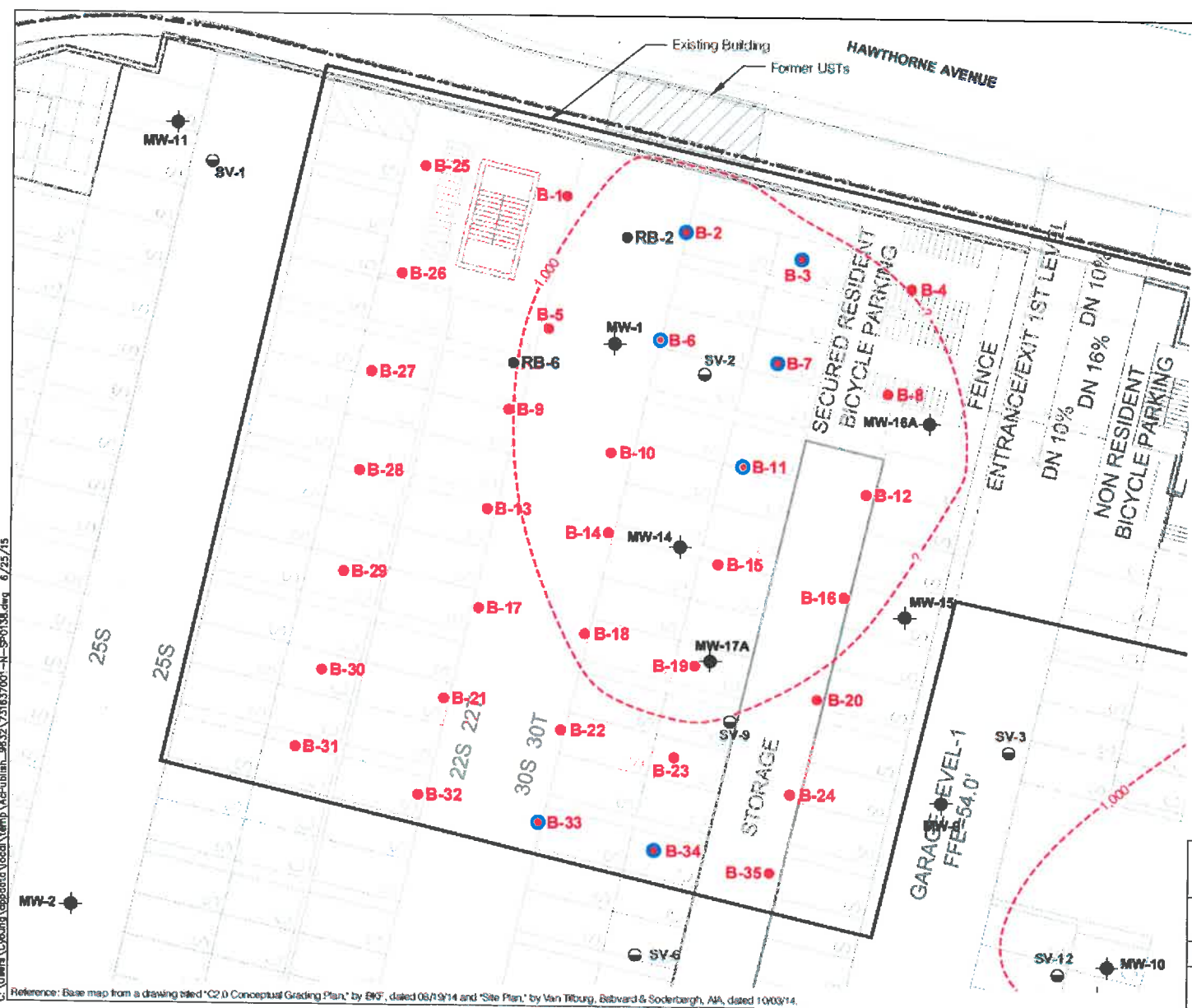
Note:
 1. Soil sampling frequency of minimum of 1 sample every 1/2 acre in general accordance with DTSC's Information advisory for clean imported fill material (2001)



3093 BROADWAY Oakland, California		
PRE-EXCAVATION SAMPLING AND CHARACTERIZATION AREAS OUTSIDE OF SERVICE BAY		
Date 06/09/15	Project No. 731637000	Figure 3
LANGAN TREADWELL ROLLO		

Reference: Base map from a drawing titled "C2.0 Conceptual Grading Plan" by BKF, dated 06/19/14 and "First Floor Plan" by Van Tilburg, Babward & Soederbergh, AIA, dated 10/05/14.

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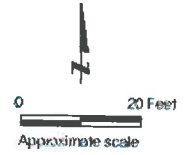


Reference: Base map from a drawing titled "C2.0 Conceptual Grading Plan" by BWS, dated 06/19/14 and "Site Plan" by Van Tilburg, Sitward & Soderbergh, AA, dated 10/09/14.

EXPLANATION

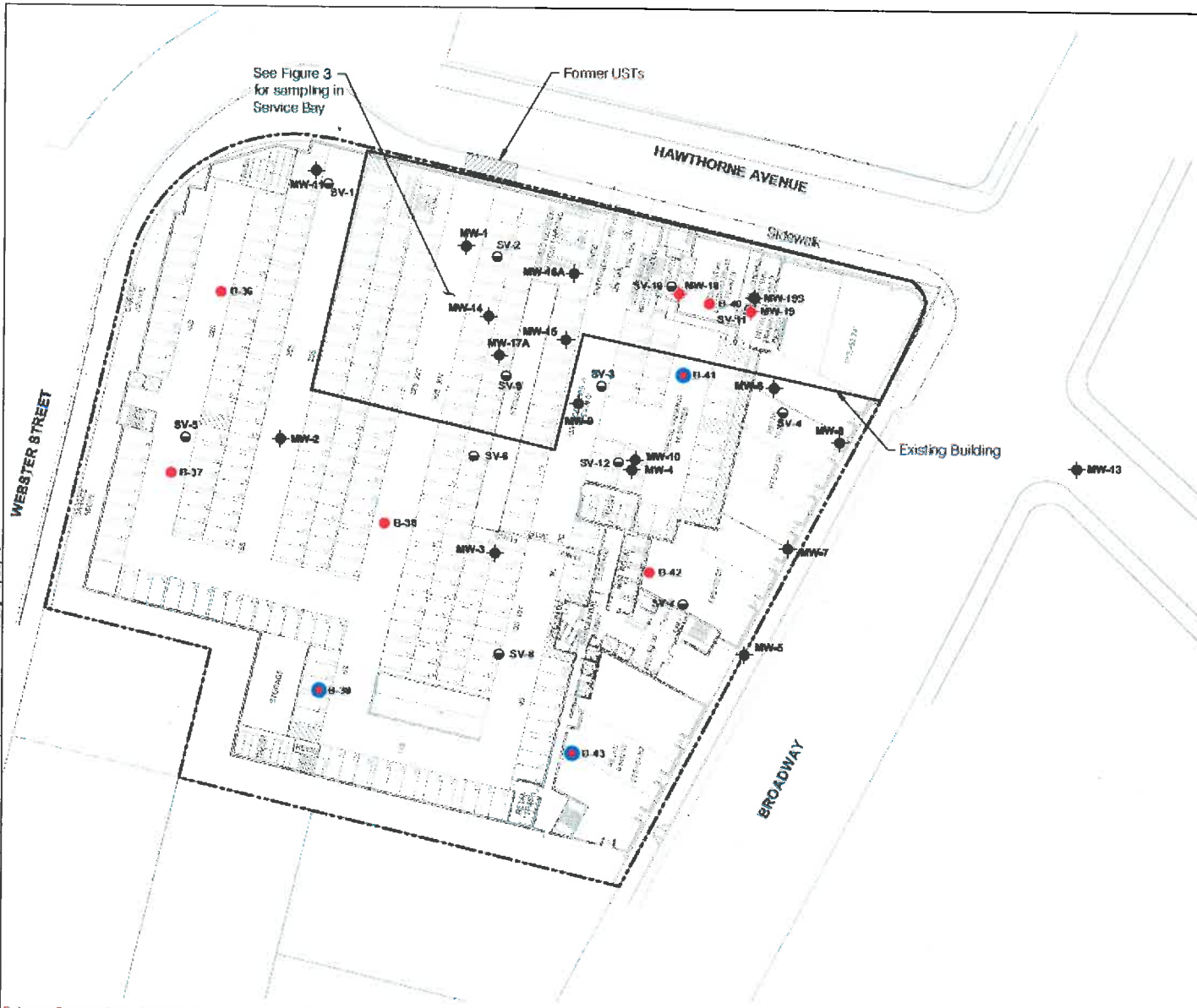
- SV-1 ● Soil vapor well location
- MW-1 ● Monitoring well location
- Site boundary
- - - 1,000 Benzene concentration in groundwater, queried where uncertain (May 2014)
- B-1 ● Pre-excavation soil sampling location by Langan Treadwell Rollo, May 2015
- RB-1 ● Remediation boring and soil sampling location by Langan Treadwell Rollo, May 2015
- B-2 ● One or more detected concentrations in future shallow soil are projected to exceed the Residential Environmental Screening Level (ESL)

- Notes:
1. Future shallow soil was analyzed for Total petroleum hydrocarbons (TPH) as gasoline, TPH as diesel, TPH as motor oil, benzene, toluene, ethylbenzene, xylenes (BTEX), and polycyclic aromatic hydrocarbons (PAHs).
 2. Residential ESLs for soil are from Table A-1 - Environmental Screening Levels for Shallow Soil (<3 meters), Residential Land Use, where groundwater is a current or potential drinking water resource, San Francisco Regional Water Quality Control Board, December 2013.
 3. Future site grade is planned to be 52 feet above Mean Sea Level (MSL), so soil samples collected at elevations between 42 and 52 feet above MSL are projected to be from future shallow soil.
 4. Arsenic is not included in the screening shown on this figure because naturally occurring arsenic exceeds the Residential ESL. Arsenic concentrations detected in site soil were within the range of anticipated naturally occurring arsenic concentrations.



3093 BROADWAY Oakland, California	
COMPARISON OF SHALLOW (0 - 10 FEET BGS) SOIL RESULTS TO RESIDENTIAL ESLs SERVICE BAY AREA	
Date 05/08/15	Project No. 731637001 Figure 4
LANGAN TREADWELL ROLLO	

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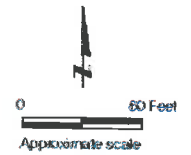


EXPLANATION

- B-36 Pre-excavation soil sampling location by Langan Treadwell Rollo, May 2015
- SV-1 Soil vapor well location
- ◆ MW-1 Monitoring well location
- - - Site boundary
- ◆ MW-18 Analysis of future shallow soil samples from locations MW-18 and MW-19 included TPH as gasoline, TPH as diesel, TPH as motor oil, 1,2-dichloroethane, MTBE, BTEX, and naphthalene
- B-41 One or more detected concentrations in shallow soil exceed the Residential Environmental Screening Level (ESL)

Notes:

1. Future shallow soil was analyzed for Total petroleum hydrocarbons (TPH) as gasoline, TPH as diesel, TPH as motor oil, and poly aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), PCBs, pesticides, and CAM-17 Metals.
2. Residential ESLs for soil are from Table A-1 - Environmental Screening Levels for Shallow Soil (<3 meters), Residential Land Use, where groundwater is a current or potential drinking water resource, San Francisco Regional Water Quality Control Board, December 2013.
3. Future site grade is planned to be 52 feet above Mean Sea Level (MSL), so soil samples collected at elevations between 42 and 52 feet above MSL are projected to be from future shallow soil.
4. Arsenic is not included in the screening shown on this figure because naturally occurring arsenic exceeds the Residential ESL. Arsenic concentrations detected in site soil were within the range of anticipated naturally occurring arsenic concentrations.



3093 BROADWAY Oakland, California		
COMPARISON OF SHALLOW (0 - 10 FEET BGS) SOIL RESULTS TO RESIDENTIAL ESLs AREAS OUTSIDE OF SERVICE BAY		
Date: 06/08/15	Project No. 731837001	Figure 5
LANGAN TREADWELL ROLLO		

Reference: Base map from a drawing titled 'C2.0 Conceptual Grading Plan,' by BKF, dated 05/19/14 and 'First Floor Plan,' by Van Tilburg, Bayard & Soderbergh, AIA, dated 10/08/14.