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September 15, 2015

Ms. Karel Detterman
Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: Submittal of the 2015 Second Quarter Groundwater Monitoring Report, 744 and 758 High Street, Oakland, California, Fuel Leak Case No. RO1135 and GeoTracker Global ID T0600101305

Dear Ms. Detterman:

On behalf of Union Pacific Railroad (UPRR), enclosed is the 2015 Second Quarter Groundwater Monitoring Report, which presents the methodology and results for the 2015 second quarter groundwater monitoring event conducted for the 744 and 758 High Street site in Oakland, California.

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

If you have any questions or comments after reviewing this material, please feel free to contact me by email at LAMANCUS@up.com or by phone at (916) 789-5184.

Sincerely,

Lauren A. Mancuso
Manager of Site Remediation
Union Pacific Railroad Company

C: David Hodson/CH2M HILL

Enclosure: referenced report

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September 15, 2015

Subject: 2015 Second Quarter Groundwater Monitoring Report
744 and 758 High Street, Oakland, California, Fuel Leak Case No. RO1135 and GeoTracker Global ID T0600101305

Dear Ms. Detterman:

On behalf of Union Pacific Railroad Company (UPRR), CH2M HILL, Inc. (CH2M) has prepared this *2015 Second Quarter Groundwater Monitoring Report* (letter report) for the former UPRR property located within the property currently identified as 750 High Street, in Oakland, California (the site). Historically, the site was known to be located at 744 and 758 High Street. A site location map is presented on Figure 1.

This letter report provides a summary of the second quarter 2015 groundwater monitoring activities, a summary of the analytical results for the second quarter 2015 groundwater monitoring event, and the schedule for planned activities.

The current site groundwater monitoring program consists of quarterly monitoring of monitoring wells MW-01 through MW-05. Information about site history and previous investigations is presented in *Soil and Groundwater Investigation and Updated Site Conceptual Model Report, 744 and 758 High Street, Oakland, California* (report) (CH2M HILL, 2015).

Second Quarter 2015 Groundwater Monitoring Activities

This section describes the second quarter 2015 groundwater monitoring activities. Monitoring well locations are presented on Figure 2. Well construction details, including coordinates, are presented in Table 1.

Groundwater Monitoring

Blaine Tech Services, Inc. (Blaine Tech), under contract to CH2M, performed groundwater monitoring activities on June 26, 2015. The following activities were performed during this groundwater monitoring event:

- Measured depth to water in site monitoring wells MW-01 through MW-05.
- Collected groundwater samples from monitoring wells MW-01 through MW-05.

Blaine Tech's field documentation for the second quarter 2015 groundwater monitoring event, including wellhead inspection checklist, purge parameters, sampling logs that document depths to water, and a chain-of-custody form, is included as Attachment 1.

During the second quarter 2015 groundwater monitoring event, monitoring wells were gauged for depth-to-water measurements before groundwater sampling began. Groundwater was purged and collected using a submersible pump with dedicated or new tubing for each monitoring well. Purging continued until groundwater parameters stabilized or until three well-casing volumes of water had been removed. Temperature, electrical conductivity, dissolved oxygen, turbidity, oxidation-reduction potential, and pH were measured. Turbidity measurements were significantly elevated (greater than 1,000 Nephelometric Turbidity Units) during sampling at monitoring wells MW-03 and MW-04. Samples for metals analysis were filtered in the field using an in-line disposable 0.45 micron filter prior to collection. Purged groundwater was transferred to labeled 55-gallon drums for temporary onsite storage.

Laboratory Analyses

TestAmerica (California Environmental Laboratory Accreditation Program No. 1197), of Pleasanton, California, conducted the analysis of groundwater samples under chain of custody; chain-of-custody forms are provided in Attachment 2. TestAmerica analyzed groundwater samples for total petroleum hydrocarbons (TPH) (as gasoline [g], as diesel [d], and as motor oil [mo]) using U.S. Environmental Protection Agency (EPA) Method 8015M, semivolatile organic compounds (SVOCs) using EPA Method 8270C SIM, metals by EPA Methods 6010B, and polychlorinated biphenyls (PCBs) using EPA Method 8082.

Second Quarter 2015 Groundwater Monitoring Results

This section presents groundwater monitoring results for the second quarter 2015 groundwater monitoring event, including groundwater elevations and gradients, light nonaqueous phase liquid (LNAPL) measurements, and analytical results.

Groundwater Elevations and Gradient

Table 2 presents a summary of the second quarter 2015 groundwater depths and elevations. Groundwater elevations ranged from 10.25 feet above mean sea level (amsl) to 14.51 feet amsl. Groundwater elevations and interpreted groundwater elevation contours for the second quarter 2015 groundwater monitoring event are presented on Figure 3. The groundwater flow direction during the second quarter 2015 based on the measured groundwater elevations is southeast to south. The average horizontal hydraulic gradient was calculated to be approximately 0.015 foot per foot for the second quarter 2015 monitoring event.

Light Nonaqueous Phase Liquid Measurements

LNAPL was not observed in monitoring wells MW-01 through MW-05 during the first quarter 2015 groundwater monitoring event.

Groundwater Analytical Results

Table 3 presents a summary of analytical results from groundwater samples collected during the second quarter 2015 monitoring event. Constituent concentrations are compared to California Regional Water Quality Control Board, San Francisco Bay Region (Water Board) commercial/industrial environmental screening levels (ESLs) for groundwater that is a current or potential source of drinking water (Water Board, 2013). Several constituents had reporting limits that exceeded ESLs. Metals including antimony, chromium, cobalt, copper, lead, mercury, nickel, and vanadium (Figure 4), and SVOCs including bis(2-ethylhexyl)phthalate and pentachlorophenol were detected at concentrations above ESLs in at least one sample collected during the second quarter 2015 groundwater event. PCBs were not detected above reporting limits. TPH was either detected at concentrations below reporting limits or below ESLs. Metals

appear to be randomly distributed in groundwater across the site, indicating general elevated levels of metals in groundwater and soil at the site. General elevated levels of metals in groundwater at the site is consistent with site-wide elevated levels of metals in soil. SVOCs, including bis(2-ethylhexyl)phthalate and pentachlorophenol were detected infrequently and/or at concentrations slightly above ESLs.

Attachment 2 provides the laboratory reports for the samples collected during the second quarter 2015 monitoring event.

To assess the quality of data from field sampling efforts and to assist with validation of collected data, a field duplicate sample collected during the second quarter 2015 monitoring event was analyzed to check for sampling consistency and error. A field duplicate sample was collected from monitoring well MW-01 during the second quarter 2015 monitoring event, immediately after the primary sample was collected. For analytes that were detected in both the original sample and field duplicate sample, the results for the duplicate sample correlated well with the original sample results. Data quality assessment and validation memorandums are presented in Attachment 2.

Groundwater Monitoring Recommendations and Schedule

Monitoring of site monitoring wells MW-01 through MW-05 will continue quarterly, and quarterly reports will be submitted to the Water Board. The next quarterly monitoring event is planned for September 2015. Submittal of the next quarterly report is planned for November 2015.

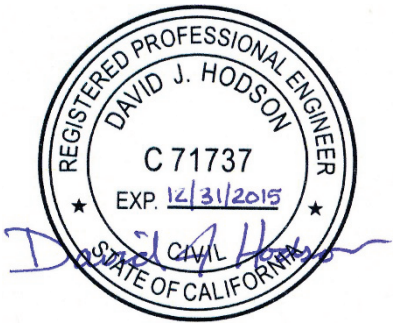
References

California Regional Water Quality Control Board, San Francisco Bay Region (Water Board). 2013. *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*. Interim Final. December.

CH2M HILL (CH2M). 2015. *Soil and Groundwater Investigation and Updated Site Conceptual Model Report, 744 and 758 High Street, Oakland, California*. May 8.

Please contact me at (510) 316-2323 or via email at david.hodson@ch2m.com if you have any questions.

Sincerely,
CH2M HILL



David Hodson, P.E.
Project Manager

Enclosures:

Table 1: Monitoring Well Construction and Survey Information

Table 2: Groundwater Measurements
Table 3: Summary of Groundwater Monitoring Sample Results
Figure 1: Site Location Map
Figure 2: Monitoring Well Locations
Figure 3: Groundwater Elevations
Figure 4: Groundwater Monitoring Results for Antimony, Chromium, Cobalt, Copper, Lead, Mercury, Nickel, and Vanadium

Attachment 1: Wellhead Inspection Checklists, Well Gauging Data Forms, Sample Forms, and Chain-of-Custody Forms
Attachment 2: Laboratory Reports and Data Quality Assessment and Validation Memorandum

Electronic copies only:
Lauren Mancuso/UPRR

Tables

Table 1. Monitoring Well Construction and Survey Information

2015 Second Quarter Groundwater Monitoring Report, 744 and 758 High Street, Oakland, California, Fuel Leak Case No. RO1135 and GeoTracker Global ID T0600101305

Well Name	Construction Date	Northing (feet)	Easting (feet)	Ground Surface Elevation (feet amsl)	Top of Casing (feet bgs)	Top of Screen Depth (feet bgs)	Top of Screen Elevation (feet amsl)	Bottom of Screen Depth (feet bgs)	Bottom of Screen Elevation (feet amsl)
MW-1	17-Feb-15	2106831.22	6065060.05	22.28	21.84	8	13.84	18	3.84
MW-2	17-Feb-15	2106995.70	6064801.68	22.17	21.83	7	14.83	17	4.83
MW-3	17-Feb-15	2106652.46	6065267.69	22.11	21.94	7	14.94	17	4.94
MW-4	17-Feb-15	2106710.60	6065093.67	20.1	19.24	7	12.24	17	2.24
MW-5	17-Feb-15	2106546.66	6065368.70	22.38	22.18	7	15.18	17	5.18

Notes:

amsl = above mean sea level
bgs = below ground surface

TABLE 2

Groundwater Measurements

2015 Second Quarter Groundwater Monitoring Report

744 and 758 High Street, Oakland, California

Location	Measurement Date	Well Top of Casing Elevation (feet msl)	Depth to NAPL Measurement (feet bgs)	Depth to Water Measurement (feet bgs)	Thickness of NAPL (feet)	Groundwater Elevation (feet msl)
MW-01	03/10/2015	**21.84**	**--**	**7.04**	**--**	**14.80**
	06/26/2015	**21.84**	**--**	**7.33**	**--**	**14.51**
MW-02	03/10/2015	**21.83**	**--**	**7.20**	**--**	**14.63**
	06/26/2015	**21.83**	**--**	**8.38**	**--**	**13.45**
MW-03	03/10/2015	**21.93**	**--**	**8.93**	**--**	**13.01**
	06/26/2015	**21.94**	**--**	**9.86**	**--**	**12.08**
MW-04	03/10/2015	**19.24**	**--**	**5.30**	**--**	**13.94**
	06/26/2015	**19.24**	**--**	**6.72**	**--**	**12.52**
MW-05	03/10/2015	**22.18**	**--**	**10.89**	**--**	**11.29**
	06/26/2015	**22.18**	**--**	**11.93**	**--**	**10.25**

Notes:

bgs below ground surface

msl mean sea level

TABLE 3
Summary of Groundwater Monitoring Sample Results
2015 Second Quarter Groundwater Monitoring Report
744 and 758 High Street, Oakland, California

		Parameter Group:	MET	MET	MET	MET	MET	MET	MET	MET	MET	MET	MET	MET	MET	MET	MET	MET
		Parameter:	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium
			Screening Levels (µg/L)															
Groundwater ESL for Drinking Water Source [1]			6	10	1,000	0.53	0.25	50	3	3.1	2.5	0.025	78	8.2	5	0.19	2	19
Location	Notes	Sample Date	Depth (feet bgs)	Analytical Results (µg/L)														
MW-01		03/10/15	8	10 U	10 U	13 J	2 U	2 U	1.3 J	2 U	20 U	**2.7 J**	0.2 U	10 U	2.1 J	20 U	5 U	10 U	2.4 J
	FD	03/10/15	8	10 U	10 U	12 J	2 U	2 U	1.7 J	2 U	20 U	2.3 J	0.2 U	10 U	2.7 J	20 U	5 U	10 U	2.7 J
		06/26/15	8	**8.4 J**	7.8 J	33 J	2 U	2 U	2.2 J	2 U	20 U	**2.6 J**	0.2 U	15	4.4 J	20 U	5 U	10 U	4.7 J
	FD	06/26/15	8	10 U	10 U	31 J	2 U	2 U	1.9 J	2 U	20 U	**5.9**	0.2 U	10 U	3.9 J	20 U	5 U	10 U	4.1 J
MW-02		03/10/15	8.5	10 U	10 U	35 J	2 U	2 U	0.9 J	2 U	20 U	2.3 J	0.2 U	10 U	**15**	20 U	5 U	10 U	2.8 J
		06/26/15	9	10 U	10 U	48 J	2 U	2 U	7.1 J	0.93 J	**4.7 J**	**9.6**	0.2 U	10 U	**21**	20 U	5 U	10 U	6.5 J
MW-03		03/10/15	9.5	10 U	10 U	54	2 U	2 U	10	1.9 J	20 U	**4.2 J**	**0.2**	10 U	**26**	20 U	5 U	10 U	7.5 J
		06/26/15	10.5	10 U	10 U	54	2 U	2 U	5.1 J	1.2 J	**3.8 J**	**6**	0.2 U	10 U	**15**	20 U	5 U	10 U	4.5 J
MW-04		03/10/15	6	10 U	10 U	47 J	2 U	2 U	2.6 J	2 U	20 U	**3.5 J**	0.2 U	10 U	**12**	20 U	5 U	10 U	2.9 J
		06/26/15	7.5	10 U	10 U	120	2 U	2 U	**55**	**8.1**	**12 J**	**14**	0.2 U	10 U	**75**	20 U	5 U	10 U	**26**
MW-05		03/10/15	12	10 U	10 U	41 J	2 U	2 U	6.9 J	0.75 J	20 U	**2.8 J**	0.2 U	10 U	**14**	20 U	5 U	10 U	4.9 J
		06/26/15	13	10 U	10 U	49 J	2 U	2 U	5.2 J	2 U	**5.8 J**	**7.2**	0.2 U	10 U	**13**	20 U	5 U	10 U	3.8 J

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		Parameter Group:	MET	PCB	PCB	PCB	PCB	PCB	PCB	PCB	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC
		Parameter:	Zinc	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	1,2,4-Trichloro-benzene	1,2-Dichloro-benzene	1,3-Dichloro-benzene	1,4-Dichloro-benzene	2,4,5-Trichloro-phenol	2,4,6-Trichloro-phenol	2,4-Dichloro-phenol	2,4-Dimethyl-phenol
			Screening Levels (µg/L)															
Groundwater ESL for Drinking Water Source [1]			81	NE	NE	NE	NE	NE	NE	NE	5	10	65	5	11	1.6	0.3	100
Location	Notes	Sample Date	Depth (feet bgs)	Analytical Results (µg/L)														
MW-01		03/10/15	8	25	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	2.1 UJ	2.1 UJ	2.1 U	2.1 U	4.2 U	2.1 UJ	5.2 UJ	3.1 U
	FD	03/10/15	8	27	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	2 U	2 U	2 U	2 U	4 U	2 U	5.1 U	3 U
		06/26/15	8	12 J	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	1.9 U	1.9 UJ	1.9 U	1.9 U	3.8 U	1.9 U	4.7 U	2.8 U
	FD	06/26/15	8	20 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	1.9 U	1.9 U	1.9 U	1.9 U	3.8 U	1.9 U	4.7 U	2.8 U
MW-02		03/10/15	8.5	24	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	2.1 U	2.1 U	2.1 U	2.1 U	4.2 U	2.1 U	5.2 U	3.1 U
		06/26/15	9	10 J	--	--	--	--	--	--	--	1.9 U	1.9 U	1.9 U	1.9 U	3.8 U	1.9 U	4.7 U	2.8 U
MW-03		03/10/15	9.5	26	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	2.1 U	2.1 U	2.1 U	2.1 U	4.2 U	2.1 U	5.3 U	3.2 U
		06/26/15	10.5	8 J	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.24 J	1.9 U	1.9 U	1.9 U	1.9 U	3.8 U	1.9 U	4.7 U	2.8 U
MW-04		03/10/15	6	15 J	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	2.1 U	2.1 U	2.1 U	2.1 U	4.1 U	2.1 U	5.2 U	3.1 U
		06/26/15	7.5	26	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	1.9 U	1.9 U	1.9 U	1.9 U	3.8 U	1.9 U	4.8 U	2.9 U
MW-05		03/10/15	12	10 J	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	2 U	2 U	2 U	2 U	4 U	2 U	5.1 U	3 U
		06/26/15	13	14 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	2 U	2 U	2 U	4 U	2 U	5 U	3 U

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Parameter Group:				SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC
Parameter:				2,4-Dinitro-phenol	2,4-Dinitro-toluene	2,6-Dinitro-toluene	2-Chloro-naphthalene	2-Chloro-phenol	2-Methyl-naphthalene	2-Methyl-phenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichloro benzidine	3-Nitroaniline	4,6-Dinitro-2-methylphenol	4-Bromo-phenyl phenyl ether	4-Chloro-aniline	4-Chloro-phenyl phenyl ether	4-Chloro-3-methylphenol
				Screening Levels (µg/L)														
Groundwater ESL for Drinking Water Source [1]				15	0.099	NE	NE	0.18	2.1	NE	NE	NE	0.056	NE	NE	NE	5	NE	NE
Location	Notes	Sample Date	Depth (feet bgs)	Analytical Results (µg/L)														
MW-01		03/10/15	8	10 U	4.2 U	5.2 U	4.2 U	4.2 U	2.1 U	4.2 U	10 U	2.1 UJ	5.2 U	5.2 U	10 U	5.2 U	2.1 U	5.2 U	5.2 U
	FD	03/10/15	8	10 U	4 U	5.1 U	4 U	4 U	2 U	4 U	10 U	2 U	5.1 U	5.1 U	10 U	5.1 U	2 U	5.1 U	5.1 U
		06/26/15	8	9.5 U	3.8 U	4.7 U	3.8 U	3.8 U	1.9 U	3.8 U	9.5 U	1.9 U	4.7 U	4.7 U	9.5 U	4.7 U	1.9 U	4.7 U	4.7 U
	FD	06/26/15	8	9.5 U	3.8 U	4.7 U	3.8 U	3.8 U	1.9 U	3.8 U	9.5 U	1.9 U	4.7 U	4.7 U	9.5 U	4.7 U	1.9 U	4.7 U	4.7 U
MW-02		03/10/15	8.5	10 U	4.2 U	5.2 U	4.2 U	4.2 U	2.1 U	4.2 U	10 U	2.1 U	5.2 U	5.2 U	10 U	5.2 U	2.1 U	5.2 U	5.2 U
		06/26/15	9	9.5 U	3.8 U	4.7 U	3.8 U	3.8 U	1.9 U	3.8 U	9.5 U	1.9 U	4.7 U	4.7 U	9.5 U	4.7 U	1.9 U	4.7 U	4.7 U
MW-03		03/10/15	9.5	11 U	4.2 U	5.3 U	4.2 U	4.2 U	2.1 U	4.2 U	11 U	2.1 U	5.3 U	5.3 U	11 U	5.3 U	2.1 U	5.3 U	5.3 U
		06/26/15	10.5	9.5 U	3.8 U	4.7 U	3.8 U	3.8 U	1.9 U	3.8 U	9.5 U	1.9 U	4.7 U	4.7 U	9.5 U	4.7 U	1.9 U	4.7 U	4.7 U
MW-04		03/10/15	6	10 U	4.1 U	5.2 U	4.1 U	4.1 U	2.1 U	4.1 U	10 U	2.1 U	5.2 U	5.2 U	10 U	5.2 U	2.1 U	5.2 U	5.2 U
		06/26/15	7.5	9.5 U	3.8 U	4.8 U	3.8 U	3.8 U	1.9 U	3.8 U	9.5 U	1.9 U	4.8 U	4.8 U	9.5 U	4.8 U	1.9 U	4.8 U	4.8 U
MW-05		03/10/15	12	10 U	4 U	5.1 U	4 U	4 U	2 U	4 U	10 U	2 U	5.1 U	5.1 U	10 U	5.1 U	2 U	5.1 U	5.1 U
		06/26/15	13	9.9 U	4 U	5 U	4 U	4 U	2 U	4 U	9.9 U	2 U	5 U	5 U	9.9 U	5 U	2 U	5 U	5 U

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744 and 758 High Street, Oakland, California

Parameter Group:				SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC
Parameter:				4-Methyl-phenol	4-Nitro- aniline	4-Nitro-phenol	Acenaph-thylene	Acenaphthene	Anthracene	Azobenzene	Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo(g,h,i)-perylene	Benzo(k)-fluoranthene	Benzoic acid	Benzyl Alcohol	bis(2-Chloro ethoxy) methane	bis(2-Chloroethyl) ether
				Screening Levels (µg/L)															
Groundwater ESL for Drinking Water Source [1]				NE	NE	NE	30	20	0.73	NE	0.027	0.014	0.056	0.1	0.056	NE	NE	NE	0.0055
Location	Notes	Sample Date	Depth (feet bgs)	Analytical Results (µg/L)															
MW-01		03/10/15	8	8.4 U	10 U	10 U	4.2 UJ	2.1 UJ	2.1 U	2.1 U	5.2 U	2.1 U	2.1 U	2.1 U	2.1 U	10 U	5.2 U	5.2 UJ	2.1 U
	FD	03/10/15	8	8.1 U	10 U	10 U	4 U	2 U	2 U	2 U	5.1 U	2 U	2 U	2 U	2 U	10 U	5.1 U	5.1 U	2 U
		06/26/15	8	7.6 U	9.5 U	9.5 U	3.8 U	1.9 U	1.9 U	1.9 U	4.7 U	1.9 U	1.9 U	1.9 U	1.9 U	9.5 U	4.7 U	4.7 U	1.9 U
	FD	06/26/15	8	7.6 U	9.5 U	9.5 U	3.8 U	1.9 U	1.9 U	1.9 U	4.7 U	1.9 U	1.9 U	1.9 U	1.9 U	9.5 U	4.7 U	4.7 U	1.9 U
MW-02		03/10/15	8.5	8.3 U	10 U	10 U	4.2 U	2.1 U	2.1 U	2.1 U	5.2 U	2.1 U	2.1 U	2.1 U	2.1 U	10 U	5.2 U	5.2 U	2.1 U
		06/26/15	9	7.6 U	9.5 U	9.5 U	3.8 U	1.9 U	1.9 U	1.9 U	4.7 U	1.9 U	1.9 U	1.9 U	1.9 U	9.5 U	4.7 U	4.7 U	1.9 U
MW-03		03/10/15	9.5	8.4 U	11 U	11 U	4.2 U	2.1 U	2.1 U	2.1 U	5.3 U	2.1 U	2.1 U	2.1 U	2.1 U	11 U	5.3 U	5.3 U	2.1 U
		06/26/15	10.5	7.6 U	9.5 U	9.5 U	3.8 U	1.9 U	1.9 U	1.9 U	4.7 U	1.9 U	1.9 U	1.9 U	1.9 U	9.5 U	4.7 U	4.7 U	1.9 U
MW-04		03/10/15	6	8.3 U	10 U	10 U	4.1 U	2.1 U	2.1 U	2.1 U	5.2 U	2.1 U	2.1 U	2.1 U	2.1 U	10 U	5.2 U	5.2 U	2.1 U
		06/26/15	7.5	7.6 U	9.5 U	9.5 U	3.8 U	1.9 U	1.9 U	1.9 U	4.8 U	1.9 U	1.9 U	1.9 U	1.9 U	9.5 U	4.8 U	4.8 U	1.9 U
MW-05		03/10/15	12	8.1 U	10 U	10 U	4 U	2 U	2 U	2 U	5.1 U	2 U	2 U	2 U	2 U	10 U	5.1 U	5.1 U	2 U
		06/26/15	13	7.9 U	9.9 U	9.9 U	4 U	2 U	2 U	2 U	5 U	2 U	2 U	2 U	2 U	9.9 U	5 U	5 U	2 U

TABLE 3
Summary of Groundwater Monitoring Sample Results
2015 Second Quarter Groundwater Monitoring Report
744 and 758 High Street, Oakland, California

Parameter Group:				SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC
Parameter:				bis(2-Ethylhexyl) phthalate	Butyl benzyl phthalate	Chrysene	Dibenz(a,h)-anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	Fluorene	Hexachloro-benzene	Hexachloro-butadiene	Hexachloro-cyclopenta-diene	Hexachloro-ethane	Indeno(1,2,3-cd)pyrene
				Screening Levels (µg/L)															
Groundwater ESL for Drinking Water Source [1]				4	NE	0.35	0.016	NE	1.5	1.5	NE	NE	8	3.9	1	0.86	NE	1.7	0.056
Location	Notes	Sample Date	Depth (feet bgs)	Analytical Results (µg/L)															
MW-01		03/10/15	8	**4.7 J**	5.2 U	2.1 U	2.1 U	4.2 U	5.2 U	5.2 U	5.2 U	5.2 U	2.1 U	4.2 UJ	2.1 U	2.1 U	5.2 U	2.1 UJ	2.1 U
	FD	03/10/15	8	3.2 J	5.1 U	2 U	2 U	4 U	5.1 U	5.1 U	5.1 U	5.1 U	2 U	4 U	2 U	2 U	5.1 U	2 U	2 U
		06/26/15	8	9.5 U	4.7 U	1.9 U	1.9 U	3.8 U	4.7 U	4.7 U	4.7 U	4.7 U	1.9 U	3.8 U	1.9 U	1.9 U	4.7 U	1.9 UJ	1.9 U
	FD	06/26/15	8	9.5 U	4.7 U	1.9 U	1.9 U	3.8 U	4.7 U	4.7 U	4.7 U	4.7 U	1.9 U	3.8 U	1.9 U	1.9 U	4.7 U	1.9 U	1.9 U
MW-02		03/10/15	8.5	**9.3 J**	5.2 U	2.1 U	2.1 U	4.2 U	5.2 U	5.2 U	5.2 U	5.2 U	2.1 U	4.2 U	2.1 U	2.1 U	5.2 U	2.1 U	2.1 U
		06/26/15	9	9.5 U	4.7 U	1.9 U	1.9 U	3.8 U	4.7 U	4.7 U	4.7 U	4.7 U	1.9 U	3.8 U	1.9 U	1.9 U	4.7 U	1.9 U	1.9 U
MW-03		03/10/15	9.5	**5.3 J**	5.3 U	2.1 U	2.1 U	4.2 U	5.3 U	5.3 U	5.3 U	5.3 U	2.1 U	4.2 U	2.1 U	2.1 U	5.3 U	2.1 U	2.1 U
		06/26/15	10.5	9.5 U	4.7 U	1.9 U	1.9 U	3.8 U	4.7 U	4.7 U	4.7 U	4.7 U	1.9 U	3.8 U	1.9 U	1.9 U	4.7 U	1.9 U	1.9 U
MW-04		03/10/15	6	**5.1 J**	5.2 U	2.1 U	2.1 U	4.1 U	5.2 U	5.2 U	5.2 U	5.2 U	2.1 U	4.1 U	2.1 U	2.1 U	5.2 U	2.1 U	2.1 U
		06/26/15	7.5	9.5 U	4.8 U	1.9 U	1.9 U	3.8 U	4.8 U	4.8 U	4.8 U	4.8 U	1.9 U	3.8 U	1.9 U	1.9 U	4.8 U	1.9 U	1.9 U
MW-05		03/10/15	12	**4.8 J**	5.1 U	2 U	2 U	4 U	5.1 U	5.1 U	5.1 U	5.1 U	2 U	4 U	2 U	2 U	5.1 U	2 U	2 U
		06/26/15	13	9.9 U	5 U	2 U	2 U	4 U	5 U	5 U	5 U	5 U	2 U	4 U	2 U	2 U	5 U	2 U	2 U

TABLE 3
Summary of Groundwater Monitoring Sample Results
2015 Second Quarter Groundwater Monitoring Report
744 and 758 High Street, Oakland, California

Parameter Group:				SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	TPH	TPH	TPH
Parameter:				Isophorone	Naphthalene	Nitrobenzene	N-Nitroso-diphenylamine	N-Nitrosodi-n-propylamine	Pentachloro-phenol	Phenanthrene	Phenol	Pyrene	TPH-d	TPH-g	TPH-mo
				Screening Levels (µg/L)											
Groundwater ESL for Drinking Water Source [1]				NE	6.1	NE	NE	NE	1	4.6	5	2	100	100	100
Location	Notes	Sample Date	Depth (feet bgs)	Analytical Results (µg/L)											
MW-01		03/10/15	8	4.2 UJ	2.1 U	2.1 UJ	2.1 U	2.1 U	10 U	2.1 U	2.1 U	2.1 U	60 U	50 U	100 U
	FD	03/10/15	8	4 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	50 U	50 U	100 U
		06/26/15	8	3.8 U	1.9 U	1.9 UJ	1.9 U	1.9 U	9.5 U	1.9 U	1.9 U	1.9 U	47 U	50 U	39 J
	FD	06/26/15	8	3.8 U	1.9 U	1.9 U	1.9 U	1.9 U	9.5 U	1.9 U	1.9 U	1.9 U	47 U	50 U	53 J
MW-02		03/10/15	8.5	4.2 U	2.1 U	74	2.1 U	2.1 U	**2.5 J**	2.1 U	2.1 U	2.1 U	100 U	50 U	100 U
		06/26/15	9	3.8 U	1.9 U	3.3	1.9 U	1.9 U	9.5 U	1.9 U	1.9 U	1.9 U	21 J	23 J	48 J
MW-03		03/10/15	9.5	4.2 U	2.1 U	2.1 U	2.1 U	2.1 U	11 U	2.1 U	2.1 U	2.1 U	98 U	50 U	140 U
		06/26/15	10.5	3.8 U	1.9 U	1.9 U	1.9 U	1.9 U	9.5 U	1.9 U	1.9 U	1.9 U	37 J	94	55 J
MW-04		03/10/15	6	4.1 U	2.1 U	2.1 U	2.1 U	2.1 U	10 U	2.1 U	2.1 U	2.1 U	130 U	50 U	130 U
		06/26/15	7.5	3.8 U	1.9 U	1.9 U	1.9 U	1.9 U	9.5 U	1.9 U	1.9 U	1.9 U	74	50 U	65 J
MW-05		03/10/15	12	4 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	2 U	52 U	22 J	100 U
		06/26/15	13	4 U	2 U	2 U	2 U	2 U	9.9 U	2 U	2 U	2 U	28 J	50 U	80 J

Notes:

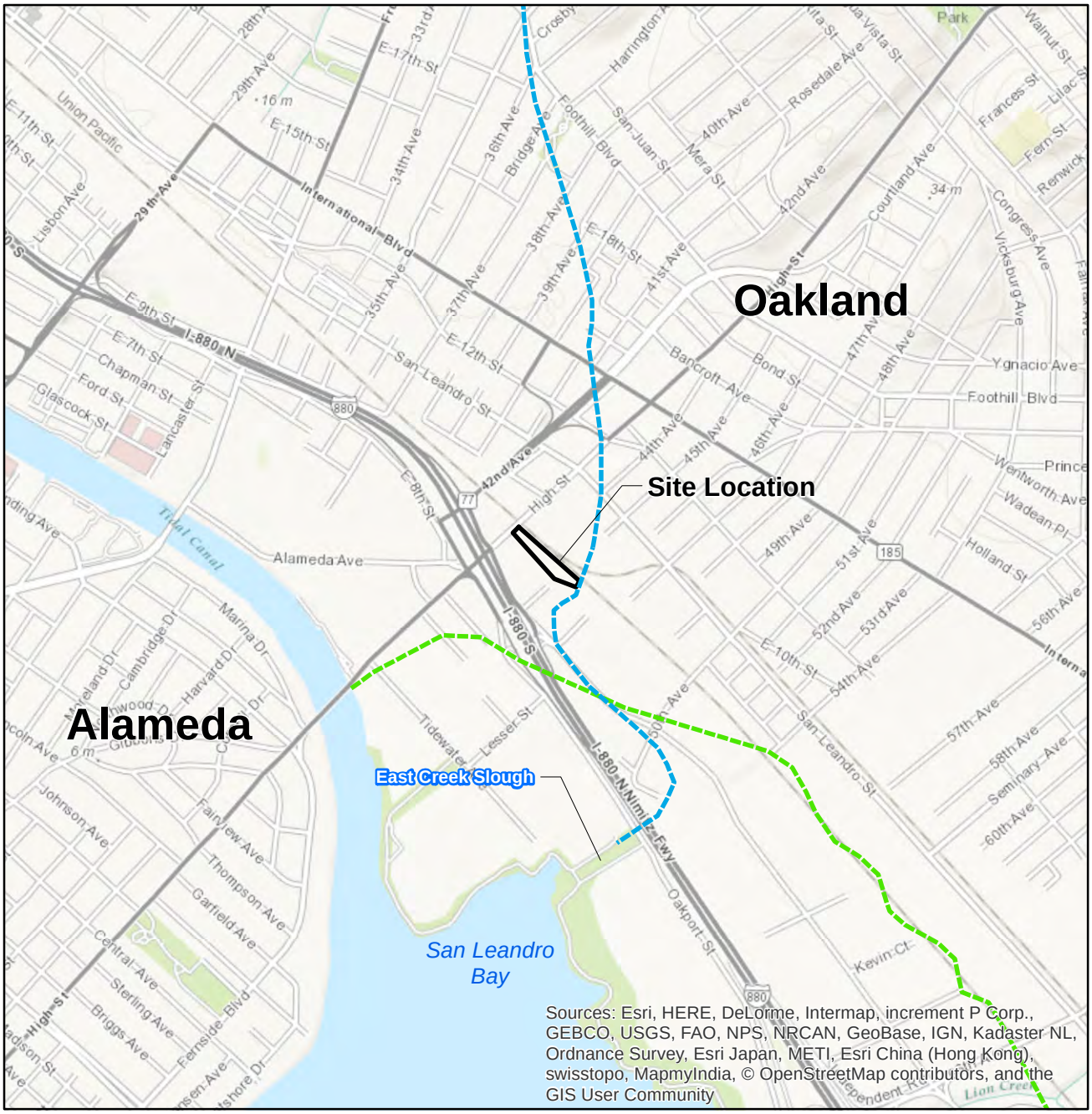
--	not detected as a tentatively identified compound
µg/L	micrograms per liter
bgs	below ground surface
ESL	environmental screening level
FD	field duplicate
J	estimated result
MET	metal
NE	not established
PCB	polychlorinated biphenyl
SVOC	semivolatile organic compound
TPH	total petroleum hydrocarbon
TPH-d	total petroleum hydrocarbons as diesel
TPH-g	total petroleum hydrocarbons as gasoline
TPH-mo	total petroleum hydrocarbons as motor oil
U	not detected at or above the indicated reporting limit

Detected concentrations exceeding the appropriate screening level are **bold**.

Screening Level Detail:

1 ESLs for groundwater where groundwater is a current or potential source of drinking water (California Regional Water Quality Control Board, San Francisco Bay Region, 2013)

Figures

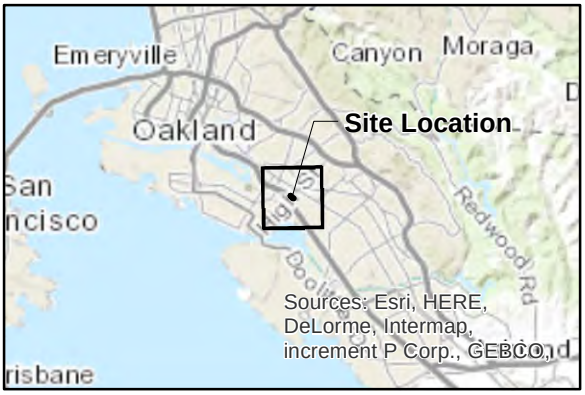


LEGEND

- Site Location
- Approximate Location of Peralta Creek
- Approximate Boundary of 1850 Tidal Marshes

Note:
Creek and historical shoreline features from Sowers and Richard (2009)

VICINITY MAP



N

0 750 1,500
Feet

FIGURE 1
Site Location Map
2015 Second Quarter Groundwater Monitoring Report, 744 and 758 High Street, Oakland, California

VICINITY MAP

LEGEND

- Monitoring Well
- Active Rail Line
- Former Rail Spur (1939-1958)
- Former Rail Spur (1944-1989)
- Site Boundary

Note:
1. The years cited for the rail spurs and fenceline represent the earliest and latest documented dates for the feature.

0 35 70
Feet

N

FIGURE 2
Monitoring Well Locations
2015 Second Quarter Groundwater Monitoring Report, 744 and 758 High Street, Oakland, California

CH2MHILL

VICINITY MAP

LEGEND

- Monitoring Well
- Groundwater Contours
- Active Rail Line
- Former Rail Spur (1939-1958)
- Former Rail Spur (1944-1989)
- Site Boundary

Notes:
1. The years cited for the rail spurs and fenceline represent the earliest and latest documented dates for the feature.
2. Monitoring Date: June 26, 2015.

Well ID: MW-01
Elevation: 14.51

0 35 70
Feet

N

FIGURE 3
Groundwater Elevations
2015 Second Quarter Groundwater Monitoring Report, 744 and 758 High Street, Oakland, California

CH2MHILL

MW-02	Antimony	Chromium	Colbalt	Copper	Lead	Mercury	Nickel	Vanadium
3/10/2015	10 U	0.9 J	2 U	20 U	2.3 J	0.2 U	**15**	2.8 J
6/26/2015	10 U	7.1 J	0.93 J	**4.7 J**	**9.6**	0.2 U	**21**	6.5 J

MW-01	Antimony	Chromium	Colbalt	Copper	Lead	Mercury	Nickel	Vanadium
3/10/2015	10 U	1.3 J	2 U	20 U	**2.7 J**	0.2 U	2.1 J	2.4 J
6/26/2015	**8.4 J**	2.2 J	2 U	20 U	**2.6 J**	0.2 U	4.4 J	4.7 J

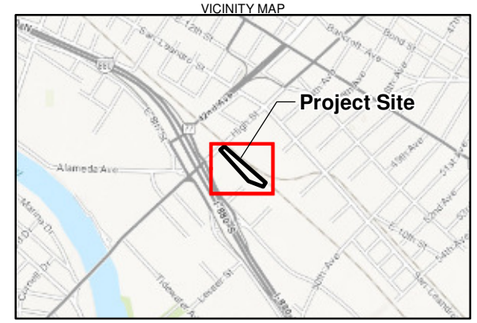
MW-04	Antimony	Chromium	Colbalt	Copper	Lead	Mercury	Nickel	Vanadium
3/10/2015	10 U	2.6 J	2 U	20 U	**3.5 J**	0.2 U	**12**	2.9 J
6/26/2015	10 U	**55**	**8.1**	**12 J**	**14**	0.2 U	**75**	**26**

MW-03	Antimony	Chromium	Colbalt	Copper	Lead	Mercury	Nickel	Vanadium
3/10/2015	10 U	10	1.9 J	20 U	**4.2 J**	**0.2**	**26**	7.5 J
6/26/2015	10 U	5.1 J	1.2 J	**3.8 J**	**6**	0.2 U	**15**	4.5 J

MW-05	Antimony	Chromium	Colbalt	Copper	Lead	Mercury	Nickel	Vanadium
3/10/2015	10 U	6.9 J	0.75 U	20 U	**2.8 J**	0.2 U	**14**	4.9 J
6/26/2015	10 U	5.2 J	2 U	**5.8 J**	**7.2**	0.2 U	**13**	3.8 J

	Antimony	Chromium	Colbalt	Copper	Lead	Mercury	Nickel	Vanadium
Groundwater ESL for Drinking Water Source	**6**	**50**	**3**	**3.1**	**2.5**	**0.025**	**8.2**	**19**

VICINITY MAP



LEGEND

- Monitoring Well
- Active Rail Line
- Former Rail Spur (1939-1958)
- Former Rail Spur (1944-1989)
- Site Boundary

Notes:
1. The years cited for the rail spurs and fenceline represent the earliest and latest documented dates for the feature.
2. Results in **BOLD** exceed groundwater ESL for drinking water source.
3. J = estimated result
4. U = not detected above the indicated reporting limit
5. Groundwater concentrations in units of micrograms per liter (µg/L)

0 35 70
Feet

N

FIGURE 4
Groundwater Monitoring Results for Antimony, Chromium, Cobalt, Copper, Lead, Mercury, Nickel, and Vanadium
2015 Second Quarter Groundwater Monitoring Report, 744 and 758 High Street, Oakland, California

CH2MHILL

Attachment 1
Wellhead Inspection Checklists, Well Gauging Data Forms, Sample Forms, and Chain-of-Custody Forms

WELL GAUGING DATA

Project # 150626-501 Date 6-26-15 Client CH2MHill

Site 744-758 High St. Oakland

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-01	0916	2					7.33	17.98		tubing
MW-02	0923	2					8.38	17.64		tubing
MW-03	0912	2					9.86	17.91		tubing
MW-04	0908	2					6.72	17.45		tubing
MW-05	0902	2					11.93	18.11		tubing

WELL MONITORING DATA SHEET

Project #: 150626-SD1	Client/Site: CH2MHILL @ UPRR Oakland
Sampler: SD	Start Date: ~~6.50~~ 6/26/2015
Well I.D.: MW-01	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 17.98	Depth to Water Pre: 7.35 Post: 7.39
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI 556 / YSI Pro Plus

Purge Method: (Electric Submersible) Peristaltic Pump
Sampling Method: (Dedicated Tubing) other ___ SI

Flow Rate: 0.5 gpm ~~ml/min~~ @ 1202 Purging Pump Intake Depth: 8.0 ft.

Time	Temp. (°C)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	DTW / Observations
1204	19.81	7.39	712	67	1.29	94.6	1.0	7.35
1206	19.54	7.46	698	48	1.05	79.8	2.0	7.36
1208	19.49	7.45	685	39	1.02	77.2	3.0	7.39
1210	19.36	7.45	679	36	1.00	81.3	4.0	7.38
1212	19.50	7.46	679	38	1.09	79.1	5.0	7.39
1213	19.48	7.46	681	37	1.07	78.2	5.5	7.39
		mS/m	SD Taken					
	Pump lowered to mid screen for sampling. Pump depth = 13							

Did well dewater? Yes (No) Amount actually evacuated: 5.5

Sampling Date: 6/26/2015 Sampling Time: 1220

Sample I.D.: MW-01-062615 Laboratory: TA - San Francisco

Analyzed for: TPH-G BTEX MTBE TPH-D (Other:) See COC

Equipment Blank I.D.: @ Time Duplicate I.D.: Dup-1

WELL MONITORING DATA SHEET

Project #: 150626-SD1	Client/Site: CH2MHILL @ UPRR Oakland
Sampler: SD	Start Date: 6/26/2015
Well I.D.: MW-02	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 17.64	Depth to Water Pre: 8.38 Post: 8.49
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI 556 / YSI Pro Plus

Purge Method: (Electric Submersible) Peristaltic Pump
Sampling Method: (Dedicated Tubing) other _____ SI: 7.17'

Flow Rate: 0.5 gpm ml/min @ 1317 Purging Pump Intake Depth: 9.0 ft.

Time	Temp. (°C)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	DTW / Observations
1314	21.38	7.21	803	>1000	0.31	43.4	1.0	8.45
1320	21.62	6.90	809	516	0.16	50.2	~~2.0~~ 1.5	8.47
1322	21.63	6.84	812	108	0.17	50.7	2.5	8.48
1323	21.64	6.85	814	10	0.18	51.1	3.0	8.49
1324	21.65	6.83	813	9	0.19	51.3	3.5	8.49
1326	21.66	6.82	813	9	0.20	51.5	4.5	8.49
	Pump lowered to mid screen for sampling. Pump depth = 12							

Did well dewater? Yes (No) Amount actually evacuated: 4.5

Sampling Date: 6/26/2015 Sampling Time: 1330

Sample I.D.: MW-02-062615 Laboratory: TA - San Francisco

Analyzed for: TPH-G BTEX MTBE TPH-D (Other:) See COC

Equipment Blank I.D.: @ Time Duplicate I.D.:

WELL MONITORING DATA SHEET

Project #: 150626-SD1	Client/Site: CH2MHILL @ UPRR Oakland
Sampler: SD	Start Date: 6/26/2015
Well I.D.: MW-03	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 17.91	Depth to Water Pre: 9.86 Post: 9.97
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI 556 / YSI Pro Plus

Purge Method: (Electric Submersible)
Sampling Method: (Dedicated Tubing)
Peristaltic Pump
other ____

SE = 7.17'

Flow Rate: 0.5 gpm ~~ml/min~~ @ 1041
Purging Pump Intake Depth: 10.5 ft.

Time	Temp. (°C)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals or mL)	DTW / Observations
1043	19.63	7.05	1464	>1000	0.27	34.9	1.0	9.95
1044	19.70	6.89	1478	>1000	0.30	33.4	1.5	9.96
1046	19.61	6.83	1521	>1000	0.30	28.8	2.5	9.96
1047	19.79	6.82	1536	>1000	0.35	23.4	3.0	9.96
1048	19.89	6.82	1536	>1000	0.38	22.7	3.5	9.96
1049	19.95	6.82	1536	>1000	0.41	22.0	4.0	9.97
	Pump lowered to mid screen for sampling. Pump depth = 12.0							

Did well dewater? Yes (No) Amount actually evacuated: ~~12.0~~ 4.0

Sampling Date: 6/26/2015 Sampling Time: 1055

Sample I.D.: MW-03-062615 Laboratory: TA - San Francisco

Analyzed for: TPH-G BTEX MTBE TPH-D (Other:) See COC

Equipment Blank I.D.: @ Time Duplicate I.D.:

WELL MONITORING DATA SHEET

Project #: 150626-SD1	Client/Site: CH2MHILL @ UPRR Oakland
Sampler: SD	Start Date: 6/26/2015
Well I.D.: MW-04	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 17.45	Depth to Water Pre: 6.72 Post: 6.78
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: (YSI 556) / YSI Pro Plus

Purge Method: (Electric Submersible)
Sampling Method: (Dedicated Tubing)

Peristaltic Pump
other _____ SI: 7'-17'

Flow Rate: 0.5 gpm ~~ml/min~~ @1116

Purging Pump Intake Depth: 7.5 ft.

Time	Temp. (°C)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed ((gals.) or mL)	DTW / Observations
1118	19.65	6.84	1298	>1000	0.26	49.2	1.0	6.74
1120	19.71	6.79	1328	>1000	0.39	46.7	2.0	6.76
1122	19.82	6.72	1335	>1000	0.45	45.9	3.0	6.78
1124	19.65	6.72	1336	>1000	0.42	40.1	4.0	6.77
1126	19.78	6.71	1334	>1000	0.41	42.8	5.0	6.78
1127	19.74	6.71	1336	>1000	0.43	41.0	5.5	6.78
	Pump lowered to mid screen for sampling. Pump depth = 12'							

Did well dewater? Yes (No) Amount actually evacuated: 5.5

Sampling Date: 6/26/2015 Sampling Time: 1130

Sample I.D.: MW-04-062615 Laboratory: TA - San Francisco

Analyzed for: TPH-G BTEX MTBE TPH-D (Other:) See COC

Equipment Blank I.D.: @ Time Duplicate I.D.:

WELL MONITORING DATA SHEET

Project #: 150626-SD1	Client/Site: CH2MHILL @ UPRR Oakland
Sampler: SD	Start Date: 6/26/2015
Well I.D.: MW-05	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 18.11	Depth to Water Pre: 11.93 Post: 12.09
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI 556 / YSI Pro Plus

Purge Method: (Electric Submersible)
Sampling Method: (Dedicated Tubing)
Peristaltic Pump
other ___

SI: 7'-17'

Flow Rate: 0.5 gpm ~~ml/min~~ @1006
Purging Pump Intake Depth: 13' ft.

Time	Temp. (°C)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals or mL)	DTW / Observations
1007	18.50	7.23	856	36	0.68	56.6	0.5	11.98
1008	18.17	7.05	856	29	0.67	55.9	1.0	12.00
1009	18.15	6.92	885	24	0.80	52.2	1.5	12.01
1010	18.19	6.91	888	20	0.82	51.3	2.0	12.02
1011	18.25	6.90	892	19	0.87	49.7	2.5	12.04
1012	18.31	6.89	893	18	0.86	48.4	3.0	12.04
	Pump lowered to mid screen for sampling. Pump depth = 13'							

Did well dewater? Yes (No)	Amount actually evacuated: 3.0
Sampling Date: 6/26/2015	Sampling Time: 1015
Sample I.D.: MW-05-062615	Laboratory: TA - San Francisco
Analyzed for: TPH-G BTEX MTBE TPH-D	(Other:) See COC
Equipment Blank I.D.: @ Time	Duplicate I.D.:

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME CH2M Hill @ UPRR Oakland				PROJECT NUMBER 150626-5601			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP. °C	INITIALS
YSI 556	05K1408AC	6-26-15 0840	pH 7 10 4	7.00 10.04 4.01	✓ ✓ ✓	19.71	SD
			conductivity ORP 238.0 DO 100%	3912 238.0 99.2	✓ ✓ ✓	19.40	SD

WELLHEAD INSPECTION CHECKLIST

Client CH2MHill Date 6.26.15

Site Address 744-758 High St Oakland

Job Number 150626-501 Technician SG

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
MW-01	X							
MW-02	X							
MW-03	X							
MW-04	X							
MW-05	X							

NOTES:

BLAINE
TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY
BTS #

CLIENT: CH2M Hill

SITE: UPRR - Oakland
750 High St.
Oakland, CA

CONDUCT ANALYSIS TO DETECT

LAB: **TEST AMERICA - SF** DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
☐ EPA ☐ RWQCB REGION _____
☐ LIA
☐ OTHER

Client Name/Address:
David Hodson - CH2M Hill (david.hodson@ch2m.com)
33 New Montgomery St., Suite 2000
San Francisco, CA

Project / PO Number:
PEDD-1954-03-Rev0

MS-MSD collected from:
MW-01

SAMPLE I.D.	DATE	TIME	MATRIX S= SOIL W=H_2O	CONTAINERS TOTAL	CONTAINERS TYPE	C = COMPOSITE ALL CONTAINERS	TPH-g (8015M)	TPH-d, mo (8015M)	PCB's (8082)	SVOC's (7270C)	California Title 22 Metals (6010B) Field filtered	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-01-062615	6/26/2015	1220	W	10	Various		X	X	X	X	X				
MW-02-062615	6/26/2015	1330	W	8	Various		X	X		X	X				
MW-03-062615	6/26/2015	1055	W	10	Various		X	X	X	X	X				
MW-04-062615	6/26/2015	1130	W	10	Various		X	X	X	X	X				
MW-05-062615	6/26/2015	1015	W	10	Various		X	X	X	X	X				
MW-01MS/MSD	6/26/2015	1220	W	~~20~~ 40	Various		X	X	X	X	X				
DUP-1	6/26/2015	—	W	10	Various		X	X	X	X	X				
TB062615	6/26/2015	—	W	2	HCL Voa		X								

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY	RESULTS NEEDED NO LATER THAN
	6.26.15	1400	Spencer Doolittle	**Standard TAT**

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
SDoo	6.26.15	1830	(Sample Custodian)	6/26/15	1830
(Sample Custodian)	6/30/15	0930		6/30/15	0930

SHIPPED VIA | DATE SENT | TIME SENT

Attachment 2
Laboratory Reports and Data Quality Assessment and Validation Memorandum

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-65757-1
Client Project/Site: UPRR-Oakland CA-750 High St

For:
CH2M Hill Constructors, Inc.
33 New Montgomery Street
Suite 2000
San Francisco, California 94105

Attn: David Hodson

Authorized for release by:
7/15/2015 12:21:14 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

Table of Contents

Definitions/Glossary

Client: CH2M Hill Constructors, Inc.
Project/Site: UPRR-Oakland CA-750 High St

TestAmerica Job ID: 720-65757-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
*	ISTD response or retention time outside acceptable limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: UPRR-Oakland CA-750 High St

TestAmerica Job ID: 720-65757-1

Client Sample ID: MW-01-062615 — Lab Sample ID: 720-65757-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Motor Oil Range Organics [C24-C36]	39	J	94	39	ug/L	1		8015B	Total/NA
Antimony	0.0084	J	0.010	0.0041	mg/L	1		6010B	Dissolved
Arsenic	0.0078	J	0.010	0.0029	mg/L	1		6010B	Dissolved
Barium	0.033	J	0.050	0.0016	mg/L	1		6010B	Dissolved
Chromium	0.0022	J	0.010	0.00070	mg/L	1		6010B	Dissolved
Lead	0.0026	J	0.0050	0.0022	mg/L	1		6010B	Dissolved
Molybdenum	0.015		0.010	0.0029	mg/L	1		6010B	Dissolved
Nickel	0.0044	J	0.010	0.0010	mg/L	1		6010B	Dissolved
Vanadium	0.0047	J	0.010	0.00087	mg/L	1		6010B	Dissolved
Zinc	0.012	J	0.020	0.0074	mg/L	1		6010B	Dissolved

Client Sample ID: MW-02-062615 — Lab Sample ID: 720-65757-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Gasoline Range Organics (GRO) -C5-C12	23	J	50	21	ug/L	1		8260B/CA_LUFT MS	Total/NA
Nitrobenzene	3.3		1.9	0.34	ug/L	1		8270C	Total/NA
Diesel Range Organics [C10-C28]	21	J	47	21	ug/L	1		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	48	J	94	40	ug/L	1		8015B	Total/NA
Barium	0.048	J	0.050	0.0016	mg/L	1		6010B	Dissolved
Chromium	0.0071	J	0.010	0.00070	mg/L	1		6010B	Dissolved
Cobalt	0.00093	J	0.0020	0.00068	mg/L	1		6010B	Dissolved
Copper	0.0047	J	0.020	0.0037	mg/L	1		6010B	Dissolved
Lead	0.0096		0.0050	0.0022	mg/L	1		6010B	Dissolved
Nickel	0.021		0.010	0.0010	mg/L	1		6010B	Dissolved
Vanadium	0.0065	J	0.010	0.00087	mg/L	1		6010B	Dissolved
Zinc	0.010	J	0.020	0.0074	mg/L	1		6010B	Dissolved

Client Sample ID: MW-03-062615 — Lab Sample ID: 720-65757-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Gasoline Range Organics (GRO) -C5-C12	94		50	21	ug/L	1		8260B/CA_LUFT MS	Total/NA
Diesel Range Organics [C10-C28]	37	J	48	21	ug/L	1		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	55	J	97	41	ug/L	1		8015B	Total/NA
PCB-1260	0.24	J	0.51	0.13	ug/L	1		8082	Total/NA
Barium	0.054		0.050	0.0016	mg/L	1		6010B	Dissolved
Chromium	0.0051	J	0.010	0.00070	mg/L	1		6010B	Dissolved
Cobalt	0.0012	J	0.0020	0.00068	mg/L	1		6010B	Dissolved
Copper	0.0038	J	0.020	0.0037	mg/L	1		6010B	Dissolved
Lead	0.0060		0.0050	0.0022	mg/L	1		6010B	Dissolved
Nickel	0.015		0.010	0.0010	mg/L	1		6010B	Dissolved
Vanadium	0.0045	J	0.010	0.00087	mg/L	1		6010B	Dissolved
Zinc	0.0080	J	0.020	0.0074	mg/L	1		6010B	Dissolved

Client Sample ID: MW-04-062615 — Lab Sample ID: 720-65757-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	74		47	21	ug/L	1		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	65	J	95	40	ug/L	1		8015B	Total/NA
Barium	0.12		0.050	0.0016	mg/L	1		6010B	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-04-062615 (Continued) — Lab Sample ID: 720-65757-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.055		0.010	0.00070	mg/L	1		6010B	Dissolved
Cobalt	0.0081		0.0020	0.00068	mg/L	1		6010B	Dissolved
Copper	0.012	J	0.020	0.0037	mg/L	1		6010B	Dissolved
Lead	0.014		0.0050	0.0022	mg/L	1		6010B	Dissolved
Nickel	0.075		0.010	0.0010	mg/L	1		6010B	Dissolved
Vanadium	0.026		0.010	0.00087	mg/L	1		6010B	Dissolved
Zinc	0.026		0.020	0.0074	mg/L	1		6010B	Dissolved

Client Sample ID: MW-05-062615 — Lab Sample ID: 720-65757-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	28	J	48	21	ug/L	1		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	80	J	96	40	ug/L	1		8015B	Total/NA
Barium	0.049	J	0.050	0.0016	mg/L	1		6010B	Dissolved
Chromium	0.0052	J	0.010	0.00070	mg/L	1		6010B	Dissolved
Copper	0.0058	J	0.020	0.0037	mg/L	1		6010B	Dissolved
Lead	0.0072		0.0050	0.0022	mg/L	1		6010B	Dissolved
Nickel	0.013		0.010	0.0010	mg/L	1		6010B	Dissolved
Vanadium	0.0038	J	0.010	0.00087	mg/L	1		6010B	Dissolved
Zinc	0.014	J	0.020	0.0074	mg/L	1		6010B	Dissolved

Client Sample ID: DUP-1 — Lab Sample ID: 720-65757-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Motor Oil Range Organics [C24-C36]	53	J	94	39	ug/L	1		8015B	Total/NA
Barium	0.031	J	0.050	0.0016	mg/L	1		6010B	Dissolved
Chromium	0.0019	J	0.010	0.00070	mg/L	1		6010B	Dissolved
Lead	0.0059		0.0050	0.0022	mg/L	1		6010B	Dissolved
Nickel	0.0039	J	0.010	0.0010	mg/L	1		6010B	Dissolved
Vanadium	0.0041	J	0.010	0.00087	mg/L	1		6010B	Dissolved

Client Sample ID: TB062615 — Lab Sample ID: 720-65757-7

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-01-062615

Date Collected: 06/26/15 12:20
Date Received: 06/30/15 18:25

Lab Sample ID: 720-65757-1

Matrix: Water

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C5-C12	ND		50	21	ug/L			07/10/15 02:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*67 - 130*		*07/10/15 02:56*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*72 - 130*		*07/10/15 02:56*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*07/10/15 02:56*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 12:17	1
Bis(2-chloroethyl)ether	ND		1.9	0.28	ug/L		07/01/15 10:00	07/02/15 12:17	1
2-Chlorophenol	ND		3.8	0.37	ug/L		07/01/15 10:00	07/02/15 12:17	1
1,3-Dichlorobenzene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 12:17	1
1,4-Dichlorobenzene	ND		1.9	0.25	ug/L		07/01/15 10:00	07/02/15 12:17	1
Benzyl alcohol	ND		4.7	0.95	ug/L		07/01/15 10:00	07/02/15 12:17	1
1,2-Dichlorobenzene	ND	F1	1.9	0.24	ug/L		07/01/15 10:00	07/02/15 12:17	1
2-Methylphenol	ND		3.8	0.36	ug/L		07/01/15 10:00	07/02/15 12:17	1
4-Methylphenol	ND		7.6	0.61	ug/L		07/01/15 10:00	07/02/15 12:17	1
N-Nitrosodi-n-propylamine	ND		1.9	0.38	ug/L		07/01/15 10:00	07/02/15 12:17	1
Hexachloroethane	ND	F1	1.9	0.94	ug/L		07/01/15 10:00	07/02/15 12:17	1
Nitrobenzene	ND	F1	1.9	0.34	ug/L		07/01/15 10:00	07/02/15 12:17	1
Isophorone	ND		3.8	0.57	ug/L		07/01/15 10:00	07/02/15 12:17	1
2-Nitrophenol	ND		1.9	0.94	ug/L		07/01/15 10:00	07/02/15 12:17	1
2,4-Dimethylphenol	ND		2.8	1.8	ug/L		07/01/15 10:00	07/02/15 12:17	1
Bis(2-chloroethoxy)methane	ND		4.7	0.95	ug/L		07/01/15 10:00	07/02/15 12:17	1
2,4-Dichlorophenol	ND		4.7	0.28	ug/L		07/01/15 10:00	07/02/15 12:17	1
1,2,4-Trichlorobenzene	ND		1.9	0.43	ug/L		07/01/15 10:00	07/02/15 12:17	1
Naphthalene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 12:17	1
4-Chloroaniline	ND		1.9	0.26	ug/L		07/01/15 10:00	07/02/15 12:17	1
Hexachlorobutadiene	ND		1.9	0.48	ug/L		07/01/15 10:00	07/02/15 12:17	1
4-Chloro-3-methylphenol	ND		4.7	0.95	ug/L		07/01/15 10:00	07/02/15 12:17	1
2-Methylnaphthalene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 12:17	1
Hexachlorocyclopentadiene	ND		4.7	1.9	ug/L		07/01/15 10:00	07/02/15 12:17	1
2,4,6-Trichlorophenol	ND		1.9	0.48	ug/L		07/01/15 10:00	07/02/15 12:17	1
2,4,5-Trichlorophenol	ND		3.8	0.35	ug/L		07/01/15 10:00	07/02/15 12:17	1
2-Chloronaphthalene	ND		3.8	0.43	ug/L		07/01/15 10:00	07/02/15 12:17	1
2-Nitroaniline	ND		9.5	0.96	ug/L		07/01/15 10:00	07/02/15 12:17	1
Dimethyl phthalate	ND		4.7	0.44	ug/L		07/01/15 10:00	07/02/15 12:17	1
Acenaphthylene	ND		3.8	0.41	ug/L		07/01/15 10:00	07/02/15 12:17	1
3-Nitroaniline	ND		4.7	0.87	ug/L		07/01/15 10:00	07/02/15 12:17	1
Acenaphthene	ND		1.9	0.27	ug/L		07/01/15 10:00	07/02/15 12:17	1
2,4-Dinitrophenol	ND		9.5	1.9	ug/L		07/01/15 10:00	07/02/15 12:17	1
4-Nitrophenol	ND		9.5	1.9	ug/L		07/01/15 10:00	07/02/15 12:17	1
Dibenzofuran	ND		3.8	0.48	ug/L		07/01/15 10:00	07/02/15 12:17	1
2,4-Dinitrotoluene	ND		3.8	0.34	ug/L		07/01/15 10:00	07/02/15 12:17	1
2,6-Dinitrotoluene	ND		4.7	0.39	ug/L		07/01/15 10:00	07/02/15 12:17	1
Diethyl phthalate	ND		4.7	0.54	ug/L		07/01/15 10:00	07/02/15 12:17	1
4-Chlorophenyl phenyl ether	ND		4.7	0.36	ug/L		07/01/15 10:00	07/02/15 12:17	1
Fluorene	ND	F1	3.8	0.46	ug/L		07/01/15 10:00	07/02/15 12:17	1

Client Sample ID: MW-01-062615
Date Collected: 06/26/15 12:20
Date Received: 06/30/15 18:25

Lab Sample ID: 720-65757-1
Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	ND		9.5	1.9	ug/L		07/01/15 10:00	07/02/15 12:17	1
2-Methyl-4,6-dinitrophenol	ND		9.5	1.9	ug/L		07/01/15 10:00	07/02/15 12:17	1
N-Nitrosodiphenylamine	ND		1.9	0.34	ug/L		07/01/15 10:00	07/02/15 12:17	1
4-Bromophenyl phenyl ether	ND		4.7	0.26	ug/L		07/01/15 10:00	07/02/15 12:17	1
Hexachlorobenzene	ND		1.9	0.31	ug/L		07/01/15 10:00	07/02/15 12:17	1
Pentachlorophenol	ND		9.5	0.76	ug/L		07/01/15 10:00	07/02/15 12:17	1
Phenanthrene	ND		1.9	0.32	ug/L		07/01/15 10:00	07/02/15 12:17	1
Anthracene	ND		1.9	0.28	ug/L		07/01/15 10:00	07/02/15 12:17	1
Di-n-butyl phthalate	ND		4.7	0.35	ug/L		07/01/15 10:00	07/02/15 12:17	1
Fluoranthene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 12:17	1
Pyrene	ND		1.9	0.30	ug/L		07/01/15 10:00	07/02/15 12:17	1
Butyl benzyl phthalate	ND		4.7	0.28	ug/L		07/01/15 10:00	07/02/15 12:17	1
3,3'-Dichlorobenzidine	ND		4.7	0.95	ug/L		07/01/15 10:00	07/02/15 12:17	1
Benzo[a]anthracene	ND		4.7	0.61	ug/L		07/01/15 10:00	07/02/15 12:17	1
Bis(2-ethylhexyl) phthalate	ND		9.5	1.4	ug/L		07/01/15 10:00	07/02/15 12:17	1
Chrysene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 12:17	1
Di-n-octyl phthalate	ND		4.7	0.61	ug/L		07/01/15 10:00	07/02/15 12:17	1
Benzo[b]fluoranthene	ND		1.9	0.32	ug/L		07/01/15 10:00	07/02/15 12:17	1
Benzo[a]pyrene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 12:17	1
Benzo[k]fluoranthene	ND		1.9	0.29	ug/L		07/01/15 10:00	07/02/15 12:17	1
Indeno[1,2,3-cd]pyrene	ND		1.9	0.37	ug/L		07/01/15 10:00	07/02/15 12:17	1
Benzo[g,h,i]perylene	ND		1.9	0.36	ug/L		07/01/15 10:00	07/02/15 12:17	1
Benzoic acid	ND		9.5	1.6	ug/L		07/01/15 10:00	07/02/15 12:17	1
Azobenzene	ND		1.9	0.28	ug/L		07/01/15 10:00	07/02/15 12:17	1
Dibenz(a,h)anthracene	ND		1.9	0.38	ug/L		07/01/15 10:00	07/02/15 12:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*60*		*11 - 92*	*07/01/15 10:00*	*07/02/15 12:17*	*1*
2-Fluorobiphenyl	*79*		*10 - 101*	*07/01/15 10:00*	*07/02/15 12:17*	*1*
Terphenyl-d14	*83*		*34 - 128*	*07/01/15 10:00*	*07/02/15 12:17*	*1*
2-Fluorophenol	*37*		*10 - 65*	*07/01/15 10:00*	*07/02/15 12:17*	*1*
Phenol-d5	*20*		*10 - 46*	*07/01/15 10:00*	*07/02/15 12:17*	*1*
2,4,6-Tribromophenol	*97*		*17 - 115*	*07/01/15 10:00*	*07/02/15 12:17*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		47	21	ug/L		07/02/15 09:59	07/02/15 21:41	1
Motor Oil Range Organics [C24-C36]	**39**	**J**	94	39	ug/L		07/02/15 09:59	07/02/15 21:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*98*		*23 - 156*	*07/02/15 09:59*	*07/02/15 21:41*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.47	0.065	ug/L		07/01/15 13:51	07/02/15 15:00	1
PCB-1221	ND		0.47	0.065	ug/L		07/01/15 13:51	07/02/15 15:00	1
PCB-1232	ND		0.47	0.065	ug/L		07/01/15 13:51	07/02/15 15:00	1
PCB-1242	ND		0.47	0.065	ug/L		07/01/15 13:51	07/02/15 15:00	1
PCB-1248	ND		0.47	0.065	ug/L		07/01/15 13:51	07/02/15 15:00	1
PCB-1254	ND		0.47	0.065	ug/L		07/01/15 13:51	07/02/15 15:00	1

Client Sample ID: MW-01-062615
Date Collected: 06/26/15 12:20
Date Received: 06/30/15 18:25

Lab Sample ID: 720-65757-1
Matrix: Water

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	ND		0.47	0.12	ug/L		07/01/15 13:51	07/02/15 15:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*78*		*19 - 98*	*07/01/15 13:51*	*07/02/15 15:00*	*1*
DCB Decachlorobiphenyl	*50*		*10 - 122*	*07/01/15 13:51*	*07/02/15 15:00*	*1*

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.0084**	**J**	0.010	0.0041	mg/L		07/08/15 12:06	07/09/15 00:02	1
Arsenic	**0.0078**	**J**	0.010	0.0029	mg/L		07/08/15 12:06	07/09/15 00:02	1
Barium	**0.033**	**J**	0.050	0.0016	mg/L		07/08/15 12:06	07/09/15 00:02	1
Beryllium	ND		0.0020	0.00059	mg/L		07/08/15 12:06	07/09/15 00:02	1
Cadmium	ND		0.0020	0.00021	mg/L		07/08/15 12:06	07/09/15 00:02	1
Chromium	**0.0022**	**J**	0.010	0.00070	mg/L		07/08/15 12:06	07/09/15 00:02	1
Cobalt	ND		0.0020	0.00068	mg/L		07/08/15 12:06	07/09/15 00:02	1
Copper	ND		0.020	0.0037	mg/L		07/08/15 12:06	07/09/15 00:02	1
Lead	**0.0026**	**J**	0.0050	0.0022	mg/L		07/08/15 12:06	07/09/15 12:30	1
Molybdenum	**0.015**		0.010	0.0029	mg/L		07/08/15 12:06	07/09/15 00:02	1
Nickel	**0.0044**	**J**	0.010	0.0010	mg/L		07/08/15 12:06	07/09/15 00:02	1
Selenium	ND	^	0.020	0.0046	mg/L		07/08/15 12:06	07/09/15 00:02	1
Silver	ND		0.0050	0.0020	mg/L		07/08/15 12:06	07/09/15 00:02	1
Thallium	ND		0.010	0.0035	mg/L		07/08/15 12:06	07/09/15 00:02	1
Vanadium	**0.0047**	**J**	0.010	0.00087	mg/L		07/08/15 12:06	07/09/15 00:02	1
Zinc	**0.012**	**J**	0.020	0.0074	mg/L		07/08/15 12:06	07/09/15 00:02	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		07/02/15 09:30	07/02/15 15:49	1

Client Sample ID: MW-02-062615
Date Collected: 06/26/15 13:30
Date Received: 06/30/15 18:25

Lab Sample ID: 720-65757-2
Matrix: Water

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C5-C12	23	J	50	21	ug/L			07/08/15 02:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*67 - 130*		*07/08/15 02:50*	*1*
1,2-Dichloroethane-d4 (Surr)	*90*		*72 - 130*		*07/08/15 02:50*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*07/08/15 02:50*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 12:43	1
Bis(2-chloroethyl)ether	ND		1.9	0.28	ug/L		07/01/15 10:00	07/02/15 12:43	1
2-Chlorophenol	ND		3.8	0.37	ug/L		07/01/15 10:00	07/02/15 12:43	1
1,3-Dichlorobenzene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 12:43	1
1,4-Dichlorobenzene	ND		1.9	0.25	ug/L		07/01/15 10:00	07/02/15 12:43	1
Benzyl alcohol	ND		4.7	0.95	ug/L		07/01/15 10:00	07/02/15 12:43	1
1,2-Dichlorobenzene	ND		1.9	0.24	ug/L		07/01/15 10:00	07/02/15 12:43	1
2-Methylphenol	ND		3.8	0.36	ug/L		07/01/15 10:00	07/02/15 12:43	1
4-Methylphenol	ND		7.6	0.62	ug/L		07/01/15 10:00	07/02/15 12:43	1
N-Nitrosodi-n-propylamine	ND		1.9	0.38	ug/L		07/01/15 10:00	07/02/15 12:43	1
Hexachloroethane	ND		1.9	0.94	ug/L		07/01/15 10:00	07/02/15 12:43	1
Nitrobenzene	3.3		1.9	0.34	ug/L		07/01/15 10:00	07/02/15 12:43	1
Isophorone	ND		3.8	0.57	ug/L		07/01/15 10:00	07/02/15 12:43	1
2-Nitrophenol	ND		1.9	0.94	ug/L		07/01/15 10:00	07/02/15 12:43	1
2,4-Dimethylphenol	ND		2.8	1.8	ug/L		07/01/15 10:00	07/02/15 12:43	1
Bis(2-chloroethoxy)methane	ND		4.7	0.95	ug/L		07/01/15 10:00	07/02/15 12:43	1
2,4-Dichlorophenol	ND		4.7	0.28	ug/L		07/01/15 10:00	07/02/15 12:43	1
1,2,4-Trichlorobenzene	ND		1.9	0.43	ug/L		07/01/15 10:00	07/02/15 12:43	1
Naphthalene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 12:43	1
4-Chloroaniline	ND		1.9	0.26	ug/L		07/01/15 10:00	07/02/15 12:43	1
Hexachlorobutadiene	ND		1.9	0.48	ug/L		07/01/15 10:00	07/02/15 12:43	1
4-Chloro-3-methylphenol	ND		4.7	0.95	ug/L		07/01/15 10:00	07/02/15 12:43	1
2-Methylnaphthalene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 12:43	1
Hexachlorocyclopentadiene	ND		4.7	1.9	ug/L		07/01/15 10:00	07/02/15 12:43	1
2,4,6-Trichlorophenol	ND		1.9	0.48	ug/L		07/01/15 10:00	07/02/15 12:43	1
2,4,5-Trichlorophenol	ND		3.8	0.35	ug/L		07/01/15 10:00	07/02/15 12:43	1
2-Chloronaphthalene	ND		3.8	0.43	ug/L		07/01/15 10:00	07/02/15 12:43	1
2-Nitroaniline	ND		9.5	0.96	ug/L		07/01/15 10:00	07/02/15 12:43	1
Dimethyl phthalate	ND		4.7	0.44	ug/L		07/01/15 10:00	07/02/15 12:43	1
Acenaphthylene	ND		3.8	0.41	ug/L		07/01/15 10:00	07/02/15 12:43	1
3-Nitroaniline	ND		4.7	0.87	ug/L		07/01/15 10:00	07/02/15 12:43	1
Acenaphthene	ND		1.9	0.27	ug/L		07/01/15 10:00	07/02/15 12:43	1
2,4-Dinitrophenol	ND		9.5	1.9	ug/L		07/01/15 10:00	07/02/15 12:43	1
4-Nitrophenol	ND		9.5	1.9	ug/L		07/01/15 10:00	07/02/15 12:43	1
Dibenzofuran	ND		3.8	0.48	ug/L		07/01/15 10:00	07/02/15 12:43	1
2,4-Dinitrotoluene	ND		3.8	0.34	ug/L		07/01/15 10:00	07/02/15 12:43	1
2,6-Dinitrotoluene	ND		4.7	0.39	ug/L		07/01/15 10:00	07/02/15 12:43	1
Diethyl phthalate	ND		4.7	0.54	ug/L		07/01/15 10:00	07/02/15 12:43	1
4-Chlorophenyl phenyl ether	ND		4.7	0.36	ug/L		07/01/15 10:00	07/02/15 12:43	1
Fluorene	ND		3.8	0.46	ug/L		07/01/15 10:00	07/02/15 12:43	1

Client Sample ID: MW-02-062615
Date Collected: 06/26/15 13:30
Date Received: 06/30/15 18:25

Lab Sample ID: 720-65757-2
Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	ND		9.5	1.9	ug/L		07/01/15 10:00	07/02/15 12:43	1
2-Methyl-4,6-dinitrophenol	ND		9.5	1.9	ug/L		07/01/15 10:00	07/02/15 12:43	1
N-Nitrosodiphenylamine	ND		1.9	0.34	ug/L		07/01/15 10:00	07/02/15 12:43	1
4-Bromophenyl phenyl ether	ND		4.7	0.26	ug/L		07/01/15 10:00	07/02/15 12:43	1
Hexachlorobenzene	ND		1.9	0.31	ug/L		07/01/15 10:00	07/02/15 12:43	1
Pentachlorophenol	ND		9.5	0.76	ug/L		07/01/15 10:00	07/02/15 12:43	1
Phenanthrene	ND		1.9	0.32	ug/L		07/01/15 10:00	07/02/15 12:43	1
Anthracene	ND		1.9	0.28	ug/L		07/01/15 10:00	07/02/15 12:43	1
Di-n-butyl phthalate	ND		4.7	0.35	ug/L		07/01/15 10:00	07/02/15 12:43	1
Fluoranthene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 12:43	1
Pyrene	ND		1.9	0.30	ug/L		07/01/15 10:00	07/02/15 12:43	1
Butyl benzyl phthalate	ND		4.7	0.29	ug/L		07/01/15 10:00	07/02/15 12:43	1
3,3'-Dichlorobenzidine	ND		4.7	0.95	ug/L		07/01/15 10:00	07/02/15 12:43	1
Benzo[a]anthracene	ND		4.7	0.62	ug/L		07/01/15 10:00	07/02/15 12:43	1
Bis(2-ethylhexyl) phthalate	ND		9.5	1.4	ug/L		07/01/15 10:00	07/02/15 12:43	1
Chrysene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 12:43	1
Di-n-octyl phthalate	ND		4.7	0.61	ug/L		07/01/15 10:00	07/02/15 12:43	1
Benzo[b]fluoranthene	ND		1.9	0.32	ug/L		07/01/15 10:00	07/02/15 12:43	1
Benzo[a]pyrene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 12:43	1
Benzo[k]fluoranthene	ND		1.9	0.29	ug/L		07/01/15 10:00	07/02/15 12:43	1
Indeno[1,2,3-cd]pyrene	ND		1.9	0.37	ug/L		07/01/15 10:00	07/02/15 12:43	1
Benzo[g,h,i]perylene	ND		1.9	0.36	ug/L		07/01/15 10:00	07/02/15 12:43	1
Benzoic acid	ND		9.5	1.6	ug/L		07/01/15 10:00	07/02/15 12:43	1
Azobenzene	ND		1.9	0.28	ug/L		07/01/15 10:00	07/02/15 12:43	1
Dibenz(a,h)anthracene	ND		1.9	0.38	ug/L		07/01/15 10:00	07/02/15 12:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*49*		*11 - 92*	*07/01/15 10:00*	*07/02/15 12:43*	*1*
2-Fluorobiphenyl	*58*		*10 - 101*	*07/01/15 10:00*	*07/02/15 12:43*	*1*
Terphenyl-d14	*70*		*34 - 128*	*07/01/15 10:00*	*07/02/15 12:43*	*1*
2-Fluorophenol	*29*		*10 - 65*	*07/01/15 10:00*	*07/02/15 12:43*	*1*
Phenol-d5	*18*		*10 - 46*	*07/01/15 10:00*	*07/02/15 12:43*	*1*
2,4,6-Tribromophenol	*88*		*17 - 115*	*07/01/15 10:00*	*07/02/15 12:43*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**21**	**J**	47	21	ug/L		07/02/15 09:59	07/02/15 22:06	1
Motor Oil Range Organics [C24-C36]	**48**	**J**	94	40	ug/L		07/02/15 09:59	07/02/15 22:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*96*		*23 - 156*	*07/02/15 09:59*	*07/02/15 22:06*	*1*

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0041	mg/L		07/08/15 12:06	07/09/15 00:07	1
Arsenic	ND		0.010	0.0029	mg/L		07/08/15 12:06	07/09/15 00:07	1
Barium	**0.048**	**J**	0.050	0.0016	mg/L		07/08/15 12:06	07/09/15 00:07	1
Beryllium	ND		0.0020	0.00059	mg/L		07/08/15 12:06	07/09/15 00:07	1
Cadmium	ND		0.0020	0.00021	mg/L		07/08/15 12:06	07/09/15 00:07	1
Chromium	**0.0071**	**J**	0.010	0.00070	mg/L		07/08/15 12:06	07/09/15 00:07	1

Client: CH2M Hill Constructors, Inc.
Project/Site: UPRR-Oakland CA-750 High St

TestAmerica Job ID: 720-65757-1

Client Sample ID: MW-02-062615
Date Collected: 06/26/15 13:30
Date Received: 06/30/15 18:25

Lab Sample ID: 720-65757-2
Matrix: Water

Method: 6010B - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	**0.00093**	**J**	0.0020	0.00068	mg/L		07/08/15 12:06	07/09/15 00:07	1
Copper	**0.0047**	**J**	0.020	0.0037	mg/L		07/08/15 12:06	07/09/15 00:07	1
Lead	**0.0096**		0.0050	0.0022	mg/L		07/08/15 12:06	07/09/15 00:07	1
Molybdenum	ND		0.010	0.0029	mg/L		07/08/15 12:06	07/09/15 00:07	1
Nickel	**0.021**		0.010	0.0010	mg/L		07/08/15 12:06	07/09/15 00:07	1
Selenium	ND	^	0.020	0.0046	mg/L		07/08/15 12:06	07/09/15 00:07	1
Silver	ND		0.0050	0.0020	mg/L		07/08/15 12:06	07/09/15 00:07	1
Thallium	ND		0.010	0.0035	mg/L		07/08/15 12:06	07/09/15 00:07	1
Vanadium	**0.0065**	**J**	0.010	0.00087	mg/L		07/08/15 12:06	07/09/15 00:07	1
Zinc	**0.010**	**J**	0.020	0.0074	mg/L		07/08/15 12:06	07/09/15 00:07	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		07/02/15 09:30	07/02/15 15:52	1

Client Sample ID: MW-03-062615
Date Collected: 06/26/15 10:55
Date Received: 06/30/15 18:25

Lab Sample ID: 720-65757-3
Matrix: Water

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C5-C12	94		50	21	ug/L			07/08/15 03:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*67 - 130*		*07/08/15 03:19*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*72 - 130*		*07/08/15 03:19*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*07/08/15 03:19*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 13:09	1
Bis(2-chloroethyl)ether	ND		1.9	0.28	ug/L		07/01/15 10:00	07/02/15 13:09	1
2-Chlorophenol	ND		3.8	0.37	ug/L		07/01/15 10:00	07/02/15 13:09	1
1,3-Dichlorobenzene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 13:09	1
1,4-Dichlorobenzene	ND		1.9	0.25	ug/L		07/01/15 10:00	07/02/15 13:09	1
Benzyl alcohol	ND		4.7	0.95	ug/L		07/01/15 10:00	07/02/15 13:09	1
1,2-Dichlorobenzene	ND		1.9	0.24	ug/L		07/01/15 10:00	07/02/15 13:09	1
2-Methylphenol	ND		3.8	0.36	ug/L		07/01/15 10:00	07/02/15 13:09	1
4-Methylphenol	ND		7.6	0.62	ug/L		07/01/15 10:00	07/02/15 13:09	1
N-Nitrosodi-n-propylamine	ND		1.9	0.38	ug/L		07/01/15 10:00	07/02/15 13:09	1
Hexachloroethane	ND		1.9	0.94	ug/L		07/01/15 10:00	07/02/15 13:09	1
Nitrobenzene	ND		1.9	0.34	ug/L		07/01/15 10:00	07/02/15 13:09	1
Isophorone	ND		3.8	0.57	ug/L		07/01/15 10:00	07/02/15 13:09	1
2-Nitrophenol	ND		1.9	0.94	ug/L		07/01/15 10:00	07/02/15 13:09	1
2,4-Dimethylphenol	ND		2.8	1.8	ug/L		07/01/15 10:00	07/02/15 13:09	1
Bis(2-chloroethoxy)methane	ND		4.7	0.95	ug/L		07/01/15 10:00	07/02/15 13:09	1
2,4-Dichlorophenol	ND		4.7	0.28	ug/L		07/01/15 10:00	07/02/15 13:09	1
1,2,4-Trichlorobenzene	ND		1.9	0.43	ug/L		07/01/15 10:00	07/02/15 13:09	1
Naphthalene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 13:09	1
4-Chloroaniline	ND		1.9	0.26	ug/L		07/01/15 10:00	07/02/15 13:09	1
Hexachlorobutadiene	ND		1.9	0.48	ug/L		07/01/15 10:00	07/02/15 13:09	1
4-Chloro-3-methylphenol	ND		4.7	0.95	ug/L		07/01/15 10:00	07/02/15 13:09	1
2-Methylnaphthalene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 13:09	1
Hexachlorocyclopentadiene	ND		4.7	1.9	ug/L		07/01/15 10:00	07/02/15 13:09	1
2,4,6-Trichlorophenol	ND		1.9	0.48	ug/L		07/01/15 10:00	07/02/15 13:09	1
2,4,5-Trichlorophenol	ND		3.8	0.35	ug/L		07/01/15 10:00	07/02/15 13:09	1
2-Chloronaphthalene	ND		3.8	0.43	ug/L		07/01/15 10:00	07/02/15 13:09	1
2-Nitroaniline	ND		9.5	0.96	ug/L		07/01/15 10:00	07/02/15 13:09	1
Dimethyl phthalate	ND		4.7	0.44	ug/L		07/01/15 10:00	07/02/15 13:09	1
Acenaphthylene	ND		3.8	0.41	ug/L		07/01/15 10:00	07/02/15 13:09	1
3-Nitroaniline	ND		4.7	0.87	ug/L		07/01/15 10:00	07/02/15 13:09	1
Acenaphthene	ND		1.9	0.27	ug/L		07/01/15 10:00	07/02/15 13:09	1
2,4-Dinitrophenol	ND		9.5	1.9	ug/L		07/01/15 10:00	07/02/15 13:09	1
4-Nitrophenol	ND		9.5	1.9	ug/L		07/01/15 10:00	07/02/15 13:09	1
Dibenzofuran	ND		3.8	0.48	ug/L		07/01/15 10:00	07/02/15 13:09	1
2,4-Dinitrotoluene	ND		3.8	0.34	ug/L		07/01/15 10:00	07/02/15 13:09	1
2,6-Dinitrotoluene	ND		4.7	0.40	ug/L		07/01/15 10:00	07/02/15 13:09	1
Diethyl phthalate	ND		4.7	0.54	ug/L		07/01/15 10:00	07/02/15 13:09	1
4-Chlorophenyl phenyl ether	ND		4.7	0.36	ug/L		07/01/15 10:00	07/02/15 13:09	1
Fluorene	ND		3.8	0.46	ug/L		07/01/15 10:00	07/02/15 13:09	1

Client Sample ID: MW-03-062615
Date Collected: 06/26/15 10:55
Date Received: 06/30/15 18:25

Lab Sample ID: 720-65757-3
Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	ND		9.5	1.9	ug/L		07/01/15 10:00	07/02/15 13:09	1
2-Methyl-4,6-dinitrophenol	ND		9.5	1.9	ug/L		07/01/15 10:00	07/02/15 13:09	1
N-Nitrosodiphenylamine	ND		1.9	0.34	ug/L		07/01/15 10:00	07/02/15 13:09	1
4-Bromophenyl phenyl ether	ND		4.7	0.26	ug/L		07/01/15 10:00	07/02/15 13:09	1
Hexachlorobenzene	ND		1.9	0.31	ug/L		07/01/15 10:00	07/02/15 13:09	1
Pentachlorophenol	ND		9.5	0.76	ug/L		07/01/15 10:00	07/02/15 13:09	1
Phenanthrene	ND		1.9	0.32	ug/L		07/01/15 10:00	07/02/15 13:09	1
Anthracene	ND		1.9	0.28	ug/L		07/01/15 10:00	07/02/15 13:09	1
Di-n-butyl phthalate	ND		4.7	0.35	ug/L		07/01/15 10:00	07/02/15 13:09	1
Fluoranthene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 13:09	1
Pyrene	ND		1.9	0.30	ug/L		07/01/15 10:00	07/02/15 13:09	1
Butyl benzyl phthalate	ND		4.7	0.29	ug/L		07/01/15 10:00	07/02/15 13:09	1
3,3'-Dichlorobenzidine	ND		4.7	0.95	ug/L		07/01/15 10:00	07/02/15 13:09	1
Benzo[a]anthracene	ND		4.7	0.62	ug/L		07/01/15 10:00	07/02/15 13:09	1
Bis(2-ethylhexyl) phthalate	ND		9.5	1.4	ug/L		07/01/15 10:00	07/02/15 13:09	1
Chrysene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 13:09	1
Di-n-octyl phthalate	ND		4.7	0.61	ug/L		07/01/15 10:00	07/02/15 13:09	1
Benzo[b]fluoranthene	ND		1.9	0.32	ug/L		07/01/15 10:00	07/02/15 13:09	1
Benzo[a]pyrene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 13:09	1
Benzo[k]fluoranthene	ND		1.9	0.29	ug/L		07/01/15 10:00	07/02/15 13:09	1
Indeno[1,2,3-cd]pyrene	ND		1.9	0.37	ug/L		07/01/15 10:00	07/02/15 13:09	1
Benzo[g,h,i]perylene	ND		1.9	0.36	ug/L		07/01/15 10:00	07/02/15 13:09	1
Benzoic acid	ND		9.5	1.6	ug/L		07/01/15 10:00	07/02/15 13:09	1
Azobenzene	ND		1.9	0.28	ug/L		07/01/15 10:00	07/02/15 13:09	1
Dibenz(a,h)anthracene	ND		1.9	0.38	ug/L		07/01/15 10:00	07/02/15 13:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*48*		*11 - 92*	*07/01/15 10:00*	*07/02/15 13:09*	*1*
2-Fluorobiphenyl	*57*		*10 - 101*	*07/01/15 10:00*	*07/02/15 13:09*	*1*
Terphenyl-d14	*41*		*34 - 128*	*07/01/15 10:00*	*07/02/15 13:09*	*1*
2-Fluorophenol	*24*		*10 - 65*	*07/01/15 10:00*	*07/02/15 13:09*	*1*
Phenol-d5	*16*		*10 - 46*	*07/01/15 10:00*	*07/02/15 13:09*	*1*
2,4,6-Tribromophenol	*83*		*17 - 115*	*07/01/15 10:00*	*07/02/15 13:09*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**37**	**J**	48	21	ug/L		07/02/15 09:59	07/02/15 22:55	1
Motor Oil Range Organics [C24-C36]	**55**	**J**	97	41	ug/L		07/02/15 09:59	07/02/15 22:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*95*		*23 - 156*	*07/02/15 09:59*	*07/02/15 22:55*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.51	0.071	ug/L		07/01/15 13:51	07/02/15 15:16	1
PCB-1221	ND		0.51	0.071	ug/L		07/01/15 13:51	07/02/15 15:16	1
PCB-1232	ND		0.51	0.071	ug/L		07/01/15 13:51	07/02/15 15:16	1
PCB-1242	ND		0.51	0.071	ug/L		07/01/15 13:51	07/02/15 15:16	1
PCB-1248	ND		0.51	0.071	ug/L		07/01/15 13:51	07/02/15 15:16	1
PCB-1254	ND		0.51	0.071	ug/L		07/01/15 13:51	07/02/15 15:16	1

Client: CH2M Hill Constructors, Inc.
Project/Site: UPRR-Oakland CA-750 High St

TestAmerica Job ID: 720-65757-1

Client Sample ID: MW-03-062615
Date Collected: 06/26/15 10:55
Date Received: 06/30/15 18:25

Lab Sample ID: 720-65757-3
Matrix: Water

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	**0.24**	**J**	0.51	0.13	ug/L		07/01/15 13:51	07/02/15 15:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*69*		*19 - 98*	*07/01/15 13:51*	*07/02/15 15:16*	*1*
DCB Decachlorobiphenyl	*23*		*10 - 122*	*07/01/15 13:51*	*07/02/15 15:16*	*1*

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0041	mg/L		07/08/15 12:06	07/09/15 00:12	1
Arsenic	ND		0.010	0.0029	mg/L		07/08/15 12:06	07/09/15 00:12	1
Barium	**0.054**		0.050	0.0016	mg/L		07/08/15 12:06	07/09/15 00:12	1
Beryllium	ND		0.0020	0.00059	mg/L		07/08/15 12:06	07/09/15 00:12	1
Cadmium	ND		0.0020	0.00021	mg/L		07/08/15 12:06	07/09/15 00:12	1
Chromium	**0.0051**	**J**	0.010	0.00070	mg/L		07/08/15 12:06	07/09/15 00:12	1
Cobalt	**0.0012**	**J**	0.0020	0.00068	mg/L		07/08/15 12:06	07/09/15 00:12	1
Copper	**0.0038**	**J**	0.020	0.0037	mg/L		07/08/15 12:06	07/09/15 00:12	1
Lead	**0.0060**		0.0050	0.0022	mg/L		07/08/15 12:06	07/09/15 00:12	1
Molybdenum	ND		0.010	0.0029	mg/L		07/08/15 12:06	07/09/15 00:12	1
Nickel	**0.015**		0.010	0.0010	mg/L		07/08/15 12:06	07/09/15 00:12	1
Selenium	ND	^	0.020	0.0046	mg/L		07/08/15 12:06	07/09/15 00:12	1
Silver	ND		0.0050	0.0020	mg/L		07/08/15 12:06	07/09/15 00:12	1
Thallium	ND		0.010	0.0035	mg/L		07/08/15 12:06	07/09/15 00:12	1
Vanadium	**0.0045**	**J**	0.010	0.00087	mg/L		07/08/15 12:06	07/09/15 00:12	1
Zinc	**0.0080**	**J**	0.020	0.0074	mg/L		07/08/15 12:06	07/09/15 00:12	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		07/02/15 09:30	07/02/15 15:54	1

Client Sample ID: MW-04-062615
Date Collected: 06/26/15 11:30
Date Received: 06/30/15 18:25

Lab Sample ID: 720-65757-4
Matrix: Water

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C5-C12	ND		50	21	ug/L			07/08/15 03:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*67 - 130*		*07/08/15 03:48*	*1*
1,2-Dichloroethane-d4 (Surr)	*90*		*72 - 130*		*07/08/15 03:48*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*07/08/15 03:48*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 13:35	1
Bis(2-chloroethyl)ether	ND		1.9	0.29	ug/L		07/01/15 10:00	07/02/15 13:35	1
2-Chlorophenol	ND		3.8	0.37	ug/L		07/01/15 10:00	07/02/15 13:35	1
1,3-Dichlorobenzene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 13:35	1
1,4-Dichlorobenzene	ND		1.9	0.26	ug/L		07/01/15 10:00	07/02/15 13:35	1
Benzyl alcohol	ND		4.8	0.95	ug/L		07/01/15 10:00	07/02/15 13:35	1
1,2-Dichlorobenzene	ND		1.9	0.24	ug/L		07/01/15 10:00	07/02/15 13:35	1
2-Methylphenol	ND		3.8	0.36	ug/L		07/01/15 10:00	07/02/15 13:35	1
4-Methylphenol	ND		7.6	0.62	ug/L		07/01/15 10:00	07/02/15 13:35	1
N-Nitrosodi-n-propylamine	ND		1.9	0.38	ug/L		07/01/15 10:00	07/02/15 13:35	1
Hexachloroethane	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 13:35	1
Nitrobenzene	ND		1.9	0.34	ug/L		07/01/15 10:00	07/02/15 13:35	1
Isophorone	ND		3.8	0.57	ug/L		07/01/15 10:00	07/02/15 13:35	1
2-Nitrophenol	ND		1.9	0.94	ug/L		07/01/15 10:00	07/02/15 13:35	1
2,4-Dimethylphenol	ND		2.9	1.9	ug/L		07/01/15 10:00	07/02/15 13:35	1
Bis(2-chloroethoxy)methane	ND		4.8	0.95	ug/L		07/01/15 10:00	07/02/15 13:35	1
2,4-Dichlorophenol	ND		4.8	0.28	ug/L		07/01/15 10:00	07/02/15 13:35	1
1,2,4-Trichlorobenzene	ND		1.9	0.43	ug/L		07/01/15 10:00	07/02/15 13:35	1
Naphthalene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 13:35	1
4-Chloroaniline	ND		1.9	0.26	ug/L		07/01/15 10:00	07/02/15 13:35	1
Hexachlorobutadiene	ND		1.9	0.48	ug/L		07/01/15 10:00	07/02/15 13:35	1
4-Chloro-3-methylphenol	ND		4.8	0.95	ug/L		07/01/15 10:00	07/02/15 13:35	1
2-Methylnaphthalene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 13:35	1
Hexachlorocyclopentadiene	ND		4.8	1.9	ug/L		07/01/15 10:00	07/02/15 13:35	1
2,4,6-Trichlorophenol	ND		1.9	0.48	ug/L		07/01/15 10:00	07/02/15 13:35	1
2,4,5-Trichlorophenol	ND		3.8	0.35	ug/L		07/01/15 10:00	07/02/15 13:35	1
2-Chloronaphthalene	ND		3.8	0.43	ug/L		07/01/15 10:00	07/02/15 13:35	1
2-Nitroaniline	ND		9.5	0.96	ug/L		07/01/15 10:00	07/02/15 13:35	1
Dimethyl phthalate	ND		4.8	0.44	ug/L		07/01/15 10:00	07/02/15 13:35	1
Acenaphthylene	ND		3.8	0.41	ug/L		07/01/15 10:00	07/02/15 13:35	1
3-Nitroaniline	ND		4.8	0.88	ug/L		07/01/15 10:00	07/02/15 13:35	1
Acenaphthene	ND		1.9	0.27	ug/L		07/01/15 10:00	07/02/15 13:35	1
2,4-Dinitrophenol	ND		9.5	1.9	ug/L		07/01/15 10:00	07/02/15 13:35	1
4-Nitrophenol	ND		9.5	1.9	ug/L		07/01/15 10:00	07/02/15 13:35	1
Dibenzofuran	ND		3.8	0.49	ug/L		07/01/15 10:00	07/02/15 13:35	1
2,4-Dinitrotoluene	ND		3.8	0.34	ug/L		07/01/15 10:00	07/02/15 13:35	1
2,6-Dinitrotoluene	ND		4.8	0.40	ug/L		07/01/15 10:00	07/02/15 13:35	1
Diethyl phthalate	ND		4.8	0.54	ug/L		07/01/15 10:00	07/02/15 13:35	1
4-Chlorophenyl phenyl ether	ND		4.8	0.36	ug/L		07/01/15 10:00	07/02/15 13:35	1
Fluorene	ND		3.8	0.47	ug/L		07/01/15 10:00	07/02/15 13:35	1

Client Sample ID: MW-04-062615
Date Collected: 06/26/15 11:30
Date Received: 06/30/15 18:25

Lab Sample ID: 720-65757-4
Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	ND		9.5	1.9	ug/L		07/01/15 10:00	07/02/15 13:35	1
2-Methyl-4,6-dinitrophenol	ND		9.5	1.9	ug/L		07/01/15 10:00	07/02/15 13:35	1
N-Nitrosodiphenylamine	ND		1.9	0.34	ug/L		07/01/15 10:00	07/02/15 13:35	1
4-Bromophenyl phenyl ether	ND		4.8	0.26	ug/L		07/01/15 10:00	07/02/15 13:35	1
Hexachlorobenzene	ND		1.9	0.31	ug/L		07/01/15 10:00	07/02/15 13:35	1
Pentachlorophenol	ND		9.5	0.76	ug/L		07/01/15 10:00	07/02/15 13:35	1
Phenanthrene	ND		1.9	0.33	ug/L		07/01/15 10:00	07/02/15 13:35	1
Anthracene	ND		1.9	0.28	ug/L		07/01/15 10:00	07/02/15 13:35	1
Di-n-butyl phthalate	ND		4.8	0.35	ug/L		07/01/15 10:00	07/02/15 13:35	1
Fluoranthene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 13:35	1
Pyrene	ND		1.9	0.30	ug/L		07/01/15 10:00	07/02/15 13:35	1
Butyl benzyl phthalate	ND		4.8	0.29	ug/L		07/01/15 10:00	07/02/15 13:35	1
3,3'-Dichlorobenzidine	ND		4.8	0.95	ug/L		07/01/15 10:00	07/02/15 13:35	1
Benzo[a]anthracene	ND		4.8	0.62	ug/L		07/01/15 10:00	07/02/15 13:35	1
Bis(2-ethylhexyl) phthalate	ND		9.5	1.4	ug/L		07/01/15 10:00	07/02/15 13:35	1
Chrysene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 13:35	1
Di-n-octyl phthalate	ND		4.8	0.61	ug/L		07/01/15 10:00	07/02/15 13:35	1
Benzo[b]fluoranthene	ND		1.9	0.32	ug/L		07/01/15 10:00	07/02/15 13:35	1
Benzo[a]pyrene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 13:35	1
Benzo[k]fluoranthene	ND		1.9	0.30	ug/L		07/01/15 10:00	07/02/15 13:35	1
Indeno[1,2,3-cd]pyrene	ND		1.9	0.37	ug/L		07/01/15 10:00	07/02/15 13:35	1
Benzo[g,h,i]perylene	ND		1.9	0.36	ug/L		07/01/15 10:00	07/02/15 13:35	1
Benzoic acid	ND		9.5	1.6	ug/L		07/01/15 10:00	07/02/15 13:35	1
Azobenzene	ND		1.9	0.28	ug/L		07/01/15 10:00	07/02/15 13:35	1
Dibenz(a,h)anthracene	ND		1.9	0.38	ug/L		07/01/15 10:00	07/02/15 13:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*62*		*11 - 92*	*07/01/15 10:00*	*07/02/15 13:35*	*1*
2-Fluorobiphenyl	*78*		*10 - 101*	*07/01/15 10:00*	*07/02/15 13:35*	*1*
Terphenyl-d14	*58*		*34 - 128*	*07/01/15 10:00*	*07/02/15 13:35*	*1*
2-Fluorophenol	*39*		*10 - 65*	*07/01/15 10:00*	*07/02/15 13:35*	*1*
Phenol-d5	*21*		*10 - 46*	*07/01/15 10:00*	*07/02/15 13:35*	*1*
2,4,6-Tribromophenol	*99*		*17 - 115*	*07/01/15 10:00*	*07/02/15 13:35*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**74**		47	21	ug/L		07/02/15 09:59	07/02/15 22:30	1
Motor Oil Range Organics [C24-C36]	**65**	**J**	95	40	ug/L		07/02/15 09:59	07/02/15 22:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*101*		*23 - 156*	*07/02/15 09:59*	*07/02/15 22:30*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.49	0.067	ug/L		07/01/15 13:51	07/02/15 15:33	1
PCB-1221	ND		0.49	0.067	ug/L		07/01/15 13:51	07/02/15 15:33	1
PCB-1232	ND		0.49	0.067	ug/L		07/01/15 13:51	07/02/15 15:33	1
PCB-1242	ND		0.49	0.067	ug/L		07/01/15 13:51	07/02/15 15:33	1
PCB-1248	ND		0.49	0.067	ug/L		07/01/15 13:51	07/02/15 15:33	1
PCB-1254	ND		0.49	0.067	ug/L		07/01/15 13:51	07/02/15 15:33	1

Client Sample ID: MW-04-062615
Date Collected: 06/26/15 11:30
Date Received: 06/30/15 18:25

Lab Sample ID: 720-65757-4
Matrix: Water

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	ND		0.49	0.12	ug/L		07/01/15 13:51	07/02/15 15:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*77*		*19 - 98*	*07/01/15 13:51*	*07/02/15 15:33*	*1*
DCB Decachlorobiphenyl	*30*		*10 - 122*	*07/01/15 13:51*	*07/02/15 15:33*	*1*

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0041	mg/L		07/08/15 12:06	07/09/15 00:16	1
Arsenic	ND		0.010	0.0029	mg/L		07/08/15 12:06	07/09/15 00:16	1
Barium	**0.12**		0.050	0.0016	mg/L		07/08/15 12:06	07/09/15 00:16	1
Beryllium	ND		0.0020	0.00059	mg/L		07/08/15 12:06	07/09/15 00:16	1
Cadmium	ND		0.0020	0.00021	mg/L		07/08/15 12:06	07/09/15 00:16	1
Chromium	**0.055**		0.010	0.00070	mg/L		07/08/15 12:06	07/09/15 00:16	1
Cobalt	**0.0081**		0.0020	0.00068	mg/L		07/08/15 12:06	07/09/15 00:16	1
Copper	**0.012**	**J**	0.020	0.0037	mg/L		07/08/15 12:06	07/09/15 00:16	1
Lead	**0.014**		0.0050	0.0022	mg/L		07/08/15 12:06	07/09/15 00:16	1
Molybdenum	ND		0.010	0.0029	mg/L		07/08/15 12:06	07/09/15 00:16	1
Nickel	**0.075**		0.010	0.0010	mg/L		07/08/15 12:06	07/09/15 00:16	1
Selenium	ND	^	0.020	0.0046	mg/L		07/08/15 12:06	07/09/15 00:16	1
Silver	ND		0.0050	0.0020	mg/L		07/08/15 12:06	07/09/15 00:16	1
Thallium	ND		0.010	0.0035	mg/L		07/08/15 12:06	07/09/15 00:16	1
Vanadium	**0.026**		0.010	0.00087	mg/L		07/08/15 12:06	07/09/15 00:16	1
Zinc	**0.026**		0.020	0.0074	mg/L		07/08/15 12:06	07/09/15 00:16	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		07/02/15 09:30	07/02/15 16:01	1

Client Sample ID: MW-05-062615
Date Collected: 06/26/15 10:15
Date Received: 06/30/15 18:25

Lab Sample ID: 720-65757-5
Matrix: Water

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C5-C12	ND		50	21	ug/L			07/08/15 04:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*67 - 130*		*07/08/15 04:17*	*1*
1,2-Dichloroethane-d4 (Surr)	*89*		*72 - 130*		*07/08/15 04:17*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*07/08/15 04:17*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		2.0	0.99	ug/L		07/01/15 10:00	07/02/15 14:01	1
Bis(2-chloroethyl)ether	ND		2.0	0.30	ug/L		07/01/15 10:00	07/02/15 14:01	1
2-Chlorophenol	ND		4.0	0.39	ug/L		07/01/15 10:00	07/02/15 14:01	1
1,3-Dichlorobenzene	ND		2.0	0.99	ug/L		07/01/15 10:00	07/02/15 14:01	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		07/01/15 10:00	07/02/15 14:01	1
Benzyl alcohol	ND		5.0	0.99	ug/L		07/01/15 10:00	07/02/15 14:01	1
1,2-Dichlorobenzene	ND		2.0	0.25	ug/L		07/01/15 10:00	07/02/15 14:01	1
2-Methylphenol	ND		4.0	0.38	ug/L		07/01/15 10:00	07/02/15 14:01	1
4-Methylphenol	ND		7.9	0.64	ug/L		07/01/15 10:00	07/02/15 14:01	1
N-Nitrosodi-n-propylamine	ND		2.0	0.40	ug/L		07/01/15 10:00	07/02/15 14:01	1
Hexachloroethane	ND		2.0	0.98	ug/L		07/01/15 10:00	07/02/15 14:01	1
Nitrobenzene	ND		2.0	0.36	ug/L		07/01/15 10:00	07/02/15 14:01	1
Isophorone	ND		4.0	0.59	ug/L		07/01/15 10:00	07/02/15 14:01	1
2-Nitrophenol	ND		2.0	0.98	ug/L		07/01/15 10:00	07/02/15 14:01	1
2,4-Dimethylphenol	ND		3.0	1.9	ug/L		07/01/15 10:00	07/02/15 14:01	1
Bis(2-chloroethoxy)methane	ND		5.0	0.99	ug/L		07/01/15 10:00	07/02/15 14:01	1
2,4-Dichlorophenol	ND		5.0	0.29	ug/L		07/01/15 10:00	07/02/15 14:01	1
1,2,4-Trichlorobenzene	ND		2.0	0.45	ug/L		07/01/15 10:00	07/02/15 14:01	1
Naphthalene	ND		2.0	0.99	ug/L		07/01/15 10:00	07/02/15 14:01	1
4-Chloroaniline	ND		2.0	0.27	ug/L		07/01/15 10:00	07/02/15 14:01	1
Hexachlorobutadiene	ND		2.0	0.50	ug/L		07/01/15 10:00	07/02/15 14:01	1
4-Chloro-3-methylphenol	ND		5.0	0.99	ug/L		07/01/15 10:00	07/02/15 14:01	1
2-Methylnaphthalene	ND		2.0	0.99	ug/L		07/01/15 10:00	07/02/15 14:01	1
Hexachlorocyclopentadiene	ND		5.0	2.0	ug/L		07/01/15 10:00	07/02/15 14:01	1
2,4,6-Trichlorophenol	ND		2.0	0.50	ug/L		07/01/15 10:00	07/02/15 14:01	1
2,4,5-Trichlorophenol	ND		4.0	0.37	ug/L		07/01/15 10:00	07/02/15 14:01	1
2-Chloronaphthalene	ND		4.0	0.45	ug/L		07/01/15 10:00	07/02/15 14:01	1
2-Nitroaniline	ND		9.9	1.0	ug/L		07/01/15 10:00	07/02/15 14:01	1
Dimethyl phthalate	ND		5.0	0.46	ug/L		07/01/15 10:00	07/02/15 14:01	1
Acenaphthylene	ND		4.0	0.43	ug/L		07/01/15 10:00	07/02/15 14:01	1
3-Nitroaniline	ND		5.0	0.91	ug/L		07/01/15 10:00	07/02/15 14:01	1
Acenaphthene	ND		2.0	0.28	ug/L		07/01/15 10:00	07/02/15 14:01	1
2,4-Dinitrophenol	ND		9.9	2.0	ug/L		07/01/15 10:00	07/02/15 14:01	1
4-Nitrophenol	ND		9.9	2.0	ug/L		07/01/15 10:00	07/02/15 14:01	1
Dibenzofuran	ND		4.0	0.50	ug/L		07/01/15 10:00	07/02/15 14:01	1
2,4-Dinitrotoluene	ND		4.0	0.36	ug/L		07/01/15 10:00	07/02/15 14:01	1
2,6-Dinitrotoluene	ND		5.0	0.41	ug/L		07/01/15 10:00	07/02/15 14:01	1
Diethyl phthalate	ND		5.0	0.57	ug/L		07/01/15 10:00	07/02/15 14:01	1
4-Chlorophenyl phenyl ether	ND		5.0	0.38	ug/L		07/01/15 10:00	07/02/15 14:01	1
Fluorene	ND		4.0	0.49	ug/L		07/01/15 10:00	07/02/15 14:01	1

Client Sample ID: MW-05-062615
Date Collected: 06/26/15 10:15
Date Received: 06/30/15 18:25

Lab Sample ID: 720-65757-5
Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	ND		9.9	2.0	ug/L		07/01/15 10:00	07/02/15 14:01	1
2-Methyl-4,6-dinitrophenol	ND		9.9	2.0	ug/L		07/01/15 10:00	07/02/15 14:01	1
N-Nitrosodiphenylamine	ND		2.0	0.36	ug/L		07/01/15 10:00	07/02/15 14:01	1
4-Bromophenyl phenyl ether	ND		5.0	0.27	ug/L		07/01/15 10:00	07/02/15 14:01	1
Hexachlorobenzene	ND		2.0	0.32	ug/L		07/01/15 10:00	07/02/15 14:01	1
Pentachlorophenol	ND		9.9	0.79	ug/L		07/01/15 10:00	07/02/15 14:01	1
Phenanthrene	ND		2.0	0.34	ug/L		07/01/15 10:00	07/02/15 14:01	1
Anthracene	ND		2.0	0.29	ug/L		07/01/15 10:00	07/02/15 14:01	1
Di-n-butyl phthalate	ND		5.0	0.37	ug/L		07/01/15 10:00	07/02/15 14:01	1
Fluoranthene	ND		2.0	0.99	ug/L		07/01/15 10:00	07/02/15 14:01	1
Pyrene	ND		2.0	0.31	ug/L		07/01/15 10:00	07/02/15 14:01	1
Butyl benzyl phthalate	ND		5.0	0.30	ug/L		07/01/15 10:00	07/02/15 14:01	1
3,3'-Dichlorobenzidine	ND		5.0	0.99	ug/L		07/01/15 10:00	07/02/15 14:01	1
Benzo[a]anthracene	ND		5.0	0.64	ug/L		07/01/15 10:00	07/02/15 14:01	1
Bis(2-ethylhexyl) phthalate	ND		9.9	1.5	ug/L		07/01/15 10:00	07/02/15 14:01	1
Chrysene	ND		2.0	0.99	ug/L		07/01/15 10:00	07/02/15 14:01	1
Di-n-octyl phthalate	ND		5.0	0.64	ug/L		07/01/15 10:00	07/02/15 14:01	1
Benzo[b]fluoranthene	ND		2.0	0.34	ug/L		07/01/15 10:00	07/02/15 14:01	1
Benzo[a]pyrene	ND		2.0	0.99	ug/L		07/01/15 10:00	07/02/15 14:01	1
Benzo[k]fluoranthene	ND		2.0	0.31	ug/L		07/01/15 10:00	07/02/15 14:01	1
Indeno[1,2,3-cd]pyrene	ND		2.0	0.39	ug/L		07/01/15 10:00	07/02/15 14:01	1
Benzo[g,h,i]perylene	ND		2.0	0.37	ug/L		07/01/15 10:00	07/02/15 14:01	1
Benzoic acid	ND		9.9	1.7	ug/L		07/01/15 10:00	07/02/15 14:01	1
Azobenzene	ND		2.0	0.30	ug/L		07/01/15 10:00	07/02/15 14:01	1
Dibenz(a,h)anthracene	ND		2.0	0.40	ug/L		07/01/15 10:00	07/02/15 14:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*39*		*11 - 92*	*07/01/15 10:00*	*07/02/15 14:01*	*1*
2-Fluorobiphenyl	*47*		*10 - 101*	*07/01/15 10:00*	*07/02/15 14:01*	*1*
Terphenyl-d14	*71*		*34 - 128*	*07/01/15 10:00*	*07/02/15 14:01*	*1*
2-Fluorophenol	*22*		*10 - 65*	*07/01/15 10:00*	*07/02/15 14:01*	*1*
Phenol-d5	*14*		*10 - 46*	*07/01/15 10:00*	*07/02/15 14:01*	*1*
2,4,6-Tribromophenol	*80*		*17 - 115*	*07/01/15 10:00*	*07/02/15 14:01*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**28**	**J**	48	21	ug/L		07/02/15 09:59	07/03/15 01:21	1
Motor Oil Range Organics [C24-C36]	**80**	**J**	96	40	ug/L		07/02/15 09:59	07/03/15 01:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*87*		*23 - 156*	*07/02/15 09:59*	*07/03/15 01:21*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.068	ug/L		07/01/15 13:51	07/02/15 15:00	1
PCB-1221	ND		0.50	0.068	ug/L		07/01/15 13:51	07/02/15 15:00	1
PCB-1232	ND		0.50	0.068	ug/L		07/01/15 13:51	07/02/15 15:00	1
PCB-1242	ND		0.50	0.068	ug/L		07/01/15 13:51	07/02/15 15:00	1
PCB-1248	ND		0.50	0.068	ug/L		07/01/15 13:51	07/02/15 15:00	1
PCB-1254	ND		0.50	0.068	ug/L		07/01/15 13:51	07/02/15 15:00	1

Client: CH2M Hill Constructors, Inc.
Project/Site: UPRR-Oakland CA-750 High St

TestAmerica Job ID: 720-65757-1

Client Sample ID: MW-05-062615
Date Collected: 06/26/15 10:15
Date Received: 06/30/15 18:25

Lab Sample ID: 720-65757-5
Matrix: Water

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	ND		0.50	0.12	ug/L		07/01/15 13:51	07/02/15 15:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*80*		*19 - 98*	*07/01/15 13:51*	*07/02/15 15:00*	*1*
DCB Decachlorobiphenyl	*28*		*10 - 122*	*07/01/15 13:51*	*07/02/15 15:00*	*1*

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0041	mg/L		07/08/15 12:06	07/09/15 00:31	1
Arsenic	ND		0.010	0.0029	mg/L		07/08/15 12:06	07/09/15 00:31	1
Barium	**0.049**	**J**	0.050	0.0016	mg/L		07/08/15 12:06	07/09/15 00:31	1
Beryllium	ND		0.0020	0.00059	mg/L		07/08/15 12:06	07/09/15 00:31	1
Cadmium	ND		0.0020	0.00021	mg/L		07/08/15 12:06	07/09/15 00:31	1
Chromium	**0.0052**	**J**	0.010	0.00070	mg/L		07/08/15 12:06	07/09/15 00:31	1
Cobalt	ND		0.0020	0.00068	mg/L		07/08/15 12:06	07/09/15 00:31	1
Copper	**0.0058**	**J**	0.020	0.0037	mg/L		07/08/15 12:06	07/09/15 00:31	1
Lead	**0.0072**		0.0050	0.0022	mg/L		07/08/15 12:06	07/09/15 00:31	1
Molybdenum	ND		0.010	0.0029	mg/L		07/08/15 12:06	07/09/15 00:31	1
Nickel	**0.013**		0.010	0.0010	mg/L		07/08/15 12:06	07/09/15 00:31	1
Selenium	ND		0.020	0.0046	mg/L		07/08/15 12:06	07/09/15 00:31	1
Silver	ND		0.0050	0.0020	mg/L		07/08/15 12:06	07/09/15 00:31	1
Thallium	ND		0.010	0.0035	mg/L		07/08/15 12:06	07/09/15 00:31	1
Vanadium	**0.0038**	**J**	0.010	0.00087	mg/L		07/08/15 12:06	07/09/15 00:31	1
Zinc	**0.014**	**J**	0.020	0.0074	mg/L		07/08/15 12:06	07/09/15 00:31	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		07/02/15 09:30	07/02/15 16:03	1

Client Sample ID: DUP-1

Date Collected: 06/26/15 12:20
Date Received: 06/30/15 18:25

Lab Sample ID: 720-65757-6

Matrix: Water

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C5-C12	ND		50	21	ug/L			07/08/15 04:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*67 - 130*		*07/08/15 04:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*90*		*72 - 130*		*07/08/15 04:47*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*07/08/15 04:47*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 14:27	1
Bis(2-chloroethyl)ether	ND		1.9	0.28	ug/L		07/01/15 10:00	07/02/15 14:27	1
2-Chlorophenol	ND		3.8	0.37	ug/L		07/01/15 10:00	07/02/15 14:27	1
1,3-Dichlorobenzene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 14:27	1
1,4-Dichlorobenzene	ND		1.9	0.25	ug/L		07/01/15 10:00	07/02/15 14:27	1
Benzyl alcohol	ND		4.7	0.95	ug/L		07/01/15 10:00	07/02/15 14:27	1
1,2-Dichlorobenzene	ND		1.9	0.24	ug/L		07/01/15 10:00	07/02/15 14:27	1
2-Methylphenol	ND		3.8	0.36	ug/L		07/01/15 10:00	07/02/15 14:27	1
4-Methylphenol	ND		7.6	0.62	ug/L		07/01/15 10:00	07/02/15 14:27	1
N-Nitrosodi-n-propylamine	ND		1.9	0.38	ug/L		07/01/15 10:00	07/02/15 14:27	1
Hexachloroethane	ND		1.9	0.94	ug/L		07/01/15 10:00	07/02/15 14:27	1
Nitrobenzene	ND		1.9	0.34	ug/L		07/01/15 10:00	07/02/15 14:27	1
Isophorone	ND		3.8	0.57	ug/L		07/01/15 10:00	07/02/15 14:27	1
2-Nitrophenol	ND		1.9	0.94	ug/L		07/01/15 10:00	07/02/15 14:27	1
2,4-Dimethylphenol	ND		2.8	1.8	ug/L		07/01/15 10:00	07/02/15 14:27	1
Bis(2-chloroethoxy)methane	ND		4.7	0.95	ug/L		07/01/15 10:00	07/02/15 14:27	1
2,4-Dichlorophenol	ND		4.7	0.28	ug/L		07/01/15 10:00	07/02/15 14:27	1
1,2,4-Trichlorobenzene	ND		1.9	0.43	ug/L		07/01/15 10:00	07/02/15 14:27	1
Naphthalene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 14:27	1
4-Chloroaniline	ND		1.9	0.26	ug/L		07/01/15 10:00	07/02/15 14:27	1
Hexachlorobutadiene	ND		1.9	0.48	ug/L		07/01/15 10:00	07/02/15 14:27	1
4-Chloro-3-methylphenol	ND		4.7	0.95	ug/L		07/01/15 10:00	07/02/15 14:27	1
2-Methylnaphthalene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 14:27	1
Hexachlorocyclopentadiene	ND		4.7	1.9	ug/L		07/01/15 10:00	07/02/15 14:27	1
2,4,6-Trichlorophenol	ND		1.9	0.48	ug/L		07/01/15 10:00	07/02/15 14:27	1
2,4,5-Trichlorophenol	ND		3.8	0.35	ug/L		07/01/15 10:00	07/02/15 14:27	1
2-Chloronaphthalene	ND		3.8	0.43	ug/L		07/01/15 10:00	07/02/15 14:27	1
2-Nitroaniline	ND		9.5	0.96	ug/L		07/01/15 10:00	07/02/15 14:27	1
Dimethyl phthalate	ND		4.7	0.44	ug/L		07/01/15 10:00	07/02/15 14:27	1
Acenaphthylene	ND		3.8	0.41	ug/L		07/01/15 10:00	07/02/15 14:27	1
3-Nitroaniline	ND		4.7	0.87	ug/L		07/01/15 10:00	07/02/15 14:27	1
Acenaphthene	ND		1.9	0.27	ug/L		07/01/15 10:00	07/02/15 14:27	1
2,4-Dinitrophenol	ND		9.5	1.9	ug/L		07/01/15 10:00	07/02/15 14:27	1
4-Nitrophenol	ND		9.5	1.9	ug/L		07/01/15 10:00	07/02/15 14:27	1
Dibenzofuran	ND		3.8	0.48	ug/L		07/01/15 10:00	07/02/15 14:27	1
2,4-Dinitrotoluene	ND		3.8	0.34	ug/L		07/01/15 10:00	07/02/15 14:27	1
2,6-Dinitrotoluene	ND		4.7	0.39	ug/L		07/01/15 10:00	07/02/15 14:27	1
Diethyl phthalate	ND		4.7	0.54	ug/L		07/01/15 10:00	07/02/15 14:27	1
4-Chlorophenyl phenyl ether	ND		4.7	0.36	ug/L		07/01/15 10:00	07/02/15 14:27	1
Fluorene	ND		3.8	0.46	ug/L		07/01/15 10:00	07/02/15 14:27	1

Client Sample ID: DUP-1
Date Collected: 06/26/15 12:20
Date Received: 06/30/15 18:25

Lab Sample ID: 720-65757-6
Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	ND		9.5	1.9	ug/L		07/01/15 10:00	07/02/15 14:27	1
2-Methyl-4,6-dinitrophenol	ND		9.5	1.9	ug/L		07/01/15 10:00	07/02/15 14:27	1
N-Nitrosodiphenylamine	ND		1.9	0.34	ug/L		07/01/15 10:00	07/02/15 14:27	1
4-Bromophenyl phenyl ether	ND		4.7	0.26	ug/L		07/01/15 10:00	07/02/15 14:27	1
Hexachlorobenzene	ND		1.9	0.31	ug/L		07/01/15 10:00	07/02/15 14:27	1
Pentachlorophenol	ND		9.5	0.76	ug/L		07/01/15 10:00	07/02/15 14:27	1
Phenanthrene	ND		1.9	0.32	ug/L		07/01/15 10:00	07/02/15 14:27	1
Anthracene	ND		1.9	0.28	ug/L		07/01/15 10:00	07/02/15 14:27	1
Di-n-butyl phthalate	ND		4.7	0.35	ug/L		07/01/15 10:00	07/02/15 14:27	1
Fluoranthene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 14:27	1
Pyrene	ND		1.9	0.30	ug/L		07/01/15 10:00	07/02/15 14:27	1
Butyl benzyl phthalate	ND		4.7	0.28	ug/L		07/01/15 10:00	07/02/15 14:27	1
3,3'-Dichlorobenzidine	ND		4.7	0.95	ug/L		07/01/15 10:00	07/02/15 14:27	1
Benzo[a]anthracene	ND		4.7	0.62	ug/L		07/01/15 10:00	07/02/15 14:27	1
Bis(2-ethylhexyl) phthalate	ND		9.5	1.4	ug/L		07/01/15 10:00	07/02/15 14:27	1
Chrysene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 14:27	1
Di-n-octyl phthalate	ND		4.7	0.61	ug/L		07/01/15 10:00	07/02/15 14:27	1
Benzo[b]fluoranthene	ND		1.9	0.32	ug/L		07/01/15 10:00	07/02/15 14:27	1
Benzo[a]pyrene	ND		1.9	0.95	ug/L		07/01/15 10:00	07/02/15 14:27	1
Benzo[k]fluoranthene	ND		1.9	0.29	ug/L		07/01/15 10:00	07/02/15 14:27	1
Indeno[1,2,3-cd]pyrene	ND		1.9	0.37	ug/L		07/01/15 10:00	07/02/15 14:27	1
Benzo[g,h,i]perylene	ND		1.9	0.36	ug/L		07/01/15 10:00	07/02/15 14:27	1
Benzoic acid	ND		9.5	1.6	ug/L		07/01/15 10:00	07/02/15 14:27	1
Azobenzene	ND		1.9	0.28	ug/L		07/01/15 10:00	07/02/15 14:27	1
Dibenz(a,h)anthracene	ND		1.9	0.38	ug/L		07/01/15 10:00	07/02/15 14:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*37*		*11 - 92*	*07/01/15 10:00*	*07/02/15 14:27*	*1*
2-Fluorobiphenyl	*42*		*10 - 101*	*07/01/15 10:00*	*07/02/15 14:27*	*1*
Terphenyl-d14	*91*		*34 - 128*	*07/01/15 10:00*	*07/02/15 14:27*	*1*
2-Fluorophenol	*22*		*10 - 65*	*07/01/15 10:00*	*07/02/15 14:27*	*1*
Phenol-d5	*13*		*10 - 46*	*07/01/15 10:00*	*07/02/15 14:27*	*1*
2,4,6-Tribromophenol	*66*		*17 - 115*	*07/01/15 10:00*	*07/02/15 14:27*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		47	21	ug/L		07/02/15 09:59	07/03/15 00:56	1
Motor Oil Range Organics [C24-C36]	**53**	**J**	94	39	ug/L		07/02/15 09:59	07/03/15 00:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*96*		*23 - 156*	*07/02/15 09:59*	*07/03/15 00:56*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.47	0.065	ug/L		07/01/15 13:51	07/02/15 15:16	1
PCB-1221	ND		0.47	0.065	ug/L		07/01/15 13:51	07/02/15 15:16	1
PCB-1232	ND		0.47	0.065	ug/L		07/01/15 13:51	07/02/15 15:16	1
PCB-1242	ND		0.47	0.065	ug/L		07/01/15 13:51	07/02/15 15:16	1
PCB-1248	ND		0.47	0.065	ug/L		07/01/15 13:51	07/02/15 15:16	1
PCB-1254	ND		0.47	0.065	ug/L		07/01/15 13:51	07/02/15 15:16	1

Client: CH2M Hill Constructors, Inc.
Project/Site: UPRR-Oakland CA-750 High St

TestAmerica Job ID: 720-65757-1

Client Sample ID: DUP-1
Date Collected: 06/26/15 12:20
Date Received: 06/30/15 18:25

Lab Sample ID: 720-65757-6
Matrix: Water

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	ND		0.47	0.12	ug/L		07/01/15 13:51	07/02/15 15:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*75*		*19 - 98*	*07/01/15 13:51*	*07/02/15 15:16*	*1*
DCB Decachlorobiphenyl	*62*		*10 - 122*	*07/01/15 13:51*	*07/02/15 15:16*	*1*

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0041	mg/L		07/08/15 12:06	07/09/15 00:36	1
Arsenic	ND		0.010	0.0029	mg/L		07/08/15 12:06	07/09/15 00:36	1
Barium	**0.031**	**J**	0.050	0.0016	mg/L		07/08/15 12:06	07/09/15 00:36	1
Beryllium	ND		0.0020	0.00059	mg/L		07/08/15 12:06	07/09/15 00:36	1
Cadmium	ND		0.0020	0.00021	mg/L		07/08/15 12:06	07/09/15 00:36	1
Chromium	**0.0019**	**J**	0.010	0.00070	mg/L		07/08/15 12:06	07/09/15 00:36	1
Cobalt	ND		0.0020	0.00068	mg/L		07/08/15 12:06	07/09/15 00:36	1
Copper	ND		0.020	0.0037	mg/L		07/08/15 12:06	07/09/15 00:36	1
Lead	**0.0059**		0.0050	0.0022	mg/L		07/08/15 12:06	07/09/15 00:36	1
Molybdenum	ND		0.010	0.0029	mg/L		07/08/15 12:06	07/09/15 00:36	1
Nickel	**0.0039**	**J**	0.010	0.0010	mg/L		07/08/15 12:06	07/09/15 00:36	1
Selenium	ND		0.020	0.0046	mg/L		07/08/15 12:06	07/09/15 00:36	1
Silver	ND		0.0050	0.0020	mg/L		07/08/15 12:06	07/09/15 00:36	1
Thallium	ND		0.010	0.0035	mg/L		07/08/15 12:06	07/09/15 00:36	1
Vanadium	**0.0041**	**J**	0.010	0.00087	mg/L		07/08/15 12:06	07/09/15 00:36	1
Zinc	ND		0.020	0.0074	mg/L		07/08/15 12:06	07/09/15 00:36	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		07/02/15 09:30	07/02/15 16:38	1

Client: CH2M Hill Constructors, Inc.
Project/Site: UPRR-Oakland CA-750 High St

TestAmerica Job ID: 720-65757-1

Client Sample ID: TB062615
Date Collected: 06/26/15 00:00
Date Received: 06/30/15 18:25

Lab Sample ID: 720-65757-7
Matrix: Water

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C5-C12	ND		50	21	ug/L			07/07/15 22:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*67 - 130*		*07/07/15 22:27*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*72 - 130*		*07/07/15 22:27*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*07/07/15 22:27*	*1*

Surrogate Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: UPRR-Oakland CA-750 High St

TestAmerica Job ID: 720-65757-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	12DCE	TOL
Lab Sample ID	Client Sample ID	(67-130)	(72-130)	(70-130)
720-65757-1	MW-01-062615	101	100	102
720-65757-1 MS	MW-01-062615	102	99	103
720-65757-1 MSD	MW-01-062615	101	99	103
720-65757-2	MW-02-062615	97	90	100
720-65757-3	MW-03-062615	98	93	100
720-65757-4	MW-04-062615	98	90	100
720-65757-5	MW-05-062615	96	89	99
720-65757-6	DUP-1	96	90	102
720-65757-7	TB062615	99	95	102
LCS 720-184760/7	Lab Control Sample	99	85	99
LCS 720-184922/7	Lab Control Sample	101	99	103
LCSD 720-184760/8	Lab Control Sample Dup	96	86	99
LCSD 720-184922/8	Lab Control Sample Dup	100	95	103
MB 720-184760/4	Method Blank	97	88	100
MB 720-184922/4	Method Blank	99	95	102

Surrogate Legend

BFB = 4-Bromofluorobenzene
12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	FBP	TPH	2FP	PHL	TBP
Lab Sample ID	Client Sample ID	(11-92)	(10-101)	(34-128)	(10-65)	(10-46)	(17-115)
720-65757-1	MW-01-062615	60	79	83	37	20	97
720-65757-1 MS	MW-01-062615	52	60	97 *	26	15	105
720-65757-1 MSD	MW-01-062615	47	54	106	25	16	92
720-65757-2	MW-02-062615	49	58	70	29	18	88
720-65757-3	MW-03-062615	48	57	41	24	16	83
720-65757-4	MW-04-062615	62	78	58	39	21	99
720-65757-5	MW-05-062615	39	47	71	22	14	80
720-65757-6	DUP-1	37	42	91	22	13	66
LCS 720-184528/2-A	Lab Control Sample	46	59	107	23	15	100
MB 720-184528/1-A	Method Blank	57	72	96	33	20	84

Surrogate Legend

NBZ = Nitrobenzene-d5
FBP = 2-Fluorobiphenyl
TPH = Terphenyl-d14
2FP = 2-Fluorophenol
PHL = Phenol-d5
TBP = 2,4,6-Tribromophenol

Surrogate Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: UPRR-Oakland CA-750 High St

TestAmerica Job ID: 720-65757-1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	PTP1 (23-156)									
720-65757-1	MW-01-062615	98									
720-65757-1 MS	MW-01-062615	101									
720-65757-1 MSD	MW-01-062615	97									
720-65757-2	MW-02-062615	96									
720-65757-3	MW-03-062615	95									
720-65757-4	MW-04-062615	101									
720-65757-5	MW-05-062615	87									
720-65757-6	DUP-1	96									
LCS 720-184602/2-A	Lab Control Sample	94									
MB 720-184602/1-A	Method Blank	91									

Surrogate Legend

PTP = p-Terphenyl

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	TCX1 (19-98)	DCB1 (10-122)								
720-65757-1	MW-01-062615	78	50								
720-65757-1 MS	MW-01-062615	68	67								
720-65757-1 MSD	MW-01-062615	72	56								
720-65757-3	MW-03-062615	69	23								
720-65757-4	MW-04-062615	77	30								
720-65757-5	MW-05-062615	80	28								
720-65757-6	DUP-1	75	62								
LCS 720-184548/2-A	Lab Control Sample	68	80								
MB 720-184548/1-A	Method Blank	65	91								

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Lab Sample ID: MB 720-184760/4
Matrix: Water
Analysis Batch: 184760

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C5-C12	ND		50	21	ug/L			07/07/15 19:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*67 - 130*		*07/07/15 19:31*	*1*
1,2-Dichloroethane-d4 (Surr)	*88*		*72 - 130*		*07/07/15 19:31*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*07/07/15 19:31*	*1*

Lab Sample ID: LCS 720-184760/7
Matrix: Water
Analysis Batch: 184760

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO) -C5-C12			500	484		ug/L		97	62 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*85*		*72 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 720-184760/8
Matrix: Water
Analysis Batch: 184760

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12			500	487		ug/L		97	62 - 120	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*96*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*86*		*72 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: MB 720-184922/4
Matrix: Water
Analysis Batch: 184922

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C5-C12	ND		50	21	ug/L			07/09/15 20:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*67 - 130*		*07/09/15 20:22*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*72 - 130*		*07/09/15 20:22*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*07/09/15 20:22*	*1*

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-184922/7
Matrix: Water
Analysis Batch: 184922

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO) -C5-C12			500	489		ug/L		98	62 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*99*		*72 - 130*
Toluene-d8 (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 720-184922/8
Matrix: Water
Analysis Batch: 184922

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12			500	498		ug/L		100	62 - 120	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*95*		*72 - 130*
Toluene-d8 (Surr)	*103*		*70 - 130*

Lab Sample ID: 720-65757-1 MS
Matrix: Water
Analysis Batch: 184922

Client Sample ID: MW-01-062615
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO) -C5-C12	ND		500	484		ug/L		97	60 - 140		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*99*		*72 - 130*
Toluene-d8 (Surr)	*103*		*70 - 130*

Lab Sample ID: 720-65757-1 MSD
Matrix: Water
Analysis Batch: 184922

Client Sample ID: MW-01-062615
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12	ND		500	480		ug/L		96	60 - 140	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*99*		*72 - 130*
Toluene-d8 (Surr)	*103*		*70 - 130*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 720-184528/1-A
Matrix: Water
Analysis Batch: 184596

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184528

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		2.0	1.0	ug/L		07/01/15 10:00	07/02/15 10:33	1
Bis(2-chloroethyl)ether	ND		2.0	0.30	ug/L		07/01/15 10:00	07/02/15 10:33	1
2-Chlorophenol	ND		4.0	0.39	ug/L		07/01/15 10:00	07/02/15 10:33	1
1,3-Dichlorobenzene	ND		2.0	1.0	ug/L		07/01/15 10:00	07/02/15 10:33	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		07/01/15 10:00	07/02/15 10:33	1
Benzyl alcohol	ND		5.0	1.0	ug/L		07/01/15 10:00	07/02/15 10:33	1
1,2-Dichlorobenzene	ND		2.0	0.26	ug/L		07/01/15 10:00	07/02/15 10:33	1
2-Methylphenol	ND		4.0	0.38	ug/L		07/01/15 10:00	07/02/15 10:33	1
4-Methylphenol	ND		8.0	0.65	ug/L		07/01/15 10:00	07/02/15 10:33	1
N-Nitrosodi-n-propylamine	ND		2.0	0.40	ug/L		07/01/15 10:00	07/02/15 10:33	1
Hexachloroethane	ND		2.0	0.99	ug/L		07/01/15 10:00	07/02/15 10:33	1
Nitrobenzene	ND		2.0	0.36	ug/L		07/01/15 10:00	07/02/15 10:33	1
Isophorone	ND		4.0	0.60	ug/L		07/01/15 10:00	07/02/15 10:33	1
2-Nitrophenol	ND		2.0	0.99	ug/L		07/01/15 10:00	07/02/15 10:33	1
2,4-Dimethylphenol	ND		3.0	1.9	ug/L		07/01/15 10:00	07/02/15 10:33	1
Bis(2-chloroethoxy)methane	ND		5.0	1.0	ug/L		07/01/15 10:00	07/02/15 10:33	1
2,4-Dichlorophenol	ND		5.0	0.29	ug/L		07/01/15 10:00	07/02/15 10:33	1
1,2,4-Trichlorobenzene	ND		2.0	0.45	ug/L		07/01/15 10:00	07/02/15 10:33	1
Naphthalene	ND		2.0	1.0	ug/L		07/01/15 10:00	07/02/15 10:33	1
4-Chloroaniline	ND		2.0	0.27	ug/L		07/01/15 10:00	07/02/15 10:33	1
Hexachlorobutadiene	ND		2.0	0.51	ug/L		07/01/15 10:00	07/02/15 10:33	1
4-Chloro-3-methylphenol	ND		5.0	1.0	ug/L		07/01/15 10:00	07/02/15 10:33	1
2-Methylnaphthalene	ND		2.0	1.0	ug/L		07/01/15 10:00	07/02/15 10:33	1
Hexachlorocyclopentadiene	ND		5.0	2.0	ug/L		07/01/15 10:00	07/02/15 10:33	1
2,4,6-Trichlorophenol	ND		2.0	0.51	ug/L		07/01/15 10:00	07/02/15 10:33	1
2,4,5-Trichlorophenol	ND		4.0	0.37	ug/L		07/01/15 10:00	07/02/15 10:33	1
2-Chloronaphthalene	ND		4.0	0.45	ug/L		07/01/15 10:00	07/02/15 10:33	1
2-Nitroaniline	ND		10	1.0	ug/L		07/01/15 10:00	07/02/15 10:33	1
Dimethyl phthalate	ND		5.0	0.46	ug/L		07/01/15 10:00	07/02/15 10:33	1
Acenaphthylene	ND		4.0	0.43	ug/L		07/01/15 10:00	07/02/15 10:33	1
3-Nitroaniline	ND		5.0	0.92	ug/L		07/01/15 10:00	07/02/15 10:33	1
Acenaphthene	ND		2.0	0.28	ug/L		07/01/15 10:00	07/02/15 10:33	1
2,4-Dinitrophenol	ND		10	2.0	ug/L		07/01/15 10:00	07/02/15 10:33	1
4-Nitrophenol	ND		10	2.0	ug/L		07/01/15 10:00	07/02/15 10:33	1
Dibenzofuran	ND		4.0	0.51	ug/L		07/01/15 10:00	07/02/15 10:33	1
2,4-Dinitrotoluene	ND		4.0	0.36	ug/L		07/01/15 10:00	07/02/15 10:33	1
2,6-Dinitrotoluene	ND		5.0	0.42	ug/L		07/01/15 10:00	07/02/15 10:33	1
Diethyl phthalate	ND		5.0	0.57	ug/L		07/01/15 10:00	07/02/15 10:33	1
4-Chlorophenyl phenyl ether	ND		5.0	0.38	ug/L		07/01/15 10:00	07/02/15 10:33	1
Fluorene	ND		4.0	0.49	ug/L		07/01/15 10:00	07/02/15 10:33	1
4-Nitroaniline	ND		10	2.0	ug/L		07/01/15 10:00	07/02/15 10:33	1
2-Methyl-4,6-dinitrophenol	ND		10	2.0	ug/L		07/01/15 10:00	07/02/15 10:33	1
N-Nitrosodiphenylamine	ND		2.0	0.36	ug/L		07/01/15 10:00	07/02/15 10:33	1
4-Bromophenyl phenyl ether	ND		5.0	0.27	ug/L		07/01/15 10:00	07/02/15 10:33	1
Hexachlorobenzene	ND		2.0	0.32	ug/L		07/01/15 10:00	07/02/15 10:33	1
Pentachlorophenol	ND		10	0.80	ug/L		07/01/15 10:00	07/02/15 10:33	1
Phenanthrene	ND		2.0	0.34	ug/L		07/01/15 10:00	07/02/15 10:33	1
Anthracene	ND		2.0	0.29	ug/L		07/01/15 10:00	07/02/15 10:33	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 720-184528/1-A
Matrix: Water
Analysis Batch: 184596

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184528

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	ND		5.0	0.37	ug/L		07/01/15 10:00	07/02/15 10:33	1
Fluoranthene	ND		2.0	1.0	ug/L		07/01/15 10:00	07/02/15 10:33	1
Pyrene	ND		2.0	0.32	ug/L		07/01/15 10:00	07/02/15 10:33	1
Butyl benzyl phthalate	ND		5.0	0.30	ug/L		07/01/15 10:00	07/02/15 10:33	1
3,3'-Dichlorobenzidine	ND		5.0	1.0	ug/L		07/01/15 10:00	07/02/15 10:33	1
Benzo[a]anthracene	ND		5.0	0.65	ug/L		07/01/15 10:00	07/02/15 10:33	1
Bis(2-ethylhexyl) phthalate	ND		10	1.5	ug/L		07/01/15 10:00	07/02/15 10:33	1
Chrysene	ND		2.0	1.0	ug/L		07/01/15 10:00	07/02/15 10:33	1
Di-n-octyl phthalate	ND		5.0	0.64	ug/L		07/01/15 10:00	07/02/15 10:33	1
Benzo[b]fluoranthene	ND		2.0	0.34	ug/L		07/01/15 10:00	07/02/15 10:33	1
Benzo[a]pyrene	ND		2.0	1.0	ug/L		07/01/15 10:00	07/02/15 10:33	1
Benzo[k]fluoranthene	ND		2.0	0.31	ug/L		07/01/15 10:00	07/02/15 10:33	1
Indeno[1,2,3-cd]pyrene	ND		2.0	0.39	ug/L		07/01/15 10:00	07/02/15 10:33	1
Benzo[g,h,i]perylene	ND		2.0	0.38	ug/L		07/01/15 10:00	07/02/15 10:33	1
Benzoic acid	ND		10	1.7	ug/L		07/01/15 10:00	07/02/15 10:33	1
Azobenzene	ND		2.0	0.30	ug/L		07/01/15 10:00	07/02/15 10:33	1
Dibenz(a,h)anthracene	ND		2.0	0.40	ug/L		07/01/15 10:00	07/02/15 10:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*57*		*11 - 92*	*07/01/15 10:00*	*07/02/15 10:33*	*1*
2-Fluorobiphenyl	*72*		*10 - 101*	*07/01/15 10:00*	*07/02/15 10:33*	*1*
Terphenyl-d14	*96*		*34 - 128*	*07/01/15 10:00*	*07/02/15 10:33*	*1*
2-Fluorophenol	*33*		*10 - 65*	*07/01/15 10:00*	*07/02/15 10:33*	*1*
Phenol-d5	*20*		*10 - 46*	*07/01/15 10:00*	*07/02/15 10:33*	*1*
2,4,6-Tribromophenol	*84*		*17 - 115*	*07/01/15 10:00*	*07/02/15 10:33*	*1*

Lab Sample ID: LCS 720-184528/2-A
Matrix: Water
Analysis Batch: 184596

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184528

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	40.0	6.86		ug/L		17	10 - 115
Bis(2-chloroethyl)ether	40.0	17.2		ug/L		43	12 - 115
2-Chlorophenol	40.0	16.4		ug/L		41	14 - 115
1,3-Dichlorobenzene	40.0	15.3		ug/L		38	13 - 115
1,4-Dichlorobenzene	40.0	15.9		ug/L		40	14 - 115
Benzyl alcohol	40.0	15.5		ug/L		39	19 - 115
1,2-Dichlorobenzene	40.0	16.5		ug/L		41	10 - 115
2-Methylphenol	40.0	16.1		ug/L		40	13 - 115
4-Methylphenol	40.0	15.0		ug/L		37	10 - 115
N-Nitrosodi-n-propylamine	40.0	19.4		ug/L		48	17 - 115
Hexachloroethane	40.0	14.7		ug/L		37	9 - 115
Nitrobenzene	40.0	18.1		ug/L		45	18 - 115
Isophorone	40.0	20.4		ug/L		51	18 - 134
2-Nitrophenol	40.0	18.2		ug/L		45	14 - 115
2,4-Dimethylphenol	40.0	19.9		ug/L		50	10 - 119
Bis(2-chloroethoxy)methane	40.0	19.5		ug/L		49	10 - 119
2,4-Dichlorophenol	40.0	20.5		ug/L		51	13 - 118

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-184528/2-A
Matrix: Water
Analysis Batch: 184596

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184528

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	40.0	17.0		ug/L		43	10 - 115
Naphthalene	40.0	18.7		ug/L		47	12 - 115
4-Chloroaniline	40.0	21.6		ug/L		54	26 - 115
Hexachlorobutadiene	40.0	15.1		ug/L		38	12 - 115
4-Chloro-3-methylphenol	40.0	25.4		ug/L		63	19 - 128
2-Methylnaphthalene	40.0	20.0		ug/L		50	16 - 115
Hexachlorocyclopentadiene	40.0	16.8		ug/L		42	10 - 115
2,4,6-Trichlorophenol	40.0	25.2		ug/L		63	20 - 120
2,4,5-Trichlorophenol	40.0	25.9		ug/L		65	22 - 117
2-Chloronaphthalene	40.0	22.7		ug/L		57	17 - 115
2-Nitroaniline	40.0	32.1		ug/L		80	37 - 119
Dimethyl phthalate	40.0	32.1		ug/L		80	48 - 127
Acenaphthylene	40.0	26.3		ug/L		66	29 - 129
3-Nitroaniline	40.0	31.3		ug/L		78	40 - 115
Acenaphthene	40.0	26.5		ug/L		66	25 - 115
2,4-Dinitrophenol	80.0	70.0		ug/L		88	44 - 116
4-Nitrophenol	80.0	28.4		ug/L		35	20 - 115
Dibenzofuran	40.0	27.8		ug/L		69	28 - 115
2,4-Dinitrotoluene	40.0	33.9		ug/L		85	42 - 115
2,6-Dinitrotoluene	40.0	32.4		ug/L		81	46 - 119
Diethyl phthalate	40.0	35.1		ug/L		88	44 - 115
4-Chlorophenyl phenyl ether	40.0	28.5		ug/L		71	32 - 115
Fluorene	40.0	31.2		ug/L		78	39 - 115
4-Nitroaniline	40.0	36.2		ug/L		91	46 - 115
2-Methyl-4,6-dinitrophenol	80.0	77.3		ug/L		97	42 - 135
4-Bromophenyl phenyl ether	40.0	33.0		ug/L		82	42 - 115
Hexachlorobenzene	40.0	40.1		ug/L		100	49 - 115
Pentachlorophenol	80.0	65.9		ug/L		82	42 - 121
Phenanthrene	40.0	36.2		ug/L		90	54 - 115
Anthracene	40.0	36.9		ug/L		92	54 - 115
Di-n-butyl phthalate	40.0	37.9		ug/L		95	58 - 115
Fluoranthene	40.0	37.6		ug/L		94	65 - 115
Pyrene	40.0	35.8		ug/L		89	53 - 115
Butyl benzyl phthalate	40.0	37.7		ug/L		94	37 - 115
3,3'-Dichlorobenzidine	40.0	34.7		ug/L		87	24 - 110
Benzo[a]anthracene	40.0	36.9		ug/L		92	56 - 115
Bis(2-ethylhexyl) phthalate	40.0	37.5		ug/L		94	59 - 115
Chrysene	40.0	35.3		ug/L		88	50 - 115
Di-n-octyl phthalate	40.0	37.4		ug/L		94	12 - 115
Benzo[b]fluoranthene	40.0	37.9		ug/L		95	50 - 115
Benzo[a]pyrene	40.0	36.7		ug/L		92	55 - 115
Benzo[k]fluoranthene	40.0	36.1		ug/L		90	60 - 115
Indeno[1,2,3-cd]pyrene	40.0	37.8		ug/L		95	49 - 117
Benzo[g,h,i]perylene	40.0	37.4		ug/L		93	54 - 115
Benzoic acid	40.0	7.96	J	ug/L		20	10 - 115
Azobenzene	40.0	29.1		ug/L		73	42 - 115
Dibenz(a,h)anthracene	40.0	37.5		ug/L		94	47 - 127

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-184528/2-A
Matrix: Water
Analysis Batch: 184596

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184528

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*46*		*11 - 92*
2-Fluorobiphenyl	*59*		*10 - 101*
Terphenyl-d14	*107*		*34 - 128*
2-Fluorophenol	*23*		*10 - 65*
Phenol-d5	*15*		*10 - 46*
2,4,6-Tribromophenol	*100*		*17 - 115*

Lab Sample ID: 720-65757-1 MS
Matrix: Water
Analysis Batch: 184596

Client Sample ID: MW-01-062615
Prep Type: Total/NA
Prep Batch: 184528

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	ND		38.9	7.10		ug/L		18	12 - 115
Bis(2-chloroethyl)ether	ND		38.9	17.5		ug/L		45	43 - 126
2-Chlorophenol	ND		38.9	17.3		ug/L		44	23 - 134
1,3-Dichlorobenzene	ND		38.9	15.9		ug/L		41	17 - 153
1,4-Dichlorobenzene	ND		38.9	16.1		ug/L		41	36 - 115
Benzyl alcohol	ND		38.9	16.0		ug/L		41	10 - 130
1,2-Dichlorobenzene	ND	F1	38.9	16.6	F1	ug/L		43	49 - 115
2-Methylphenol	ND		38.9	17.2		ug/L		44	10 - 130
4-Methylphenol	ND		38.9	15.6		ug/L		40	10 - 130
N-Nitrosodi-n-propylamine	ND		38.9	19.7		ug/L		51	10 - 130
Hexachloroethane	ND	F1	38.9	14.4	F1	ug/L		37	55 - 100
Nitrobenzene	ND	F1	38.9	19.3	F1	ug/L		50	55 - 157
Isophorone	ND		38.9	20.8		ug/L		54	47 - 180
2-Nitrophenol	ND		38.9	19.2		ug/L		49	45 - 166
2,4-Dimethylphenol	ND		38.9	22.2		ug/L		57	42 - 109
Bis(2-chloroethoxy)methane	ND		38.9	20.6		ug/L		53	43 - 164
2,4-Dichlorophenol	ND		38.9	21.2		ug/L		55	53 - 121
1,2,4-Trichlorobenzene	ND		38.9	18.1		ug/L		47	44 - 142
Naphthalene	ND		38.9	19.6		ug/L		50	36 - 119
4-Chloroaniline	ND		38.9	19.8		ug/L		51	10 - 130
Hexachlorobutadiene	ND		38.9	15.9		ug/L		41	38 - 115
4-Chloro-3-methylphenol	ND		38.9	25.6		ug/L		66	22 - 147
2-Methylnaphthalene	ND		38.9	19.6		ug/L		51	10 - 130
Hexachlorocyclopentadiene	ND		38.9	17.7		ug/L		46	10 - 130
2,4,6-Trichlorophenol	ND		38.9	24.9		ug/L		64	55 - 129
2,4,5-Trichlorophenol	ND		38.9	25.8		ug/L		66	20 - 120
2-Chloronaphthalene	ND		38.9	22.6		ug/L		58	10 - 130
2-Nitroaniline	ND		38.9	31.2		ug/L		80	10 - 130
Dimethyl phthalate	ND		38.9	33.4		ug/L		86	10 - 130
Acenaphthylene	ND		38.9	25.3		ug/L		65	54 - 126
3-Nitroaniline	ND		38.9	27.9		ug/L		72	10 - 130
Acenaphthene	ND		38.9	26.3		ug/L		68	56 - 118
2,4-Dinitrophenol	ND		77.7	72.1		ug/L		93	10 - 130
4-Nitrophenol	ND		77.7	28.7		ug/L		37	1 - 132
Dibenzofuran	ND		38.9	26.3		ug/L		68	10 - 130
2,4-Dinitrotoluene	ND		38.9	32.9		ug/L		85	39 - 139

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 720-65757-1 MS
Matrix: Water
Analysis Batch: 184596

Client Sample ID: MW-01-062615
Prep Type: Total/NA
Prep Batch: 184528

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,6-Dinitrotoluene	ND		38.9	30.6		ug/L		79	10 - 130
Diethyl phthalate	ND		38.9	34.6		ug/L		89	10 - 130
4-Chlorophenyl phenyl ether	ND		38.9	26.7		ug/L		69	39 - 144
Fluorene	ND	F1	38.9	30.0		ug/L		77	72 - 115
4-Nitroaniline	ND		38.9	34.1		ug/L		88	10 - 130
2-Methyl-4,6-dinitrophenol	ND		77.7	72.2		ug/L		93	53 - 115
4-Bromophenyl phenyl ether	ND		38.9	30.7		ug/L		79	10 - 130
Hexachlorobenzene	ND		38.9	35.3		ug/L		91	8 - 140
Pentachlorophenol	ND		77.7	59.8		ug/L		77	45 - 125
Phenanthrene	ND		38.9	32.7		ug/L		84	44 - 125
Anthracene	ND		38.9	32.6		ug/L		84	44 - 118
Di-n-butyl phthalate	ND		38.9	27.7		ug/L		71	9 - 115
Fluoranthene	ND		38.9	22.7		ug/L		59	43 - 121
Pyrene	ND		38.9	31.4	*	ug/L		81	52 - 115
Butyl benzyl phthalate	ND		38.9	30.0	*	ug/L		77	10 - 139
3,3'-Dichlorobenzidine	ND		38.9	24.3	*	ug/L		62	9 - 150
Benzo[a]anthracene	ND		38.9	34.0	*	ug/L		87	42 - 133
Bis(2-ethylhexyl) phthalate	ND		38.9	30.4	*	ug/L		78	29 - 136
Chrysene	ND		38.9	34.7	*	ug/L		89	42 - 139
Di-n-octyl phthalate	ND		38.9	33.4	*	ug/L		86	10 - 130
Benzo[b]fluoranthene	ND		38.9	31.0		ug/L		80	42 - 140
Benzo[a]pyrene	ND		38.9	31.6		ug/L		81	32 - 148
Benzo[k]fluoranthene	ND		38.9	30.2		ug/L		78	26 - 145
Indeno[1,2,3-cd]pyrene	ND		38.9	37.8		ug/L		97	10 - 150
Benzo[g,h,i]perylene	ND		38.9	39.1		ug/L		100	10 - 140
Benzoic acid	ND		38.9	6.06	J	ug/L		16	10 - 130
Azobenzene	ND		38.9	28.4		ug/L		73	12 - 115
Dibenz(a,h)anthracene	ND		38.9	38.5		ug/L		99	10 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Nitrobenzene-d5	*52*		*11 - 92*
2-Fluorobiphenyl	*60*		*10 - 101*
Terphenyl-d14	*97*	*	*34 - 128*
2-Fluorophenol	*26*		*10 - 65*
Phenol-d5	*15*		*10 - 46*
2,4,6-Tribromophenol	*105*		*17 - 115*

Lab Sample ID: 720-65757-1 MSD
Matrix: Water
Analysis Batch: 184596

Client Sample ID: MW-01-062615
Prep Type: Total/NA
Prep Batch: 184528

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	ND		37.9	7.20		ug/L		19	12 - 115	1	35
Bis(2-chloroethyl)ether	ND		37.9	17.4		ug/L		46	43 - 126	0	35
2-Chlorophenol	ND		37.9	17.3		ug/L		46	23 - 134	0	25
1,3-Dichlorobenzene	ND		37.9	15.6		ug/L		41	17 - 153	2	35
1,4-Dichlorobenzene	ND		37.9	15.5		ug/L		41	36 - 115	3	30
Benzyl alcohol	ND		37.9	16.4		ug/L		43	10 - 130	3	35

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 720-65757-1 MSD
Matrix: Water
Analysis Batch: 184596

Client Sample ID: MW-01-062615
Prep Type: Total/NA
Prep Batch: 184528

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichlorobenzene	ND	F1	37.9	16.3	F1	ug/L		43	49 - 115	2	35
2-Methylphenol	ND		37.9	16.8		ug/L		44	10 - 130	2	35
4-Methylphenol	ND		37.9	15.9		ug/L		42	10 - 130	2	35
N-Nitrosodi-n-propylamine	ND		37.9	19.6		ug/L		52	10 - 130	0	34
Hexachloroethane	ND	F1	37.9	14.2	F1	ug/L		37	55 - 100	2	35
Nitrobenzene	ND	F1	37.9	18.5	F1	ug/L		49	55 - 157	4	35
Isophorone	ND		37.9	21.1		ug/L		56	47 - 180	1	35
2-Nitrophenol	ND		37.9	18.8		ug/L		50	45 - 166	2	35
2,4-Dimethylphenol	ND		37.9	21.1		ug/L		56	42 - 109	5	35
Bis(2-chloroethoxy)methane	ND		37.9	19.1		ug/L		50	43 - 164	7	35
2,4-Dichlorophenol	ND		37.9	21.2		ug/L		56	53 - 121	0	35
1,2,4-Trichlorobenzene	ND		37.9	16.6		ug/L		44	44 - 142	9	35
Naphthalene	ND		37.9	18.1		ug/L		48	36 - 119	8	35
4-Chloroaniline	ND		37.9	21.2		ug/L		56	10 - 130	7	35
Hexachlorobutadiene	ND		37.9	16.0		ug/L		42	38 - 115	0	35
4-Chloro-3-methylphenol	ND		37.9	24.3		ug/L		64	22 - 147	5	31
2-Methylnaphthalene	ND		37.9	18.7		ug/L		49	10 - 130	5	35
Hexachlorocyclopentadiene	ND		37.9	16.5		ug/L		44	10 - 130	7	35
2,4,6-Trichlorophenol	ND		37.9	22.0		ug/L		58	55 - 129	12	35
2,4,5-Trichlorophenol	ND		37.9	22.9		ug/L		60	20 - 120	12	35
2-Chloronaphthalene	ND		37.9	19.5		ug/L		51	10 - 130	15	35
2-Nitroaniline	ND		37.9	27.0		ug/L		71	10 - 130	15	35
Dimethyl phthalate	ND		37.9	27.6		ug/L		73	10 - 130	19	35
Acenaphthylene	ND		37.9	22.8		ug/L		60	54 - 126	10	35
3-Nitroaniline	ND		37.9	25.6		ug/L		68	10 - 130	9	35
Acenaphthene	ND		37.9	23.1		ug/L		61	56 - 118	13	30
2,4-Dinitrophenol	ND		75.9	64.3		ug/L		85	10 - 130	11	35
4-Nitrophenol	ND		75.9	25.6		ug/L		34	1 - 132	11	35
Dibenzofuran	ND		37.9	22.9		ug/L		60	10 - 130	14	35
2,4-Dinitrotoluene	ND		37.9	27.7		ug/L		73	39 - 139	17	35
2,6-Dinitrotoluene	ND		37.9	25.1		ug/L		66	10 - 130	20	35
Diethyl phthalate	ND		37.9	30.9		ug/L		81	10 - 130	11	35
4-Chlorophenyl phenyl ether	ND		37.9	23.3		ug/L		61	39 - 144	14	35
Fluorene	ND	F1	37.9	26.5	F1	ug/L		70	72 - 115	12	35
4-Nitroaniline	ND		37.9	30.3		ug/L		80	10 - 130	12	35
2-Methyl-4,6-dinitrophenol	ND		75.9	67.0		ug/L		88	53 - 115	8	35
4-Bromophenyl phenyl ether	ND		37.9	27.8		ug/L		73	10 - 130	10	35
Hexachlorobenzene	ND		37.9	34.0		ug/L		90	8 - 140	4	35
Pentachlorophenol	ND		75.9	59.1		ug/L		78	45 - 125	1	35
Phenanthrene	ND		37.9	31.0		ug/L		82	44 - 125	5	35
Anthracene	ND		37.9	31.5		ug/L		83	44 - 118	3	35
Di-n-butyl phthalate	ND		37.9	32.6		ug/L		86	9 - 115	16	35
Fluoranthene	ND		37.9	28.5		ug/L		75	43 - 121	22	35
Pyrene	ND		37.9	34.2		ug/L		90	52 - 115	8	35
Butyl benzyl phthalate	ND		37.9	31.9		ug/L		84	10 - 139	6	35
3,3'-Dichlorobenzidine	ND		37.9	23.5		ug/L		62	9 - 150	3	35
Benzo[a]anthracene	ND		37.9	32.1		ug/L		85	42 - 133	5	35
Bis(2-ethylhexyl) phthalate	ND		37.9	30.3		ug/L		80	29 - 136	0	35

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 720-65757-1 MSD
Matrix: Water
Analysis Batch: 184596

Client Sample ID: MW-01-062615
Prep Type: Total/NA
Prep Batch: 184528

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chrysene	ND		37.9	32.3		ug/L		85	42 - 139	7	35
Di-n-octyl phthalate	ND		37.9	31.3		ug/L		83	10 - 130	6	35
Benzo[b]fluoranthene	ND		37.9	30.3		ug/L		80	42 - 140	2	35
Benzo[a]pyrene	ND		37.9	30.1		ug/L		79	32 - 148	5	35
Benzo[k]fluoranthene	ND		37.9	28.5		ug/L		75	26 - 145	6	35
Indeno[1,2,3-cd]pyrene	ND		37.9	33.7		ug/L		89	10 - 150	11	35
Benzo[g,h,i]perylene	ND		37.9	38.0		ug/L		100	10 - 140	3	35
Benzoic acid	ND		37.9	6.70	J	ug/L		18	10 - 130	10	35
Azobenzene	ND		37.9	25.6		ug/L		67	12 - 115	11	35
Dibenz(a,h)anthracene	ND		37.9	34.3		ug/L		90	10 - 130	11	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Nitrobenzene-d5	*47*		*11 - 92*
2-Fluorobiphenyl	*54*		*10 - 101*
Terphenyl-d14	*106*		*34 - 128*
2-Fluorophenol	*25*		*10 - 65*
Phenol-d5	*16*		*10 - 46*
2,4,6-Tribromophenol	*92*		*17 - 115*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 720-184602/1-A
Matrix: Water
Analysis Batch: 184589

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184602

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		50	22	ug/L		07/02/15 09:59	07/03/15 03:46	1
Motor Oil Range Organics [C24-C36]	ND		99	42	ug/L		07/02/15 09:59	07/03/15 03:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*91*		*23 - 156*	*07/02/15 09:59*	*07/03/15 03:46*	*1*

Lab Sample ID: LCS 720-184602/2-A
Matrix: Water
Analysis Batch: 184589

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184602

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics [C10-C28]			2500	1780		ug/L		71	34 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl	*94*		*23 - 156*

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 720-65757-1 MS
Matrix: Water
Analysis Batch: 184588

Client Sample ID: MW-01-062615
Prep Type: Total/NA
Prep Batch: 184602

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	ND		2390	1930		ug/L		81	50 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
p-Terphenyl	*101*		*23 - 156*

Lab Sample ID: 720-65757-1 MSD
Matrix: Water
Analysis Batch: 184588

Client Sample ID: MW-01-062615
Prep Type: Total/NA
Prep Batch: 184602

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		2430	2020		ug/L		83	50 - 150	5	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
p-Terphenyl	*97*		*23 - 156*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 720-184548/1-A
Matrix: Water
Analysis Batch: 184586

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184548

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.069	ug/L		07/01/15 13:51	07/02/15 16:23	1
PCB-1221	ND		0.50	0.069	ug/L		07/01/15 13:51	07/02/15 16:23	1
PCB-1232	ND		0.50	0.069	ug/L		07/01/15 13:51	07/02/15 16:23	1
PCB-1242	ND		0.50	0.069	ug/L		07/01/15 13:51	07/02/15 16:23	1
PCB-1248	ND		0.50	0.069	ug/L		07/01/15 13:51	07/02/15 16:23	1
PCB-1254	ND		0.50	0.069	ug/L		07/01/15 13:51	07/02/15 16:23	1
PCB-1260	ND		0.50	0.13	ug/L		07/01/15 13:51	07/02/15 16:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*65*		*19 - 98*	*07/01/15 13:51*	*07/02/15 16:23*	*1*
DCB Decachlorobiphenyl	*91*		*10 - 122*	*07/01/15 13:51*	*07/02/15 16:23*	*1*

Lab Sample ID: LCS 720-184548/2-A
Matrix: Water
Analysis Batch: 184586

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184548

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	4.00	3.17		ug/L		79	40 - 115
PCB-1260	4.00	3.08		ug/L		77	48 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*68*		*19 - 98*
DCB Decachlorobiphenyl	*80*		*10 - 122*

Lab Sample ID: 720-65757-1 MS
Matrix: Water
Analysis Batch: 184586

Client Sample ID: MW-01-062615
Prep Type: Total/NA
Prep Batch: 184548

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	ND		3.80	3.16		ug/L		83	65 - 135
PCB-1260	ND		3.80	2.81		ug/L		74	65 - 135

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*68*		*19 - 98*
DCB Decachlorobiphenyl	*67*		*10 - 122*

Lab Sample ID: 720-65757-1 MSD
Matrix: Water
Analysis Batch: 184586

Client Sample ID: MW-01-062615
Prep Type: Total/NA
Prep Batch: 184548

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	ND		3.87	3.27		ug/L		84	65 - 135	4	20
PCB-1260	ND		3.87	2.61		ug/L		67	65 - 135	7	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*72*		*19 - 98*
DCB Decachlorobiphenyl	*56*		*10 - 122*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-184809/1-A
Matrix: Water
Analysis Batch: 184887

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 184809

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0041	mg/L		07/08/15 12:06	07/08/15 23:02	1
Arsenic	ND		0.010	0.0029	mg/L		07/08/15 12:06	07/08/15 23:02	1
Barium	ND		0.050	0.0016	mg/L		07/08/15 12:06	07/08/15 23:02	1
Beryllium	ND		0.0020	0.00059	mg/L		07/08/15 12:06	07/08/15 23:02	1
Cadmium	ND		0.0020	0.00021	mg/L		07/08/15 12:06	07/08/15 23:02	1
Chromium	ND		0.010	0.00070	mg/L		07/08/15 12:06	07/08/15 23:02	1
Cobalt	ND		0.0020	0.00068	mg/L		07/08/15 12:06	07/08/15 23:02	1
Copper	ND		0.020	0.0037	mg/L		07/08/15 12:06	07/08/15 23:02	1
Lead	ND		0.0050	0.0022	mg/L		07/08/15 12:06	07/08/15 23:02	1
Molybdenum	ND		0.010	0.0029	mg/L		07/08/15 12:06	07/08/15 23:02	1
Nickel	ND		0.010	0.0010	mg/L		07/08/15 12:06	07/08/15 23:02	1
Selenium	ND	^	0.020	0.0046	mg/L		07/08/15 12:06	07/08/15 23:02	1
Silver	ND		0.0050	0.0020	mg/L		07/08/15 12:06	07/08/15 23:02	1
Thallium	ND		0.010	0.0035	mg/L		07/08/15 12:06	07/08/15 23:02	1
Vanadium	ND		0.010	0.00087	mg/L		07/08/15 12:06	07/08/15 23:02	1
Zinc	ND		0.020	0.0074	mg/L		07/08/15 12:06	07/08/15 23:02	1

Lab Sample ID: MB 720-184809/1-A
Matrix: Water
Analysis Batch: 184902

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 184809

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.020	0.0046	mg/L		07/08/15 12:06	07/09/15 11:55	1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 720-184809/2-A
Matrix: Water
Analysis Batch: 184887

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 184809

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	1.00	0.967		mg/L		97	80 - 120
Arsenic	1.00	0.974		mg/L		97	80 - 120
Barium	1.00	0.992		mg/L		99	80 - 120
Beryllium	1.00	0.974		mg/L		97	80 - 120
Cadmium	1.00	1.00		mg/L		100	80 - 120
Chromium	1.00	1.01		mg/L		101	80 - 120
Cobalt	1.00	1.01		mg/L		101	80 - 120
Copper	1.00	1.01		mg/L		101	80 - 120
Lead	1.00	1.04		mg/L		104	80 - 120
Molybdenum	1.00	1.01		mg/L		101	80 - 120
Nickel	1.00	1.06		mg/L		106	80 - 120
Silver	0.500	0.487		mg/L		97	80 - 120
Thallium	1.00	1.05		mg/L		105	80 - 120
Vanadium	1.00	0.960		mg/L		96	80 - 120
Zinc	1.00	1.00		mg/L		100	80 - 120

Lab Sample ID: LCS 720-184809/2-A
Matrix: Water
Analysis Batch: 184902

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 184809

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	1.00	0.966		mg/L		97	80 - 120

Lab Sample ID: LCSD 720-184809/3-A
Matrix: Water
Analysis Batch: 184887

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 184809

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	1.00	0.983		mg/L		98	80 - 120	2	20
Arsenic	1.00	0.981		mg/L		98	80 - 120	1	20
Barium	1.00	0.957		mg/L		96	80 - 120	4	20
Beryllium	1.00	0.948		mg/L		95	80 - 120	3	20
Cadmium	1.00	0.996		mg/L		100	80 - 120	1	20
Chromium	1.00	1.01		mg/L		101	80 - 120	0	20
Cobalt	1.00	1.00		mg/L		100	80 - 120	0	20
Copper	1.00	1.01		mg/L		101	80 - 120	0	20
Lead	1.00	1.03		mg/L		103	80 - 120	1	20
Molybdenum	1.00	1.04		mg/L		104	80 - 120	2	20
Nickel	1.00	1.04		mg/L		104	80 - 120	1	20
Silver	0.500	0.492		mg/L		98	80 - 120	1	20
Thallium	1.00	1.03		mg/L		103	80 - 120	1	20
Vanadium	1.00	0.967		mg/L		97	80 - 120	1	20
Zinc	1.00	0.995		mg/L		100	80 - 120	1	20

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSD 720-184809/3-A
Matrix: Water
Analysis Batch: 184902

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 184809

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Selenium			1.00	0.958		mg/L		96	80 - 120	1	20

Lab Sample ID: 720-65757-1 MS
Matrix: Water
Analysis Batch: 184887

Client Sample ID: MW-01-062615
Prep Type: Dissolved
Prep Batch: 184809

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0084	J	1.00	0.995		mg/L		99	75 - 125
Arsenic	0.0078	J	1.00	1.02		mg/L		102	75 - 125
Barium	0.033	J	1.00	1.06		mg/L		103	75 - 125
Beryllium	ND		1.00	1.03		mg/L		103	75 - 125
Cadmium	ND		1.00	1.00		mg/L		100	75 - 125
Chromium	0.0022	J	1.00	1.01		mg/L		101	75 - 125
Cobalt	ND		1.00	0.989		mg/L		99	75 - 125
Copper	ND		1.00	1.01		mg/L		101	75 - 125
Lead	0.0054		1.00	1.02		mg/L		101	75 - 125
Molybdenum	0.015		1.00	1.04		mg/L		103	75 - 125
Nickel	0.0044	J	1.00	1.03		mg/L		102	75 - 125
Silver	ND		0.500	0.497		mg/L		99	75 - 125
Thallium	ND		1.00	0.997		mg/L		100	75 - 125
Vanadium	0.0047	J	1.00	1.00		mg/L		100	75 - 125
Zinc	0.012	J	1.00	1.01		mg/L		99	75 - 125

Lab Sample ID: 720-65757-1 MS
Matrix: Water
Analysis Batch: 184902

Client Sample ID: MW-01-062615
Prep Type: Dissolved
Prep Batch: 184809

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	ND		1.00	0.985		mg/L		98	75 - 125

Lab Sample ID: 720-65757-1 MSD
Matrix: Water
Analysis Batch: 184887

Client Sample ID: MW-01-062615
Prep Type: Dissolved
Prep Batch: 184809

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.0084	J	1.00	0.989		mg/L		98	75 - 125	1	20
Arsenic	0.0078	J	1.00	1.02		mg/L		101	75 - 125	1	20
Barium	0.033	J	1.00	1.01		mg/L		97	75 - 125	5	20
Beryllium	ND		1.00	0.974		mg/L		97	75 - 125	6	20
Cadmium	ND		1.00	0.995		mg/L		99	75 - 125	1	20
Chromium	0.0022	J	1.00	1.00		mg/L		100	75 - 125	1	20
Cobalt	ND		1.00	0.980		mg/L		98	75 - 125	1	20
Copper	ND		1.00	0.993		mg/L		99	75 - 125	2	20
Lead	0.0054		1.00	1.01		mg/L		100	75 - 125	1	20
Molybdenum	0.015		1.00	1.03		mg/L		102	75 - 125	1	20
Nickel	0.0044	J	1.00	1.02		mg/L		102	75 - 125	1	20
Silver	ND		0.500	0.488		mg/L		98	75 - 125	2	20
Thallium	ND		1.00	0.988		mg/L		99	75 - 125	1	20
Vanadium	0.0047	J	1.00	0.983		mg/L		98	75 - 125	2	20

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 720-65757-1 MSD — **Client Sample ID: MW-01-062615**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 184887 — **Prep Batch: 184809**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Zinc	0.012	J	1.00	1.00		mg/L		99	75 - 125	0	20

Lab Sample ID: 720-65757-1 MSD — **Client Sample ID: MW-01-062615**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 184902 — **Prep Batch: 184809**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Selenium	ND		1.00	0.976		mg/L		98	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 720-184599/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 184628 — **Prep Batch: 184599**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		07/02/15 09:30	07/02/15 15:33	1

Lab Sample ID: LCS 720-184599/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 184628 — **Prep Batch: 184599**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0100	0.00964		mg/L		96	85 - 115

Lab Sample ID: LCSD 720-184599/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 184628 — **Prep Batch: 184599**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.0100	0.0103		mg/L		103	85 - 115	7	20

Lab Sample ID: 720-65757-1 MS — **Client Sample ID: MW-01-062615**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 184628 — **Prep Batch: 184599**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.0100	0.0100		mg/L		100	70 - 130

Lab Sample ID: 720-65757-1 MSD — **Client Sample ID: MW-01-062615**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 184628 — **Prep Batch: 184599**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.0100	0.0103		mg/L		103	70 - 130	3	20

GC/MS VOA

Analysis Batch: 184760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-65757-2	MW-02-062615	Total/NA	Water	8260B/CA_LUFT MS	
720-65757-3	MW-03-062615	Total/NA	Water	8260B/CA_LUFT MS	
720-65757-4	MW-04-062615	Total/NA	Water	8260B/CA_LUFT MS	
720-65757-5	MW-05-062615	Total/NA	Water	8260B/CA_LUFT MS	
720-65757-6	DUP-1	Total/NA	Water	8260B/CA_LUFT MS	
720-65757-7	TB062615	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-184760/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-184760/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-184760/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

Analysis Batch: 184922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-65757-1	MW-01-062615	Total/NA	Water	8260B/CA_LUFT MS	
720-65757-1 MS	MW-01-062615	Total/NA	Water	8260B/CA_LUFT MS	
720-65757-1 MSD	MW-01-062615	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-184922/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-184922/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-184922/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

GC/MS Semi VOA

Prep Batch: 184528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-65757-1	MW-01-062615	Total/NA	Water	3510C	
720-65757-1 MS	MW-01-062615	Total/NA	Water	3510C	
720-65757-1 MSD	MW-01-062615	Total/NA	Water	3510C	
720-65757-2	MW-02-062615	Total/NA	Water	3510C	
720-65757-3	MW-03-062615	Total/NA	Water	3510C	
720-65757-4	MW-04-062615	Total/NA	Water	3510C	
720-65757-5	MW-05-062615	Total/NA	Water	3510C	
720-65757-6	DUP-1	Total/NA	Water	3510C	
LCS 720-184528/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 720-184528/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 184596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-65757-1	MW-01-062615	Total/NA	Water	8270C	184528
720-65757-1 MS	MW-01-062615	Total/NA	Water	8270C	184528
720-65757-1 MSD	MW-01-062615	Total/NA	Water	8270C	184528

GC/MS Semi VOA (Continued)

Analysis Batch: 184596 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-65757-2	MW-02-062615	Total/NA	Water	8270C	184528
720-65757-3	MW-03-062615	Total/NA	Water	8270C	184528
720-65757-4	MW-04-062615	Total/NA	Water	8270C	184528
720-65757-5	MW-05-062615	Total/NA	Water	8270C	184528
720-65757-6	DUP-1	Total/NA	Water	8270C	184528
LCS 720-184528/2-A	Lab Control Sample	Total/NA	Water	8270C	184528
MB 720-184528/1-A	Method Blank	Total/NA	Water	8270C	184528

GC Semi VOA

Prep Batch: 184548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-65757-1	MW-01-062615	Total/NA	Water	3510C	
720-65757-1 MS	MW-01-062615	Total/NA	Water	3510C	
720-65757-1 MSD	MW-01-062615	Total/NA	Water	3510C	
720-65757-3	MW-03-062615	Total/NA	Water	3510C	
720-65757-4	MW-04-062615	Total/NA	Water	3510C	
720-65757-5	MW-05-062615	Total/NA	Water	3510C	
720-65757-6	DUP-1	Total/NA	Water	3510C	
LCS 720-184548/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 720-184548/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 184586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-65757-1	MW-01-062615	Total/NA	Water	8082	184548
720-65757-1 MS	MW-01-062615	Total/NA	Water	8082	184548
720-65757-1 MSD	MW-01-062615	Total/NA	Water	8082	184548
720-65757-3	MW-03-062615	Total/NA	Water	8082	184548
720-65757-4	MW-04-062615	Total/NA	Water	8082	184548
LCS 720-184548/2-A	Lab Control Sample	Total/NA	Water	8082	184548
MB 720-184548/1-A	Method Blank	Total/NA	Water	8082	184548

Analysis Batch: 184587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-65757-5	MW-05-062615	Total/NA	Water	8082	184548
720-65757-6	DUP-1	Total/NA	Water	8082	184548

Analysis Batch: 184588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-65757-1	MW-01-062615	Total/NA	Water	8015B	184602
720-65757-1 MS	MW-01-062615	Total/NA	Water	8015B	184602
720-65757-1 MSD	MW-01-062615	Total/NA	Water	8015B	184602
720-65757-2	MW-02-062615	Total/NA	Water	8015B	184602
720-65757-3	MW-03-062615	Total/NA	Water	8015B	184602
720-65757-4	MW-04-062615	Total/NA	Water	8015B	184602

Analysis Batch: 184589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-65757-5	MW-05-062615	Total/NA	Water	8015B	184602
720-65757-6	DUP-1	Total/NA	Water	8015B	184602

GC Semi VOA (Continued)

Analysis Batch: 184589 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-184602/2-A	Lab Control Sample	Total/NA	Water	8015B	184602
MB 720-184602/1-A	Method Blank	Total/NA	Water	8015B	184602

Prep Batch: 184602

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-65757-1	MW-01-062615	Total/NA	Water	3510C	
720-65757-1 MS	MW-01-062615	Total/NA	Water	3510C	
720-65757-1 MSD	MW-01-062615	Total/NA	Water	3510C	
720-65757-2	MW-02-062615	Total/NA	Water	3510C	
720-65757-3	MW-03-062615	Total/NA	Water	3510C	
720-65757-4	MW-04-062615	Total/NA	Water	3510C	
720-65757-5	MW-05-062615	Total/NA	Water	3510C	
720-65757-6	DUP-1	Total/NA	Water	3510C	
LCS 720-184602/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 720-184602/1-A	Method Blank	Total/NA	Water	3510C	

Metals

Prep Batch: 184599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-65757-1	MW-01-062615	Dissolved	Water	7470A	
720-65757-1 MS	MW-01-062615	Dissolved	Water	7470A	
720-65757-1 MSD	MW-01-062615	Dissolved	Water	7470A	
720-65757-2	MW-02-062615	Dissolved	Water	7470A	
720-65757-3	MW-03-062615	Dissolved	Water	7470A	
720-65757-4	MW-04-062615	Dissolved	Water	7470A	
720-65757-5	MW-05-062615	Dissolved	Water	7470A	
720-65757-6	DUP-1	Dissolved	Water	7470A	
LCS 720-184599/2-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 720-184599/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	
MB 720-184599/1-A	Method Blank	Total/NA	Water	7470A	

Analysis Batch: 184628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-65757-1	MW-01-062615	Dissolved	Water	7470A	184599
720-65757-1 MS	MW-01-062615	Dissolved	Water	7470A	184599
720-65757-1 MSD	MW-01-062615	Dissolved	Water	7470A	184599
720-65757-2	MW-02-062615	Dissolved	Water	7470A	184599
720-65757-3	MW-03-062615	Dissolved	Water	7470A	184599
720-65757-4	MW-04-062615	Dissolved	Water	7470A	184599
720-65757-5	MW-05-062615	Dissolved	Water	7470A	184599
LCS 720-184599/2-A	Lab Control Sample	Total/NA	Water	7470A	184599
LCSD 720-184599/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	184599
MB 720-184599/1-A	Method Blank	Total/NA	Water	7470A	184599

Analysis Batch: 184639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-65757-6	DUP-1	Dissolved	Water	7470A	184599

Metals (Continued)

Prep Batch: 184809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-65757-1	MW-01-062615	Dissolved	Water	3005A	
720-65757-1 MS	MW-01-062615	Dissolved	Water	3005A	
720-65757-1 MSD	MW-01-062615	Dissolved	Water	3005A	
720-65757-2	MW-02-062615	Dissolved	Water	3005A	
720-65757-3	MW-03-062615	Dissolved	Water	3005A	
720-65757-4	MW-04-062615	Dissolved	Water	3005A	
720-65757-5	MW-05-062615	Dissolved	Water	3005A	
720-65757-6	DUP-1	Dissolved	Water	3005A	
LCS 720-184809/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 720-184809/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
MB 720-184809/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 184887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-65757-1	MW-01-062615	Dissolved	Water	6010B	184809
720-65757-1 MS	MW-01-062615	Dissolved	Water	6010B	184809
720-65757-1 MSD	MW-01-062615	Dissolved	Water	6010B	184809
720-65757-2	MW-02-062615	Dissolved	Water	6010B	184809
720-65757-3	MW-03-062615	Dissolved	Water	6010B	184809
720-65757-4	MW-04-062615	Dissolved	Water	6010B	184809
720-65757-5	MW-05-062615	Dissolved	Water	6010B	184809
720-65757-6	DUP-1	Dissolved	Water	6010B	184809
LCS 720-184809/2-A	Lab Control Sample	Total Recoverable	Water	6010B	184809
LCSD 720-184809/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010B	184809
MB 720-184809/1-A	Method Blank	Total Recoverable	Water	6010B	184809

Analysis Batch: 184902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-65757-1	MW-01-062615	Dissolved	Water	6010B	184809
720-65757-1 MS	MW-01-062615	Dissolved	Water	6010B	184809
720-65757-1 MSD	MW-01-062615	Dissolved	Water	6010B	184809
LCS 720-184809/2-A	Lab Control Sample	Total Recoverable	Water	6010B	184809
LCSD 720-184809/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010B	184809
MB 720-184809/1-A	Method Blank	Total Recoverable	Water	6010B	184809

Lab Chronicle

Client: CH2M Hill Constructors, Inc.
Project/Site: UPRR-Oakland CA-750 High St

TestAmerica Job ID: 720-65757-1

Client Sample ID: MW-01-062615

Lab Sample ID: 720-65757-1

Date Collected: 06/26/15 12:20

Matrix: Water

Date Received: 06/30/15 18:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	184922	07/10/15 02:56	PRD	TAL PLS
Total/NA	Prep	3510C			184528	07/01/15 10:00	NDU	TAL PLS
Total/NA	Analysis	8270C		1	184596	07/02/15 12:17	JZT	TAL PLS
Total/NA	Prep	3510C			184602	07/02/15 09:59	NDU	TAL PLS
Total/NA	Analysis	8015B		1	184588	07/02/15 21:41	JXL	TAL PLS
Total/NA	Prep	3510C			184548	07/01/15 13:51	NDU	TAL PLS
Total/NA	Analysis	8082		1	184586	07/02/15 15:00	DCH	TAL PLS
Dissolved	Prep	3005A			184809	07/08/15 12:06	ECT	TAL PLS
Dissolved	Analysis	6010B		1	184887	07/09/15 00:02	SLK	TAL PLS
Dissolved	Prep	3005A			184809	07/08/15 12:06	ECT	TAL PLS
Dissolved	Analysis	6010B		1	184902	07/09/15 12:30	SLK	TAL PLS
Dissolved	Prep	7470A			184599	07/02/15 09:30	ECT	TAL PLS
Dissolved	Analysis	7470A		1	184628	07/02/15 15:49	SLK	TAL PLS

Client Sample ID: MW-02-062615

Lab Sample ID: 720-65757-2

Date Collected: 06/26/15 13:30

Matrix: Water

Date Received: 06/30/15 18:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	184760	07/08/15 02:50	PRD	TAL PLS
Total/NA	Prep	3510C			184528	07/01/15 10:00	NDU	TAL PLS
Total/NA	Analysis	8270C		1	184596	07/02/15 12:43	JZT	TAL PLS
Total/NA	Prep	3510C			184602	07/02/15 09:59	NDU	TAL PLS
Total/NA	Analysis	8015B		1	184588	07/02/15 22:06	JXL	TAL PLS
Dissolved	Prep	3005A			184809	07/08/15 12:06	ECT	TAL PLS
Dissolved	Analysis	6010B		1	184887	07/09/15 00:07	SLK	TAL PLS
Dissolved	Prep	7470A			184599	07/02/15 09:30	ECT	TAL PLS
Dissolved	Analysis	7470A		1	184628	07/02/15 15:52	SLK	TAL PLS

Client Sample ID: MW-03-062615

Lab Sample ID: 720-65757-3

Date Collected: 06/26/15 10:55

Matrix: Water

Date Received: 06/30/15 18:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	184760	07/08/15 03:19	PRD	TAL PLS
Total/NA	Prep	3510C			184528	07/01/15 10:00	NDU	TAL PLS
Total/NA	Analysis	8270C		1	184596	07/02/15 13:09	JZT	TAL PLS
Total/NA	Prep	3510C			184602	07/02/15 09:59	NDU	TAL PLS
Total/NA	Analysis	8015B		1	184588	07/02/15 22:55	JXL	TAL PLS
Total/NA	Prep	3510C			184548	07/01/15 13:51	NDU	TAL PLS
Total/NA	Analysis	8082		1	184586	07/02/15 15:16	DCH	TAL PLS
Dissolved	Prep	3005A			184809	07/08/15 12:06	ECT	TAL PLS
Dissolved	Analysis	6010B		1	184887	07/09/15 00:12	SLK	TAL PLS

Client Sample ID: MW-03-062615

Lab Sample ID: 720-65757-3

Date Collected: 06/26/15 10:55

Matrix: Water

Date Received: 06/30/15 18:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	7470A			184599	07/02/15 09:30	ECT	TAL PLS
Dissolved	Analysis	7470A		1	184628	07/02/15 15:54	SLK	TAL PLS

Client Sample ID: MW-04-062615

Lab Sample ID: 720-65757-4

Date Collected: 06/26/15 11:30

Matrix: Water

Date Received: 06/30/15 18:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	184760	07/08/15 03:48	PRD	TAL PLS
Total/NA	Prep	3510C			184528	07/01/15 10:00	NDU	TAL PLS
Total/NA	Analysis	8270C		1	184596	07/02/15 13:35	JZT	TAL PLS
Total/NA	Prep	3510C			184602	07/02/15 09:59	NDU	TAL PLS
Total/NA	Analysis	8015B		1	184588	07/02/15 22:30	JXL	TAL PLS
Total/NA	Prep	3510C			184548	07/01/15 13:51	NDU	TAL PLS
Total/NA	Analysis	8082		1	184586	07/02/15 15:33	DCH	TAL PLS
Dissolved	Prep	3005A			184809	07/08/15 12:06	ECT	TAL PLS
Dissolved	Analysis	6010B		1	184887	07/09/15 00:16	SLK	TAL PLS
Dissolved	Prep	7470A			184599	07/02/15 09:30	ECT	TAL PLS
Dissolved	Analysis	7470A		1	184628	07/02/15 16:01	SLK	TAL PLS

Client Sample ID: MW-05-062615

Lab Sample ID: 720-65757-5

Date Collected: 06/26/15 10:15

Matrix: Water

Date Received: 06/30/15 18:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	184760	07/08/15 04:17	PRD	TAL PLS
Total/NA	Prep	3510C			184528	07/01/15 10:00	NDU	TAL PLS
Total/NA	Analysis	8270C		1	184596	07/02/15 14:01	JZT	TAL PLS
Total/NA	Prep	3510C			184602	07/02/15 09:59	NDU	TAL PLS
Total/NA	Analysis	8015B		1	184589	07/03/15 01:21	JXL	TAL PLS
Total/NA	Prep	3510C			184548	07/01/15 13:51	NDU	TAL PLS
Total/NA	Analysis	8082		1	184587	07/02/15 15:00	DCH	TAL PLS
Dissolved	Prep	3005A			184809	07/08/15 12:06	ECT	TAL PLS
Dissolved	Analysis	6010B		1	184887	07/09/15 00:31	SLK	TAL PLS
Dissolved	Prep	7470A			184599	07/02/15 09:30	ECT	TAL PLS
Dissolved	Analysis	7470A		1	184628	07/02/15 16:03	SLK	TAL PLS

Client Sample ID: DUP-1

Lab Sample ID: 720-65757-6

Date Collected: 06/26/15 12:20

Matrix: Water

Date Received: 06/30/15 18:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	184760	07/08/15 04:47	PRD	TAL PLS

Lab Chronicle

Client: CH2M Hill Constructors, Inc.
Project/Site: UPRR-Oakland CA-750 High St

TestAmerica Job ID: 720-65757-1

Client Sample ID: DUP-1

Date Collected: 06/26/15 12:20
Date Received: 06/30/15 18:25

Lab Sample ID: 720-65757-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			184528	07/01/15 10:00	NDU	TAL PLS
Total/NA	Analysis	8270C		1	184596	07/02/15 14:27	JZT	TAL PLS
Total/NA	Prep	3510C			184602	07/02/15 09:59	NDU	TAL PLS
Total/NA	Analysis	8015B		1	184589	07/03/15 00:56	JXL	TAL PLS
Total/NA	Prep	3510C			184548	07/01/15 13:51	NDU	TAL PLS
Total/NA	Analysis	8082		1	184587	07/02/15 15:16	DCH	TAL PLS
Dissolved	Prep	3005A			184809	07/08/15 12:06	ECT	TAL PLS
Dissolved	Analysis	6010B		1	184887	07/09/15 00:36	SLK	TAL PLS
Dissolved	Prep	7470A			184599	07/02/15 09:30	ECT	TAL PLS
Dissolved	Analysis	7470A		1	184639	07/02/15 16:38	SLK	TAL PLS

Client Sample ID: TB062615

Date Collected: 06/26/15 00:00
Date Received: 06/30/15 18:25

Lab Sample ID: 720-65757-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	184760	07/07/15 22:27	PRD	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: UPRR-Oakland CA-750 High St

TestAmerica Job ID: 720-65757-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-16

Method Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: UPRR-Oakland CA-750 High St

TestAmerica Job ID: 720-65757-1

Method	Method Description	Protocol	Laboratory
8260B/CA_LUFTMS	8260B / CA LUFT MS	SW846	TAL PLS
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PLS
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL PLS
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL PLS
6010B	Metals (ICP)	SW846	TAL PLS
7470A	Mercury (CVAA)	SW846	TAL PLS

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: UPRR-Oakland CA-750 High St

TestAmerica Job ID: 720-65757-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-65757-1	MW-01-062615	Water	06/26/15 12:20	06/30/15 18:25
720-65757-2	MW-02-062615	Water	06/26/15 13:30	06/30/15 18:25
720-65757-3	MW-03-062615	Water	06/26/15 10:55	06/30/15 18:25
720-65757-4	MW-04-062615	Water	06/26/15 11:30	06/30/15 18:25
720-65757-5	MW-05-062615	Water	06/26/15 10:15	06/30/15 18:25
720-65757-6	DUP-1	Water	06/26/15 12:20	06/30/15 18:25
720-65757-7	TB062615	Water	06/26/15 00:00	06/30/15 18:25

BLAINE TECH SERVICES INC.

1680 ROGERS AVENUE
SAN JOSE, CA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

720-65757

CHAIN OF CUSTODY

BTS #

CLIENT: CH2M Hill

SITE: UPRR - Oakland
750 High St.
Oakland, CA

CONDUCT ANALYSIS TO DETECT

LAB. TEST AMERICA - SF

DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ LIA ☐ OTHER ☐ RWQCB REGION _____

162101

Client Name/Address:
David Hodson - CH2M Hill (david.hodson@ch2m.com)
33 New Montgomery St., Suite 2000
San Francisco, CA

Project / PO Number:
PEDD-1954-03-Rev0

MS-MSD collected from:
MW-01

SAMPLE I.D.	DATE	TIME	MATRIX S= SOIL W=H_2O	CONTAINERS TOTAL	CONTAINERS TYPE	C = COMPOSITE ALL CONTAINERS	TPH-g (8015M)	TPH-d, mo (8015M)	PCB's (8082)	SVOC's (7270C)	California Title 22 Metals (6010B) Field filtered	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-01-062615	6/26/2015	1220	W	10	Various		X	X	X	X	X				1
MW-02-062615	6/26/2015	1330	W	8	Various		X	X		X	X				2
MW-03-062615	6/26/2015	1055	W	10	Various		X	X	X	X	X				3
MW-04-062615	6/26/2015	1130	W	10	Various		X	X	X	X	X				4
MW-05-062615	6/26/2015	1015	W	10	Various		X	X	X	X	X				5
MW-01MS/MSD	6/26/2015	1220	W	~~10~~ 20	Various		X	X	X	X	X				1
DUP-1	6/26/2015	—	W	10	Various		X	X	X	X	X				6
TB062615	6/26/2015	—	W	2	HCL Voa		X								7

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY	RESULTS NEEDED NO LATER THAN
	6-26-15	1400	Spencer Doolittle	**Standard TAT**

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
SDoo	6.26.15	1830	(Sample Custodian)	6/26/15	1830
(Sample Custodian)	6/30/15	0930		6/30/15	0930
	6-30-15	1825		6/30/15	1825

SHIPPED VIA

DATE SENT	TIME SENT

1.0 | 1.1 | 1.3 | 1.9°C

720-65757 Chain of Custody

7/15/2015

Login Sample Receipt Checklist

Client: CH2M Hill Constructors, Inc.

Job Number: 720-65757-1

Login Number: 65757
List Number: 1
Creator: Bullock, Tracy

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Memorandum

To:	David Hodson	Ref. No.:	058324-1954
From:	Jeffrey Cloud/eew/634-NF	Date:	July 31, 2015
CC:	Jesse Orth, Julie Lidstone		

Re: Analytical Results and Reduced Validation of Report J65757
Groundwater Sampling
Union Pacific Railroad (UPRR) – 744 High Street
Oakland, California
June 2015

1. Introduction

This document details a reduced validation of analytical results for groundwater samples collected in support of the Groundwater Sampling at the 744 High Street site in Oakland, California during June 2015. Samples were submitted to TestAmerica Laboratories, located in Pleasanton, California. A sample collection and analysis summary is presented in Table 1. A summary of the analytical methodology is presented in Table 2. The validated analytical results are summarized in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody form, finished report forms, method blank data, recovery data from surrogate spikes, laboratory control samples (LCS), matrix spikes (MS) and field QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 2 and applicable guidance from the documents entitled:

i) "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review", USEPA 540-R-08-01, June 2008

ii) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review", USEPA 540-R-10-011, January 2010

These items will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria and sample preservation requirements for the analyses are summarized in the methods. Sample chain of custody document and analytical report were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

GHD Services Inc.
15575 SW Sequoia Parkway Suite 140 Portland OR 97224 USA
T +1 971 245 1647 **M** +1 206 914 3141 **W** www.ghd.com

All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

4. Surrogate Spike Recoveries - Organic Analyses

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for semivolatile organic compound (SVOC), gasoline range organics (GRO), diesel range organics (DRO)/motor oil range organics (ORO) and polychlorinated biphenyl (PCB) analysis were spiked with the appropriate number of surrogate compounds prior to sample extraction and/or analysis.

Each individual surrogate compound is expected to meet the associated control limits with the exception of SVOC analyses. According to the "Guidelines" for SVOC analyses, up to one outlying surrogate in the base/neutral or acid fractions is acceptable as long as the recovery is at least 10 percent.

Surrogate recoveries were assessed against associated control limits. All surrogate recoveries met the above criteria.

5. Laboratory Control Sample Analyses

LCS and/or laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS/LCSD were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

5.1 Organic Analyses

The LCS/LCSD contained the compounds specified in the method. All LCS recoveries and RPDs were within associated control limits, demonstrating acceptable analytical accuracy and precision (where applicable).

5.2 Inorganic Analyses

The LCS/LCSD contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries and RPDs were within the control limits, demonstrating acceptable analytical accuracy and precision.

6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the distillation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

MS/MSD analyses were performed as specified in Table 1. If only the MS or MSD was outside of the control limits, no qualification of the data was performed based on the acceptable recovery of the companion spike and the acceptable RPD.

6.1 Organic Analyses

The MS/MSD samples were spiked with the compounds specified in the method. All percent recoveries and RPD values were within the associated control limits, demonstrating acceptable analytical accuracy and precision with the exceptions of a few low recoveries. The associated sample results were qualified as estimated due to the implied low bias (see Table 4).

6.2 Inorganic Analyses

The MS/MSD samples were spiked with the analytes of interest, and the results were evaluated using the "Guidelines". All percent recoveries and RPD values were within the control limits, demonstrating acceptable analytical accuracy and precision.

7. Field QA/QC Samples

The field QA/QC consisted of one trip blank sample and one field duplicate sample set.

7.1 Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, one trip blank was submitted to the laboratory for analysis. The result was non-detect for GRO.

7.2 Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, one field duplicate sample was collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than 50 and 100 percent for water/air and soil samples, respectively. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criteria is one or two times the RL value for water and soil samples, respectively.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

8. Analyte Reporting

The laboratory reported detected results down to the laboratory's method detection limit (MDL) for each analyte. Positive analyte detections less than the practical quantitation limit (PQL) but greater than the MDL were qualified as estimated (J) in Table 3 unless qualified otherwise in this memorandum. Non-detect results were presented as non-detect and the PQL in Table 3.

9. Conclusion

Based on the assessment detailed in the foregoing, the summarized data are acceptable with the specific qualifications noted herein.

Table 1

Sample Collection and Analysis Summary
Groundwater Sampling
Union Pacific Railroad (UPRR) - 744 High Street
Oakland, California
June 2015

					Analysis/Parameters						
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Metals**	**Mercury**	**DRO/ORO**	**PCBs**	**GRO**	**SVOCs**	**Comments**
MW-01-062615	MW-01	Water	06/26/2015	12:20	X	X	X	X	X	X	MS/MSD
MW-02-062615	MW-02	Water	06/26/2015	13:30	X	X	X		X	X	
MW-03-062615	MW-03	Water	06/26/2015	10:55	X	X	X	X	X	X	
MW-04-062615	MW-04	Water	06/26/2015	11:30	X	X	X	X	X	X	
MW-05-062615	MW-05	Water	06/26/2015	10:15	X	X	X	X	X	X	
DUP-1	MW-01	Water	06/26/2015	12:20	X	X	X	X	X	X	FD(MW-01-062615)
TB062615	--	Water	06/26/2015	--					X		Trip Blank

Notes:

FD - Field Duplicate sample of sample in parenthesis
MS/MSD - Matrix Spike/Matrix Spike Duplicate
DRO/ORO - Diesel Range Organics/motor Oil Range Organics
PCBs - Polychlorinated Biphenyls
GRO - Gasoline Range Organics
SVOCs - Semi-volatile Organic Compounds

Table 2

Analytical Methods
Groundwater Sampling
Union Pacific Railroad (UPRR) - 744 High Street
Oakland, California
June 2015

Parameter	Method	Matrix
Semi-Volatile Organic Compounds (SVOCs)	SW-846 8270C	Water
Gasoline Range Organics (GRO)	SW-846 8260B	Water
Diesel Range Organics (DRO)/Motor Oil Range Organics (ORO)	SW-846 8015B	Water
Polychlorinated Biphenyls (PCBs)	SW-846 8082	Water
Metals	SW-846 6010B	Water
Mercury	SW-846 7470A	Water

Notes:

Method References:
SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

Table 3

Analytical Results Summary
Groundwater Sampling
Union Pacific Railroad (UPRR) - 744 High Street
Oakland, California
June 2015

Sample Location:		MW-01	MW-01	MW-02	MW-03	MW-04	MW-05
Sample ID:		MW-01-062615	DUP-1	MW-02-062615	MW-03-062615	MW-04-062615	MW-05-062615
Sample Date:		6/26/2015	6/26/2015 Duplicate	6/26/2015	6/26/2015	6/26/2015	6/26/2015
Parameters	**Units**						
Semi-volatile Organic Compounds							
1,2,4-Trichlorobenzene	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
1,2-Dichlorobenzene	µg/L	<1.9 J	<1.9	<1.9	<1.9	<1.9	<2.0
1,3-Dichlorobenzene	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
1,4-Dichlorobenzene	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
2,4,5-Trichlorophenol	µg/L	<3.8	<3.8	<3.8	<3.8	<3.8	<4.0
2,4,6-Trichlorophenol	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
2,4-Dichlorophenol	µg/L	<4.7	<4.7	<4.7	<4.7	<4.8	<5.0
2,4-Dimethylphenol	µg/L	<2.8	<2.8	<2.8	<2.8	<2.9	<3.0
2,4-Dinitrophenol	µg/L	<9.5	<9.5	<9.5	<9.5	<9.5	<9.9
2,4-Dinitrotoluene	µg/L	<3.8	<3.8	<3.8	<3.8	<3.8	<4.0
2,6-Dinitrotoluene	µg/L	<4.7	<4.7	<4.7	<4.7	<4.8	<5.0
2-Chloronaphthalene	µg/L	<3.8	<3.8	<3.8	<3.8	<3.8	<4.0
2-Chlorophenol	µg/L	<3.8	<3.8	<3.8	<3.8	<3.8	<4.0
2-Methylnaphthalene	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
2-Methylphenol	µg/L	<3.8	<3.8	<3.8	<3.8	<3.8	<4.0
2-Nitroaniline	µg/L	<9.5	<9.5	<9.5	<9.5	<9.5	<9.9
2-Nitrophenol	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
3,3'-Dichlorobenzidine	µg/L	<4.7	<4.7	<4.7	<4.7	<4.8	<5.0
3-Nitroaniline	µg/L	<4.7	<4.7	<4.7	<4.7	<4.8	<5.0
4,6-Dinitro-2-methylphenol	µg/L	<9.5	<9.5	<9.5	<9.5	<9.5	<9.9
4-Bromophenyl phenyl ether	µg/L	<4.7	<4.7	<4.7	<4.7	<4.8	<5.0
4-Chloro-3-methylphenol	µg/L	<4.7	<4.7	<4.7	<4.7	<4.8	<5.0
4-Chloroaniline	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
4-Chlorophenyl phenyl ether	µg/L	<4.7	<4.7	<4.7	<4.7	<4.8	<5.0
4-Methylphenol	µg/L	<7.6	<7.6	<7.6	<7.6	<7.6	<7.9
4-Nitroaniline	µg/L	<9.5	<9.5	<9.5	<9.5	<9.5	<9.9
4-Nitrophenol	µg/L	<9.5	<9.5	<9.5	<9.5	<9.5	<9.9
Acenaphthene	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
Acenaphthylene	µg/L	<3.8	<3.8	<3.8	<3.8	<3.8	<4.0

Table 3

Analytical Results Summary
Groundwater Sampling
Union Pacific Railroad (UPRR) - 744 High Street
Oakland, California
June 2015

Sample Location:		MW-01	MW-01	MW-02	MW-03	MW-04	MW-05
Sample ID:		MW-01-062615	DUP-1	MW-02-062615	MW-03-062615	MW-04-062615	MW-05-062615
Sample Date:		6/26/2015	6/26/2015 Duplicate	6/26/2015	6/26/2015	6/26/2015	6/26/2015
Parameters	**Units**						
Semi-volatile Organic Compounds (Continued)							
Anthracene	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
Azobenzene	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
Benzo(a)anthracene	µg/L	<4.7	<4.7	<4.7	<4.7	<4.8	<5.0
Benzo(a)pyrene	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
Benzo(b)fluoranthene	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
Benzo(g,h,i)perylene	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
Benzo(k)fluoranthene	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
Benzoic acid	µg/L	<9.5	<9.5	<9.5	<9.5	<9.5	<9.9
Benzyl alcohol	µg/L	<4.7	<4.7	<4.7	<4.7	<4.8	<5.0
bis(2-Chloroethoxy)methane	µg/L	<4.7	<4.7	<4.7	<4.7	<4.8	<5.0
bis(2-Chloroethyl)ether	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	<9.5	<9.5	<9.5	<9.5	<9.5	<9.9
Butyl benzylphthalate (BBP)	µg/L	<4.7	<4.7	<4.7	<4.7	<4.8	<5.0
Chrysene	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
Dibenz(a,h)anthracene	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
Dibenzofuran	µg/L	<3.8	<3.8	<3.8	<3.8	<3.8	<4.0
Diethyl phthalate	µg/L	<4.7	<4.7	<4.7	<4.7	<4.8	<5.0
Dimethyl phthalate	µg/L	<4.7	<4.7	<4.7	<4.7	<4.8	<5.0
Di-n-butylphthalate (DBP)	µg/L	<4.7	<4.7	<4.7	<4.7	<4.8	<5.0
Di-n-octyl phthalate (DnOP)	µg/L	<4.7	<4.7	<4.7	<4.7	<4.8	<5.0
Fluoranthene	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
Fluorene	µg/L	<3.8	<3.8	<3.8	<3.8	<3.8	<4.0
Hexachlorobenzene	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
Hexachlorobutadiene	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
Hexachlorocyclopentadiene	µg/L	<4.7	<4.7	<4.7	<4.7	<4.8	<5.0
Hexachloroethane	µg/L	<1.9 J	<1.9	<1.9	<1.9	<1.9	<2.0
Indeno(1,2,3-cd)pyrene	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
Isophorone	µg/L	<3.8	<3.8	<3.8	<3.8	<3.8	<4.0
Naphthalene	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0

Table 3

Analytical Results Summary
Groundwater Sampling
Union Pacific Railroad (UPRR) - 744 High Street
Oakland, California
June 2015

Sample Location:		MW-01	MW-01	MW-02	MW-03	MW-04	MW-05
Sample ID:		MW-01-062615	DUP-1	MW-02-062615	MW-03-062615	MW-04-062615	MW-05-062615
Sample Date:		6/26/2015	6/26/2015 Duplicate	6/26/2015	6/26/2015	6/26/2015	6/26/2015
Parameters	**Units**						
Semi-volatile Organic Compounds (Continued)							
Nitrobenzene	µg/L	<1.9 J	<1.9	3.3	<1.9	<1.9	<2.0
N-Nitrosodi-n-propylamine	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
N-Nitrosodiphenylamine	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
Pentachlorophenol	µg/L	<9.5	<9.5	<9.5	<9.5	<9.5	<9.9
Phenanthrene	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
Phenol	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
Pyrene	µg/L	<1.9	<1.9	<1.9	<1.9	<1.9	<2.0
Metals							
Antimony (dissolved)	mg/L	0.0084 J	<0.010	<0.010	<0.010	<0.010	<0.010
Arsenic (dissolved)	mg/L	0.0078 J	<0.010	<0.010	<0.010	<0.010	<0.010
Barium (dissolved)	mg/L	0.033 J	0.031 J	0.048 J	0.054	0.12	0.049 J
Beryllium (dissolved)	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Cadmium (dissolved)	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Chromium (dissolved)	mg/L	0.0022 J	0.0019 J	0.0071 J	0.0051 J	0.055	0.0052 J
Cobalt (dissolved)	mg/L	<0.0020	<0.0020	0.00093 J	0.0012 J	0.0081	<0.0020
Copper (dissolved)	mg/L	<0.020	<0.020	0.0047 J	0.0038 J	0.012 J	0.0058 J
Lead (dissolved)	mg/L	0.0026 J	0.0059	0.0096	0.0060	0.014	0.0072
Mercury (dissolved)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Molybdenum (dissolved)	mg/L	0.015	<0.010	<0.010	<0.010	<0.010	<0.010
Nickel (dissolved)	mg/L	0.0044 J	0.0039 J	0.021	0.015	0.075	0.013
Selenium (dissolved)	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Silver (dissolved)	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Thallium (dissolved)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vanadium (dissolved)	mg/L	0.0047 J	0.0041 J	0.0065 J	0.0045 J	0.026	0.0038 J
Zinc (dissolved)	mg/L	0.012 J	<0.020	0.010 J	0.0080 J	0.026	0.014 J

Table 3

Analytical Results Summary
Groundwater Sampling
Union Pacific Railroad (UPRR) - 744 High Street
Oakland, California
June 2015

Sample Location:		MW-01	MW-01	MW-02	MW-03	MW-04	MW-05
Sample ID:		MW-01-062615	DUP-1	MW-02-062615	MW-03-062615	MW-04-062615	MW-05-062615
Sample Date:		6/26/2015	6/26/2015 Duplicate	6/26/2015	6/26/2015	6/26/2015	6/26/2015
Parameters	**Units**						
Petroleum Products							
Total Petroleum Hydrocarbons (C5-C12) GRO	µg/L	<50	<50	23 J	94	<50	<50
Total Petroleum Hydrocarbons (C10-C28) DRO	µg/L	<47	<47	21 J	37 J	74	28 J
Total Petroleum Hydrocarbons (C24-C36) Motor Oil	µg/L	39 J	53 J	48 J	55 J	65 J	80 J
PCBs							
Aroclor-1016 (PCB-1016)	µg/L	<0.47	<0.47	-	<0.51	<0.49	<0.50
Aroclor-1221 (PCB-1221)	µg/L	<0.47	<0.47	-	<0.51	<0.49	<0.50
Aroclor-1232 (PCB-1232)	µg/L	<0.47	<0.47	-	<0.51	<0.49	<0.50
Aroclor-1242 (PCB-1242)	µg/L	<0.47	<0.47	-	<0.51	<0.49	<0.50
Aroclor-1248 (PCB-1248)	µg/L	<0.47	<0.47	-	<0.51	<0.49	<0.50
Aroclor-1254 (PCB-1254)	µg/L	<0.47	<0.47	-	<0.51	<0.49	<0.50
Aroclor-1260 (PCB-1260)	µg/L	<0.47	<0.47	-	0.24 J	<0.49	<0.50

Notes:

< - Not detected at the associated reporting limit
J - Estimated concentration
- Not analyzed
PCBs - Polychlorinated Biphenyls

Table 4

Qualified Sample Results Due to Outlying MS/MSD Results
Groundwater Sampling
Union Pacific Railroad (UPRR) - 744 High Street
Oakland, California
June 2015

Parameter	Sample ID	Analyte	MS % Recovery	MSD % Recovery	RPD (percent)	Control Limits % Recovery	Control Limits RPD	Qualified Result	Units
SVOCs	MW-01-062615	1,2-Dichlorobenzene	43	43	2	49-115	35	1.9 UJ	µg/L
		Hexachloroethane	37	37	2	55-100	35	1.9 UJ	µg/L
		Nitrobenzene	50	49	4	55-157	35	1.9 UJ	µg/L

Notes:

MS - Matrix Spike
MSD - Matrix Spike Duplicate
RPD - Relative Percent Difference
UJ - Not detected; associated reporting limit is estimated
SVOCs - Semi-volatile Organic Compounds