

By Alameda County Environmental Health at 9:56 am, Dec 16, 2014



ANNUAL GROUNDWATER MONITORING REPORT

Sixth Sampling Event, December 2014

For the Site Located at:

2145 35TH Avenue

Oakland, California 94601

Prepared for:

Salisbury Avenue Associates LLC

PO Box 27428

Oakland CA 94602-0925

Prepared by:

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December 12, 2014

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1.0 Introduction

This annual groundwater monitoring report is for the former gasoline service station located at 2145 35th Avenue, Oakland, California (Figure 1). This is the sixth 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.

In the fourth, fifth and sixth 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 December 04, 2014. 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/southeast at a gradient of 1.60% (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).
- 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).
- Only TPH-G at concentration of 54 µg/l was detected in MW-3. No other contaminants were detected in MW-3 (Table 2).

- Benzene and Naphthalene were detected only in MW-2. Benzene was detected at 53 μg/l and Naphthalene was detected at 30 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.

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. BTEX, MTBE, and Naphthalene were not detected in Monitoring Wells MW-1, MW-3, and MW-4 in this sampling event and prior two sampling events.

Recommendations

• Since the monitoring wells at this site have been sampled for six events to date 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 <u>s.malaeb@comcast.net</u>.

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

No. 60888

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.

Eter Ritter

Salisbury Avenue Associates LLC

Peter Robertson

Property Owner

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 (PAHs)
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FROM THE MONITORING WELLS –LUFT FIVE METALS

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

DATE	WELL INFORMATION	MW-1	MW-2	MW-3	MW-4
	Casing Diameter (in)	2	4	4	2
	Total Well Depth (ft)	18	16	18	18
07/18/2012	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
	Casing Diameter (in)	2	4	4	2
	Total Well Depth (ft)	18	16	18	18
12/06/2012	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

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⁾	TPH-ss ⁽³⁾	TPH-D ⁽⁴⁾	TPH as Motor Oil	TPH as Hydraulic Oil	Benzene	Toluene	Ethyl benzene	Total Xylenes	MTBE ⁽⁵⁾	Naphthalene
		(µg/l) ⁽²⁾	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
	07/09/2012	<50	<50	<50	<300	<300	<0.5	<0.5	<0.5	<1.0	<0.5	<2.0
	12/06/2012	<50	<50	<50	<300	<300	<0.5	<0.5	<0.5	<1.0	<0.5	<2.0
MW-1	03/21/2013	<50	<50	<49	<290	<290	<0.5	<0.5	<0.5	<1.0	<0.5	<2.0
	06/21/2013	<50	<50	100 (Y) ⁽⁶⁾	<290	<290	<0.5	<0.5	< 0.5	<1.0	<0.5	<2.0
	12/10/2013	<50	<50	<49	<290	<290	<0.5	<0.5	<0.5	<1.0	<0.5	<2.0
	12/04/2014	<50	<50	<50	<300	<300	<0.5	< 0.5	< 0.5	<1.0	< 0.5	<2.0
	07/09/2012	3,800	3,900 (Y)	1,200 (Y)	<300	660 (Y)	82	42	350	189.4	< 0.5	44
	12/06/2012	5,000	3,300 (Y)	2,300	<300	1,500 (Y)	92	42	460	179.6	< 0.5	62
MW-2	03/21/2013	4,500	3,000	1,800 Y	<290	1,000(Y)	77	31	230	115.4	<1.7	25
141 44 -2	06/21/2013	4,300	2,900	1,700 (Y)	<290	1,100 (Y)	50	24	210	96	<1.7	21
	12/10/2013	3,300	2,300 (Y)	1,500 (Y)	<290	710 (Y)	40	21	140	63	<1.7	6.7
	12/04/2014	4,600	3,200 (Y)	3,900	<300	1,300 (Y)	53	24	200	75.2	<1.7	30
	07/09/2012	85Y	86Y	180 (Y)	<300	<300	0.8	< 0.5	< 0.5	<1.0	< 0.5	<2.0
	12/06/2012	1,200	800Y	2,000	<300	1,600 (Y)	36	0.8	9.2	1.1	< 0.5	120
	03/21/2013	130 (Y)	91Y	140 (Y)	<290	<290	1.8	< 0.5	< 0.5	<1.0	< 0.5	<2.0
MW-3	06/21/2013	<50	<50	210 (Y)	<290	340 (Y)	< 0.5	< 0.5	< 0.5	<1.0	< 0.5	<2.0
	12/10/2013	<50	<50	54 (Y)	<290	<290	< 0.5	< 0.5	< 0.5	<1.0	< 0.5	<2.0
	12/04/2014	54 (Y)	<50	<50	<300	<300	< 0.5	< 0.5	< 0.5	<1.0	< 0.5	<2.0
	07/09/2012	<50	<50	<50	<300	<300	< 0.5	< 0.5	< 0.5	<1.0	< 0.5	<2.0
	12/06/2012	<50	<50	<50	<300	<300	< 0.5	< 0.5	< 0.5	<1.0	< 0.5	<2.0
	03/21/2013	<50	<50	<49	<290	<290	< 0.5	< 0.5	< 0.5	<1.0	< 0.5	<2.0
MW-4	06/21/2013	<50	<50	76 (Y)	<290	<290	< 0.5	< 0.5	< 0.5	<1.0	< 0.5	<2.0
	12/10/2013	<50	<50	<51	<310	<310	< 0.5	< 0.5	< 0.5	<1.0	< 0.5	<2.0
	12/04/2014	<50	<50	<50	<300	<300	< 0.5	< 0.5	< 0.5	<1.0	< 0.5	<2.0
Groundwater Screening L Threat Underground Stor Case Closure Policy, Ap Figure A ⁽⁷⁾	rage Tank	NA ⁽⁷⁾	NA	NA	NA	NA	100	NA	NA	NA	NA	NA

 $\begin{array}{l} \text{TPH-G}^{(1)} = \\ {}^{(\mu g/l)}{}^{(2)} = \\ \text{TPH-ss}^{(3)} = \end{array}$ Total petroleum hydrocarbons as gasoline by EPA Method 8015B

Microgram per liter

Total petroleum hydrocarbons as Stoddard solvent by EPA Method 8015B

TPH-D ^{(4)} =	Total petroleum hydrocarbons as diesel by EPA Method 8015B
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Methyl Tertiary Butyl Ether 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

Benzo Benzo Benzo (a) Benzo Sample ID Date Sampled Naphtha Chry-Dibenz Acena-Acena-Fluo-Phenan Anth-Fluo-Anth-Indeno Benzo (b) (k) (a) -lene phthylene phtene rene -threne racene ranthene Pyrene racene sene Fluo-Fluopyrene (1,2,3-cd) (a,h) (g,h,i) ranthene pyrene Anthracene ranthene Perylene $(\mu g/l)^{(1)}$ $(\mu g/l)$ (µg/l) N/A (2) 07/09/2012 <2.0 N/A 12/06/2012 N/A <2.0 N/A <2.0 N/A 03/21/2013 N/A MW-1 06/21/2013 N/A <2.0 N/A 12/10/2013 <2.0 N/A 12/04/2014 <2.0 N/A 07/09/2012 44 N/A 12/06/2012 62 N/A MW-2 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 N/A* N/A N/A N/A N/A N/A 21 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 12/04/2014 30 N/A 07/09/2012 <2.0 N/A 12/06/2012 120 N/A MW-3 03/21/2013 < 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 0.6 < 0.09 06/21/2013 <2.0 N/A* N/A 12/10/2013 <2.0 N/A 12/04/2014 N/A <2.0 N/A 07/09/2012 N/A <2.0 N/A 12/06/2012 <2.0 N/A 03/21/2013 <2.0 N/A MW-4 N/A 06/21/2013 <2.0 N/A <2.0 N/A N/A N/A N/A N/A 12/10/2013 N/A 12/04/2014 N/A <2.0 N/A Groundwater Screening Levels, non-drinking water 8.2 30 23 3.9 4.6 0.73 8.0 2.0 0.027 0.35 0.056 0.40 0.014 0.056 0.25 0.10 resource (Final Groundwater Screening Level)⁽³⁾

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

$(\mu g/l)^{(1)} =$ Microgram per liter

 $N/A^{(2)}$ = Not applicable or not analyzed for.

- ⁽³⁾ = Tier 1 Environmental Screening Levels (ESLs), Groundwater Screening Levels, Groundwater is not Current or Potential Source of Drinking Water (Table F-1b), 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, Interim Final (Revised May 2013).
- **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)
	07/09/2012	<5.0	<5.0	<5.0	<5.0	<20
MW-1	12/06/2012	<5.0	<5.0	<5.0	7.6	<20
141 44 - 1	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
	07/09/2012	<5.0	<5.0	<5.0	<5.0	<20
MW-2	12/06/2012	<5.0	<5.0	<5.0	<5.0	<20
IVI VV -2	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
	07/09/2012	<5.0	<5.0	<5.0	<5.0	<20
MW-3	12/06/2012	<5.0	<5.0	<5.0	6.1	<20
IVI VV - 3	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
	07/09/2012	<5.0	<5.0	<5.0	6.6	<20
	12/06/2012	<5.0	<5.0	<5.0	9.7	<20
MW-4	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
Groundwater Screening Level	s, drinking water Toxicity (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. $(\mu g/l)^{(1)} = Microgram per liter$ $N/A^{(2)} = Not applicable or not analyzed for the indicated compound Tier 1 Environment$

Not applicable or not analyzed for the indicated compoundTier 1 Environmental Screening Levels (ESLs), Groundwater (3)

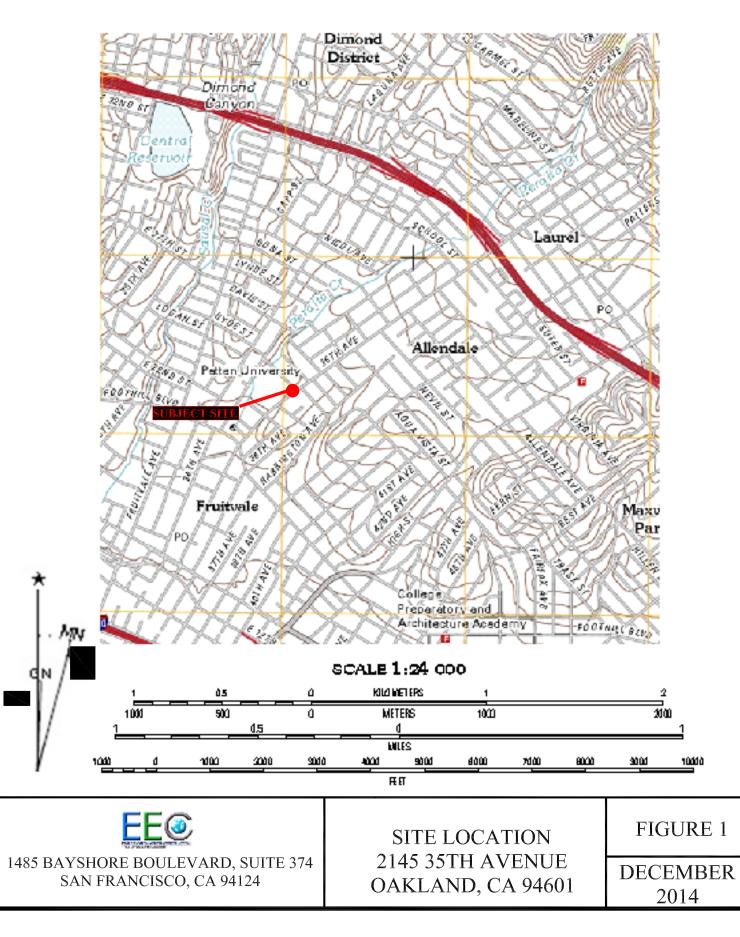
Screening Levels, Groundwater is Current or Potential Source of Drinking Water (3) =

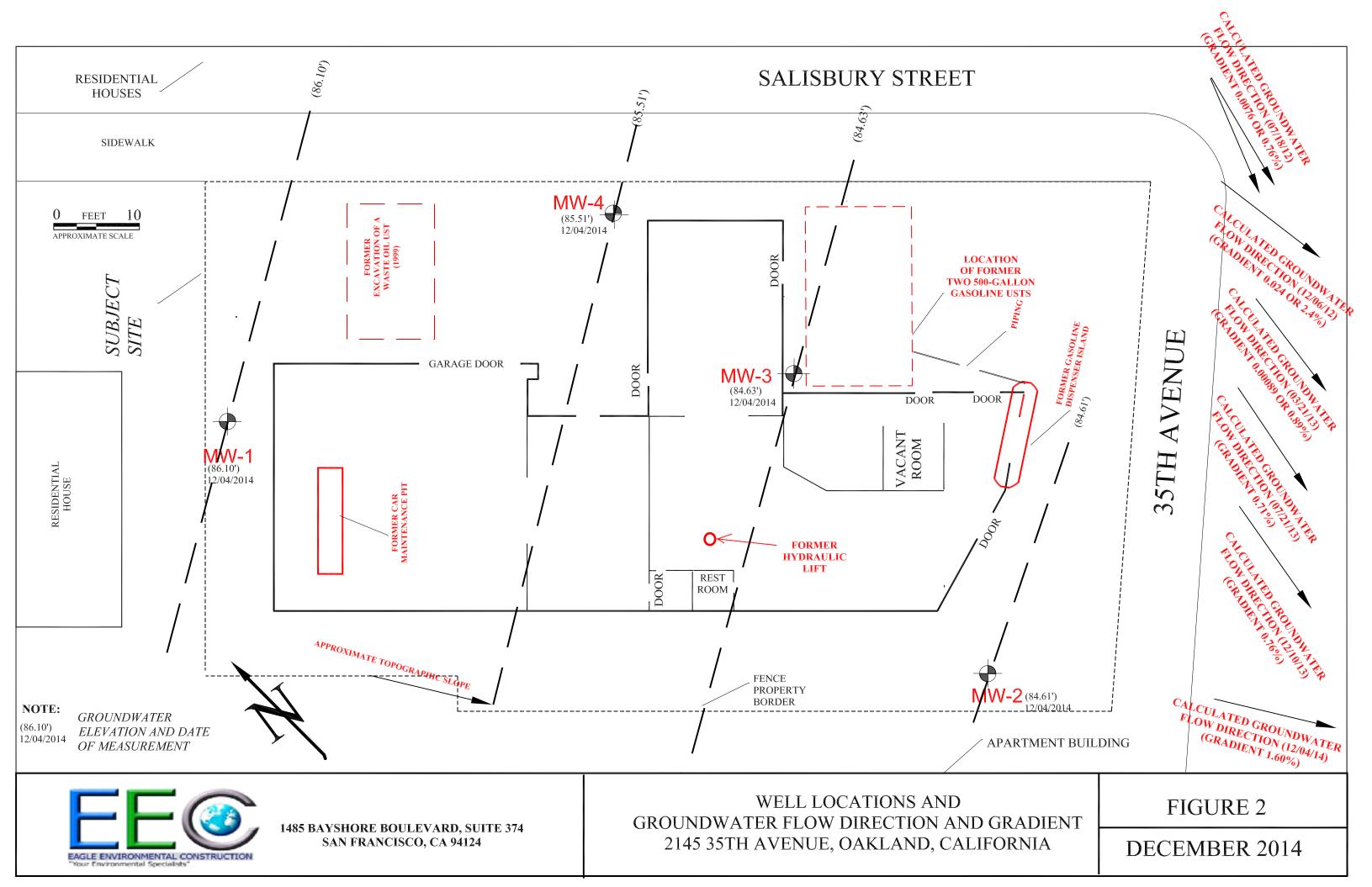
(Table F-3), Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Prepared by: California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612, Interim Final (Revised May 2013).

FIGURES

- FIGURE 1 SITE LOCATION
- FIGURE 2 WELL LOCATIONS AND GROUNDWATER FLOW DIRECTIONS AND GRADIENT

OAKLAND EAST QUADRANGLE CALIFORNIA 7.5-MINUTE SERIES OAKLAND EAST, CA 2012





APPENDIX A WELL PURGING AND SAMPLING LOGS

Project No. :	
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Location: 2145 35th Avenue

Project Name:

Purge Method:

Did Well go dry?

Time

10:30 a.m

11:510-

Post Purge Depth to Water (DTW)

SALISBURY

Well ID: Sampled by: Date:

MW-1 FEC S.M. 12/04/2014

Oakland, CA 94601

Well Diameter:	2"
Total Well Depth:	17.70'
Depth to Water:	8.11'
Water Column:	9.59'
Calculated Purge:	4.70 9-11
Actual Purge:	4.80 0
Free Product:	
Product Sheen:	No

purge and Sample

N/O

DTW

8.15

Purge Volume C	alculations
for Three Casing V	olume Purge
Volume Per One Foot of Well:	0.163 Gallons
π r ² x 1	
Volume of One Casing:	1.56
Volume of Three Casings:	4.70 0010

Sampling Method:

Sample Time:

From Bailer

Analyze for:

 	<u>, </u>	
		(***)

1	Time	Conductivity	Temperature	pН	Salinity	Volume Purged
	10:30 G.n	470	24.7 ~ <	6.89		1.5 gellar
	12:37 am	496	21.6 . c	7.12		1.5 gellor 2.25 gellor
	10:41 Gm	500	20. 400	7.15		3.0 gallar
	10:45 Q	500	20.000	7.16		4.0 gc/1021
-	10:495-	500	20.000	7.22		4. 5 sella
Sapl	10:50c.	506	20,000	7.24		4.80 Sell
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Ľ	Comments:			l <u></u>	<u> </u>	

Project No. :

Project Name:

SALISBURY

Well ID:

Date:

Sampled by:

MW-2 EFC S.M. 12/04/2014

Oakland, CA 94601

Location: 2145 35th Avenue

Well Diameter:	.4"
Total Well Depth:	15.4'
Depth to Water:	9.82
Water Column:	5.581
Calculated Purge:	BNU4 10.93
Actual Purge:	11. 20 gellon
Free Product:	NO
Product Sheen:	NO

Purge Volu	me Ca	alculat	ions	
for Three Cas	ing V	olume	Purge	
Volume Per One Foot of W	/ell:	0.	653	Gallons
πr ² x1				
Volume of One Casing:	3.	64		
Volume of Three Casings:	10	.93		

Purge Method: Did Well go dry?

Purge and Somple

Post Purge Depth to Water (DTW)

Time	DTW
2:42 p.L	10.901
	_

Sampling Method:	Fron
Sampling Method:	Fro

Sample Time:

From bailer 2:40 p.-

1

Analyze for:

Time	Conductivity HS	Temperature	рН	Salinity	Volume Purged
2:04 P.m.	866	20.6 °C	6.74		1.991104
2:15 p.m.	882	20.800	6.86		5 901/00
2:25 p	865	7.0.806	6.88		7.2 50110mg 9.0 gellowy 10.0 gellog 11.0 gell
2:30 p.m	867	20.802	6.91		9.0 gallong
2:3502	858	20.800	6.94		10.0 Sellas
2:40 p Semple	858	20.800	6.94		11.0 gell_
Sample					
Commonte					

Comments:

Project No. :

Project Name:

Purge Method:

Did Well go dry?

Time

1:25 Pm

Post Purge Depth to Water (DTW)

SALISBURY

Purge and

Sample

DTW 10.80-

Location: 2145 35th Avenue

Oakland, CA 94601

Sampled by: Date:

Well ID:

MW-3 EEC S.M. 12/04/2014

Well Diameter:	4*
Total Well Depth:	17.68
Depth to Water:	9.981
Water Column:	7.70
Calculated Purge:	15.08
Actual Purge:	
Free Product:	NO
Product Sheen:	No

 Purge Volume Calculations

 for Three Casing Volume Purge

 Volume Per One Foot of Well:
 0.653
 Gallows

 $\pi r^2 x 1$ Volume of One Casing:
 5.028

 Volume of Three Casings:
 15.08

Sampling Method:

from bailen

Analyze for:

Sample Time:

Time	Conductivity Mes	Temperature	pН	Salinity	Volume Purged
12:31 P.M.	480	21.100	6.50		199110-
12:40 P-	496	20.6%	6.56		5 941102,
12:58 P	475	20.200	6.56		10 gallors
1: 57	4.73	20.9 02	6,56		13 gallog c
1:05	468	20.420	1.5%		1.1. Sel-2
1:25 p	425	7,0.200	6.75		15,2500
1:25 p	105				0

Comments:

Project No. :

Project Name:

SALISBURY

Location: 2145 35th Avenue

Oakland, CA 94601

Sampled by: Date:

Well ID:

______ FEC ______ 12/04/14

Well Diameter: 2" Total Well Depth: 17.70 Depth to Water: 9,40' Water Column: 8.32 **Calculated Purge:** 4.07 Actual Purge: 4.75 Free Product: NG **Product Sheen:** NO

Purge Method: Did Well go dry?

Purge and Sample NO

Post Purge Depth to Water (DTW)

Time	DTW
11.40 Dr.	
12:12.P-	9.50'

me Calculations
ing Volume Purge
ell: 0.163
1.34 gellen
4.07 gellons

Sampling Method: Sample Time:

From bailer

Analyze for:

Time	Conductivity	Temperature	рН	Salinity	Volume Purged
11:40 G.M.	556	21.1° c	6.87		1951104
11:44 Q. M.	557	21. 200	6.97		1.5 gallon,
11: 47a	558	20,900	7.04		215 Salla
11:50-	556	71.0 · L	7.05		4.0 gel-
12:00 0	558	21.0.00	7.00	-	4.15 sell-
Jesla		•			
2					
Comments:					

APPENDIX B LABORATORY REPORT



and setting to the

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Laboratory Job Number 263016 ANALYTICAL REPORT

Eagle Env. Construction 3150 Hilltop Road Richmond, CA 94806 Project : SALISBURY PROJECT Location : Salisbury Project Level : II

<u>Sample ID</u>	<u>Lab ID</u>
MW-1	263016-001
MW-2	263016-002
MW-3	263016-003
MW-4	263016-004

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.

Jsabelle ('hi

Signature:

Isabelle Choy Project Manager isabelle.choy@ctberk.com

CA ELAP# 2896, NELAP# 4044-001

Date: <u>12/12/2014</u>



CASE NARRATIVE

Laboratory number: Client: Project: Location: Request Date: Samples Received: 263016 Eagle Env. Construction SALISBURY PROJECT Salisbury Project 12/04/14 12/04/14

This data package contains sample and QC results for four water samples, requested for the above referenced project on 12/04/14. The samples were received on ice and intact, directly from the field.

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.

18.0

ct	Curtis & Tompk	ins Labc	pratori) <i>tva</i> ƏS RV	cKe	r (618	ba	·/ -		:	DY 706				(Cha		tody	#		f _ 2	-
Berkele Project I Project I Project I EDD For	Name: SALISBURY Pro P. O. No: 2145 3544 AV mat: Report Level II	Fax (5 	port To:	AGLI AGLI SASI SASI AGLI METI (92		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~					ZPH-35 63 8015	MTBE : Nachtholone		TDH-Motor ail:	1 c 0; l							
Lab No.	Sample ID.	SAMP Date Collected		MA		# of Containers	PR	CHER	MIC RVA	AL		TPH-6, T	BTEX: MT	by 3260B	T D 4-D : T	Had	6- 8015-						
+ <	/MW-1 MW-1 MW-1	12/84/14	10:50 2 2	X X		3 3 2	*			×		*	×		×								
2	MW-2 MW-2 MW-2	/2/04/14 * ~	2:46 p 	× ×		3 3 2	X X			×		×	*		×			 					
3	MW-3 MW-3 MW-3	12/04/14	1:25¢	×		32	×			×.			×		×								
Notes:		SAMPLE RECEIPT Intact Cold On Ice	X) _	RELIN M_		- 'i	D BY	y / /	Ч тімі тімі			0a	ZF.,		PE		DATE	E:	TIN TIN	ИЕ: / ИЕ: ИЕ:	<u>'(; ;)</u>	

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Lab	Comple ID	SAMPI	LING	МА	TRIX	Containers		CHE		CAL		V		¥	3260 B	1	, J	22							
No.	Sample ID.	D				to to		T T	T	1	-1	-110	1	×	32	17	R.	00							
		Date Collected	Time Collected	Vater		# of (Ţ	H2SO4	1N03	HOPN	None	1		BTEX; MTBE	-	Haz	Hall		2						
	MW-4	12/04/14		1		3	×		-			×				\uparrow		┓	$\neg \uparrow$		+	+			
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4 of 30

COOLER RECEIPT CHECKLIST

cb	Curtis &	Tompkins,	Ltd.
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Login # 263016 Date Received 1214/14 Number of coolers Client <u>Eagle Environmental</u> Project <u>Salisbury Project</u>	<u> </u>	
Date Opened $12/4$ By (print) $32/4$ (sign) $34/4$ (sign) $34/4$ (sign) $34/4$ (sign) $34/4$ (sign) $34/4$	25	
1. Did cooler come with a shipping slip (airbill, etc) V YES Shipping info YES	ØØ	
2A. Were custody seals present? □ YES (circle) on cooler on samples How many Name Date 2B. Were custody seals intact upon arrival? YES	· —	NO
 3. Were custody papers dry and intact when received? 4. Were custody papers filled out properly (ink, signed, etc)? 5. Is the project identifiable from custody papers? (If so fill out top of form) 	NO NO NO	
6. Indicate the packing in cooler: (if other, describe) Bubble Wrap Foam blocks Bags None Cloth material Cardboard Styrofoam Paper tow A Datify DM if temperature ground 6°C		
	~°	
\Box Samples Received on ice & cold without a temperature blank; temp. taken v		R gun
Samples received on ice directly from the field. Cooling process had begun	L	
	/ES	NO
If VEC what time a more than transformed to freezer?		
If YES, what time were they transferred to freezer?	Tra)	
9. Did all bottles arrive unbroken/unopened?		NO
9. Did all bottles arrive unbroken/unopened? 0 10. Are there any missing / extra samples? 0	YES (NO
9. Did all bottles arrive unbroken/unopened? 0 10. Are there any missing / extra samples? 0 11. Are samples in the appropriate containers for indicated tests? 0	YES (TES	NO NO
9. Did all bottles arrive unbroken/unopened? 0 10. Are there any missing / extra samples? 0 11. Are samples in the appropriate containers for indicated tests? 0 12. Are sample labels present, in good condition and complete? 0	YES (TES TES	NO NO NO
9. Did all bottles arrive unbroken/unopened? 0 10. Are there any missing / extra samples? 0 11. Are samples in the appropriate containers for indicated tests? 0 12. Are sample labels present, in good condition and complete? 0 13. Do the sample labels agree with custody papers? 0	YES (TES (ES)	NO NO NO NO
9. Did all bottles arrive unbroken/unopened? 6 10. Are there any missing / extra samples? 7 11. Are samples in the appropriate containers for indicated tests? 7 12. Are sample labels present, in good condition and complete? 6 13. Do the sample labels agree with custody papers? 6 14. Was sufficient amount of sample sent for tests requested? 6	YES (NO NO NO NO NO
9. Did all bottles arrive unbroken/unopened? 6 10. Are there any missing / extra samples? 7 11. Are samples in the appropriate containers for indicated tests? 7 12. Are sample labels present, in good condition and complete? 6 13. Do the sample labels agree with custody papers? 6 14. Was sufficient amount of sample sent for tests requested? 7 15. Are the samples appropriately preserved? 7	YES OF THE NO	NO NO NO NO NO
9. Did all bottles arrive unbroken/unopened? 0 10. Are there any missing / extra samples? 0 11. Are samples in the appropriate containers for indicated tests? 0 12. Are sample labels present, in good condition and complete? 0 13. Do the sample labels agree with custody papers? 0 14. Was sufficient amount of sample sent for tests requested? 0 15. Are the samples appropriately preserved? 0 16. Did you check preservatives for all bottles for each sample? YES	YE E NO	NO NO NO NO N/A
9. Did all bottles arrive unbroken/unopened? 0 10. Are there any missing / extra samples? 1 11. Are samples in the appropriate containers for indicated tests? 1 12. Are sample labels present, in good condition and complete? 0 13. Do the sample labels agree with custody papers? 0 14. Was sufficient amount of sample sent for tests requested? 0 15. Are the samples appropriately preserved? 0 16. Did you check preservatives for all bottles for each sample? YES 17. Did you document your preservative check? YES	YES CONTRACTOR OF CONTRACTOR O	NO NO NO NO NO NO
9. Did all bottles arrive unbroken/unopened? 0 10. Are there any missing / extra samples? 1 11. Are samples in the appropriate containers for indicated tests? 1 12. Are sample labels present, in good condition and complete? 0 13. Do the sample labels agree with custody papers? 0 14. Was sufficient amount of sample sent for tests requested? 0 15. Are the samples appropriately preserved? 0 16. Did you check preservatives for all bottles for each sample? YES 17. Did you document your preservative check? YES 18. Did you change the hold time in LIMS for unpreserved VOAs? YES	YES ES NO NO NO	NO NO NO NO NO NO NO NO NO
9. Did all bottles arrive unbroken/unopened? 0 10. Are there any missing / extra samples? 0 11. Are samples in the appropriate containers for indicated tests? 0 12. Are sample labels present, in good condition and complete? 0 13. Do the sample labels agree with custody papers? 0 14. Was sufficient amount of sample sent for tests requested? 0 15. Are the samples appropriately preserved? 0 16. Did you check preservatives for all bottles for each sample? YES 17. Did you document your preservative check? YES 18. Did you change the hold time in LIMS for unpreserved VOAs? YES 19. Did you change the hold time in LIMS for preserved terracores? YES	YES ES NO NO NO NO NO	NO N
9. Did all bottles arrive unbroken/unopened? 0 10. Are there any missing / extra samples? 1 11. Are samples in the appropriate containers for indicated tests? 1 12. Are sample labels present, in good condition and complete? 1 13. Do the sample labels agree with custody papers? 1 14. Was sufficient amount of sample sent for tests requested? 1 15. Are the samples appropriately preserved? 1 16. Did you check preservatives for all bottles for each sample? YES 17. Did you document your preservative check? YES 18. Did you change the hold time in LIMS for unpreserved VOAs? YES 19. Did you change the hold time in LIMS for preserved terracores? YES 20. Are bubbles > 6mm absent in VOA samples? YES	YES YES NO NO NO NO NO NO NO NO NO	NO NO NO NO NO NO NO NO NO NO NO NO NO N
9. Did all bottles arrive unbroken/unopened? 0 10. Are there any missing / extra samples? 1 11. Are samples in the appropriate containers for indicated tests? 1 12. Are sample labels present, in good condition and complete? 1 13. Do the sample labels agree with custody papers? 1 14. Was sufficient amount of sample sent for tests requested? 1 15. Are the samples appropriately preserved? 1 16. Did you check preservatives for all bottles for each sample? YES 17. Did you document your preservative check? YES 18. Did you change the hold time in LIMS for unpreserved VOAs? YES 19. Did you change the hold time in LIMS for preserved terracores? YES 20. Are bubbles > 6mm absent in VOA samples? YES	YES ES NO NO NO NO NO	NO NO NO NO NO NO NO NO NO NO NO NO NO N

COMMENTS

Rev 10, 9/12



Detections Summary for 263016

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 :

263016-001

No Detections

Client Sample ID : MW-2 Laboratory Sample ID :

263016-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	4,600		50	ug/L	As Recd	1.000	EPA 8015B	EPA 5030B
Stoddard Solvent C7-C12	3,200	Y	50	ug/L	As Recd	1.000	EPA 8015B	EPA 5030B
Diesel C10-C24	3,900		50	ug/L	As Recd	1.000	EPA 8015B	EPA 3520C
Hydraulic Fluid, C12-40	1,300	Y	300	ug/L	As Recd	1.000	EPA 8015B	EPA 3520C
Benzene	53		1.7	ug/L	As Recd	3.333	EPA 8260B	EPA 5030B
Toluene	24		1.7	ug/L	As Recd	3.333	EPA 8260B	EPA 5030B
Ethylbenzene	200		1.7	ug/L	As Recd	3.333	EPA 8260B	EPA 5030B
m,p-Xylenes	70		1.7	ug/L	As Recd	3.333	EPA 8260B	EPA 5030B
o-Xylene	5.2		1.7	ug/L	As Recd	3.333	EPA 8260B	EPA 5030B
Naphthalene	30		6.7	ug/L	As Recd	3.333	EPA 8260B	EPA 5030B

Client Sample ID : MW-3

Laboratory Sample ID :

263016-003

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	54	Y	50	ug/L	As Recd	1.000	EPA 8015B	EPA 5030B

Client Sample ID : MW-4

Laboratory Sample ID :

263016-004

No Detections



		Total	Volati.	le Hydrocar	bons		
Lab #:	263016			Location:		Salisbury Pro	ject
Client:	Eagle Env.	Construct	ion	Prep:		EPA 5030B	
Project#:	SALISBURY			Analysis:		EPA 8015B	
Matrix:	Water			Sampled:		12/04/14	
Units:	ug/L			Received:		12/04/14	
Diln Fac:	1.000						
'ield ID:	MW-1			Batch#:		218149	
'ype:	SAMPLE			Analyzed:		12/05/14	
ab ID:	263016-001			-			
	nalyte		Result		RL		
Gasoline C7-C		ND)		50		
Stoddard Solv	vent C7-C12	ND)		50		
	rogate	%REC	Limits				
Bromofluorobe		99	77-128				
Bromofluorobe ield ID:				Lab ID:		263016-002	
Bromofluorobe dield ID: dype: Ar	MW-2 SAMPLE		Result	Lab ID:	RL	Batch#	Analyzed
Bromofluorobe Gield ID: Gasoline C7-C	MW-2 SAMPLE C12		Result 4,600	Lab ID:	50	Batch# 218149	12/05/14
Bromofluorobe ield ID: ype: Ar Gasoline C7-C	MW-2 SAMPLE C12		Result	Lab ID:		Batch# 218149	
Bromofluorobe ield ID: ype: Gasoline C7-C Stoddard Solv Sur	MW-2 SAMPLE C12 rent C7-C12 Crogate	%REC	Result 4,600 3,200 Y Limits	Batch# Analy	50 50 zed	Batch# 218149	12/05/14
Bromofluorobe 'ield ID: 'ype: Gasoline C7-C Stoddard Solv	MW-2 SAMPLE C12 rent C7-C12 Crogate		Result 4,600 3,200 Y		50 50 zed	Batch# 218149	12/05/14
Bromofluorobe Jield ID: Jype: Gasoline C7-C Stoddard Solv Sur Bromofluorobe	MW-2 SAMPLE C12 Zent C7-C12 Crogate Enzene (FID)	%REC	Result 4,600 3,200 Y Limits	Batch# Analy 218149 12/05	50 50 zed	Batch# 218149 218259	12/05/14
Bromofluorobe ield ID: ype: Gasoline C7-C Stoddard Solv Bromofluorobe	MW-2 SAMPLE Malyte C12 Vent C7-C12 Crogate Enzene (FID)	%REC	Result 4,600 3,200 Y Limits	Batch# Analy 218149 12/05 Batch#:	50 50 zed	Batch# 218149 218259 218149	12/05/14
Bromofluorobe dield ID: dype: Gasoline C7-C Stoddard Solv Sur Bromofluorobe dield ID: dype:	MW-2 SAMPLE MU-2 SAMPLE C12 Vent C7-C12 Crogate Enzene (FID) MW-3 SAMPLE	%REC	Result 4,600 3,200 Y Limits	Batch# Analy 218149 12/05	50 50 zed	Batch# 218149 218259	12/05/14
Bromofluorobe ield ID: ype: Gasoline C7-C Stoddard Solv Bromofluorobe ield ID: ype:	MW-2 SAMPLE Malyte C12 Vent C7-C12 Crogate Enzene (FID)	%REC	Result 4,600 3,200 Y Limits	Batch# Analy 218149 12/05 Batch#:	50 50	Batch# 218149 218259 218149	12/05/14
Bromofluorobe dield ID: dype: Gasoline C7-C Stoddard Solv Sur Bromofluorobe dield ID: dype: ab ID: Ar	MW-2 SAMPLE Dalyte C12 Zent C7-C12 Enzene (FID) MW-3 SAMPLE 263016-003	% REC 102	Result 4,600 3,200 Y Limits 77-128	Batch# Analy 218149 12/05 Batch#:	50 50 7 zed 7/14	Batch# 218149 218259 218149	12/05/14
Bromofluorobe 'ield ID: 'ype: Gasoline C7-C Stoddard Solv Sur Bromofluorobe 'ield ID: 'ype: ab ID: Ar Gasoline C7-C	MW-2 SAMPLE Dalyte C12 vent C7-C12 Enzene (FID) MW-3 SAMPLE 263016-003 Dalyte C12	%REC 102	Result 4,600 3,200 Y Limits 77-128	Batch# Analy 218149 12/05 Batch#:	50 50 72ed 7/14 RL 50	Batch# 218149 218259 218149	12/05/14
Bromofluorobe Jield ID: Jype: Gasoline C7-C Stoddard Solv Sur Bromofluorobe Jield ID: Jype: ab ID: Ar Gasoline C7-C	MW-2 SAMPLE Dalyte C12 vent C7-C12 Enzene (FID) MW-3 SAMPLE 263016-003 Dalyte C12	% REC 102	Result 4,600 3,200 Y Limits 77-128	Batch# Analy 218149 12/05 Batch#:	50 50 7 zed 7/14	Batch# 218149 218259 218149	12/05/14
Bromofluorobe Pield ID: Pype: Gasoline C7-C Stoddard Solv Bromofluorobe Pield ID: Pype: Mab ID: Ar Gasoline C7-C Stoddard Solv	MW-2 SAMPLE Cl2 Zent C7-Cl2 Crogate Enzene (FID) MW-3 SAMPLE 263016-003 Cl2 Zent C7-Cl2 Cl2 Zent C7-Cl2	%REC 102	Result 4,600 3,200 Y Limits 77-128	Batch# Analy 218149 12/05 Batch#:	50 50 72ed 7/14 RL 50	Batch# 218149 218259 218149	12/05/14

Y= Sample exhibits chromatographic pattern which does not resemble standard ND= Not Detected RL= Reporting Limit Page 1 of 2

14.2



		Total	Volatil	e Hydrocar	bons	
Lab #: Client: Project#:	263016 Eagle Env. SALISBURY I		ion	Location: Prep: Analysis:		Salisbury Project EPA 5030B EPA 8015B
Matrix: Units: Diln Fac:	Water ug/L 1.000			Sampled: Received:		12/04/14 12/04/14
Field ID: Type: Lab ID:	MW-4 SAMPLE 263016-004			Batch#: Analyzed:		218149 12/05/14
Ana	alyte		Result		RL	
Gasoline C7-C2	L2	ND)		50	
Stoddard Solve	ent C7-C12	ND)		50	
		0				
Bromofluorober	rogate	%REC 107	Limits 77-128			
Type: Lab ID:	BLANK QC768459			Batch#: Analyzed:		218149 12/05/14
Ana	alyte					
Gasoline C7-C1	LYCE		Result		RL	
		ND			RL 50	
Stoddard Solve	L2)			
Stoddard Solve	12 ent C7-C12	ND ND)		50	
Stoddard Solve	l2 ent C7-C12 cogate	ND ND %REC	Limits		50	
Stoddard Solve	l2 ent C7-C12 cogate	ND ND)		50	
Stoddard Solve	l2 ent C7-C12 cogate	ND ND %REC	Limits	Batch#: Analyzed:	50	218259 12/09/14
Stoddard Solve Sur Bromofluorober Type: Lab ID:	ent C7-C12 cogate nzene (FID) BLANK QC768886	NE NE %REC 97	Limits 77-128		50	
Stoddard Solve Surr Bromofluorober Type: Lab ID:	ent C7-C12 cogate nzene (FID) BLANK QC768886 alyte	NE NE %REC 97	Limits 77-128 Result		50	
Stoddard Solve Sur Bromofluorober Type: Lab ID: Ana Stoddard Solve	ent C7-C12 cogate nzene (FID) BLANK QC768886 alyte ent C7-C12	NE NE %REC 97	Limits 77-128		50 50	
Stoddard Solve Sur Bromofluorober Type: Lab ID: Ana Stoddard Solve	ent C7-C12 cogate nzene (FID) BLANK QC768886 alyte ent C7-C12 cogate	ND ND %REC 97	Limits 77-128 Result		50 50	

Y= Sample exhibits chromatographic pattern which does not resemble standard ND= Not Detected RL= Reporting Limit Page 2 of 2

14.2



Batch QC Report

Total Volatile Hydrocarbons								
Lab #:	263016	Location:	Salisbury Project					
Client:	Eagle Env. Construction	Prep:	EPA 5030B					
Project#:	SALISBURY PROJECT	Analysis:	EPA 8015B					
Туре:	LCS	Diln Fac:	1.000					
Lab ID:	QC768458	Batch#:	218149					
Matrix:	Water	Analyzed:	12/05/14					
Units:	ug/L							
Units:	ug/L							

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	973.5	97	80-120

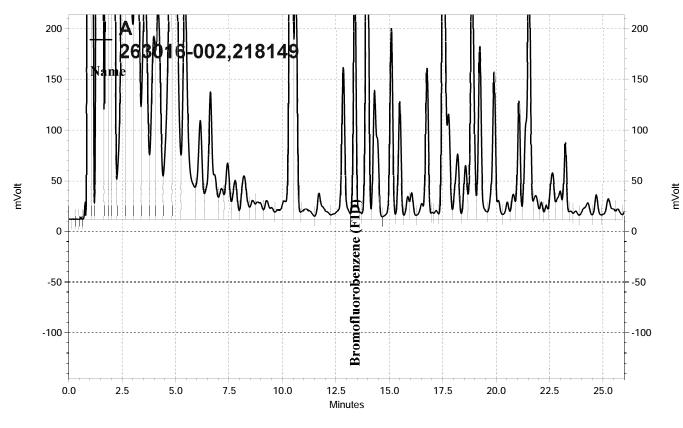
Surrogate	%REC	Limits
Bromofluorobenzene (FID)	98	77-128



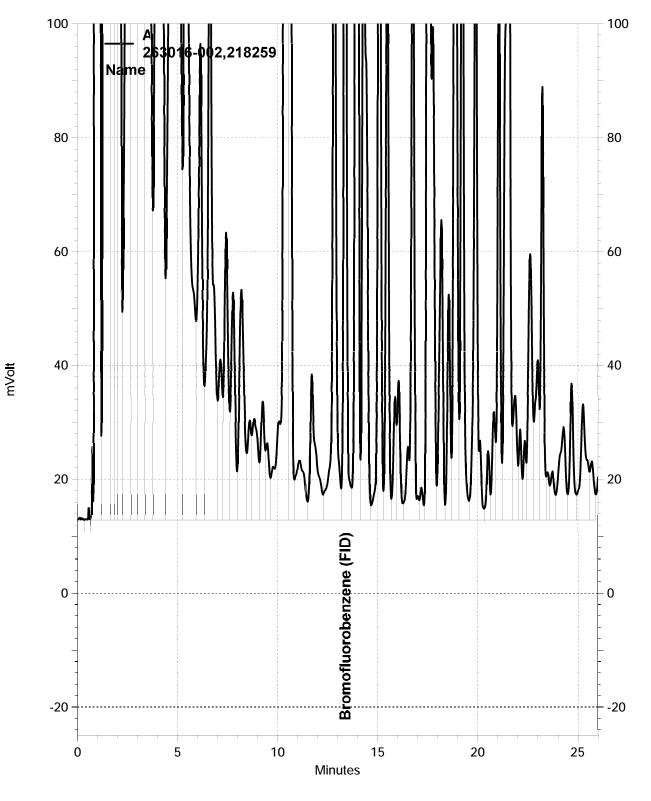
Batch QC Report

		Total	Volatil	.e Hydroca	rbons				
Lab #:	263016			Location:		Salisbury Pro	oject		
Client:	Eagle Env. C	onstruct	tion	Prep:		EPA 5030B			
Project#:	SALISBURY PR	OJECT		Analysis:		EPA 8015B			
Field ID:	MW-1			Diln Fac:		1.000			
MSS Lab ID:	263016-001			Batch#:		218149			
Matrix:	Water			Sampled:		12/04/14			
Units:	ug/L			Received:		12/04/14			
Type: Lab ID:	MS QC768460			Analyzed:		12/05/14			
Analyte		MSS Result		Spiked		Result	%REC	%REC Limits	
Gasoline C7-C1	2		37.76	2,000		1,944	95	74-	-120
Surr	ogate	%REC	Limits						
Bromofluorobenzene (FID)		104	77-128						
Type: Lab ID:	MSD QC768461			Analyzed:		12/06/14			
Analyte			Spiked		Result	%REC	Limits	RPD	Lim
Gasoline C7-C12			2,000		1,887	92	74-120	3	27
Surr	ogate	%REC	Limits						
Bromofluorobenzene (FID)		93	77-128						

16.0

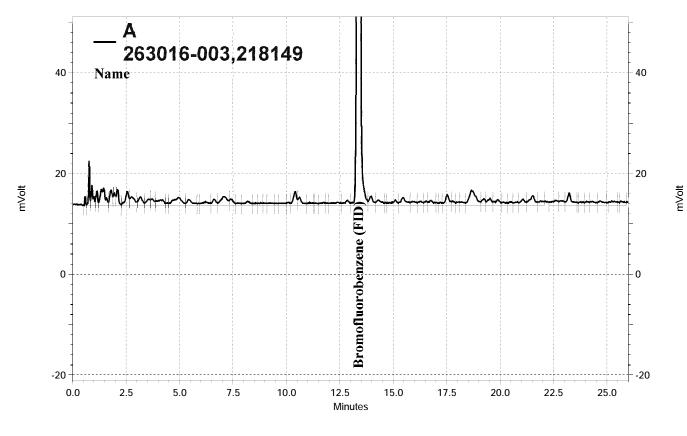


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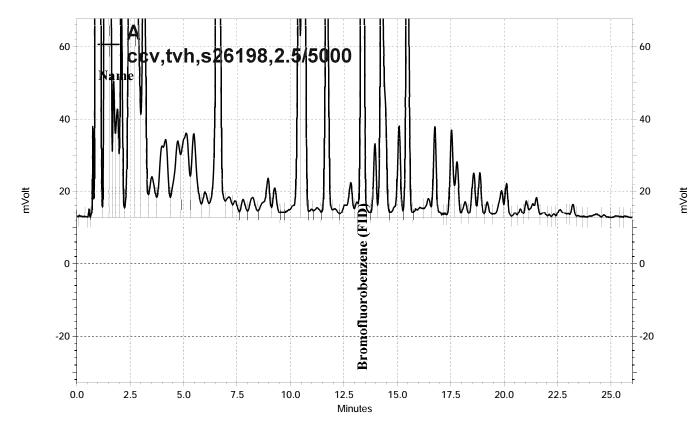


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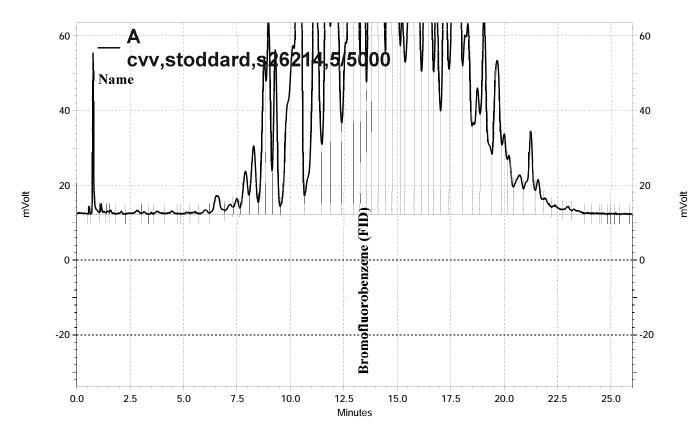
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		Total H	Extracta	ble Hydroc	arbo	ns	
Lab #:	263016			Location:		Salisbury Project	
Client:	Eagle Env.	Construct	ion	Prep:		EPA 3520C	
Project#:	SALISBURY	PROJECT		Analysis:		EPA 8015B	
Matrix:	Water			Sampled:		12/04/14	
Units:	ug/L			Received:		12/04/14	
Diln Fac:	1.000			Prepared:		12/08/14	
Batch#:	218197			Analyzed:		12/09/14	
ield ID:	MW-1			Lab ID:		263016-001	
ype:	SAMPLE						
An	alyte		Result		RL		
Diesel C10-C2		NE			50		
Motor Oil C24		ND)		300		
Hydraulic Flu		NE			300		
	rogate	%REC	Limits				
o-Terphenyl		116	66-129				
ype:	MW-2 SAMPLE			Lab ID:		263016-002	
ype: Ana	SAMPLE alyte		Result	Lab ID:	RL	263016-002	
Diesel C10-C2	SAMPLE alyte 4		3,900	Lab ID:	50	263016-002	
ype: And Diesel C10-C2 Motor Oil C24	SAMPLE alyte 4 -C36	NE	3,900	Lab ID:	50 300	263016-002	_
ype: And Diesel C10-C2 Motor Oil C24	SAMPLE alyte 4 -C36	NE	3,900	Lab ID:	50	263016-002	_
ype: Diesel C10-C2 Motor Oil C24 Hydraulic Flu Sur:	SAMPLE alyte 4 -C36	ND %REC	3,900 1,300 Y Limits	Lab ID:	50 300	263016-002	
ype: Diesel C10-C2 Motor Oil C24 Hydraulic Flu Sur:	SAMPLE alyte 4 -C36 id, C12-40	NE	3,900 1,300 Y	Lab ID:	50 300	263016-002	
ype: Diesel C10-C2 Motor Oil C24 Hydraulic Flu	SAMPLE alyte 4 -C36 id, C12-40	ND %REC	3,900 1,300 Y Limits	Lab ID:	50 300	263016-002	
ype: Diesel C10-C24 Motor Oil C24 Hydraulic Flu Sur: o-Terphenyl 'ield ID:	SAMPLE alyte 4 -C36 id, C12-40	ND %REC	3,900 1,300 Y Limits	Lab ID:	50 300	263016-002	
ype: <u>Ana</u> Diesel C10-C24 Motor Oil C24 Hydraulic Flu <u>Sur</u> o-Terphenyl ield ID:	SAMPLE alyte 4 -C36 id, C12-40 rogate	ND %REC	3,900 1,300 Y Limits		50 300		
ype: Diesel C10-C2 Motor Oil C24 Hydraulic Flu Sur: o-Terphenyl ield ID: ype:	SAMPLE alyte 4 -C36 id, C12-40 rogate	ND %REC 114	3,900 1,300 Y Limits		50 300 300		
ype: Ana Diesel C10-C2 Motor Oil C24 Hydraulic Flu Sur: o-Terphenyl ield ID: ype: Ana Diesel C10-C2	SAMPLE alyte 4 -C36 id, C12-40 rogate MW-3 SAMPLE alyte 4	ND %REC 114	3,900 1,300 Y Limits 66-129 Result		50 300 300		
ype: Ana Diesel C10-C2 Motor Oil C24 Hydraulic Flu Sur: o-Terphenyl 'ield ID: 'ype: Ana Diesel C10-C2 Motor Oil C24	SAMPLE alyte 4 -C36 id, C12-40 rogate MW-3 SAMPLE alyte 4 -C36	ND %REC 114	3,900 1,300 Y Limits 66-129 Result		50 300 300		
ype: Ana Diesel C10-C2 Motor Oil C24 Hydraulic Flu Sur: o-Terphenyl ield ID: ype: Ana Diesel C10-C2 Motor Oil C24	SAMPLE alyte 4 -C36 id, C12-40 rogate MW-3 SAMPLE alyte 4 -C36	ND %REC 114 ND	3,900 1,300 Y Limits 66-129 Result		50 300 300 RL 50		
ype: Diesel C10-C24 Motor Oil C24 Hydraulic Flu o-Terphenyl ield ID: ype: Ana Diesel C10-C24 Motor Oil C24 Hydraulic Flu	SAMPLE alyte 4 -C36 id, C12-40 rogate MW-3 SAMPLE alyte 4 -C36	NE %REC 114 NE	3,900 1,300 Y Limits 66-129 Result		50 300 300 RL 50 300		

ND= Not Detected

RL= Reporting Limit

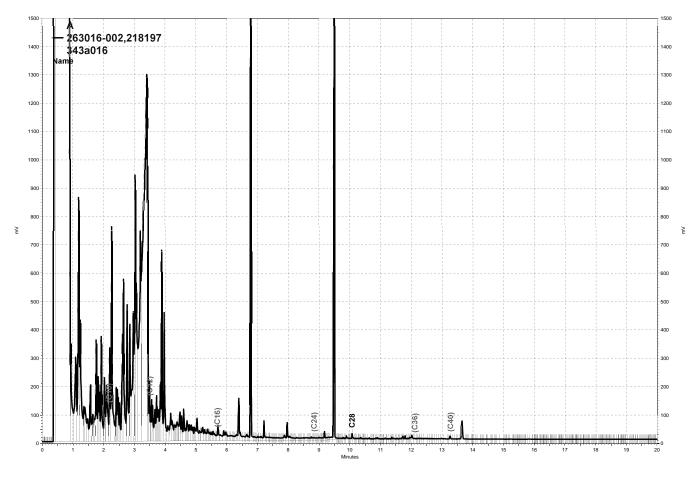
Page 1 of 2



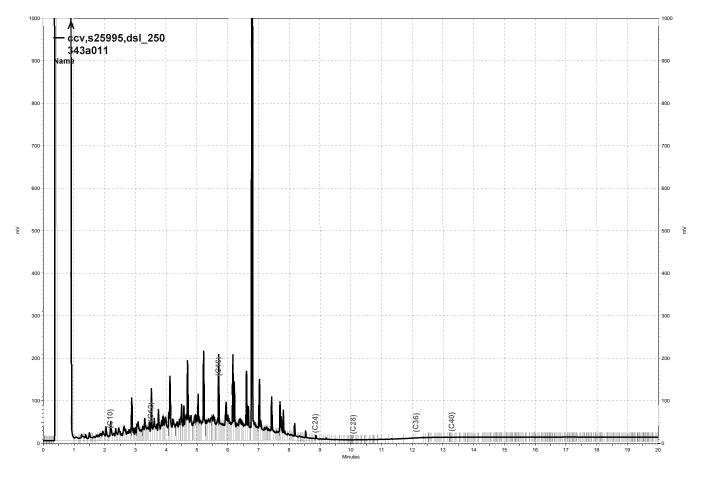
		Total H	Extracta	ble Hydroc	arbo	
Lab #:	263016			Location:		Salisbury Project
Client:	Eagle Env. C	lonstruct	ion	Prep:		EPA 3520C
Project#:	SALISBURY PR	OJECT		Analysis:		EPA 8015B
Matrix:	Water			Sampled:		12/04/14
Units:	ug/L			Received:		12/04/14
Diln Fac:	1.000			Prepared:		12/08/14
Batch#:	218197			Analyzed:		12/09/14
Field ID: Type:	MW-4 SAMPLE			Lab ID:		263016-004
	nalyte		Result		RL	
Diesel C10-C		NE)		50	
Motor Oil C2		NE)		300	
Hydraulic Fl	uid, C12-40	NE)		300	
Su	rrogate	%REC	Limits			
o-Terphenyl	-	111	66-129			
Туре:	BLANK			Lab ID:		QC768660
	nalyte		Result		RL	
Diesel C10-C		NE			50	
Motor Oil C2		NE			300	
Hydraulic Fl	uid, C12-40	NE)		300	
Su	rrogate	%REC	Limits			
o-Terphenyl		80	66-129			



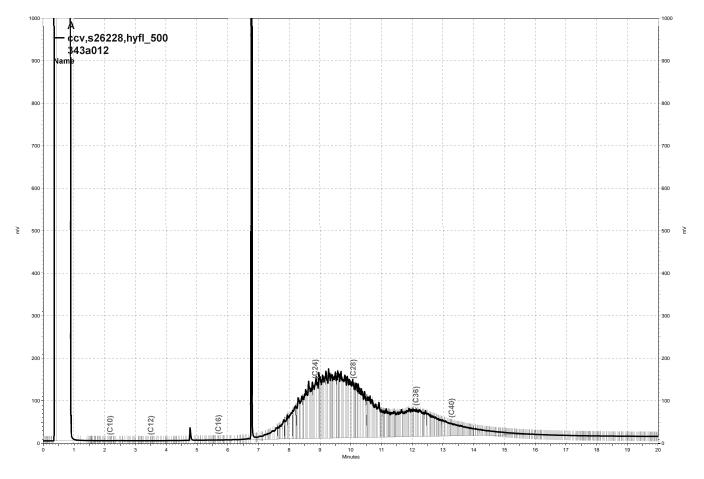
	:	Cotal 1	Extracta	ble Hydro	ocarbor	ıs			
Lab #:	263016			Location:		Salisbury Pro	ject		
Client:	Eagle Env. Co	onstruct	cion	Prep:		EPA 3520C			
Project#:	SALISBURY PRO	JECT		Analysis:		EPA 8015B			
Matrix:	Water			Batch#:		218197			
Units:	ug/L			Prepared:		12/08/14			
Diln Fac:	1.000			Analyzed:		12/09/14			
Type:	BS			Lab ID:		QC768661			
Anal	lyte		Spiked		Result	%REC	Limits		
Diesel C10-C24			2,500		2,433	97	61-120		
Surro	ogate	%REC	Limits						
o-Terphenyl		94	66-129						
Type:	BSD			Lab ID:		QC768662			
Anal	lyte		Spiked		Result	%REC	Limits	RPD	Lim
Diesel C10-C24			2,500		2,613	105	61-120	7	45
Surro	ogate	%REC	Limits						
o-Terphenyl		107	66-129						



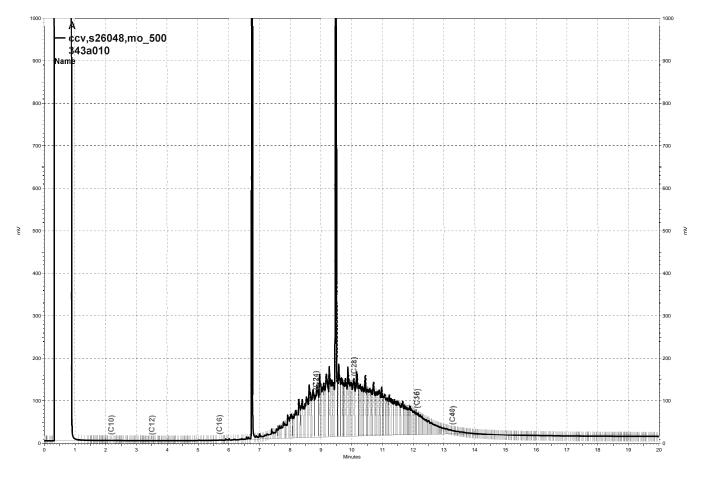
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Lab #:	263016	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B
Field ID:	MW-1	Batch#:	218159
Lab ID:	263016-001	Sampled:	12/04/14
Matrix:	Water	Received:	12/04/14
Units:	ug/L	Analyzed:	12/06/14
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	100	77-136
1,2-Dichloroethane-d4	97	75-139
Toluene-d8	100	80-120
Bromofluorobenzene	103	80-120

ND= Not Detected RL= Reporting Limit Page 1 of 1



Lab #:	263016	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B
Field ID:	MW-2	Batch#:	218226
Lab ID:	263016-002	Sampled:	12/04/14
Matrix:	Water	Received:	12/04/14
Units:	ug/L	Analyzed:	12/09/14
Diln Fac:	3.333		

Analyte	Result	RL
MTBE	ND	1.7
Benzene	53	1.7
Toluene	24	1.7
Ethylbenzene	200	1.7
m,p-Xylenes	70	1.7
o-Xylene	5.2	1.7
Naphthalene	30	6.7

Surrogate	%REC	Limits
Dibromofluoromethane	104	77-136
1,2-Dichloroethane-d4	117	75-139
Toluene-d8	93	80-120
Bromofluorobenzene	101	80-120

ND= Not Detected RL= Reporting Limit Page 1 of 1



Lab #:	263016	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B
Field ID:	MW-3	Batch#:	218159
Lab ID:	263016-003	Sampled:	12/04/14
Matrix:	Water	Received:	12/04/14
Units:	ug/L	Analyzed:	12/06/14
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	100	77-136
1,2-Dichloroethane-d4	97	75-139
Toluene-d8	100	80-120
Bromofluorobenzene	103	80-120

ND= Not Detected RL= Reporting Limit Page 1 of 1



Lab #:	263016	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B
Field ID:	MW-4	Batch#:	218159
Lab ID:	263016-004	Sampled:	12/04/14
Matrix:	Water	Received:	12/04/14
Units:	ug/L	Analyzed:	12/07/14
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	101	77-136
1,2-Dichloroethane-d4	97	75-139
Toluene-d8	100	80-120
Bromofluorobenzene	104	80-120

ND= Not Detected RL= Reporting Limit Page 1 of 1



Purgeable Aromatics by GC/MS						
Lab #:	263016	Location:	Salisbury Project			
Client:	Eagle Env. Construction	Prep:	EPA 5030B			
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B			
Matrix:	Water	Batch#:	218159			
Units:	ug/L	Analyzed:	12/06/14			
Diln Fac:	1.000					

Type:

BS

QC768495

Analyte	Spiked	Result	%REC	Limits
MTBE	12.50	11.61	93	64-121
Benzene	12.50	12.08	97	80-124
Toluene	12.50	12.29	98	80-122
Ethylbenzene	12.50	12.19	97	80-124
m,p-Xylenes	25.00	24.91	100	80-122
o-Xylene	12.50	12.84	103	77-120

Lab ID:

Surrogate	%REC	Limits	
Dibromofluoromethane	99	77-136	
1,2-Dichloroethane-d4	94	75-139	
Toluene-d8	98	80-120	
Bromofluorobenzene	98	80-120	

Type: BSD			Lab ID:	QC76	8496			
Analyte		Spiked		Result	%REC	Limits	RPD	Lim
MTBE		12.50		11.52	92	64-121	1	20
Benzene		12.50		11.67	93	80-124	3	20
Toluene		12.50		11.77	94	80-122	4	20
Ethylbenzene		12.50		11.67	93	80-124	4	20
m,p-Xylenes		25.00		23.89	96	80-122	4	20
o-Xylene		12.50		12.27	98	77-120	4	20
Surrogate	%REC	Limits						
Dibromofluoromethane	99	77-136						
1 0 Dichlementheme d/	0.5	75 120						

Dibromofluoromethane 99 77-136 1,2-Dichloroethane-d4 95 75-139 Toluene-d8 97 80-120 Bromofluorobenzene 97 80-120			
Toluene-d8 97 80-120	Dibromofluoromethane	99	77-136
	1,2-Dichloroethane-d4	95	75-139
Bromofluorobenzene 97 80-120	Toluene-d8	97	80-120
	Bromofluorobenzene	97	80-120



Purgeable Aromatics by GC/MS							
Lab #:	263016	Location:	Salisbury Project				
Client:	Eagle Env. Construction	Prep:	EPA 5030B				
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B				
Type:	BLANK	Diln Fac:	1.000				
Lab ID:	QC768497	Batch#:	218159				
Matrix:	Water	Analyzed:	12/06/14				
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	99	77-136
1,2-Dichloroethane-d4	95	75-139
Toluene-d8	98	80-120
Bromofluorobenzene	102	80-120

ND= Not Detected RL= Reporting Limit Page 1 of 1



Purgeable Aromatics by GC/MS						
Lab #:	263016	Location:	Salisbury Project			
Client:	Eagle Env. Construction	Prep:	EPA 5030B			
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B			
Matrix:	Water	Batch#:	218226			
Units:	ug/L	Analyzed:	12/09/14			
Diln Fac:	1.000					

Type:

BS

Lab ID:

QC768763

Analyte	Spiked	Result	%REC	Limits
MTBE	12.50	11.68	93	64-121
Benzene	12.50	11.40	91	80-124
Toluene	12.50	11.04	88	80-122
Ethylbenzene	12.50	11.81	94	80-124
m,p-Xylenes	25.00	27.55	110	80-122
o-Xylene	12.50	13.36	107	77-120

Surrogate	%REC	Limits	
Dibromofluoromethane	101	77-136	
1,2-Dichloroethane-d4	108	75-139	
Toluene-d8	91	80-120	
Bromofluorobenzene	100	80-120	

Type: BSD			Lab ID:	QC7	68764			
Analyte		Spiked		Result	%REC	Limits	RPD	Lim
MTBE		12.50		11.31	90	64-121	3	20
Benzene		12.50		11.61	93	80-124	2	20
Toluene		12.50		11.61	93	80-122	5	20
Ethylbenzene		12.50		11.48	92	80-124	3	20
m,p-Xylenes		25.00		27.25	109	80-122	1	20
o-Xylene		12.50		13.18	105	77-120	1	20
Surrogate	%REC	Limits						
Dibromofluoromothano	100	77 126						

Surroyace	*REC	LIMICS	
Dibromofluoromethane	100	77-136	
1,2-Dichloroethane-d4	100	75-139	
Toluene-d8	90	80-120	
Bromofluorobenzene	101	80-120	



	Purgeable A	romatics by GC	C/MS
Lab #:	263016	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC768765	Batch#:	218226
Matrix:	Water	Analyzed:	12/09/14
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	100	77-136
1,2-Dichloroethane-d4	106	75-139
Toluene-d8	91	80-120
Bromofluorobenzene	99	80-120

ND= Not Detected RL= Reporting Limit Page 1 of 1