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EAGLE ENVIRONMENTAL CONSTRUCTION
"Your Environmental Specialists"

GROUNDWATER MONITORING REPORT

7th Sampling Event, August 10, 2016

For the Site Located at:

2145 35TH Avenue

Oakland, California 94601

Prepared for:

Salisbury Avenue Associates LLC

11 Saint Lucia Place

Tiburon, California 94920

Prepared by:

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1485 Bayshore Boulevard, Suite 374

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August 25, 2016

Table of Contents

TABLES

FIGURES

APPENDICES

1.0 Introduction

This groundwater monitoring report is for the former gasoline service station located at 2145 35th Avenue, Oakland, California (Figure 1). This is the seventh sampling event since the four monitoring wells were installed in July 2012. For background information about the subject site and an update of the activities performed through 2013, review the November 2013 submitted report on the offsite subsurface investigation titled "Soil and Groundwater Investigation" and the updated conceptual site model. Also, see the reports on interim remedial action and soil gas sampling dated July and November 2015.

In the fourth, fifth, sixth, and seventh monitoring events, the following was implemented:

- Eliminated the full suite analysis of Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270sim due to the fact that only Naphthalene was detected. The remaining PAHs were non-detected in past analysis. Resumed the analysis of Naphthalene by using EPA Method 8260B.

- Lead was not detected in any of the wells. Maximum Nickel concentration to date was detected below the drinking water MCL of 100 µg/l. Nickel was detected in the initial three sampling events at 6.6 µg/l, 9.7 µg/l, and 8.7 µg/l, in Monitoring well MW-4. No other contaminant was detected in monitoring well MW-4. It appears that Nickel at this site is not related to the fuel leak and may be naturally occurring. Therefore, we discontinued the analysis for metals in the monitoring wells at this site.

2.0 Groundwater Sampling Activities

The wells were purged and sampled on August 10, 2016. EEC Engineer, Sami Malaeb, performed the well purging and sampling. The well sampling logs are presented in Appendix A. The depth to water in the wells was measured and recorded after removing the well caps and letting the wells stabilize for approximately 15 minutes. Subsequently, each well was purged of at least three casing volumes and until conductivity, temperature, and pH stabilized. The well purge water was transferred to a 55-gallon, DOT-approved, steel drum. The drum was temporarily stored onsite pending transport and disposal to a licensed facility.

After purging the wells, groundwater samples were collected by using disposable bailers. The water samples were discharged directly into laboratory cleaned 40-millileter volatile organic analysis (VOA) vials with HCL preservative to prevent loss of any volatile constituents. The vials were filled slowly and in such a manner that the meniscus extended above the top of the VOA vial. After the vials were filled and capped, they were inverted to ensure there is no headspace or entrapped air bubbles. The groundwater VOAs were labeled and placed in a cooler chilled to approximately 4°C. Equipment wash and rinse water were transferred to a 55-gallon storage

drum. The drum was sealed with a steel lid and labeled. All containers, VOAs and amber jars were obtained from the laboratory and filled with water from the bailer for the analyses.

The water samples were placed on ice, in an ice cooler, accompanied by a completed chain of custody. The samples were sent to Curtis & Tompkins Laboratory in Berkeley and analyzed for the following:

- Total Petroleum Hydrocarbons as Gasoline (TPH-G) by EPA Method 8015B;
- Total Petroleum Hydrocarbons as Stoddard Solvent (TPHss) by EPA Method 8015B;
- Total Petroleum Hydrocarbons as Diesel (TPH-D) by EPA Method 8015B;
- Total Recoverable Petroleum Hydrocarbons (TRPH) as Motor Oil and Hydraulic Oil , EPA Method 8015;
- Volatile Organics by the GC/MS EPA Method 8260B, MTBE, BTEX, and Naphthalene (no other chlorinated organic compounds were considered for analysis because all previous results from sampling the boreholes did not detect chlorinated solvents).

3.0 Groundwater Elevations and Flow Direction

The groundwater flow direction and gradient were calculated based on the depth to groundwater from top of casing in each well and the surveyed top of casing elevations. The well data are presented in the attached Table 1. The calculated groundwater flow direction was to the south at a gradient of 0.51% (Figure 2).

4.0 Groundwater Samples Laboratory Results

The laboratory report is included in Appendix B. Tables 2 through 4 summarize the analytical results. Laboratory analyses of groundwater samples collected from the monitoring wells indicated the following:

- Floating product or sheen was not observed in any of the wells.

- Similar to the previous sampling events, all the analyzed petroleum hydrocarbons were either non-detected or non-significant in monitoring wells MW-1, MW-3, and MW-4 (Table 2). In this event, no petroleum hydrocarbons were detected in monitoring wells MW-1, MW-3, and MW-4.

- Consistent with the previous sampling events, the most petroleum hydrocarbon impact was detected in monitoring well MW-2, downgradient from the former sources onsite; USTs, piping, and fuel dispenser (Table 2).

- Benzene and Naphthalene were detected only in MW-2. Benzene was detected at 61 µg/l and Naphthalene was detected at 3.5 µg/l (Table 2).

- None of the analyzed contaminants in the groundwater at this site exceeded its limit for Groundwater Screening Levels, Low-Threat Underground Storage Tank Case Closure Policy, Appendix 3, Figure A. The plume appears to be stable.

5.0 Waste Management

A total of one (1) purge water drum was generated from the purging and sampling activities onsite. The drum is stored onsite pending profiling and disposal.

6.0 Conclusions and Recommendations

Based on the analytical findings EEC presents the following conclusions and recommendations:

Conclusions

- It appears that the petroleum hydrocarbon plume is stable and limited to the area downgradient from the sources onsite, and within ~100 feet. All the petroleum hydrocarbons, including BTEX and Naphthalene, were not detected in Monitoring Wells MW-1, MW-3, and MW-4 in this sampling event.

Recommendations

- Since the monitoring wells at this site have been sampled for seven events to date, including wet and dry seasons, and the analytical data indicate stable and limited plume, EEC recommends no further groundwater sampling at this site.

Thank you for your cooperation. If you have any questions, please call at (925) 858-9608 or email Sami Malaeb at s.malaeb@comcast.net.

All engineering information, conclusions, and recommendations contained in this report have been prepared by a California Professional Engineer.

Sami Malaeb, P.E.,QSP/QSD

Project Manager

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

Salisbury Avenue Associates LLC

Charles Thomas Shurstad

Property Owner

Managing Partner

TABLES

TABLE 1
WELL DATA AND GROUNDWATER ELEVATIONS
2145 35th Avenue
Oakland, California

DATE	WELL INFORMATION	MW-1	MW-2	MW-3	MW-4
07/18/2012	Casing Diameter (in)	2	4	4	2
	Total Well Depth (ft)	18	16	18	18
	Depth to Water (ft)	10.13	10.92	11.01	10.85
	Top of Casing Elevation	94.21	94.43	94.61	94.91
	Top of Water Elevation	84.08	83.51	83.60	84.06
12/06/2012	Casing Diameter (in)	2	4	4	2
	Total Well Depth (ft)	18	16	18	18
	Depth to Water (ft)	7.98	10.40	10.40	9.25
	Top of Casing Elevation	94.21	94.43	94.61	94.91
	Top of Water Elevation	86.23	84.03	84.21	85.66
03/21/2013	Casing Diameter (in)	2	4	4	2
	Total Well Depth (ft)	18	16	18	18
	Depth to Water (ft)	9.88	10.77	10.83	10.66
	Top of Casing Elevation	94.21	94.43	94.61	94.91
	Top of Water Elevation	84.33	83.66	83.78	84.25
06/21/2013	Casing Diameter (in)	2	4	4	2
	Total Well Depth (ft)	18	16	18	18
	Depth to Water (ft)	10.09	10.87	10.95	10.84
	Top of Casing Elevation	94.21	94.43	94.61	94.91
	Top of Water Elevation	84.12	83.56	83.66	84.07
12/10/2013	Casing Diameter (in)	2	4	4	2
	Total Well Depth (ft)	18	16	18	18
	Depth to Water (ft)	9.84	10.70	10.79	10.64
	Top of Casing Elevation	94.21	94.43	94.61	94.91
	Top of Water Elevation	84.37	83.73	83.82	84.27
12/04/2014	Casing Diameter (in)	2	4	4	2
	Total Well Depth (ft)	18	16	18	18
	Depth to Water (ft)	8.11	9.82	9.98	9.40
	Top of Casing Elevation	94.21	94.43	94.61	94.91
	Top of Water Elevation	86.10	84.61	84.63	85.51
08/10/2016	Casing Diameter (in)	2	4	4	2
	Total Well Depth (ft)	18	16	18	18
	Depth to Water (ft)	10.47	11.02	11.10	11.15
	Top of Casing Elevation	94.21	94.43	94.61	94.91
	Top of Water Elevation	83.74	83.41	83.51	83.76

TABLE 2
SUMMARY OF CHEMICAL ANALYSES
GROUNWATER SAMPLES COLLECTED FROM THE MONITORING WELLS
PETROLEUM HYDROCARBONS, BTEX, and MTBE
2145 35th Avenue, Oakland, California

Sample ID	Date Sampled	TPH-G[1] (µg/l) [2]	TPH-ss [3] (µg/l)	TPH-D[4] (µg/l)	TPH as Motor Oil (µg/l)	TPH as Hydraulic Oil (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl benzene (µg/l)	Total Xylenes (µg/l)	MTBE [5] (µg/l)	Naphthalene (µg/l)
MW-1	07/09/2012	ND<50	ND<50	ND<50	ND<300	ND<300	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<2.0
	12/06/2012	ND<50	ND<50	ND<50	ND<300	ND<300	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<2.0
	03/21/2013	ND<50	ND<50	ND<49	ND<290	ND<290	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<2.0
	06/21/2013	ND<50	ND<50	100 (Y) [6]	ND<290	ND<290	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<2.0
	12/10/2013	ND<50	ND<50	ND<49	ND<290	ND<290	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<2.0
	12/04/2014	ND<50	ND<50	ND<50	ND<300	ND<300	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<2.0
	08/10/2016	ND<50	ND<50	ND<50	ND<300	ND<300	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<2.0
MW-2	07/09/2012	3,800	3,900 (Y)	1,200 (Y)	ND<300	660 (Y)	82	42	350	189.4	ND<0.5	44
	12/06/2012	5,000	3,300 (Y)	2,300	ND<300	1,500 (Y)	92	42	460	179.6	ND<0.5	62
	03/21/2013	4,500	3,000	1,800 Y	ND<300	1,000(Y)	77	31	230	115.4	ND<1.7	25
	06/21/2013	4,300	2,900	1,700 (Y)	ND<300	1,100 (Y)	50	24	210	96	ND<1.7	21
	12/10/2013	3,300	2,300 (Y)	1,500 (Y)	ND<300	710 (Y)	40	21	140	63	ND<1.7	6.7
	12/04/2014	4,600	3,200 (Y)	3,900	ND<300	1,300 (Y)	53	24	200	75.2	ND<1.7	30
	08/10/2016	3,800	3,100 (Y)	590 (Y)	ND<300	ND<300	61	28	38	31.2	ND<0.5	3.5
MW-3	07/09/2012	85Y	86Y	180 (Y)	ND<300	ND<300	0.8	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<2.0
	12/06/2012	1,200	800Y	2,000	ND<300	1,600 (Y)	36	0.8	9.2	1.1	ND<0.5	120
	03/21/2013	130 (Y)	91Y	140 (Y)	ND<300	ND<290	1.8	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<2.0
	06/21/2013	ND<50	ND<50	210 (Y)	ND<300	340 (Y)	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<2.0
	12/10/2013	ND<50	ND<50	54 (Y)	ND<300	ND<290	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<2.0
	12/04/2014	54 (Y)	ND<50	ND<50	ND<300	ND<300	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<2.0
	08/10/2016	ND<50	ND<50	ND<50	ND<300	ND<300	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<2.0
MW-4	07/09/2012	ND<50	ND<50	ND<50	ND<300	ND<300	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<2.0
	12/06/2012	ND<50	ND<50	ND<50	ND<300	ND<300	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<2.0
	03/21/2013	ND<50	ND<50	ND<49	ND<290	ND<290	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<2.0
	06/21/2013	ND<50	ND<50	76 (Y)	ND<290	ND<290	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<2.0
	12/10/2013	ND<50	ND<50	ND<51	ND<310	ND<310	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<2.0
	12/04/2014	ND<50	ND<50	ND<50	ND<300	ND<300	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<2.0
	08/10/2016	ND<50	ND<50	ND<50	ND<300	ND<300	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<2.0
Groundwater Screening Levels, Low-Threat Underground Storage Tank Case Closure Policy, Appendix 3, Figure A [7]		NA[7]	NA	NA	NA	NA	100	NA	NA	NA	NA	NA

TPH-G [1] = Total petroleum hydrocarbons as gasoline by EPA Method 8015B
(µg/l) [2] = Microgram per liter
TPH-ss [3] = Total petroleum hydrocarbons as Stoddard solvent by EPA Method 8015B
TPH-D [4] = Total petroleum hydrocarbons as diesel by EPA Method 8015B
MTBE [5] = Methyl Tertiary Butyl Ether
(Y) [6] = Sample exhibits chromatographic pattern which does not resemble standard;
NA [7] = Not Applicable

TABLE 3
SUMMARY OF CHEMICAL ANALYSES
GROUNWATER SAMPLES COLLECTED FROM THE MONITORING WELLS
POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)
2145 35th Avenue
Oakland, California

Sample ID	Date Sampled	Naphtha-lene (µg/l) [1]	Acena-phthylene (µg/l)	Acena-phtene (µg/l)	Fluo-rene (µg/l)	Phenan-threne (µg/l)	Anth-racene (µg/l)	Fluo-ranthene (µg/l)	Pyrene (µg/l)	Benzo (a) Anth-racene (µg/l)	Chry-sene (µg/l)	Benzo (b) Fluo-ranthene (µg/l)	Benzo (k) Fluo-ranthene (µg/l)	Benzo (a) pyrene (µg/l)	Indeno (1,2,3-cd) pyrene (µg/l)	Dibenz (a,h) Anthracene (µg/l)	Benzo (g,h,i) Perylene (µg/l)
MW-1	07/09/2012	<2.0	N/A [2]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	12/06/2012	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	03/21/2013	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	06/21/2013	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	12/10/2013	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	12/04/2014	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	08/10/2016	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-2	07/09/2012	**44**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	12/06/2012	**62**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	03/21/2013	**27**	<0.3	<0.3	<0.3	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
	06/21/2013	**21**	N/A*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	12/10/2013	6.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	12/04/2014	**30**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	08/10/2016	3.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-3	07/09/2012	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	12/06/2012	**120**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	03/21/2013	0.6	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
	06/21/2013	<2.0	N/A*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	12/10/2013	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	12/04/2014	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	08/10/2016	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-4	07/09/2012	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	12/06/2012	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	03/21/2013	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	06/21/2013	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	12/10/2013	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	12/04/2014	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	08/10/2016	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Groundwater Vapor Intrusion Human Health Risk Levels (residential)[3]		20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

*Stopped analyzing for full suite PAHs due to the fact only Naphthalene was detected in previous sampling and analysis.

(µg/l) [1] = Microgram per liter

N/A [2] = Not applicable or not analyzed for.

[3] = Tier 1 Environmental Screening Levels (ESLs), Groundwater Screening Levels, Summary of Groundwater ESLs, Prepared by: California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612, Interim Final (Feb. 2016, Rev. 3).

-- = Not listed

Bold = Concentration presented in bold where such a value is at or exceeds one of the environmental screening levels (ESLs) listed

TABLE 4
SUMMARY OF CHEMICAL ANALYSES
GROUNWATER SAMPLES COLLECTED FROM THE MONITORING WELLS
LUFT FIVE METALS
2145 35th Avenue
Oakland, California

Sample ID	Date Sampled	Cadmium (Cd) (µg/l) [1]	Chromium (Cr) (µg/l)	Lead (Pb) (µg/l)	Nickel (Ni) (µg/l)	Zinc (Zn) (µg/l)
MW-1	07/09/2012	<5.0	<5.0	<5.0	<5.0	<20
	12/06/2012	<5.0	<5.0	<5.0	7.6	<20
	03/21/2013	N/A [2]	N/A	<5.0	5.5	NA
	06/21/2013*	N/A	N/A	N/A	N/A	N/A
	08/10/2016	N/A	N/A	N/A	N/A	N/A
MW-2	07/09/2012	<5.0	<5.0	<5.0	<5.0	<20
	12/06/2012	<5.0	<5.0	<5.0	<5.0	<20
	03/21/2013	N/A	N/A	<5.0	<5.0	NA
	06/21/2013*	N/A	N/A	N/A	N/A	N/A
	08/10/2016	N/A	N/A	N/A	N/A	N/A
MW-3	07/09/2012	<5.0	<5.0	<5.0	<5.0	<20
	12/06/2012	<5.0	<5.0	<5.0	6.1	<20
	03/21/2013	N/A	N/A	<5.0	5.1	NA
	06/21/2013*	N/A	N/A	N/A	N/A	N/A
	08/10/2016	N/A	N/A	N/A	N/A	N/A
MW-4	07/09/2012	<5.0	<5.0	<5.0	6.6	<20
	12/06/2012	<5.0	<5.0	<5.0	9.7	<20
	03/21/2013	N/A	N/A	<5.0	8.7	NA
	06/21/2013*	N/A	N/A	N/A	N/A	N/A
	08/10/2016	N/A	N/A	N/A	N/A	N/A
Groundwater Screening Levels, MCL [3]		5.0	50	15	100	5,000

*Stopped analyzing for LUFT 5 metals due to non-detected to non-significant levels in the water.

(µg/l) [1] = Microgram per liter

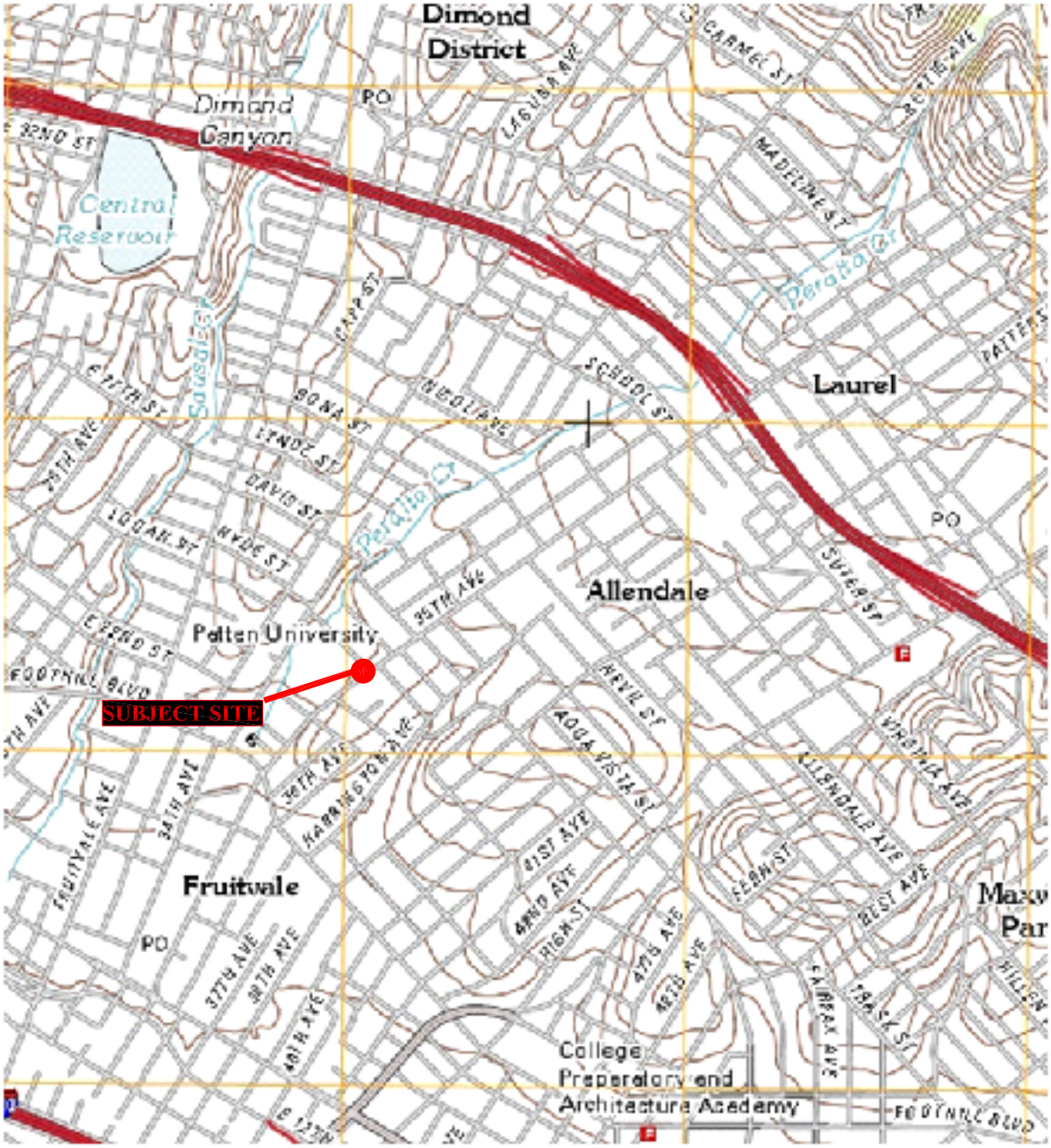
N/A [2] = Not applicable or not analyzed for the indicated compoundTier 1 Environmental Screening Levels (ESLs), Groundwater

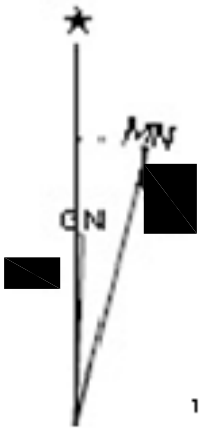
(3) = Screening Levels, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Prepared by California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612, Summary of Groundwater ESLs (Feb. 2016 (Rev. 3)

FIGURES

OAKLAND EAST QUADRANGLE
CALIFORNIA
7.5-MINUTE SERIES

OAKLAND EAST, CA
2012





SCALE 1:24 000

1 0.5 0 KILOMETERS 1 2
1000 500 0 METERS 1000 2000
1 0.5 0 1
MILES
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000
FEET

1485 BAYSHORE BOULEVARD, SUITE 374
SAN FRANCISCO, CA 94124

SITE LOCATION
2145 35TH AVENUE
OAKLAND, CA 94601

FIGURE 1

AUGUST
2016

RESIDENTIAL HOUSES

SALISBURY STREET

SIDEWALK

0 FEET 10
APPROXIMATE SCALE

SUBJECT SITE

RESIDENTIAL HOUSE

(83.76')

(83.74')

(83.51')

(83.41')

MW-4
(83.76')
08/10/2016

MW-3
(83.51')
08/10/2016

MW-1
(83.74')
08/10/2016

MW-2 (83.41')
08/10/2016

FORMER EXCAVATION OF A WASTE OIL UST (1999)

GARAGE DOOR

DOOR

DOOR

DOOR

DOOR

DOOR

LOCATION OF FORMER TWO 500-GALLON GASOLINE USTS

PIPING

FORMER GASOLINE DISPENSER ISLAND

VACANT ROOM

APPROXIMATE TOPOGRAPHIC SLOPE

FORMER CAR MAINTENANCE PIT

FORMER HYDRAULIC LIFT

REST ROOM

FENCE PROPERTY BORDER

APARTMENT BUILDING

35TH AVENUE

CALCULATED GROUNDWATER FLOW DIRECTION (12/06/12) (GRADIENT 0.024 OR 2.4%)

CALCULATED GROUNDWATER FLOW DIRECTION (03/21/13) (GRADIENT 0.00089 OR 0.89%)

CALCULATED GROUNDWATER FLOW DIRECTION (07/21/13) (GRADIENT 0.71%)

CALCULATED GROUNDWATER FLOW DIRECTION (12/10/13) (GRADIENT 0.76%)

CALCULATED GROUNDWATER FLOW DIRECTION (12/04/14) (GRADIENT 1.60%)

CALCULATED GROUNDWATER FLOW DIRECTION (08/10/16) (GRADIENT 0.51%)

NOTE:

(86.10')
12/04/2014

GROUNDWATER ELEVATION AND DATE OF MEASUREMENT

N

EAGLE ENVIRONMENTAL CONSTRUCTION
"Your Environmental Specialists"

1485 BAYSHORE BOULEVARD, SUITE 374
SAN FRANCISCO, CA 94124

WELL LOCATIONS AND GROUNDWATER FLOW DIRECTION AND GRADIENT
2145 35TH AVENUE, OAKLAND, CALIFORNIA

FIGURE 2

AUGUST 2016

APPENDIX A
WELL PURGING AND SAMPLING LOGS

WELL SAMPLING LOG

Project No. :

Project Name: SALISBURY

Location: 2145 35th Avenue
Oakland, CA 94601

Well ID: MW-1

Sampled by: EEC S.M.

Date: 08/10/2016

Well Diameter:	2"
Total Well Depth:	17.70'
Depth to Water:	10.465
Water Column:	7.235
Calculated Purge:	3.54 gal
Actual Purge:	4.50 gal
Free Product:	NO
Product Sheen:	NO

Purge Volume Calculations for Three Casing Volume Purge	
Volume Per One Foot of Well:	0.163 gallons
$\pi r^2 \times 1$	
Volume of One Casing:	1.180
Volume of Three Casings:	3.54

Purge Method: by bailer 3 volumes

Did Well go dry? NO

Sampling Method: by bailer

Sample Time: 10:00 am

Post Purge Depth to Water (DTW)

Time	DTW
~~9:00 a.m.~~	~~10.465'~~
10:00 am	10.40'

Analyze for:

Time	Conductivity	Temperature	pH	Salinity	Volume Purged
9:31 a.m.	523 MS	19.2°C	6.45		1.25 gal
9:36 a.m.	525 MS	18.9°C	6.57		2.00 gal
9:40 a.m.	524 MS	18.8°C	6.69		3.00 gal
9:45 am	528 MS	18.9°C	6.73		3.75 gal
9:50 a.m.	524 MS	19.0°C	6.73		4.00 gal
9:55 am	528 MS	18.9°C	6.75		4.50 gal
Sample					
~10:00 am					

Comments: Top of casing to surface grade at least 0.5 ft.

WELL SAMPLING LOG

Project No. : _____ **Well ID:** MW-2

Project Name: SALISBURY **Sampled by:** EEC S.M.

Location: 2145 35th Avenue **Date:** 8/10/2016

Oakland, CA 94601

Well Diameter:	4"
Total Well Depth:	15.41'
Depth to Water:	11.020
Water Column:	4.38
Calculated Purge:	8.58
Actual Purge:	
Free Product:	NO
Product Sheen:	NO

Purge Volume Calculations for Three Casing Volume Purge	
Volume Per One Foot of Well:	0.653 gallon
$\pi r^2 \times 1$	
Volume of One Casing:	2.86
Volume of Three Casings:	8.58

Purge Method: Purge and sample **Sampling Method:** From bailer

Did Well go dry? No **Sample Time:** 1:50 p

Post Purge Depth to Water (DTW)

Time	DTW
1:47p	12.22'

Analyze for:

Time	Conductivity	Temperature	pH	Salinity	Volume Purged
1:13 p.m.	931	20.3 °C	6.66		1 gall
1:21 p.m	936	20.3°C	6.76		4 gallons
1:29 p.m	920	20.1°C	6.77		6 gallon
1:31 p	906	20.0°C	6.80		7 gallons
1:39 p	888	20.0°C	6.82		8 gallon
1:44 p	884	20.0°C	6.83		9 gall
1:47 p	873	19.9°C	6.86		10 gal

Comments: _____

WELL SAMPLING LOG

Project No. : _____

Project Name: SALISBURY

Location: 2145 35th Avenue
Oakland, CA 94601

Well ID: MW-3

Sampled by: EFC S.M.

Date: 08/10/2016

Well Diameter:	4"
Total Well Depth:	17.68'
Depth to Water:	11.100
Water Column:	6.58
Calculated Purge:	12.80 gal
Actual Purge:	
Free Product:	NO
Product Sheen:	NO

Purge Volume Calculations for Three Casing Volume Purge	
Volume Per One Foot of Well: $\pi r^2 \times 1$	0.653 gal
Volume of One Casing:	4.30
Volume of Three Casings:	12.80

Purge Method: Purge & Sample

Did Well go dry? NO

Sampling Method: From bailer

Sample Time: 12:40 p.m.

Post Purge Depth to Water (DTW)

Time	DTW
12:35 p.m.	11.0'

Analyze for:

Time	Conductivity	Temperature	pH	Salinity	Volume Purged
11:56 a.m.	730 µs	20.3°C	6.73		1 gallon
12:04 p.m.	734 µs	19.8°C	6.86		4 gallons
12:15 p.m.	727 µs	19.9°C	6.86		8 gallons
12:25 p.m.	720 µs	20.0°C	6.86		11.0 gal
12:31 p.m.	716 µs	19.9°C	6.88		12.0 gal
12:35 p.m.					
on p.m.					

Comments: Top of Casing to grade ~ 0.5 ft

WELL SAMPLING LOG

Project No. : _____

Project Name: SALISBURY

Location: 2145 35th Avenue
Oakland, CA 94601

Well ID: MW-4

Sampled by: EFC S.M.

Date: 08/10/2016

Well Diameter:	2"
Total Well Depth:	17.72'
Depth to Water:	11.150'
Water Column:	6.55'
Calculated Purge:	3.20 Gallons
Actual Purge:	4 Gallons
Free Product:	NO
Product Sheen:	NO

Purge Volume Calculations for Three Casing Volume Purge	
Volume Per One Foot of Well: $\pi r^2 \times 1$	0.163 gallons
Volume of One Casing:	1.068 gallons
Volume of Three Casings:	3.20 gallons

Purge Method: by bailer

Did Well go dry? NO

Sampling Method: by bailer

Sample Time: _____

Post Purge Depth to Water (DTW)

Time	DTW
Previous	Previous'
11:05 a.m.	11.30'

Analyze for:

Time	Conductivity	Temperature	pH	Salinity	Volume Purged
10:43 a.m.	515 MS	20.0 °C	6.60		1 gallon
10:46 a.m.	513	19.9 °C	6.7		1.5 Gallons
[illegible]					
10:50 a.m.	515 MS	19.9 °C	6.78		2.00 Gal
10:55 a.m.	515 MS	19.9 °C	6.77		2.50
11:00 a.m.	522 MS	19.8 °C	6.80		3:00 Gal
11:05 a.m.	521 MS	19.8 °C	6.80		4:00 Gal

Sample

Comments: Depth from surface screen to top of casing is ~0.5 ft.

APPENDIX B
LABORATORY REPORT


Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 279584
ANALYTICAL REPORT

Eagle Env. Construction	Project : SALISBURY PROJECT
1485 Bay Shore Boulevard	Location : Salisbury Project
San Francisco, CA 94124	Level : II

Sample ID	Lab ID
MW-1	279584-001
MW-2	279584-002
MW-3	279584-003
MW-4	279584-004

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Tracy Babjar Date: 08/23/2016

Tracy Babjar
Project Manager
tracy.babjar@ctberk.com
(510) 204-2226

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**279584**
Client:	**Eagle Env. Construction**
Project:	**SALISBURY PROJECT**
Location:	**Salisbury Project**
Request Date:	**08/10/16**
Samples Received:	**08/10/16**

This data package contains sample and QC results for four water samples, requested for the above referenced project on 08/10/16. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):
No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):
No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
No analytical problems were encountered.

Curtis & Tompkins, Ltd.
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # :

C&T LOGIN # 279584

Project No: Salisbury Project
Project Name: Salisbury Project
EDD Format: X **Rpt Level:** ☐ II ☐ III ☐ IV
Turnaround Time: ☐ RUSH _____ X Standard

Sami Malaeb
Report To: Sami Malaeb
Company : Eagle Environmetal Construciton (EEC)
Telephone: (925) 858-9608
Email: s.malaeb@comcast.net

Lab No.	Sample ID.	Sampling Date	Sampling Time	Matrix: Water	Matrix: Soil	# of Containers	Chemical Preservative: HCl	H_2SO_4	HNO_3	NaOH	None
	MW-1	08/10/2016	10:00	X		3	X				
1	MW-1	08/10/2016	"	X		3	X				
	MW-1	08/10/2016	"	X		2					X
	MW-2	08/10/2016	1:50	X		3	X				
2	MW-2	08/10/2016	"	X		3	X				
	MW-2	08/10/2016	"	X		2					X
	MW-3	08/10/2016	12:35	X		3	X				
3	MW-3	08/10/2016	"	X		3	X				
	MW-3	08/10/2016	"	X		2					X
	MW-4	08/10/2016	11:05	X		3	X				
4	MW-4	08/10/2016	"	X		3	X				
	MW-4	08/10/2016	"	X		2					X

Analytical Request

TPH-G and TPH-SS by 8015	BTEX; MRBE; Naphthalene by 8260	TPH-D; TPH-Motor Oil; TPH-Hydraulic Oil (wih silica gel cleanup)
X		
	X	
		X
X		
	X	
		X
X		
	X	
		X
X		
	X	
		X

Notes:

SAMPLE RECEIPT
☐ Intact ☐ Cold
☑ On Ice ☐ Ambient

RELINQUISHED BY:
08/10/2016 15:20 DATE/TIME
DATE/TIME
DATE/TIME

RECEIVED BY:
Pat Hamp 8/10/16 15:20 DATE/TIME
DATE/TIME
DATE/TIME

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 279584 Date Received 8/10/16 Number of coolers 1
Client EEC Project Salisbury Project

Date Opened 8/10 By (print) CB (sign) [signature]
Date Logged in [signature] By (print) SL (sign) [signature]
Date Labelled [signature] By (print) [signature] (sign) [signature]

1. Did cooler come with a shipping slip (airbill, etc) _____ YES (NO)
Shipping info _____

2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples ☒ NO
How many _____ Name _____ Date _____
2B. Were custody seals intact upon arrival? _____ YES NO (N/A)
3. Were custody papers dry and intact when received? _____ (YES) NO
4. Were custody papers filled out properly (ink, signed, etc)? _____ (YES) NO
5. Is the project identifiable from custody papers? (If so fill out top of form) (YES) NO
6. Indicate the packing in cooler: (if other, describe) _____

☒ Bubble Wrap ☒ Foam blocks ☒ Bags ☐ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☒ Wet ☐ Blue/Gel ☐ None Temp(°C) 5.8

☒ Temperature blank(s) included? ☒ Thermometer# 4 ☐ IR Gun# _____

☒ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? _____ YES (NO)
If YES, what time were they transferred to freezer? _____
9. Did all bottles arrive unbroken/unopened? _____ (YES) NO
10. Are there any missing / extra samples? _____ YES (NO)
11. Are samples in the appropriate containers for indicated tests? _____ (YES) NO
12. Are sample labels present, in good condition and complete? _____ (YES) NO
13. Do the sample labels agree with custody papers? _____ (YES) NO
14. Was sufficient amount of sample sent for tests requested? _____ (YES) NO
15. Are the samples appropriately preserved? _____ YES NO (N/A)
16. Did you check preservatives for all bottles for each sample? _____ YES NO (N/A)
17. Did you document your preservative check? (pH strip lot# _____) YES NO (N/A)
18. Did you change the hold time in LIMS for unpreserved VOAs? _____ YES NO (N/A)
19. Did you change the hold time in LIMS for preserved terracores? _____ YES NO (N/A)
20. Are bubbles > 6mm absent in VOA samples? _____ (YES) NO N/A
21. Was the client contacted concerning this sample delivery? _____ YES (NO)
If YES, Who was called? _____ By _____ Date: _____

COMMENTS _____

Curtis & Tompkins, Ltd.

Detections Summary for 279584

Results for any subcontracted analyses are not included in this summary.

Client : Eagle Env. Construction
Project : SALISBURY PROJECT
Location : Salisbury Project

Client Sample ID : MW-1 Laboratory Sample ID : 279584-001

No Detections

Client Sample ID : MW-2 Laboratory Sample ID : 279584-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	3,800		50	ug/L	As Recd	1.000	EPA 8015B	EPA 5030B
Stoddard Solvent C7-C12	3,100	Y	50	ug/L	As Recd	1.000	EPA 8015B	EPA 5030B
Diesel C10-C24	590	Y	50	ug/L	As Recd	1.000	EPA 8015B	EPA 3520C
Benzene	61		0.5	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Toluene	28		0.5	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Ethylbenzene	38		0.5	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
m,p-Xylenes	28		0.5	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
o-Xylene	3.2		0.5	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Naphthalene	3.5		2.0	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B

Client Sample ID : MW-3 Laboratory Sample ID : 279584-003

No Detections

Client Sample ID : MW-4 Laboratory Sample ID : 279584-004

No Detections

Y = Sample exhibits chromatographic pattern which does not resemble standard

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	279584	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	08/10/16
Units:	ug/L	Received:	08/10/16
Diln Fac:	1.000		

Field ID: MW-1 Batch#: 237950
Type: SAMPLE Analyzed: 08/11/16
Lab ID: 279584-001

Analyte	Result	RL
Gasoline C7-C12	ND	50
Stoddard Solvent C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	91	80-132

Field ID: MW-2 Batch#: 238042
Type: SAMPLE Analyzed: 08/15/16
Lab ID: 279584-002

Analyte	Result	RL
Gasoline C7-C12	3,800	50
Stoddard Solvent C7-C12	3,100 Y	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	111	80-132

Field ID: MW-3 Batch#: 237950
Type: SAMPLE Analyzed: 08/11/16
Lab ID: 279584-003

Analyte	Result	RL
Gasoline C7-C12	ND	50
Stoddard Solvent C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	96	80-132

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	279584	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	08/10/16
Units:	ug/L	Received:	08/10/16
Diln Fac:	1.000		

Field ID: MW-4 Batch#: 237950
Type: SAMPLE Analyzed: 08/11/16
Lab ID: 279584-004

Analyte	Result	RL
Gasoline C7-C12	ND	50
Stoddard Solvent C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	97	80-132

Type: BLANK Batch#: 237950
Lab ID: QC846885 Analyzed: 08/11/16

Analyte	Result	RL
Gasoline C7-C12	ND	50
Stoddard Solvent C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	95	80-132

Type: BLANK Batch#: 238042
Lab ID: QC847268 Analyzed: 08/15/16

Analyte	Result	RL
Gasoline C7-C12	ND	50
Stoddard Solvent C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	94	80-132

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	279584	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC846886	Batch#:	237950
Matrix:	Water	Analyzed:	08/11/16
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	1,936	97	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	101	80-132

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	279584	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8015B
Field ID:	MW-1	Batch#:	237950
MSS Lab ID:	279584-001	Sampled:	08/10/16
Matrix:	Water	Received:	08/10/16
Units:	ug/L	Analyzed:	08/11/16
Diln Fac:	1.000		

Type: MS Lab ID: QC846889

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	20.51	2,000	1,864	92	76-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	101	80-132

Type: MSD Lab ID: QC846890

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,641	81	76-120	13	20

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	101	80-132

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	279584	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC847269	Batch#:	238042
Matrix:	Water	Analyzed:	08/15/16
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	938.1	94	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	88	80-132

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	279584	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	238042
MSS Lab ID:	279714-001	Sampled:	08/11/16
Matrix:	Water	Received:	08/12/16
Units:	ug/L	Analyzed:	08/15/16
Diln Fac:	1.000		

Type: MS Lab ID: QC847270

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	19.29	2,000	1,834	91	76-120

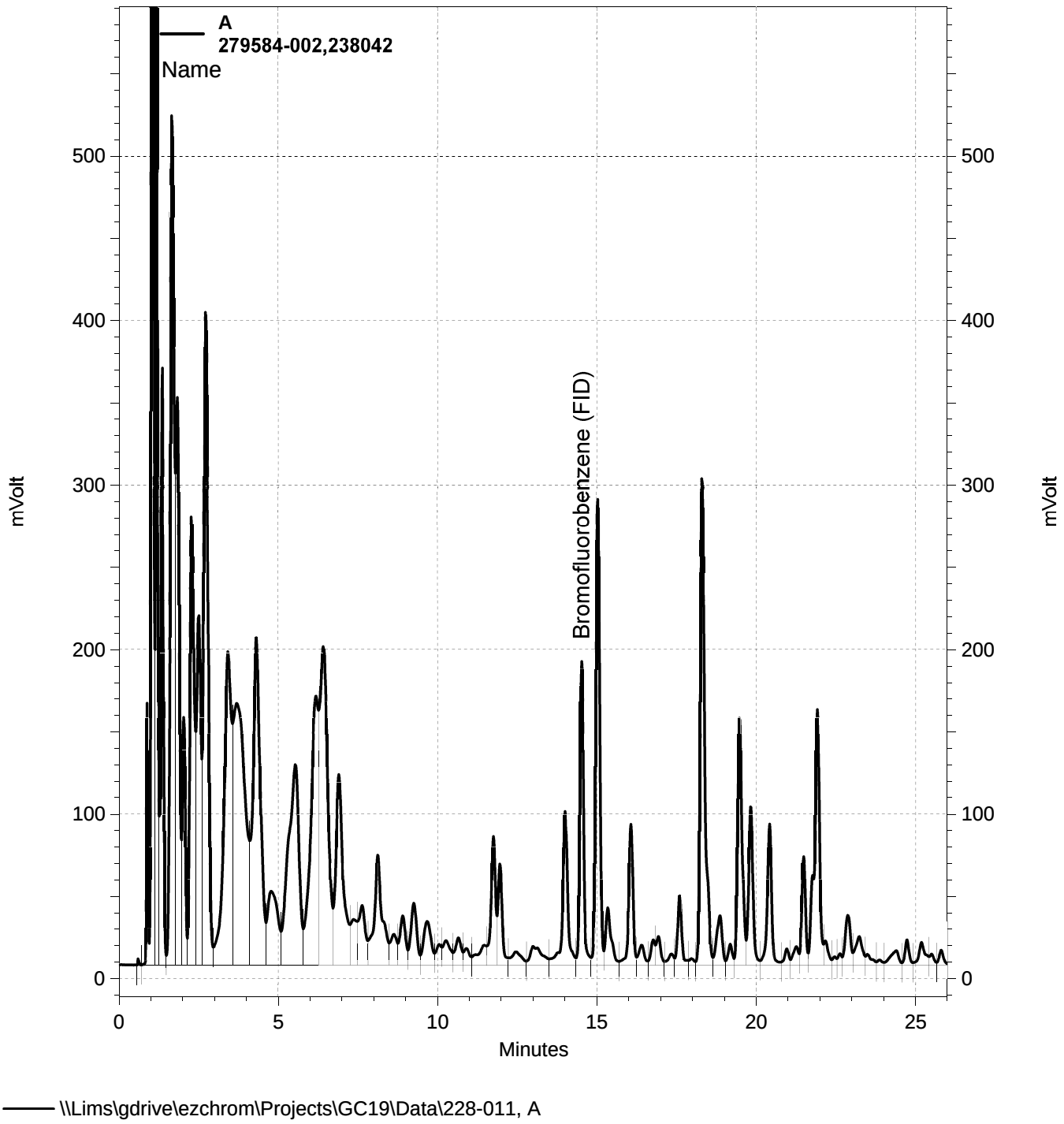
Surrogate	%REC	Limits
Bromofluorobenzene (FID)	102	80-132

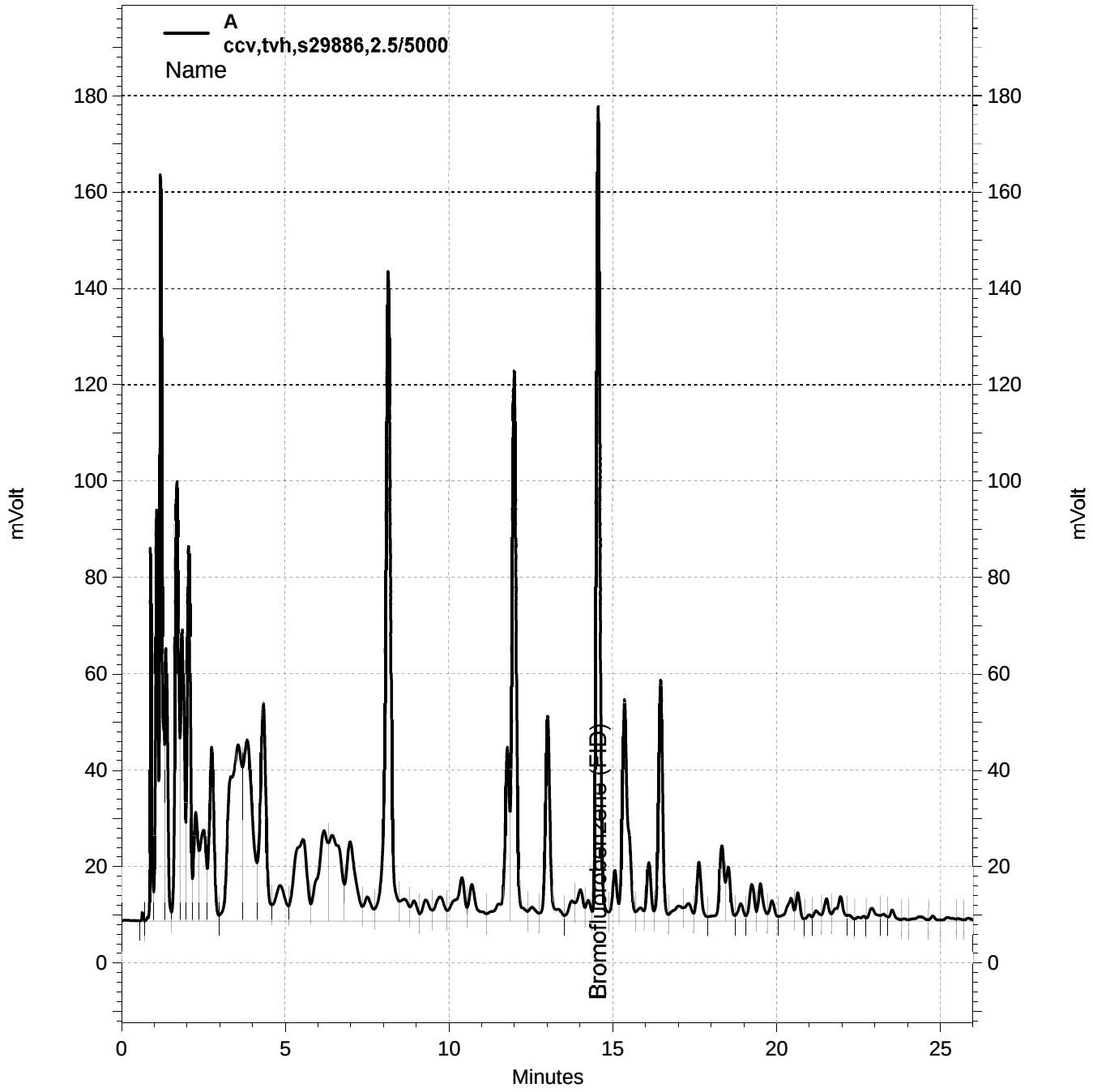
Type: MSD Lab ID: QC847271

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,799	89	76-120	2	20

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	101	80-132

RPD= Relative Percent Difference


A
279584-002,238042
Name
Bromofluorobenzene (FID)
mVolt
mVolt
500
400
300
200
100
0
0
5
10
15
20
25
Minutes
\\Lims\gdrive\ezchrom\Projects\GC19\Data\228-011, A



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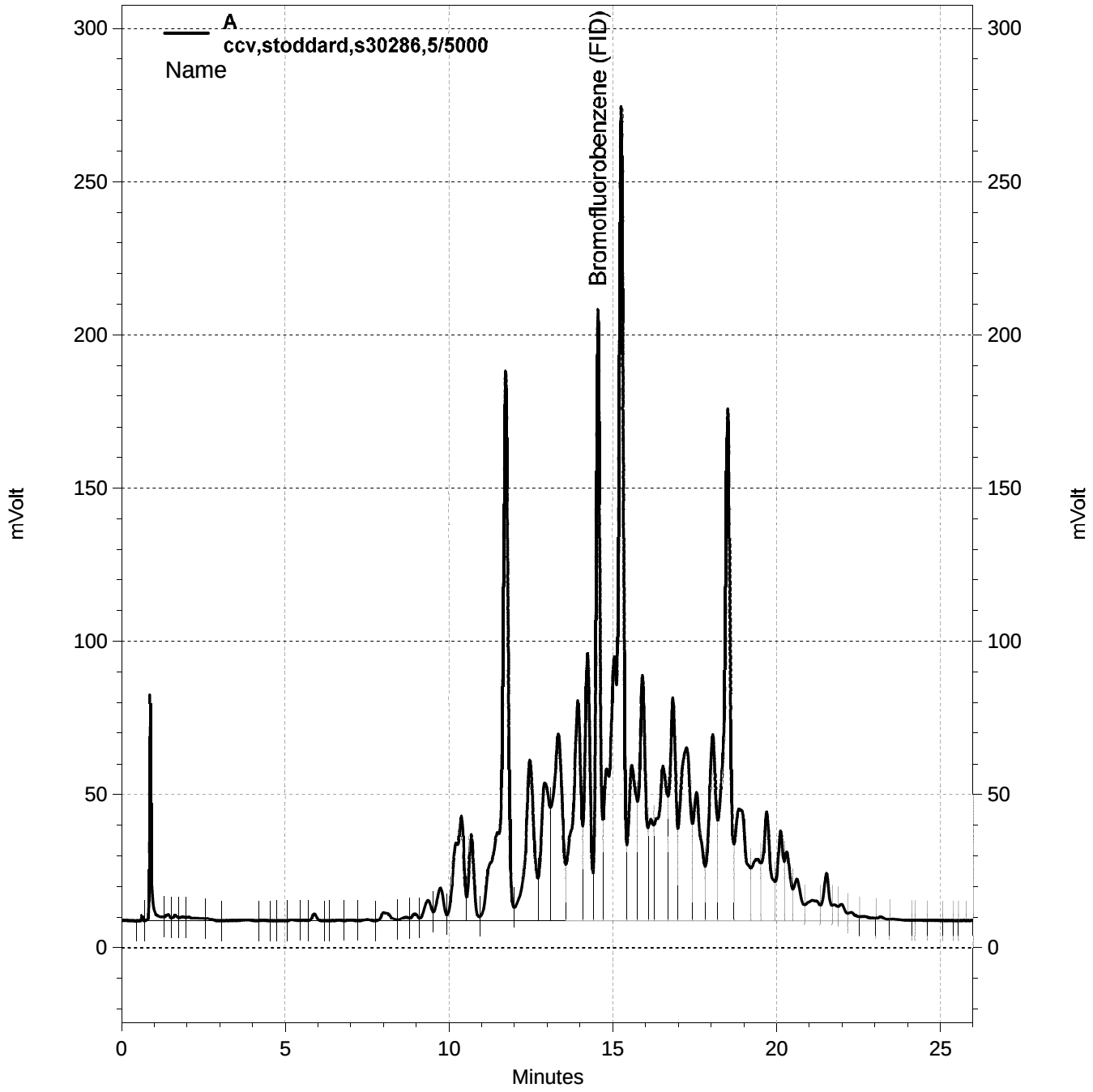

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Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	279584	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 3520C
Project#:	SALISBURY PROJECT	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	08/10/16
Units:	ug/L	Received:	08/10/16
Diln Fac:	1.000	Prepared:	08/10/16
Batch#:	237913	Analyzed:	08/13/16

Field ID: MW-1 Lab ID: 279584-001
Type: SAMPLE Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300
Hydraulic Fluid, C12-40	ND	300

Surrogate	%REC	Limits
o-Terphenyl	83	67-136

Field ID: MW-2 Lab ID: 279584-002
Type: SAMPLE Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	590 Y	50
Motor Oil C24-C36	ND	300
Hydraulic Fluid, C12-40	ND	300

Surrogate	%REC	Limits
o-Terphenyl	86	67-136

Field ID: MW-3 Lab ID: 279584-003
Type: SAMPLE Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300
Hydraulic Fluid, C12-40	ND	300

Surrogate	%REC	Limits
o-Terphenyl	72	67-136

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	279584	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 3520C
Project#:	SALISBURY PROJECT	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	08/10/16
Units:	ug/L	Received:	08/10/16
Diln Fac:	1.000	Prepared:	08/10/16
Batch#:	237913	Analyzed:	08/13/16

Field ID: MW-4 Lab ID: 279584-004
Type: SAMPLE Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300
Hydraulic Fluid, C12-40	ND	300

Surrogate	%REC	Limits
o-Terphenyl	86	67-136

Type: BLANK Cleanup Method: EPA 3630C
Lab ID: QC846766

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300
Hydraulic Fluid, C12-40	ND	300

Surrogate	%REC	Limits
o-Terphenyl	84	67-136

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	279584	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 3520C
Project#:	SALISBURY PROJECT	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	237913
Units:	ug/L	Prepared:	08/10/16
Diln Fac:	1.000	Analyzed:	08/12/16

Type: BS
Lab ID: QC846767
Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	1,975	79	60-121

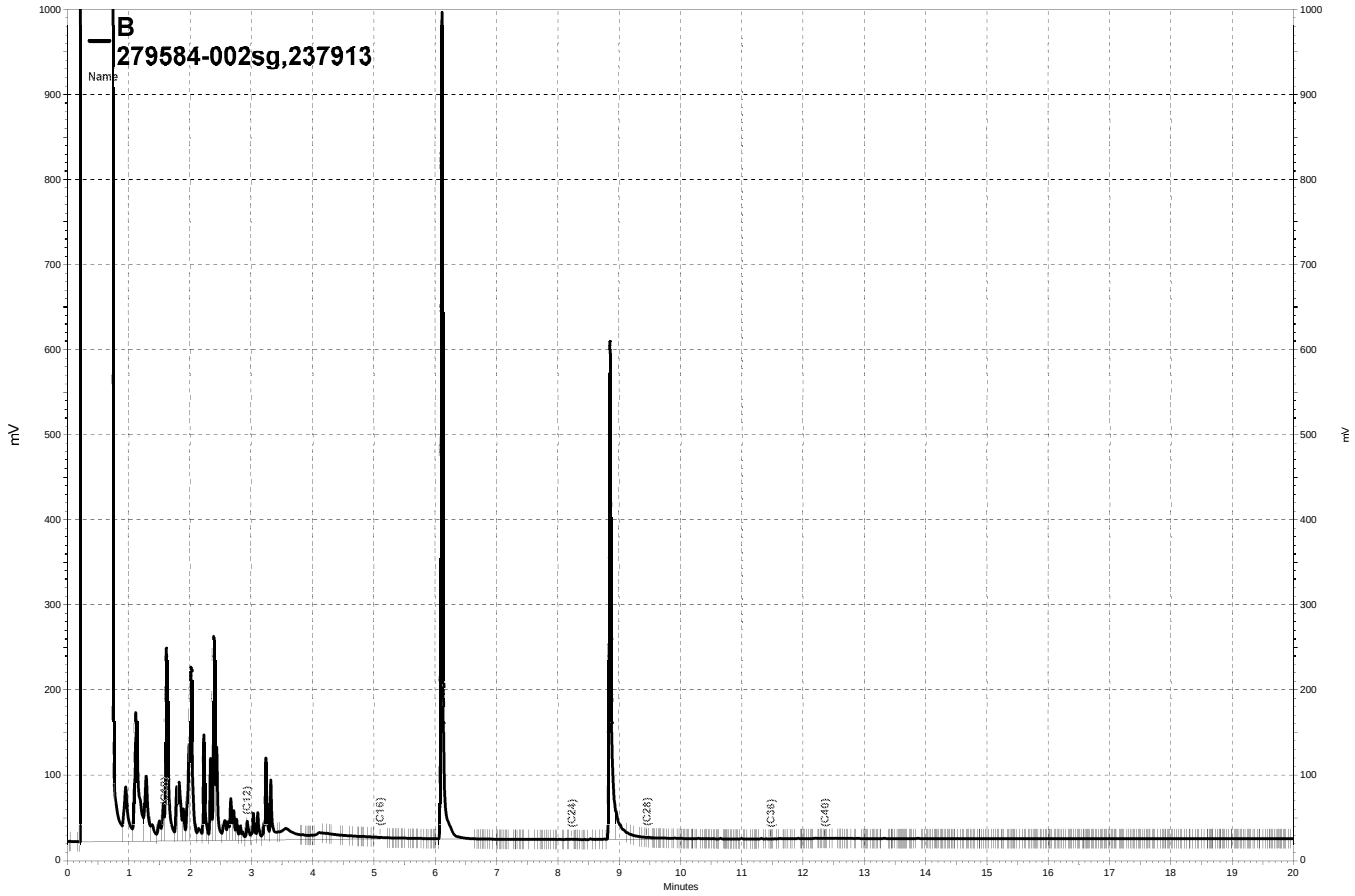
Surrogate	%REC	Limits
o-Terphenyl	90	67-136

Type: BSD
Lab ID: QC846768
Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	1,916	77	60-121	3	32

Surrogate	%REC	Limits
o-Terphenyl	80	67-136

RPD= Relative Percent Difference



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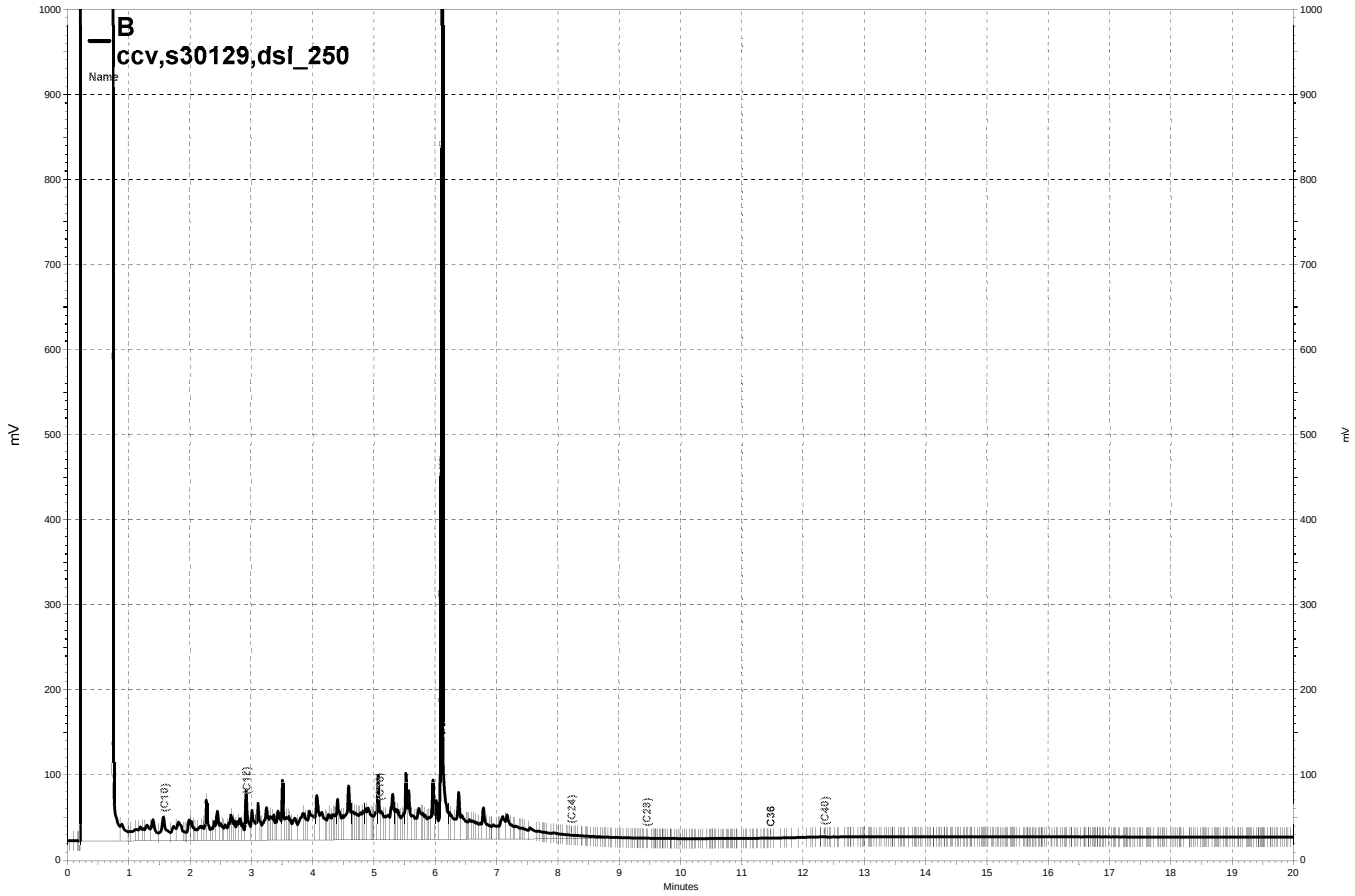

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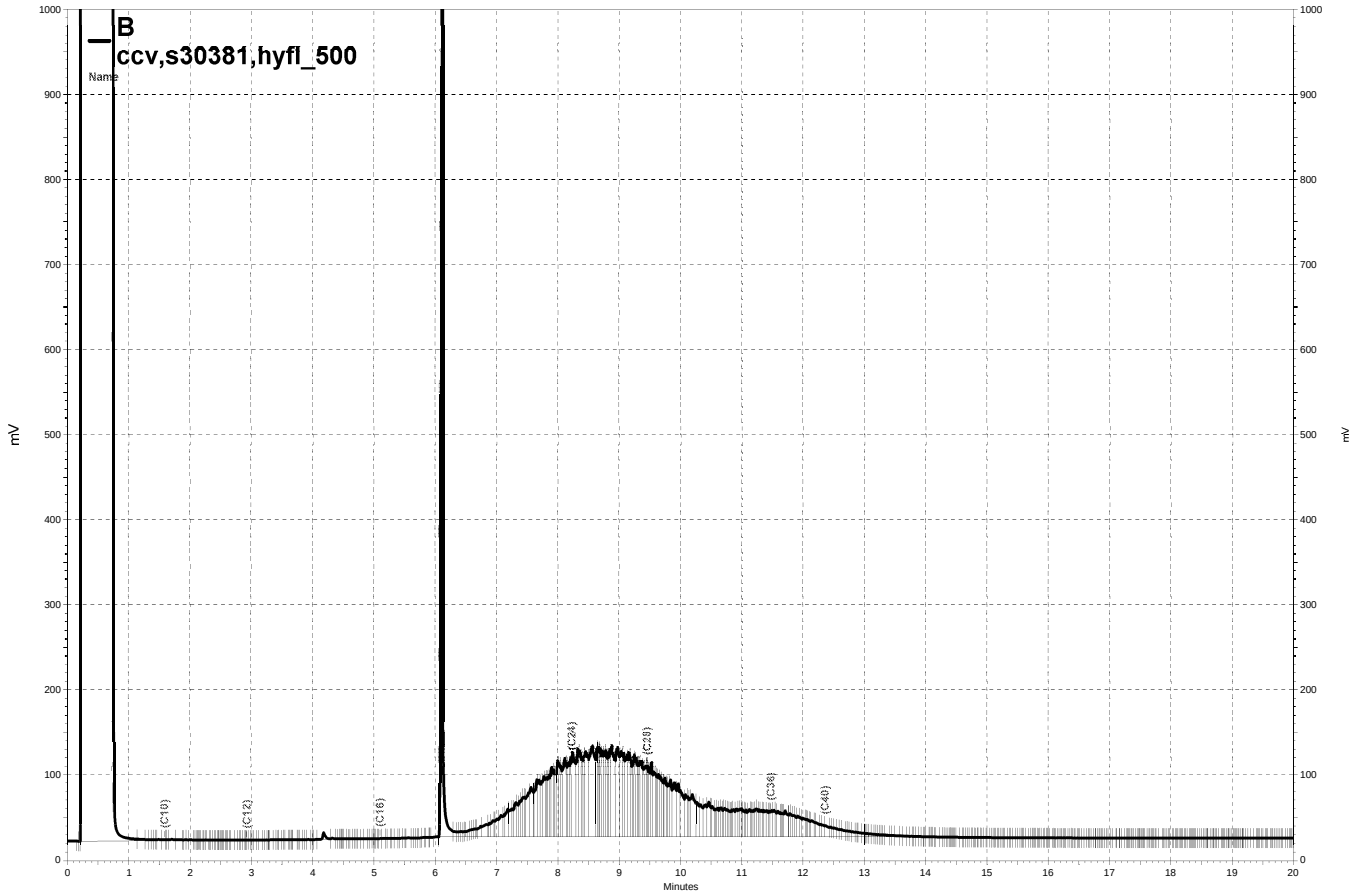

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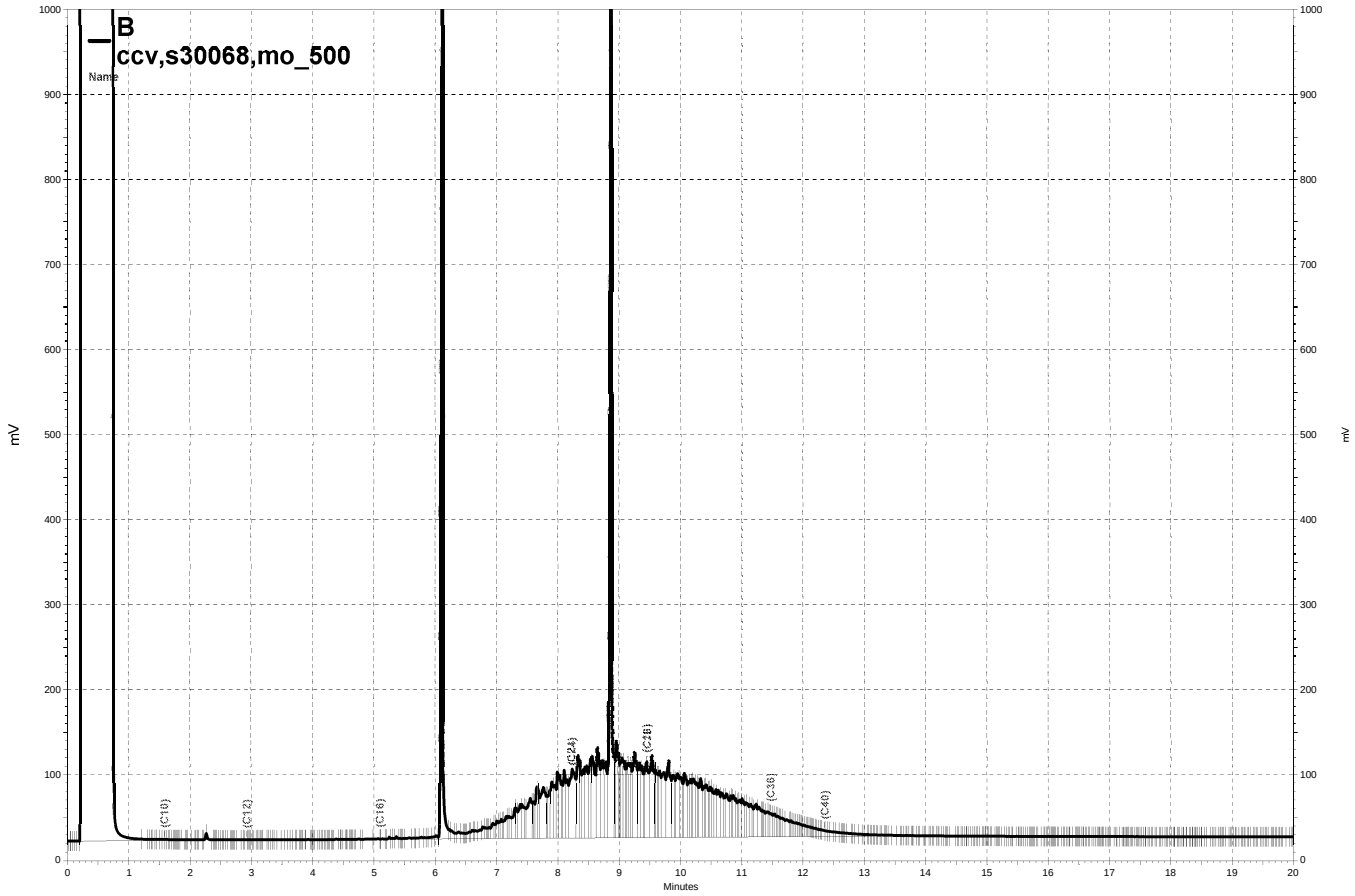

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Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	279584	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B
Field ID:	MW-1	Batch#:	237936
Lab ID:	279584-001	Sampled:	08/10/16
Matrix:	Water	Received:	08/10/16
Units:	ug/L	Analyzed:	08/11/16
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	ND	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Naphthalene	ND	2.0

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-128
1,2-Dichloroethane-d4	112	75-139
Toluene-d8	102	80-120
Bromofluorobenzene	99	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	279584	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B
Field ID:	MW-2	Batch#:	237979
Lab ID:	279584-002	Sampled:	08/10/16
Matrix:	Water	Received:	08/10/16
Units:	ug/L	Analyzed:	08/12/16
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	ND	0.5
Benzene	61	0.5
Toluene	28	0.5
Ethylbenzene	38	0.5
m,p-Xylenes	28	0.5
o-Xylene	3.2	0.5
Naphthalene	3.5	2.0

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-128
1,2-Dichloroethane-d4	98	75-139
Toluene-d8	103	80-120
Bromofluorobenzene	94	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	279584	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B
Field ID:	MW-3	Batch#:	237936
Lab ID:	279584-003	Sampled:	08/10/16
Matrix:	Water	Received:	08/10/16
Units:	ug/L	Analyzed:	08/11/16
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	ND	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Naphthalene	ND	2.0

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-128
1,2-Dichloroethane-d4	114	75-139
Toluene-d8	103	80-120
Bromofluorobenzene	100	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	279584	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B
Field ID:	MW-4	Batch#:	237936
Lab ID:	279584-004	Sampled:	08/10/16
Matrix:	Water	Received:	08/10/16
Units:	ug/L	Analyzed:	08/11/16
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	ND	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Naphthalene	ND	2.0

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-128
1,2-Dichloroethane-d4	115	75-139
Toluene-d8	101	80-120
Bromofluorobenzene	99	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	279584	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	237936
Units:	ug/L	Analyzed:	08/11/16
Diln Fac:	1.000		

Type: BS Lab ID: QC846837

Analyte	Spiked	Result	%REC	Limits
MTBE	12.50	12.67	101	65-120
Benzene	12.50	14.77	118	80-123
Toluene	12.50	14.50	116	80-121
Ethylbenzene	12.50	14.87	119	80-123
m,p-Xylenes	25.00	29.92	120	80-126
o-Xylene	12.50	14.41	115	80-126

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-128
1,2-Dichloroethane-d4	110	75-139
Toluene-d8	100	80-120
Bromofluorobenzene	98	80-120

Type: BSD Lab ID: QC846838

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	12.50	12.31	99	65-120	3	22
Benzene	12.50	13.67	109	80-123	8	20
Toluene	12.50	13.59	109	80-121	7	20
Ethylbenzene	12.50	14.05	112	80-123	6	21
m,p-Xylenes	25.00	28.42	114	80-126	5	21
o-Xylene	12.50	13.68	109	80-126	5	20

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-128
1,2-Dichloroethane-d4	109	75-139
Toluene-d8	101	80-120
Bromofluorobenzene	99	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	279584	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC846839	Batch#:	237936
Matrix:	Water	Analyzed:	08/11/16
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Naphthalene	ND	2.0

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-128
1,2-Dichloroethane-d4	113	75-139
Toluene-d8	101	80-120
Bromofluorobenzene	102	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	279584	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC847013	Batch#:	237979
Matrix:	Water	Analyzed:	08/12/16
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Naphthalene	ND	2.0

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-128
1,2-Dichloroethane-d4	113	75-139
Toluene-d8	103	80-120
Bromofluorobenzene	115	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	279584	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC847059	Batch#:	237979
Matrix:	Water	Analyzed:	08/12/16
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
MTBE	12.50	12.27	98	65-120
Benzene	12.50	12.08	97	80-123
Toluene	12.50	12.07	97	80-121
Ethylbenzene	12.50	12.20	98	80-123
m,p-Xylenes	25.00	23.89	96	80-126
o-Xylene	12.50	11.55	92	80-126

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-128
1,2-Dichloroethane-d4	111	75-139
Toluene-d8	103	80-120
Bromofluorobenzene	97	80-120

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	279584	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	237979
MSS Lab ID:	279606-002	Sampled:	08/10/16
Matrix:	Water	Received:	08/10/16
Units:	ug/L	Analyzed:	08/12/16
Diln Fac:	1.000		

Type: MS Lab ID: QC847139

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	<0.1000	25.00	24.60	98	71-120
Benzene	<0.1000	25.00	26.14	105	80-120
Toluene	<0.1000	25.00	24.99	100	80-120
Ethylbenzene	<0.1022	25.00	25.47	102	80-120
m,p-Xylenes	<0.1357	50.00	50.28	101	80-121
o-Xylene	<0.1322	25.00	24.10	96	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-128
1,2-Dichloroethane-d4	113	75-139
Toluene-d8	101	80-120
Bromofluorobenzene	101	80-120

Type: MSD Lab ID: QC847140

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	25.00	23.90	96	71-120	3	20
Benzene	25.00	24.60	98	80-120	6	20
Toluene	25.00	24.11	96	80-120	4	21
Ethylbenzene	25.00	24.53	98	80-120	4	25
m,p-Xylenes	50.00	48.15	96	80-121	4	23
o-Xylene	25.00	23.72	95	80-120	2	25

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-128
1,2-Dichloroethane-d4	109	75-139
Toluene-d8	103	80-120
Bromofluorobenzene	101	80-120

RPD= Relative Percent Difference