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EAGLE ENVIRONMENTAL CONSTRUCTION
"Your Environmental Specialists"

QUARTERLY GROUNDWATER MONITORING REPORT

For the Site Located at:

2145 35TH AVENUE

OAKLAND, CALIFORNIA 94601

Prepared for:

Salisbury Avenue Associates LLC

2917 MacArthur Boulevard, #A3F

Oakland, CA 94602

Prepared by:

Eagle Environmental Construction (EEC)

1485 Bayshore Boulevard, Suite 374

San Francisco, CA 94124

January 25, 2013

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APPENDICES

1.0 Introduction

This quarterly groundwater monitoring report is for the former gasoline service station located at 2145 35th Avenue, Oakland, California (Figure 1). This is the second quarterly sampling event since the four monitoring wells were installed in July 2012. The first sampling event was performed on July 9, 2012 and documented in a detailed report titled "Phase II Environmental Investigation Report and Supplemental Investigation Workplan", dated August 2012. The scope of work documented in the August 2012 report included the following:

- Removal of the car maintenance pit;
- Removal of the hydraulic lift;
- Removal of the dispenser island and associated piping;
- Drilling of fifteen soil borings with soil and groundwater sampling and analysis;
- Installation and closing of 4 temporary piezometers; and
- Drilling and sampling of four monitoring wells

This report documents the groundwater sampling event performed on December 6, 2012. For background information about the subject site and an update of the activities performed through July 2012, review the August 2012 report mentioned above.

2.0 Groundwater Sampling Activities

The wells were purged and sampled on December 06, 2012. 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 55-gallon, DOT-approved, steel drums. The drums were temporarily stored onsite pending transport and disposal to a licensed facility.

After purging the wells, groundwater samples were collected. 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. Other containers, amber jars, one liter plastic bottles, were obtained from the laboratory and filled with water from the bailer for the TPH-D, TPH-mo, and LUFT-Five-Metal analysis.

The water samples were placed on ice, in an ice cooler, a ccompanied by a completed chain o f custody. The samples were sent to Curtis & Tompkins Laboratory in Berkeley and analyzed fo r 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;
- Volatile Organics by the GC/MS EPA Method 8260, 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);
- Total Recoverable Petroleum Hydrocarbons (TRPH) as Motor Oil and Hydraulic Oil , EPA Method 8015; *and*
- LUFT 5 Metals by EPA Method 6010/7471 (with filtering before analysis).

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 ea ch well and the surve yed top of casing elevations. The well data are presented in the attached Table 1. Due to the measurable rain f all in November and ear ly December 2012, the groundwater elevations in the wells increased by an average o f 1.22 foot. The calcula ted ground water flow direction was to th e so uth at a gr adient of 0. 024 or 2.4 % (Figure 2).

4.0 Groundwater Samples Laboratory Results

The laboratory report i s included in Appendix B. Table 2 summariz es the analytical result s. Also, Figure 3 depicts the laboratory results from July and December 2012. Laboratory analysis of groundwater samples collected from the monitoring wells indicated the following:

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

- Similar to t he first sampling eve nt in July 2012, none of the an alyzed petroleum hydrocarbons was detected in monitoring wells MW-1 and MW-4.

- Similar to th e first sampling event in July 2012, t he most pet roleum hydrocarbon imp act was detected in monitoring well MW-2, downgradient from the former sources on site; USTs, piping, and fuel dispenser. Groundwater from monitoring well MW-2 exceeded the ESL for drinking water scenario for TPH-G; TPH-D; TPHss; BTEX; and Naphthalene.

- Petroleum hydrocarbon concentra tions in g roundwater samples collected from monitoring MW-3 were slightly high er than in the previous sampling event. For example

benzene increased from 0.8 µg/l to 36 µg/l (Table 2). This increase may be attributed to the rise in the water table.

5.0 Waste Management

A total of two (2) purge water drums were generated from the purging and sampling activities onsite. These drums are stored onsite pending profiling and disposal.

6.0 Conclusions and Recommendations

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

Conclusions

- Similar to the first sampling event in July 2012, none of the analyzed petroleum hydrocarbons was detected in monitoring wells MW-1 and MW-4.

- Groundwater in the remaining monitoring wells MW-2 and MW-3 is impacted with petroleum hydrocarbons above the ESLs for drinking and non-drinking water scenarios.

Recommendations

- Continue the quarterly sampling of wells until at least four monitoring events are completed.

- As requested in the regulatory letter from Alameda County Environmental Health (ACEH), dated December 18, 2012, Laboratory analysis for Polycyclic Aromatic Hydrocarbons (PAHs) By EPA Method 8270-SIM will be conducted in the upcoming sampling events. Due to the non-detected results for all the analyzed petroleum hydrocarbon compounds in both sampling events (in July and December 2012) in monitoring wells MW-1 and MW-4, analysis for PAHs will be conducted on only the groundwater from monitoring wells MW-2 and MW-3.

- As requested in the regulatory letter from Alameda County Environmental Health (ACEH), dated December 18, 2012, the full laboratory analysis for the LUFT 5 metals will be discontinued in the upcoming events except the analysis for Lead (Pb) and Nickel (Ni) will be continued.

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

Peter Robertson

Property Owner

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

TABLE 2
SUMMARY OF CHEMICAL ANALYSES
GROUNWATER SAMPLES COLLECTED FROM THE MONITORING WELLS
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)	Naphthalene (µg/l)	MTBE[5] (µg/l)	Nickel (Ni) (µg/l)
MW-1	07/09/2012	<50	<50	<50	<300	<300	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<5.0
MW-2		**3,800**	**3,900 (Y)[6]**	**1,200 Y**	<300	**660Y**	**82**	**42**	**350**	**189.4**	**44**	<0.5	<5.0
MW-3		85Y	86Y	**180Y**	<300	<300	0.8	<0.5	<0.5	<1.0	<2.0	<0.5	<5.0
MW-4		<50	<50	<50	<300	<300	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	6.6
MW-1	12/06/2012	<50	<50	<50	<300	<300	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	7.6
MW-2		**5,000**	**3,300 (Y)[4]**	**2,300**	<300	**1,500Y**	**92**	**42**	**460**	**179.6**	**62**	<0.5	<5.0
MW-3		**1,200**	**800Y**	**2,000**	<300	**1,600Y**	**36**	0.8	9.2	1.1	**120**	<0.5	6.1
MW-4		<50	<50	<50	<300	<300	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	**9.7**
Groundwater Screening Levels, drinking water[7]		100	100	100	100	100	1.0	40	30	20	17	5.0	8.2
Groundwater Screening Levels, non-drinking water[8]		210	210	210	210	210	46	130	43	100	24	1,800	8.2
Groundwater Screening Levels for Evaluation of Potential Vapor Intrusion Concerns (Volatile Chemicals Only)[9]		Use Soil Gas	Use Soil Gas	Use Soil Gas	Use Soil Gas	Use Soil Gas	540	380,000	170,000	160,000	3,200	24,000	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
[7] = Tier 1 Environmental Screening Levels (ESLs), Groundwater Screening Levels, Groundwater is Current or Potential Source of Drinking Water (Table F-1A), 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 - November 2007, (Revised May 2008).
[8] = 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 - November 2007, (Revised May 2008).

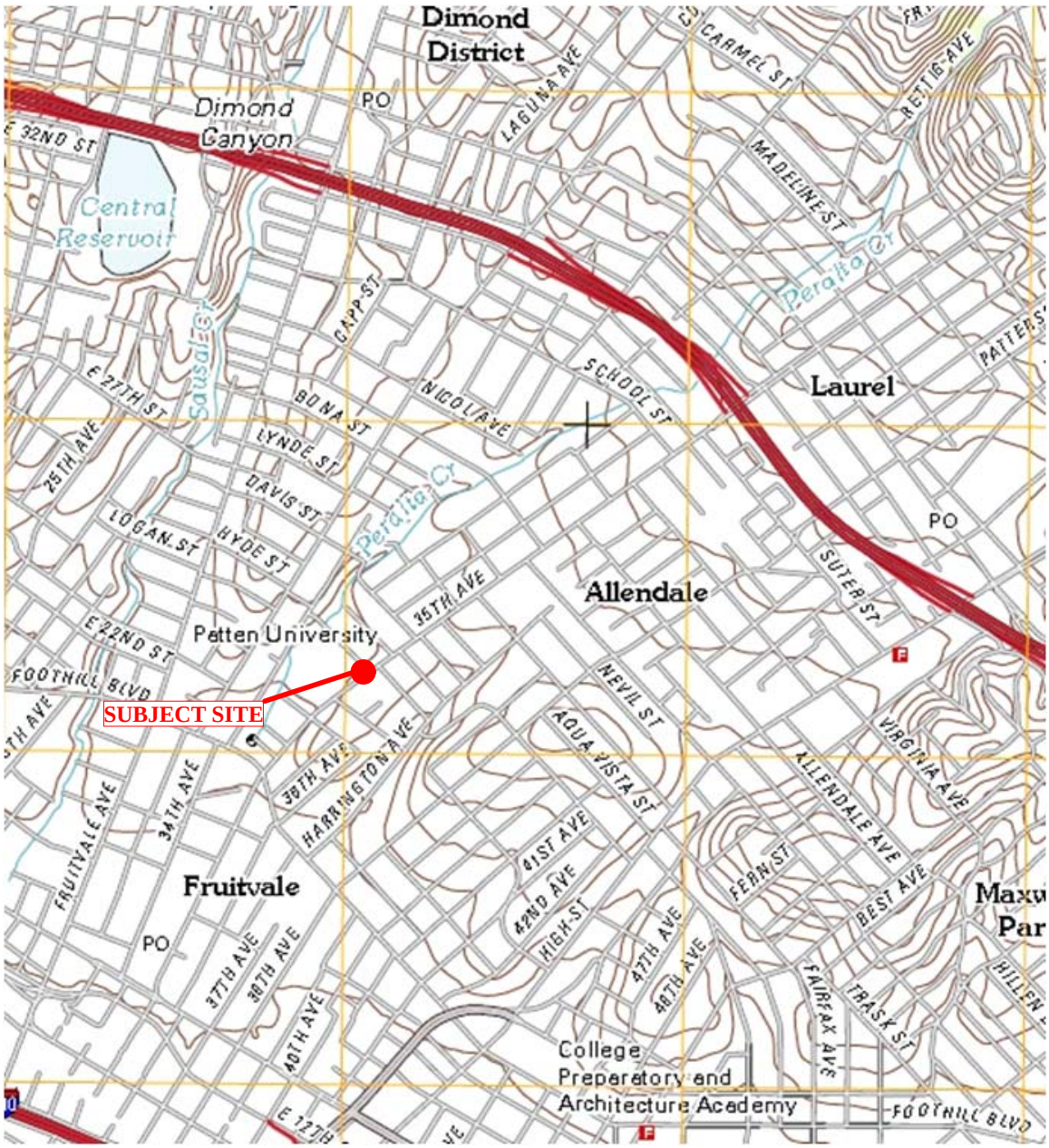
[8] = Tier 1 Environmental Screening Levels (ESLs), Groundwater Screening Levels, Groundwater is not Current or Potential Source of Drinking Water (Table E-1), Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Prepared by: California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612, Interim Final - November 2007, (Revised May 2008).

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

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

DECEMBER
2012

RESIDENTIAL HOUSES

SALISBURY STREET

SIDEWALK

(86.23')

(86.00')

(85.66')

(85.00')

(84.00')

N

APPROXIMATE TOPOGRAPHIC SLOPE

CALCULATED GROUNDWATER FLOW DIRECTION (07/18/12) (GRADIENT 0.0076 OR 0.76%)

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

0 FEET 10

APPROXIMATE SCALE

SUBJECT SITE

FORMER EXCAVATION OF A WASTE OIL UST (1999)

MW-4
(85.66')
12/06/2012

MW-1
(86.23')
12/06/2012

MW-3
(84.21')
12/06/2012

MW-2
(84.03')
12/06/2012

GARAGE DOOR

DOOR

DOOR

DOOR

DOOR

DOOR

LOCATION OF FORMER TWO 500-GALLON GASOLINE USTS

PIPING

FORMER GASOLINE DISPENSER ISLAND

VACANT ROOM

FORMER CAR MAINTENANCE PIT

FORMER HYDRAULIC LIFT

REST ROOM

RESIDENTIAL HOUSE

FENCE PROPERTY BORDER

APARTMENT BUILDING

35TH AVENUE

RESIDENTIAL HOUSES

NOTE:
(84.23')
12/06/2012
GROUNDWATER ELEVATION AND DATE OF MEASUREMENT

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SAN FRANCISCO, CA 94124

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

FIGURE 2

DECEMBER 2012

RESIDENTIAL HOUSES

SALISBURY STREET

SIDEWALK

0 FEET 10
APPROXIMATE SCALE

SUBJECT SITE

RESIDENTIAL HOUSE

FORMER EXCAVATION OF A WASTE OIL UST (1999)

MW-4

MW-4 (Water 07/09/2012)
TEP-G ND <50 ug/l
TPHss ND <50 ug/l
TPH-D ND <50 ug/l
TPH-Mo ND < 300 ug/l
TPH-Hydraulic Oil
ND <300 ug/l
Benzene ND <0.5 ug/l
Toluene ND < 0.5 ug/l
Ethyl benzene ND <0.5 ug/l
Total Xylenes ND <1.0 ug/l
Naphthalene ND <2.0 ug/l
MTBE ND< 0.5

MW-4 (Water 12/06/2012)
TPH-G ND <50 ug/l
TPHss ND <50 ug/l
TPH-D ND <50 ug/l
TPH-Mo ND < 300 ug/l
TPH-Hydraulic Oil
ND <300 ug/l
Benzene ND <0.5 ug/l
Toluene ND < 0.5 ug/l
Ethyl benzene ND <0.5 ug/l
Total Xylenes ND <1.0 ug/l
Naphthalene ND <2.0 ug/l
MTBE ND< 0.5

LOCATION OF FORMER TWO 500-GALLON GASOLINE USTS

PIPING

FORMER GASOLINE DISPENSER ISLAND

MW-1

FORMER CAR MAINTENANCE PIT

MW-3

MW-1 (07/09/2012)
TPH-G ND <50 ug/l
TPHss ND <50 ug/l
TPH-D ND <300 ug/l
TPH-Mo ND <300 ug/l
TPH-Hydraulic Oil
ND <300 ug/l
Benzene ND <0.5 ug/l
Toluene ND < 0.5 ug/l
Ethyl benzene ND <0.5 ug/l
Total Xylenes ND <1.0 ug/l
Naphthalene ND <2.0 ug/l
MTBE ND< 0.5

MW-1 (12/06/2012)
TPH-G ND <50 ug/l
TPHss ND <50 ug/l
TPH-D ND <50 ug/l
TPH-Mo ND < 300 ug/l
TPH-Hydraulic Oil
ND <300 ug/l
Benzene ND <0.5 ug/l
Toluene ND < 0.5 ug/l
Ethyl benzene ND <0.5 ug/l
Total Xylenes ND <1.0 ug/l
Naphthalene ND <2.0 ug/l
MTBE ND< 0.5

MW-3 (Water 07/09/2012)
TPH-G 85Y ug/l
TPHss 86Y ug/l
TPH-D 180Y ug/l
TPH-Mo ND < 300 ug/l
TPH-Hydraulic Oil
ND <300 ug/l
Benzene 0.8 ug/l
Toluene ND < 0.5 ug/l
Ethyl benzene ND <0.5 ug/l
Total Xylenes ND <1.0 ug/l
Naphthalene ND <2.0 ug/l
MTBE ND< 0.5

MW-3 (Water 12/06/2012)
TPH-G 1,200 ug/l
TPHss 800Y ug/l
TPH-D 2,000 ug/l
TPH-Mo ND< 300 ug/l
TPH-Hydraulic Oil
1,600Y ug/l
Benzene 36 ug/l
Toluene 0.8 ug/l
Ethyl benzene 9.2 ug/l
Total Xylenes 1.1 ug/l
Naphthalene ND 120 ug/l
MTBE ND< 0.5

FORMER HYDRAULIC LIFT

MW-2 (Water 07/09/2012)
TEP-G 3,800 ug/l
TPHss 3,900 Y ug/l
TPH-D 1,200 Y ug/l
TPH-Mo ND < 300 ug/l
TPH-Hydraulic Oil
660Y ug/l
Benzene 82 ug/l
Toluene 42 ug/l
Ethyl benzene 350 ug/l
Total Xylenes 189.4 ug/l
Naphthalene 44 ug/l
MTBE ND< 0.5

MW-2 (Water 12/06/2012)
TEP-G 5,000 ug/l
TPHss 3,300 Y ug/l
TPH-D 2,300 ug/l
TPH-Mo ND < 300 ug/l
TPH-Hydraulic Oil
1,500Y ug/l
Benzene 92 ug/l
Toluene 42 ug/l
Ethyl benzene 460 ug/l
Total Xylenes 179.6 ug/l
Naphthalene 62 ug/l
MTBE ND< 0.5

MW-2

APPROXIMATE TOPOGRAPHIC SLOPE

CALCULATED GROUNDWATER FLOW DIRECTION (07/18/12) (GRADIENT 0.0076 OR 0.76%)

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

35TH AVENUE

APARTMENT BUILDING

RESIDENTIAL HOUSES

NOTE: Y = Sample exhibits chromatographic pattern which does not resemble standard

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SAN FRANCISCO, CA 94124

GROUNDWATER CONTAMINANT CONCENTRATIONS
JULY AND DECEMBER 2012
2145 35TH AVENUE, OAKLAND, CALIFORNIA

FIGURE 3

DECEMBER 2012

APPENDIX A
WELL PURGING AND SAMPLING LOGS

WELL SAMPLING LOG

Project No. : _____

Project Name: salisbury

Location: 2145 35th Avenue
Oakland, CA

Well ID: MW-1

Sampled by: EEC sami Malaeb

Date: December 6, 2012

Well Diameter:	2"
Total Well Depth:	17.70'
Depth to Water:	7.85'
Water Column:	9.85'
Calculated Purge:	5 gallons
Actual Purge:	
Free Product:	
Product Sheen:	

Purge Volume Calculations for Three Casing Volume Purge	
Volume Per One Foot of Well:	0.1632 gallons
$\pi r^2 \times 1$	
Volume of One Casing:	1.66 gallons
Volume of Three Casings:	4.98 ~ 5.00 gallons

Purge Method: using disposable bailer

Did Well go dry?

Sampling Method: 3 volume purge or stabilized 6 parameters

Sample Time: 12:00 p.m.

Post Purge Depth to Water (DTW)

Time	DTW
11:58 am	7.98 ft

Analyze for:

Time	Conductivity µS	Temperature °C	pH	Salinity	Volume Purged
~~10:05~~	~~783~~	~~18.5~~	~~7.19~~		~~1 gallons~~
11:30 am	625	18.0	7.33		1 gallon
11:35 am	557	18.0	7.24		2 gallons
11:40 am	580	18.2	7.23		3 gallons
11:45 am	556	18.1	7.19		4 gallons
11:50 am	481	18.0	7.17		5 gallons
11:53 am	484	17.9	7.14		5.25 gall
11:56 am	496	17.9	7.20		5.50 gall Sample

Comments: _____

WELL SAMPLING LOG

Project No. : _____ Well ID: MW-2

Project Name: SALISBURY Sampled by: EEC Sami Maigel

Location: 2145 35th Avenue Date: December 6, 2012

Oakland, CA

Well Diameter:	4"
Total Well Depth:	15.40'
Depth to Water:	9.56'
Water Column:	5.84'
Calculated Purge:	11.50 gallons
Actual Purge:	
Free Product:	
Product Sheen:	

Purge Volume Calculations for Three Casing Volume Purge	
Volume Per One Foot of Well:	0.653 gallons
$\pi r^2 \times 1$	
Volume of One Casing:	3.81
Volume of Three Casings:	11.44 gallons ~ 11.5 gall

Purge Method: using disposable bailer Sampling Method: 3 volume Purge or Parameter stabilizati

Did Well go dry? Sample Time: 3:00 P.M.

Post Purge Depth to Water (DTW)

Time	DTW
2:56 P.M.	10.40'

Analyze for:

Time	Conductivity µS	Temperature °C	pH	Salinity	Volume Purged
2:20 P.M.	686	18.8	6.84		1 Gallon
2:30 P.M.	813	18.8	6.84		5 Gallons
2:40 P.M.	754	18.8	6.89		8 Gallons
2:45 P.M.	706	18.8	6.93		9 Gallons
2:50 P.M.	735	18.8	6.91		10 Gallon
2:53 P.M.	724	18.8	6.94		11 Gallons
2:55	721	18.9	6.92		12 Gallons

Comments: _____

WELL SAMPLING LOG

Project No. : _____

Project Name: SALISBURY

Location: 2145 35th Avenue
Oakland, CA

Well ID: MW-3

Sampled by: EEC Sami Malaeb

Date: December 6, 2011

Well Diameter:	4"
Total Well Depth:	17.68
Depth to Water:	9.67'
Water Column:	8.01'
Calculated Purge:	~~4.0~~ gallon
Actual Purge:	~~15.7~~ 16 Gal
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~~ 0.653 gallons
Volume of One Casing:	~~5.23~~ 5.23 gallons
Volume of Three Casings:	~~15.70~~ 15.70 ~ ~~16~~ gallons

Purge Method: using disposable bailer

Did Well go dry?

Sampling Method: 3 volume purge on stabilization of parameters

Sample Time:

Post Purge Depth to Water (DTW)

Time	DTW
1:40 p.m.	10.40'

Analyze for:

Time	Conductivity µS	Temperature °C	pH	Salinity	Volume Purged
12:45 p.m.	631	19.6	6.93		1 GALLON
1:00 p.m.	815	19.4	6.86		5 Gallons
1:10 p.m.	723	19.5	6.88		7 Gallons
1:15 p.m.	692	19.5	6.89		10 Gallons
1:20 p.m.	664	19.3	6.90		12 Gallons
1:25 p.m.	676	~~19.4~~	~~7.44~~		13 Gallons
1:30 p.m.	665	19.4	6.96 → 6.93		14 gallons
1:35 p.m.	643	19.4	6.91		15 Gallons
1:40 p.m.	651	19.5	6.96		16 Gallons

Comments: _____

WELL SAMPLING LOG

Project No. :

Project Name: SALESBORY

Location: 2145 35th Avenue
Oakland, CA

Well ID: MW-4

Sampled by: EEC Sami McGee

Date: December 6, 201~

Well Diameter:	2"
Total Well Depth:	17.72'
Depth to Water:	9.17'
Water Column:	8.55'
Calculated Purge:	4.20 gallons
Actual Purge:	5.50 gallons
Free Product:	
Product Sheen:	

Purge Volume Calculations for Three Casing Volume Purge	
Volume Per One Foot of Well:	0.163
$\pi r^2 \times 1$	
Volume of One Casing:	0.653 gallons
	1.40 gallons
Volume of Three Casings:	4.20 gallons

Purge Method: By Disposable bailer

Did Well go dry?

Sampling Method: 3 volumes or parameter stabilization

Sample Time: 10:50 a.m.

Post Purge Depth to Water (DTW)

Time	DTW
11:15 a.m.	9.25'

Analyze for:

Time	Conductivity MS	Temperature °C	pH	Salinity	Volume Purged
10:05 a.m.	731	18.5	7.19		1 Gallon
10:25 a.m.	583	19.0	7.19		2 "
10:30 a.m.	586	19.1	7.18		3 "
10:35 a.m.	583	19.3	7.12		4 gallons
10:40 a.m.	564	19.1	7.13		5 gallons
10:45 a.m.	550	18.8	7.01		5.5 gallons sample

Comments:

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 241776
ANALYTICAL REPORT

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

Sample ID	Lab ID
MW-1	241776-001
MW-2	241776-002
MW-3	241776-003
MW-4	241776-004
TB	241776-005

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: Desiree N. Tetrault Date: 12/20/2012

Desiree N. Tetrault
Project Manager
(510) 486-0900

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**241776**
Client:	**Eagle Env. Construction**
Project:	**SALISBURY PROJECT**
Location:	**Salisbury Project**
Request Date:	**12/06/12**
Samples Received:	**12/06/12**

This data package contains sample and QC results for five water samples, requested for the above referenced project on 12/06/12. 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.

Metals (EPA 6010B):
No analytical problems were encountered.

CHAIN OF CUSTODY

Curtis & Tompkins Laboratories
ENVIRONMENTAL ANALYTICAL TESTING LABORATORY
In Business Since 1878

2323 Fifth Street
Berkeley, CA 94710

Phone (510) 486-0900
Fax (510) 486-0532

Geotracker GLOBAL ID: T0619778840

Page 1 of 2

Chain of Custody # _____

C&T LOGIN # 241776

Project No:

Project Name: SALISBURY PROJECT

Project P. O. No: 2145 35th Ave, Oakland

EDD Format:

Report Level ☐ II ☐ III ☐ IV

Turnaround Time: ☐ RUSH ☑ Standard

Sampler: EEC R.M.

Report To: SAMI MALAEB

Company: EEC

Telephone: (925) 858-9608

Email: S.MALAEB@comcast.net

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST																			
		Date Collected	Time Collected	Water	Solid				HCl	H_2SO_4	HNO_3	NaOH	None	TPH-G; TPH-ss by 8015B	BTEX; NAPHTHALENE; and MTBE by 8260B	TPH-D; TPH-MO; and TPA-hydraulic oil by 8015	LUFT FIVE METALS EPA 6010B																
1	MW-1	12/06/12	12:00p	X				3						X																		
	MW-1	"	"	X				3							X																	
	MW-1	"	"	X				2								X																
	MW-1	"	"	X				1									X															
2	MW-2	"	3:00p	X				3						X																		
	MW-2	"	"	X				3							X																	
	MW-2	"	"	X				2								X																
	MW-2	"	"	X				1									X															
3	MW-3	"	1:30p	X				3						X																		
	MW-3	"	"	X				3							X																	
	MW-3	"	"	X				2								X																
	MW-3	"	"	X				1									X															

Notes: please filter plastic containers Same day for LUFT 5 METAL ANALYSIS

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
DATE: 12/06/12 TIME: 5:00
DATE: TIME:
DATE: TIME:

RECEIVED BY:
DATE: 12/6 TIME: 1700
DATE: TIME:
DATE: TIME:

CHAIN OF CUSTODY

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Page 2 of 2

Chain of Custody # _____

C&T LOGIN # 241776

Project No: _____

Project Name: SALISBURY PROJECT

Project P. O. No: 2145 35th. Ave., Oakland

EDD Format: Report Level ☐ II ☐ III ☐ IV

Turnaround Time: ☐ RUSH _____ ☒ Standard

Sampler: EEC 8.M

Report To: SAMI MALAEB

Company: EEC

Telephone: (925) 858-9608

Email: S.MALAEB@COMCAST.NET

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	TPH-G; TPH-SS by 8015B
4	MW-4	12/06/11	1050a	x				3						x
	MW-4	"	"	x				3						
	MW-4	"	"	x				2						
	MW-4	"	"	x				1						
	TB	"		x				1						

BTEX; Naphthalene; and MTBE by 8260B	TPH-D; TPH-MO; and TPH-hydraulic oil by 8015B	LUFT FIVE METALS by EPA 6010B
x		
	x	
		x
x		

Notes: Please filter plastic containers Same day for LUFT 5 METAL ANALYSES

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY: _____ DATE: 12/06/11 TIME: 5:?

DATE: _____ TIME: _____

DATE: _____ TIME: _____

RECEIVED BY: _____ DATE: 12/6 TIME: 1700

DATE: _____ TIME: _____

DATE: _____ TIME: _____

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 241776 Date Received 12/6/12 Number of coolers 1
Client EEC Project Salisbury Project

Date Opened 12/6/12 By (print) EL (sign) E. Lemy
Date Logged in ↓ By (print) ↓ (sign) ↓

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) 2.0

☐ Samples Received on ice & cold without a temperature blank; temp. taken with 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? _____ 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

_____
_____
_____
_____
_____
_____

Rev 10, 11/11

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	241776	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	12/06/12
Units:	ug/L	Received:	12/06/12
Diln Fac:	1.000		

Field ID: MW-1 Batch#: 193613
Type: SAMPLE Analyzed: 12/07/12
Lab ID: 241776-001

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

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	113	75-124

Field ID: MW-2 Batch#: 193675
Type: SAMPLE Analyzed: 12/10/12
Lab ID: 241776-002

Analyte	Result	RL
Gasoline C7-C12	5,000	50
Stoddard Solvent C7-C12	3,300 Y	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	103	75-124

Field ID: MW-3 Batch#: 193675
Type: SAMPLE Analyzed: 12/10/12
Lab ID: 241776-003

Analyte	Result	RL
Gasoline C7-C12	1,200	50
Stoddard Solvent C7-C12	800 Y	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	102	75-124

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

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	241776	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	12/06/12
Units:	ug/L	Received:	12/06/12
Diln Fac:	1.000		

Field ID: MW-4 Batch#: 193613
Type: SAMPLE Analyzed: 12/07/12
Lab ID: 241776-004

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

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	112	75-124

Type: BLANK Batch#: 193613
Lab ID: QC669174 Analyzed: 12/07/12

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

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	106	75-124

Type: BLANK Batch#: 193675
Lab ID: QC669439 Analyzed: 12/10/12

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

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	95	75-124

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 #:	241776	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC669173	Batch#:	193613
Matrix:	Water	Analyzed:	12/07/12
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	975.6	98	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	105	75-124

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	241776	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	193613
MSS Lab ID:	241783-001	Sampled:	12/05/12
Matrix:	Water	Received:	12/06/12
Units:	ug/L	Analyzed:	12/07/12
Diln Fac:	1.000		

Type: MS Lab ID: QC669175

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	17.88	2,000	2,060	102	71-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	119	75-124

Type: MSD Lab ID: QC669176

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,923	95	71-120	7	22

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	117	75-124

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	241776	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC669438	Batch#:	193675
Matrix:	Water	Analyzed:	12/10/12
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	1,041	104	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	100	75-124

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	241776	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8015B
Field ID:	MW-2	Batch#:	193675
MSS Lab ID:	241776-002	Sampled:	12/06/12
Matrix:	Water	Received:	12/06/12
Units:	ug/L	Analyzed:	12/10/12
Diln Fac:	1.000		

Type: MS Lab ID: QC669440

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	4,979	2,000	6,417	72	71-120

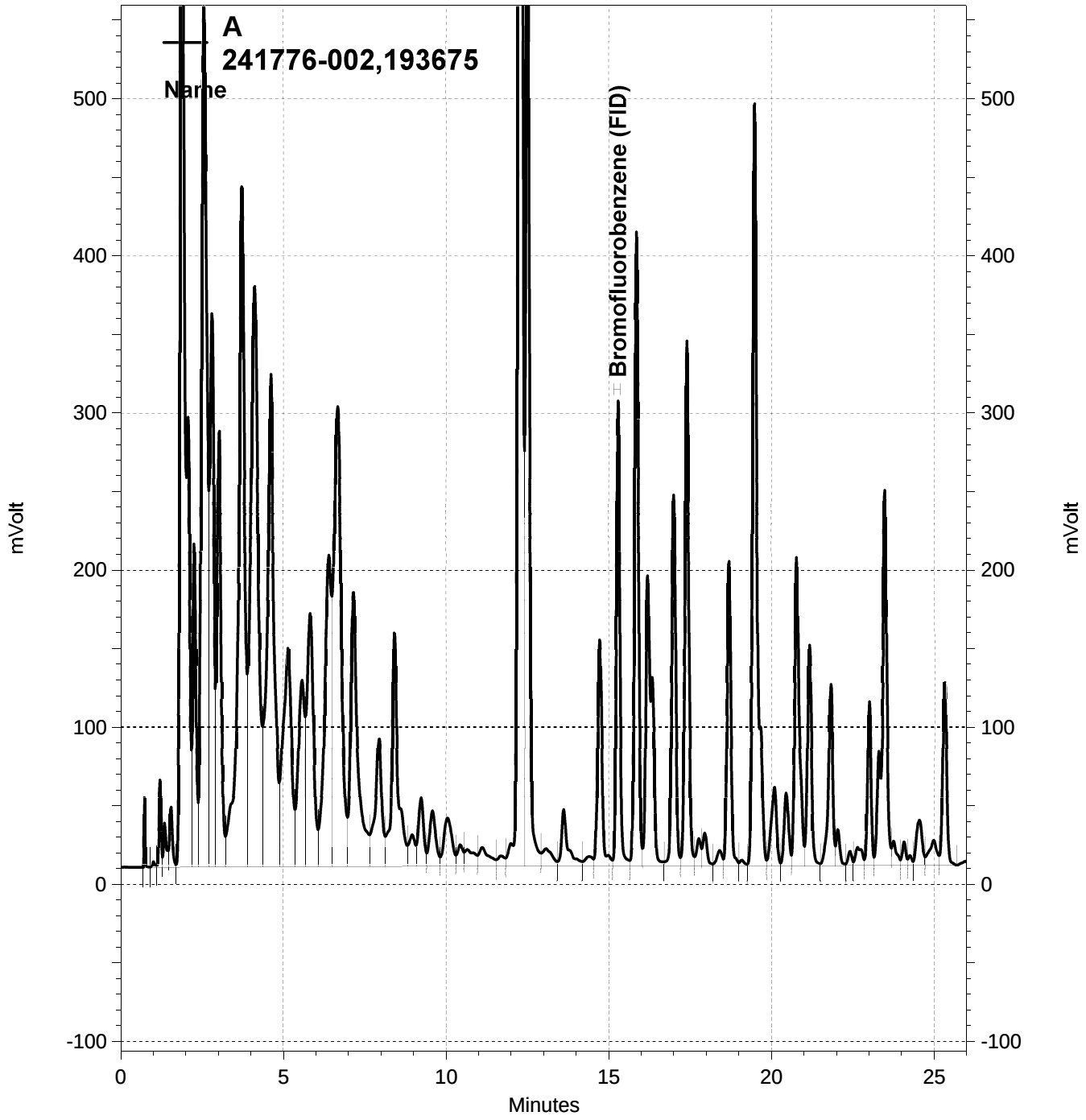
Surrogate	%REC	Limits
Bromofluorobenzene (FID)	105	75-124

Type: MSD Lab ID: QC669441

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	6,492	76	71-120	1	22

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	106	75-124

RPD= Relative Percent Difference



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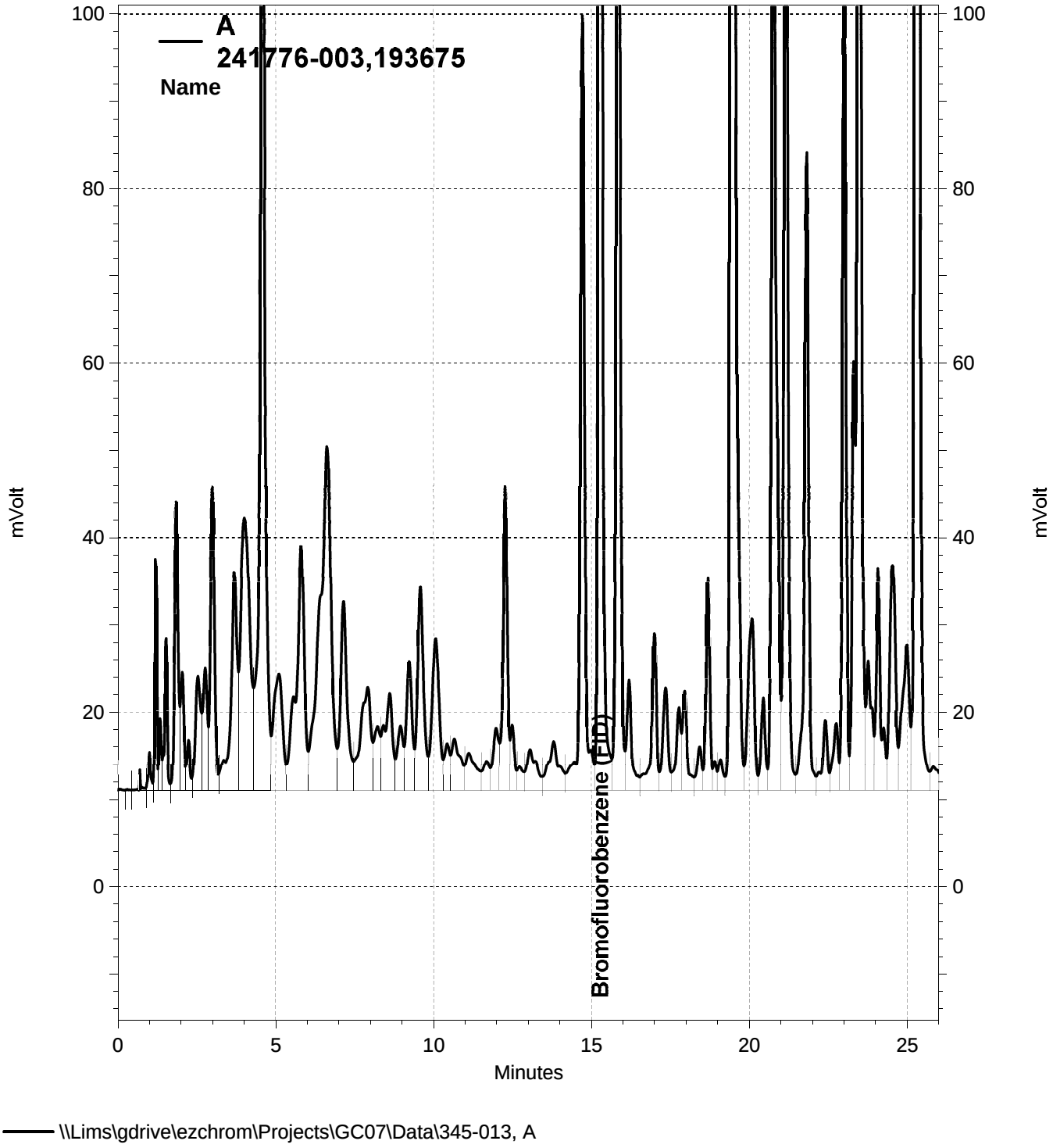
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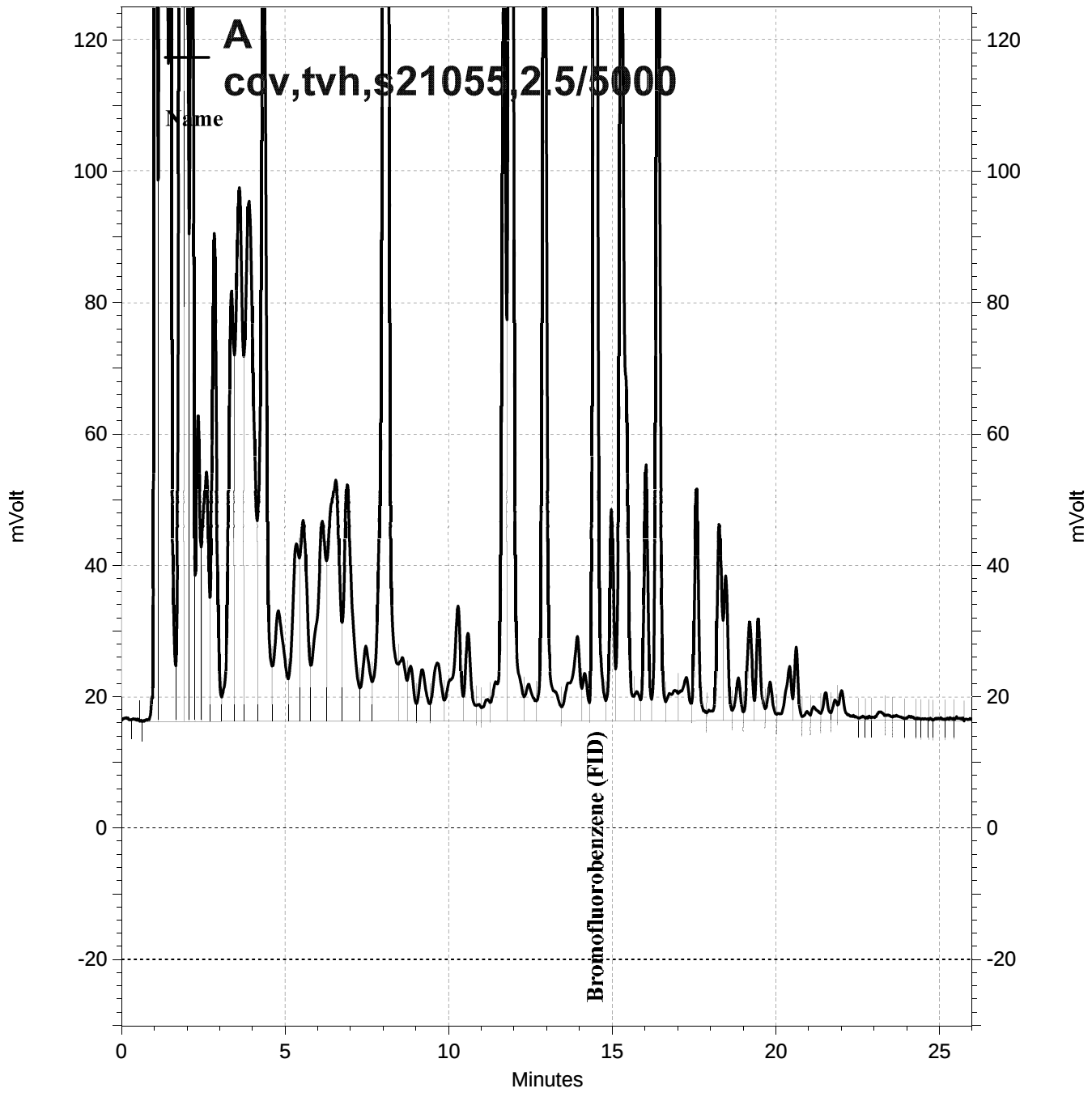

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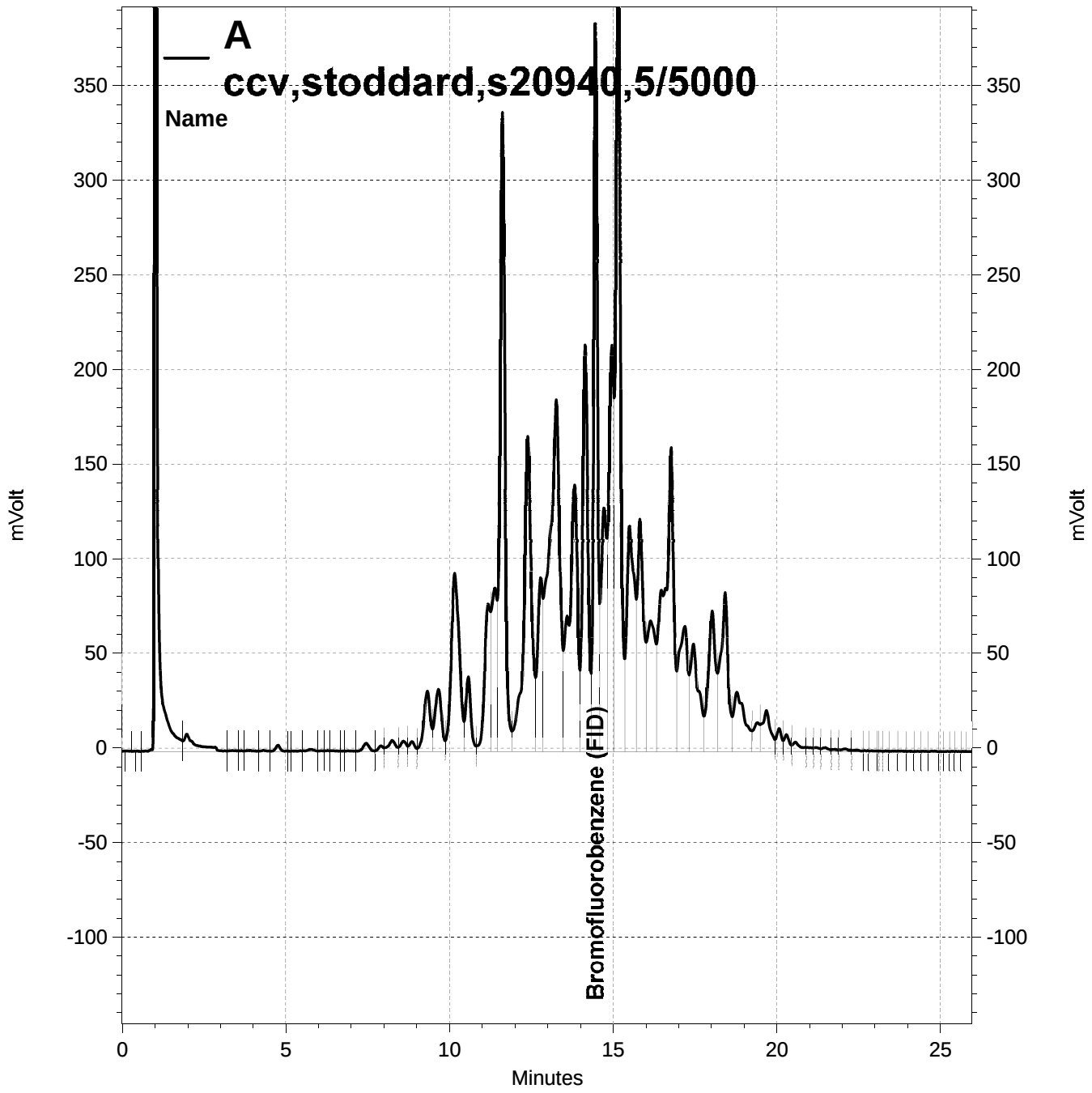
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Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	241776	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 3520C
Project#:	SALISBURY PROJECT	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	12/06/12
Units:	ug/L	Received:	12/06/12
Diln Fac:	1.000	Prepared:	12/11/12
Batch#:	193711	Analyzed:	12/12/12

Field ID: MW-1 Lab ID: 241776-001
Type: SAMPLE

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	103	61-134

Field ID: MW-2 Lab ID: 241776-002
Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	2,300	50
Motor Oil C24-C36	ND	300
Hydraulic Fluid, C12-40	1,500 Y	300

Surrogate	%REC	Limits
o-Terphenyl	107	61-134

Field ID: MW-3 Lab ID: 241776-003
Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	2,000	50
Motor Oil C24-C36	ND	300
Hydraulic Fluid, C12-40	1,600 Y	300

Surrogate	%REC	Limits
o-Terphenyl	105	61-134

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

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	241776	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 3520C
Project#:	SALISBURY PROJECT	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	12/06/12
Units:	ug/L	Received:	12/06/12
Diln Fac:	1.000	Prepared:	12/11/12
Batch#:	193711	Analyzed:	12/12/12

Field ID: MW-4 Lab ID: 241776-004
Type: SAMPLE

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	103	61-134

Type: BLANK Lab ID: QC669591

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	104	61-134

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 #:	241776	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 3520C
Project#:	SALISBURY PROJECT	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC669592	Batch#:	193711
Matrix:	Water	Prepared:	12/11/12
Units:	ug/L	Analyzed:	12/12/12

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	1,899	76	60-120

Surrogate	%REC	Limits
o-Terphenyl	104	61-134

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	241776	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 3520C
Project#:	SALISBURY PROJECT	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	193711
MSS Lab ID:	241722-003	Sampled:	12/03/12
Matrix:	Water	Received:	12/05/12
Units:	ug/L	Prepared:	12/11/12
Diln Fac:	1.000	Analyzed:	12/12/12

Type: MS Lab ID: QC669593

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	2,365	2,500	4,840	99	44-135

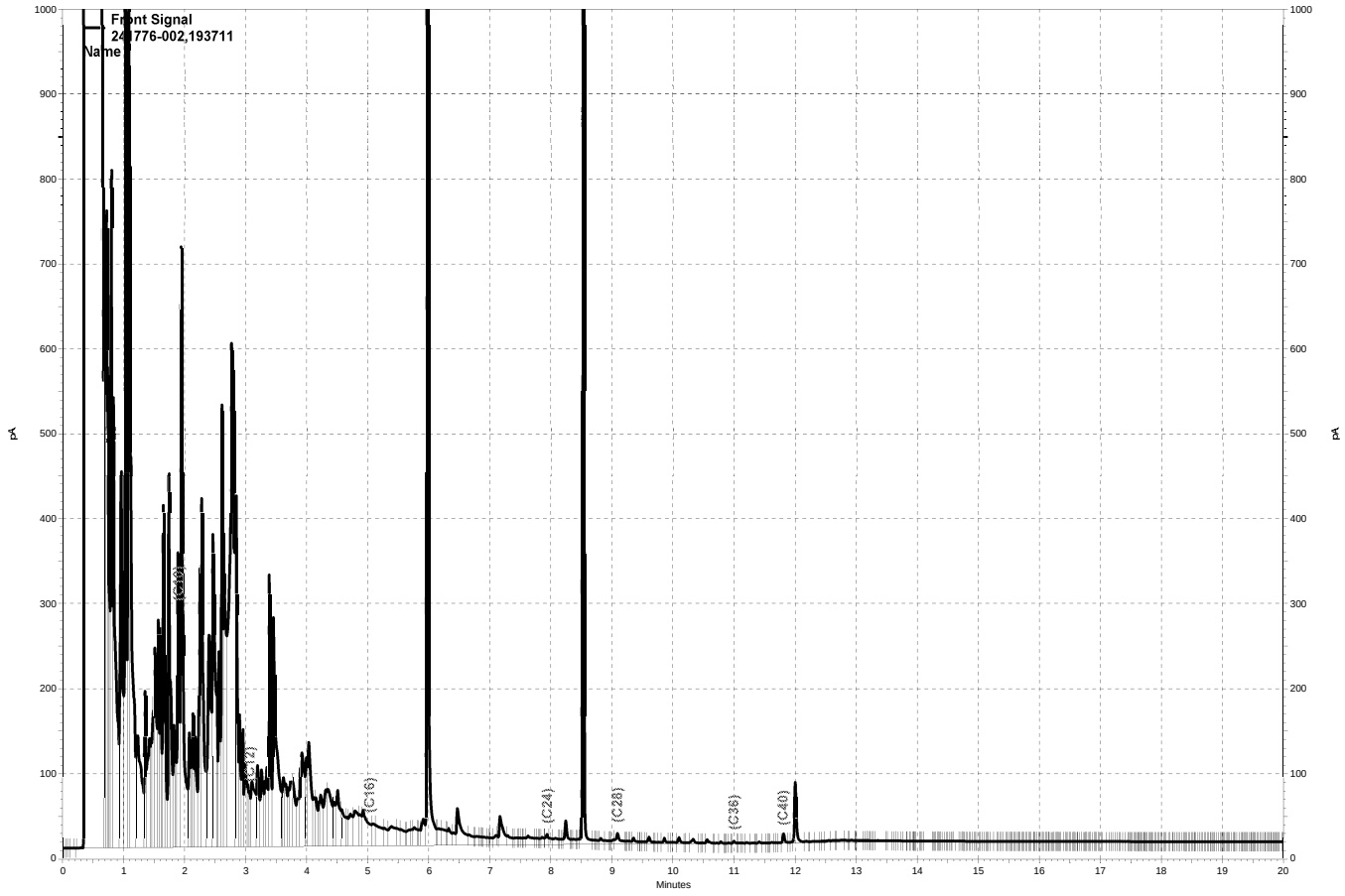
Surrogate	%REC	Limits
o-Terphenyl	103	61-134

Type: MSD Lab ID: QC669594

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	5,000	7,465	102	44-135	2	42

Surrogate	%REC	Limits
o-Terphenyl	102	61-134

RPD= Relative Percent Difference



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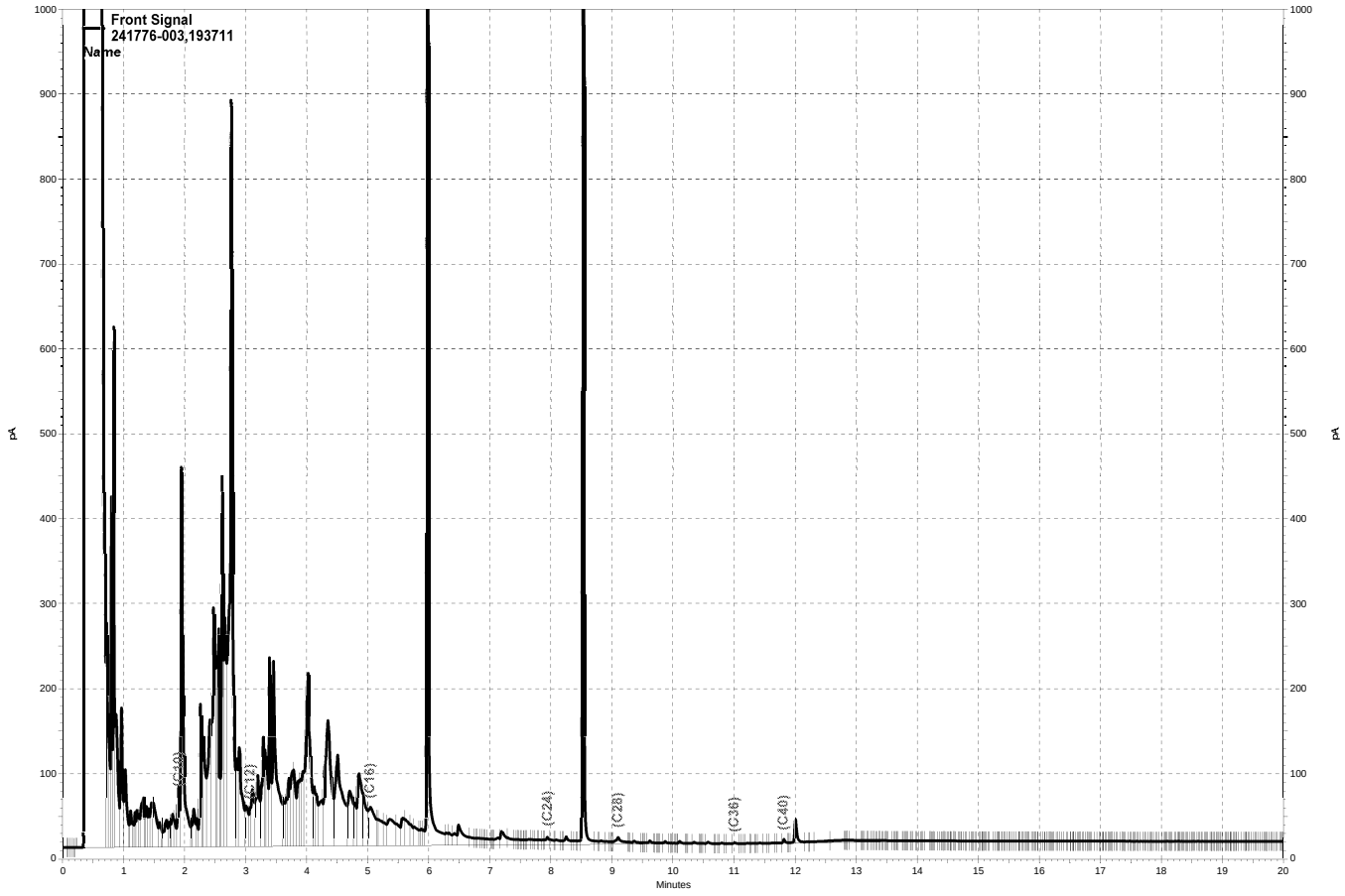

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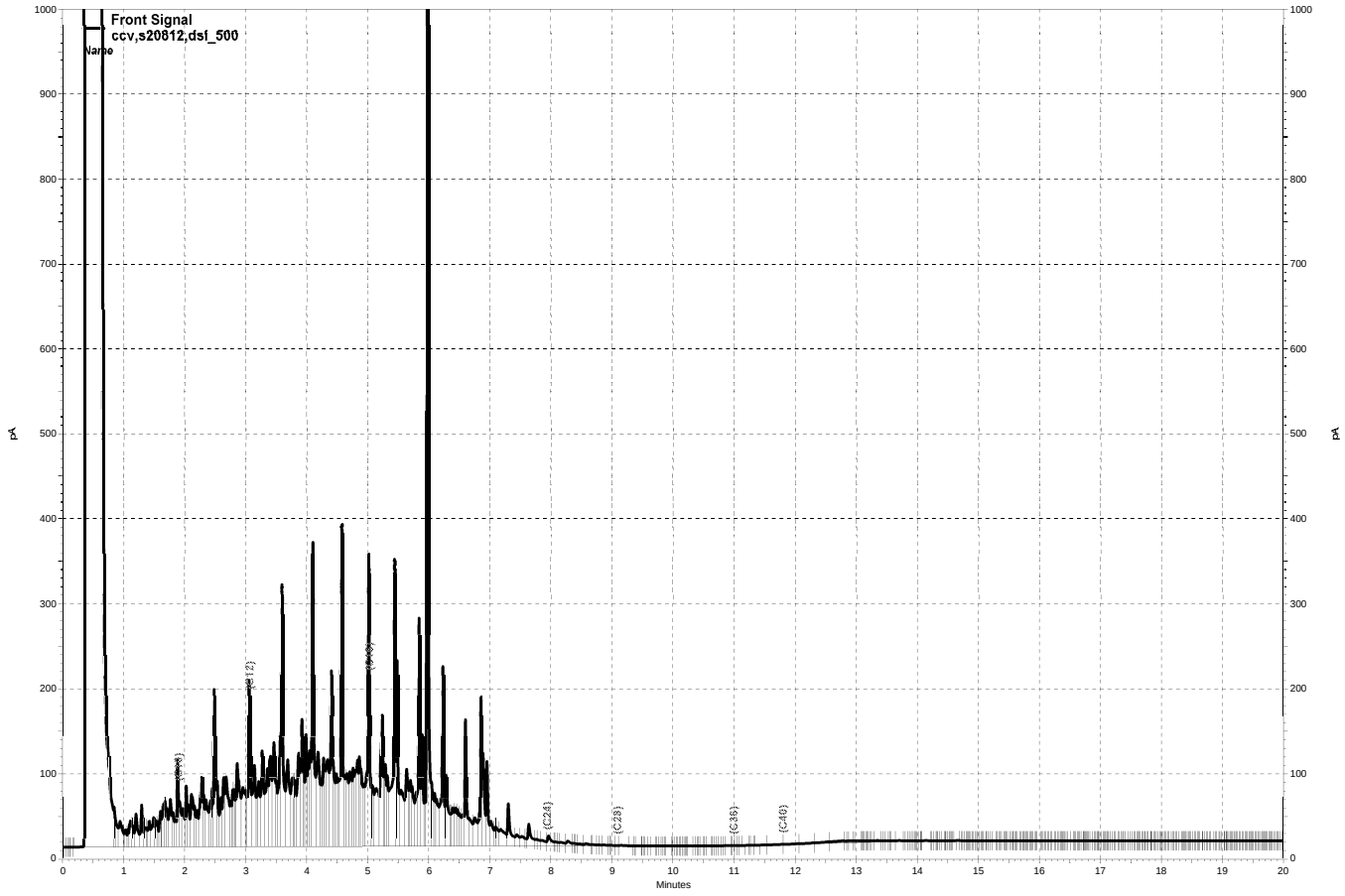

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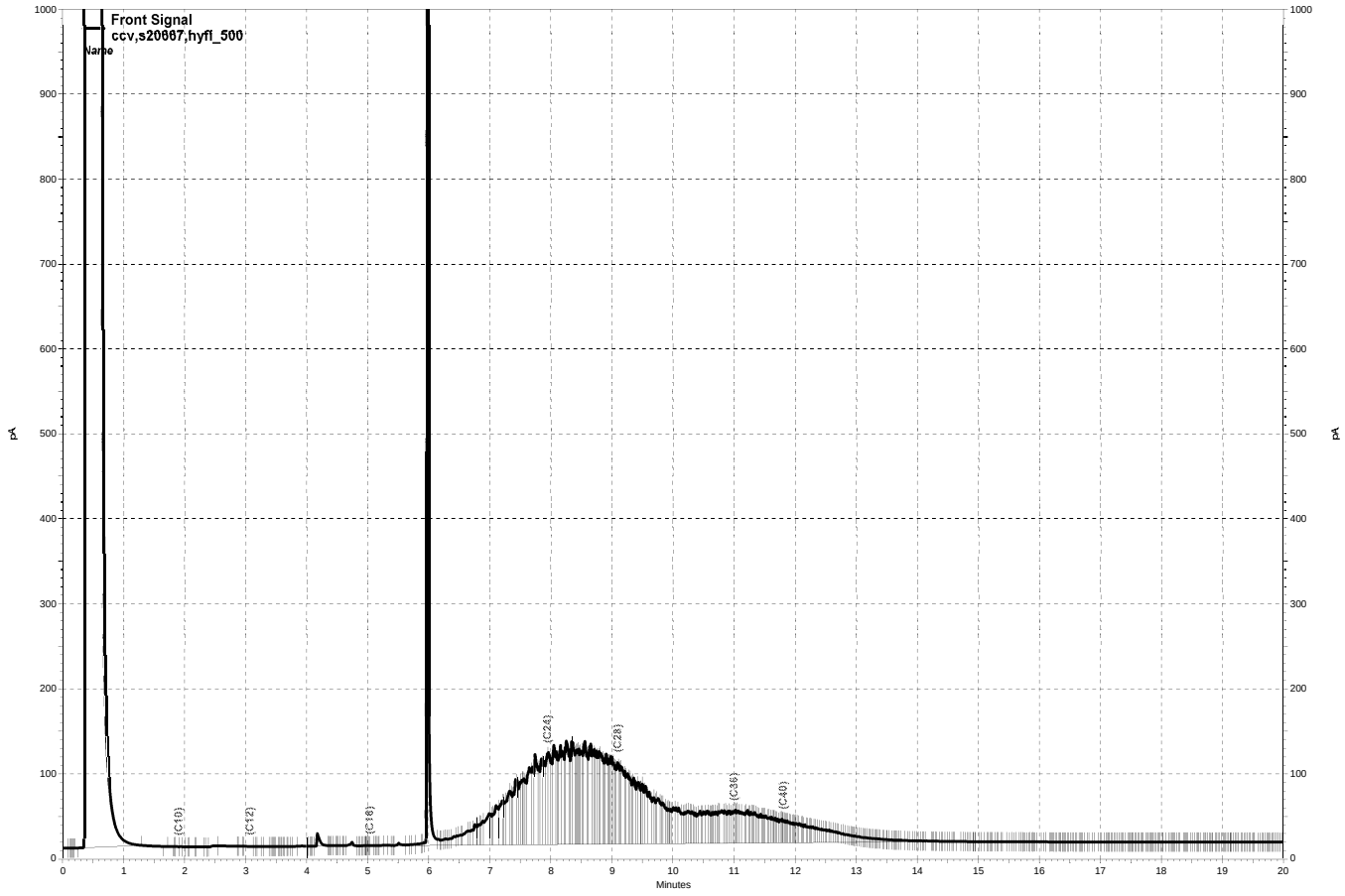

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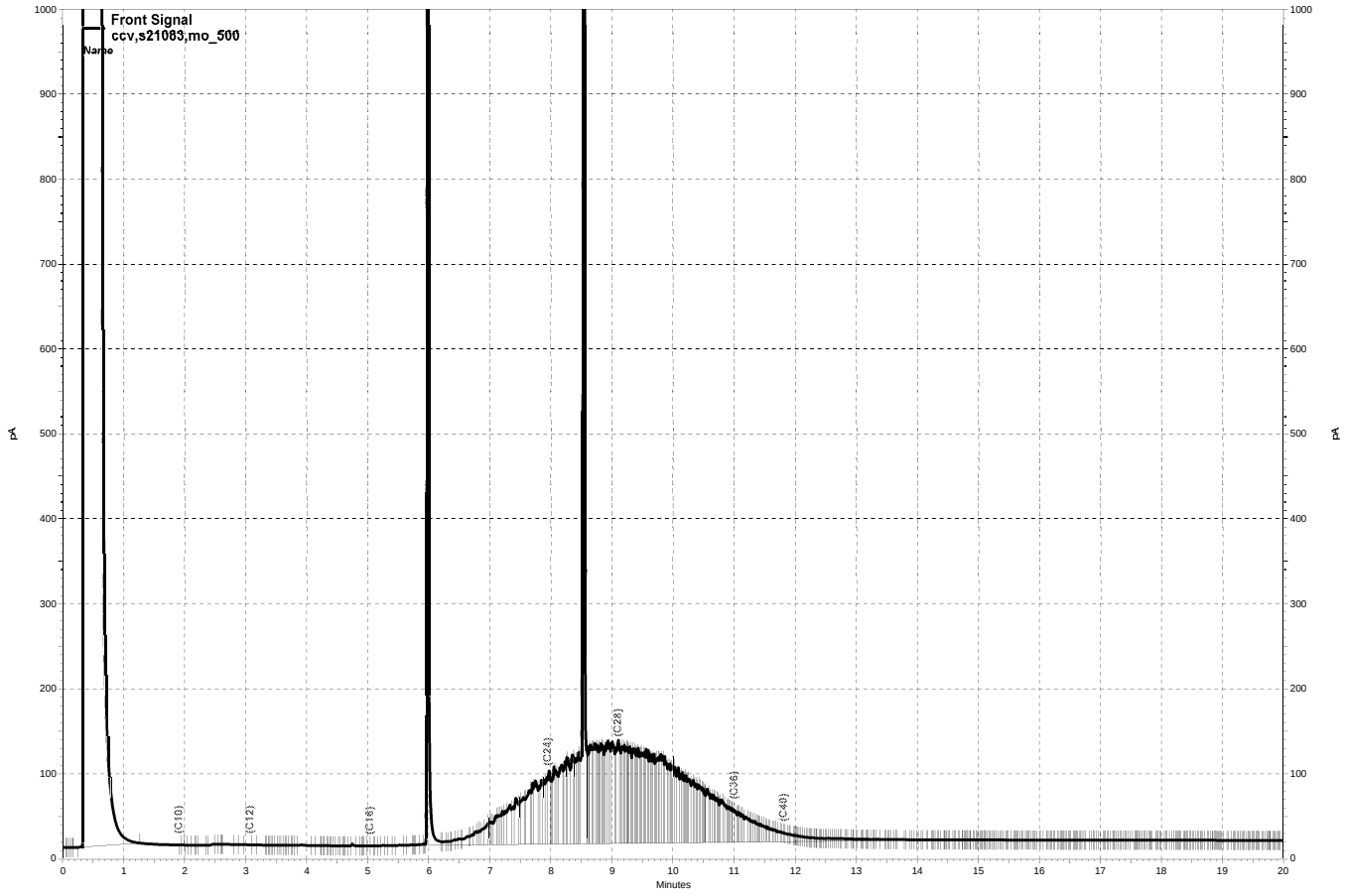

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Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	241776	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B
Field ID:	MW-1	Batch#:	193815
Lab ID:	241776-001	Sampled:	12/06/12
Matrix:	Water	Received:	12/06/12
Units:	ug/L	Analyzed:	12/13/12
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	112	80-127
1,2-Dichloroethane-d4	115	69-148
Toluene-d8	100	80-120
Bromofluorobenzene	113	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	241776	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B
Field ID:	MW-2	Units:	ug/L
Lab ID:	241776-002	Sampled:	12/06/12
Matrix:	Water	Received:	12/06/12

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
MTBE	ND	0.5	1.000	193815	12/13/12
Benzene	92	0.5	1.000	193815	12/13/12
Toluene	42	0.5	1.000	193815	12/13/12
Ethylbenzene	460	4.2	8.333	193870	12/14/12
m,p-Xylenes	170	4.2	8.333	193870	12/14/12
o-Xylene	9.6	0.5	1.000	193815	12/13/12
Naphthalene	62	2.0	1.000	193815	12/13/12

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	108	80-127	1.000	193815	12/13/12
1,2-Dichloroethane-d4	113	69-148	1.000	193815	12/13/12
Toluene-d8	100	80-120	1.000	193815	12/13/12
Bromofluorobenzene	105	80-121	1.000	193815	12/13/12

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	241776	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B
Field ID:	MW-3	Units:	ug/L
Lab ID:	241776-003	Sampled:	12/06/12
Matrix:	Water	Received:	12/06/12

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
MTBE	ND	0.5	1.000	193870	12/14/12
Benzene	36	0.5	1.000	193870	12/14/12
Toluene	0.8	0.5	1.000	193870	12/14/12
Ethylbenzene	9.2	0.5	1.000	193870	12/14/12
m,p-Xylenes	0.6	0.5	1.000	193870	12/14/12
o-Xylene	ND	0.5	1.000	193870	12/14/12
Naphthalene	120	10	5.000	194007	12/19/12

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	99	80-127	1.000	193870	12/14/12
1,2-Dichloroethane-d4	96	69-148	1.000	193870	12/14/12
Toluene-d8	101	80-120	1.000	193870	12/14/12
Bromofluorobenzene	100	80-121	1.000	193870	12/14/12

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	241776	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B
Field ID:	MW-4	Batch#:	194007
Lab ID:	241776-004	Sampled:	12/06/12
Matrix:	Water	Received:	12/06/12
Units:	ug/L	Analyzed:	12/19/12
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	102	80-127
1,2-Dichloroethane-d4	73	69-148
Toluene-d8	99	80-120
Bromofluorobenzene	100	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	241776	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B
Field ID:	TB	Batch#:	193815
Lab ID:	241776-005	Sampled:	12/06/12
Matrix:	Water	Received:	12/06/12
Units:	ug/L	Analyzed:	12/13/12
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	116	80-127
1,2-Dichloroethane-d4	117	69-148
Toluene-d8	100	80-120
Bromofluorobenzene	116	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	241776	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	193815
Units:	ug/L	Analyzed:	12/13/12
Diln Fac:	1.000		

Type: BS Lab ID: QC670029

Analyte	Spiked	Result	%REC	Limits
MTBE	12.50	11.90	95	59-120
Benzene	12.50	12.38	99	80-123
Toluene	12.50	12.13	97	80-120
Ethylbenzene	12.50	12.79	102	80-123
m,p-Xylenes	25.00	25.76	103	80-123
o-Xylene	12.50	11.98	96	80-122

Surrogate	%REC	Limits
Dibromofluoromethane	108	80-127
1,2-Dichloroethane-d4	112	69-148
Toluene-d8	101	80-120
Bromofluorobenzene	110	80-121

Type: BSD Lab ID: QC670030

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	12.50	12.45	100	59-120	4	20
Benzene	12.50	12.67	101	80-123	2	20
Toluene	12.50	12.09	97	80-120	0	20
Ethylbenzene	12.50	12.55	100	80-123	2	20
m,p-Xylenes	25.00	25.86	103	80-123	0	20
o-Xylene	12.50	11.88	95	80-122	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	110	80-127
1,2-Dichloroethane-d4	117	69-148
Toluene-d8	98	80-120
Bromofluorobenzene	109	80-121

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	241776	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC670031	Batch#:	193815
Matrix:	Water	Analyzed:	12/13/12
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	110	80-127
1,2-Dichloroethane-d4	116	69-148
Toluene-d8	99	80-120
Bromofluorobenzene	113	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	241776	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	193870
Units:	ug/L	Analyzed:	12/14/12
Diln Fac:	1.000		

Type: BS Lab ID: QC670246

Analyte	Spiked	Result	%REC	Limits
MTBE	12.50	11.92	95	59-120
Benzene	12.50	11.69	94	80-123
Toluene	12.50	11.81	94	80-120
Ethylbenzene	12.50	12.12	97	80-123
m,p-Xylenes	25.00	23.32	93	80-123
o-Xylene	12.50	11.45	92	80-122

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-127
1,2-Dichloroethane-d4	102	69-148
Toluene-d8	102	80-120
Bromofluorobenzene	99	80-121

Type: BSD Lab ID: QC670247

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	12.50	12.15	97	59-120	2	20
Benzene	12.50	12.09	97	80-123	3	20
Toluene	12.50	12.15	97	80-120	3	20
Ethylbenzene	12.50	12.29	98	80-123	1	20
m,p-Xylenes	25.00	24.13	97	80-123	3	20
o-Xylene	12.50	11.82	95	80-122	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-127
1,2-Dichloroethane-d4	103	69-148
Toluene-d8	102	80-120
Bromofluorobenzene	100	80-121

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	241776	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC670248	Batch#:	193870
Matrix:	Water	Analyzed:	12/14/12
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	105	80-127
1,2-Dichloroethane-d4	103	69-148
Toluene-d8	103	80-120
Bromofluorobenzene	102	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	241776	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	194007
Units:	ug/L	Analyzed:	12/19/12
Diln Fac:	1.000		

Type: BS Lab ID: QC670803

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	18.72	75	59-120
Benzene	25.00	28.88	116	80-123
Toluene	25.00	28.66	115	80-120
Ethylbenzene	25.00	27.51	110	80-123
m,p-Xylenes	50.00	55.00	110	80-123
o-Xylene	25.00	26.03	104	80-122

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-127
1,2-Dichloroethane-d4	72	69-148
Toluene-d8	99	80-120
Bromofluorobenzene	96	80-121

Type: BSD Lab ID: QC670804

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	25.00	18.71	75	59-120	0	20
Benzene	25.00	29.72	119	80-123	3	20
Toluene	25.00	28.74	115	80-120	0	20
Ethylbenzene	25.00	27.86	111	80-123	1	20
m,p-Xylenes	50.00	53.71	107	80-123	2	20
o-Xylene	25.00	26.41	106	80-122	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-127
1,2-Dichloroethane-d4	73	69-148
Toluene-d8	101	80-120
Bromofluorobenzene	99	80-121

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	241776	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	EPA 5030B
Project#:	SALISBURY PROJECT	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC670807	Batch#:	194007
Matrix:	Water	Analyzed:	12/19/12
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	101	80-127
1,2-Dichloroethane-d4	72	69-148
Toluene-d8	99	80-120
Bromofluorobenzene	99	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Dissolved California LUFT Metals

Lab #:	241776	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	METHOD
Project#:	SALISBURY PROJECT	Analysis:	EPA 6010B
Matrix:	Filtrate	Sampled:	12/06/12
Units:	ug/L	Received:	12/06/12
Diln Fac:	1.000	Prepared:	12/12/12
Batch#:	193793	Analyzed:	12/14/12

Field ID: MW-1 Lab ID: 241776-001
Type: SAMPLE

Analyte	Result	RL
Cadmium	ND	5.0
Chromium	ND	5.0
Lead	ND	5.0
Nickel	7.6	5.0
Zinc	ND	20

Field ID: MW-2 Lab ID: 241776-002
Type: SAMPLE

Analyte	Result	RL
Cadmium	ND	5.0
Chromium	ND	5.0
Lead	ND	5.0
Nickel	ND	5.0
Zinc	ND	20

Field ID: MW-3 Lab ID: 241776-003
Type: SAMPLE

Analyte	Result	RL
Cadmium	ND	5.0
Chromium	ND	5.0
Lead	ND	5.0
Nickel	6.1	5.0
Zinc	ND	20

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Dissolved California LUFT Metals

Lab #:	241776	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	METHOD
Project#:	SALISBURY PROJECT	Analysis:	EPA 6010B
Matrix:	Filtrate	Sampled:	12/06/12
Units:	ug/L	Received:	12/06/12
Diln Fac:	1.000	Prepared:	12/12/12
Batch#:	193793	Analyzed:	12/14/12

Field ID: MW-4 Lab ID: 241776-004
Type: SAMPLE

Analyte	Result	RL
Cadmium	ND	5.0
Chromium	ND	5.0
Lead	ND	5.0
Nickel	9.7	5.0
Zinc	ND	20

Type: BLANK Lab ID: QC669938

Analyte	Result	RL
Cadmium	ND	5.0
Chromium	ND	5.0
Lead	ND	5.0
Nickel	ND	5.0
Zinc	ND	20

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Dissolved California LUFT Metals

Lab #:	241776	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	METHOD
Project#:	SALISBURY PROJECT	Analysis:	EPA 6010B
Matrix:	Filtrate	Batch#:	193793
Units:	ug/L	Prepared:	12/12/12
Diln Fac:	1.000	Analyzed:	12/14/12

Type: BS Lab ID: QC669939

Analyte	Spiked	Result	%REC	Limits
Cadmium	50.00	50.44	101	80-120
Chromium	200.0	194.1	97	80-120
Lead	100.0	96.18	96	78-120
Nickel	500.0	475.7	95	80-120
Zinc	500.0	501.4	100	80-120

Type: BSD Lab ID: QC669940

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Cadmium	50.00	49.62	99	80-120	2	20
Chromium	200.0	192.8	96	80-120	1	20
Lead	100.0	94.78	95	78-120	1	20
Nickel	500.0	470.5	94	80-120	1	20
Zinc	500.0	492.6	99	80-120	2	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Dissolved California LUFT Metals

Lab #:	241776	Location:	Salisbury Project
Client:	Eagle Env. Construction	Prep:	METHOD
Project#:	SALISBURY PROJECT	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	193793
MSS Lab ID:	241820-001	Sampled:	12/07/12
Matrix:	Filtrate	Received:	12/10/12
Units:	ug/L	Prepared:	12/12/12
Diln Fac:	1.000	Analyzed:	12/14/12

Type: MS Lab ID: QC669941

Analyte	MSS Result	Spiked	Result	%REC	Limits
Cadmium	<0.4753	50.00	48.08	96	76-120
Chromium	<0.6310	200.0	185.5	93	74-120
Lead	<1.552	100.0	92.11	92	65-120
Nickel	2.979	500.0	455.4	90	74-120
Zinc	201.4	500.0	666.1	93	75-124

Type: MSD Lab ID: QC669942

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Cadmium	50.00	49.03	98	76-120	2	20
Chromium	200.0	191.0	96	74-120	3	21
Lead	100.0	93.97	94	65-120	2	29
Nickel	500.0	464.9	92	74-120	2	21
Zinc	500.0	675.1	95	75-124	1	27

RPD= Relative Percent Difference