CONESTOGA-ROVERS & ASSOCIATES

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TRANSMITTAL

DATE: June 3, 2013

REFERENCE NO.: 240781

PROJECT NAME: 2703 Martin Luther King Jr. Way, Oakland

TO: Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Please find enclosed:
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- ☐ Originals
- ☐ Prints
- ☒ Final
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QUANTITY	DESCRIPTION
1	Subsurface Investigation Report

- ☐ As Requested
- ☐ For Your Use
- ☒ For Review and Comment
- ☐
- ☐

COMMENTS:
If you have any questions regarding the contents of this document, please contact Peter Schaefer at (510) 420-3319.

Copy to: Perry Pineda, Shell Oil Products US (electronic copy)
Rodney & Janet Kwan (property owners), Auto Tech West, 2703 Martin Luther King Jr. Way, Oakland, CA 94612-1117
Solomon Tesfa (adjacent property owner), 484 Lake Park Avenue #288, Oakland, CA 94610
Wilfrid Kintonouza (adjacent property owner, electronic copy)

Completed by: Peter Schaefer Signed: Peter Schaefer

Filing: **Correspondence File**

Shell Oil Products US
Soil and Groundwater Focus Delivery Group
20945 S. Wilmington Avenue
Carson, CA 90810
Tel (425) 413 1164
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Email perry.pineda@shell.com
Internet http://www.shell.com

Mr. Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: 2703 Martin Luther King Jr. Way
Oakland, California
SAP Code 129449
Incident No. 97093397
ACEH Case No. RO0000145

Dear Mr. Wickham:

The attached document is provided for your review and comment. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

As always, please feel free to contact me directly at (425) 413-1164 with any questions or concerns.

Sincerely,
Shell Oil Products US

Perry Pineda
Senior Environmental Program Manager

SUBSURFACE INVESTIGATION REPORT

FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY
OAKLAND, CALIFORNIA

SAP CODE	129449
INCIDENT NO.	97093397
AGENCY NO.	RO0000145

Prepared by:
Conestoga-Rovers & Associates

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Emeryville, California
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JUNE 3, 2013
REF. NO. 240781 (28)
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EXECUTIVE SUMMARY

- Ten soil borings (HA-9, HA-10, HA-12, HA-13, and HA-19 through HA-24) were drilled during this investigation to determine the source of the lead impacts and benzo(a)pyrene in the backyards of 663 and 665 28th Street and 2719 through 2723 Martin Luther King Jr. Way, Oakland.
- All detections of lead in surface soil samples collected during this investigation exceeded RWQCB ESLs. Since elevated lead concentrations are widespread, it appears that lead in shallow soils is a regional issue not associated with the former station operations.
- All concentrations of PAHs were below RWQCB ESLs for residential soils, with the exception of one surface soil sample containing benzo(a)pyrene, benzo(b)fluoranthene, and ideno(1,2,3-c,d)pyrene concentrations exceeding ESLs. Shell reviewed the PAH chromatogram for the surface soil sample and concluded that these detections are from a pyrogenic source consistent with urban soils, soot, storm water runoff, etc. and have no connection to waste oil.
- Since the lead and PAHs detected in backyards adjacent to the former service station building do not appear to be associated with the former service station operations, excavation of soils in these areas is not warranted.

1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell) to document the subsurface investigation at this site. The purpose of the investigation was to determine the source of the lead impacts and benzo(a)pyrene in the backyards of 663 and 665 28th Street and 2719 through 2723 Martin Luther King Jr. Way, Oakland. CRA followed the scope of work and procedures presented in our February 7, 2013 *Subsurface Investigation Work Plan*, which was conditionally approved in Alameda County Environmental Health's (ACEH's) March 5, 2013 letter. As requested in this letter, CRA drilled an additional three soil borings near boring HA-19.

The subject site is a former service station located on the northwest corner of Martin Luther King Jr. Way and 27th Street in a mixed commercial and residential area of Oakland, California (Figure 1). Currently, the site is occupied by Auto Tech West and is used as an automotive repair shop (Figure 2).

A summary of previous work performed at the site and additional background information is contained in Appendix A.

2.0 INVESTIGATION RESULTS

2.1 PERMIT

Alameda County Public Works Agency did not require a permit for shallow soil sampling.

2.2 DRILLING DATE

April 22, 2013.

2.3 CRA PERSONNEL

Geologist Patrick O'Connell conducted the soil sampling under the supervision of California Professional Geologist Peter Schaefer.

2.4 DRILLING METHODS

Slide hammer and hand auger.

2.5 NUMBER OF BORINGS

Ten soil borings (HA-9, HA-10, HA-12, HA-13, and HA-19 through HA-24) were drilled during this investigation. The boring locations are shown on Figure 2.

2.6 BORING DEPTHS

All of the borings were drilled to 0.5 feet below grade (fbg), with the exception of HA-10, which was drilled to 1.5 fbg.

2.7 DISPOSAL

Rinse water generated during field activities was temporarily stored on site in a 30-gallon drum and profiled for disposal. Waste disposal documentation is pending and will be provided upon request.

3.0 FINDINGS

3.1 SOIL

The soil chemical analytical data are summarized in Table 1, and total petroleum hydrocarbons as motor oil (TPHmo), total petroleum hydrocarbons as diesel (TPHd), benzo(a)pyrene, and lead analytical results are presented on Figure 2. The laboratory analytical report is presented in Appendix B.

4.0 CONCLUSIONS

All lead detections in surface soil samples collected during this investigation exceeded the San Francisco Bay Regional Water Quality Control Board (RWQCB) environmental

screening level (ESL)[1] for residential soil where groundwater is not a current or potential drinking water source. The highest lead concentration (10,000 milligrams per kilogram [mg/kg]) was detected in sample HA-19, collected between the buildings at 2719-2723 Martin Luther King Jr. Way, Oakland. Since HA-19 is not in close proximity to the former waste oil above-ground storage tank, located behind the former Shell service station building, and elevated lead concentrations were detected in all of the surface soil samples analyzed for lead, it appears that lead in shallow soils is a regional issue not associated with the former station operations. The distribution of lead in shallow soils may be part of a regional impact associated with the site's proximity to the Interstate 980 Freeway (built in the 1960s), which operated for many years before leaded gasoline was eliminated in 1986 or due to chipping and peeling of lead-based paint from old buildings in the area. Recent studies have shown that lead concentrations in urban soils can range from 100 mg/kg to 3,000 mg/kg in neighborhoods adjacent to highly traveled roadways or next to older painted buildings.[2] The source of lead concentrations higher than 3,000 mg/kg is unknown, but based on their distribution, they do not appear to be related to the former station operations.

All polycyclic aromatic hydrocarbon (PAH) concentrations by EPA Method 8270C were below RWQCB ESLs for residential soils, with the exception of 1.7 mg/kg benzo(a)pyrene, 2.0 mg/kg benzo(b)fluoranthene, and 1.7 mg/kg ideno(1,2,3-c,d)pyrene detected in surface soil sample HA-10. Shell reviewed the PAH chromatogram for surface soil sample HA-10 and concluded that the benzo(a)pyrene, benzo(b)fluoranthene, and ideno(1,2,3-c,d)pyrene detections are from a pyrogenic source consistent with urban soils, soot, storm water runoff, etc. and have no connection to waste oil. This is indicated by the primary peaks that are the parent non-substituted PAHs (i.e., EPA Method 8270C target PAH compounds). In petrogenic materials including used oil, PAHs are relatively small and buried within the oil "hump" or unresolved complex material. The chromatograms are included in Appendix C, and Shell's analysis of the PAH data is included in Appendix D.

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1 *Screening for Environmental Concerns at Site With Contaminated Soil and Groundwater,* California Regional Water Quality Control Board, Interim Final – November 2007 [Revised May 2008] – Updated May 2013

2 Craigmill, A. and Harivandi, A., *Home Gardens and Lead,* University of California Agriculture and Natural Resources Publication 8424, September 2010.

5.0 RECOMMENDATIONS

Since the lead and PAHs detected in backyards adjacent to the former service station building do not appear to be associated with the former service station operations, any additional investigation and the excavation of soils in these areas proposed in CRA's March 4, 2011 *Subsurface Investigation Report and Revised Remedial Action Plan* are not warranted.

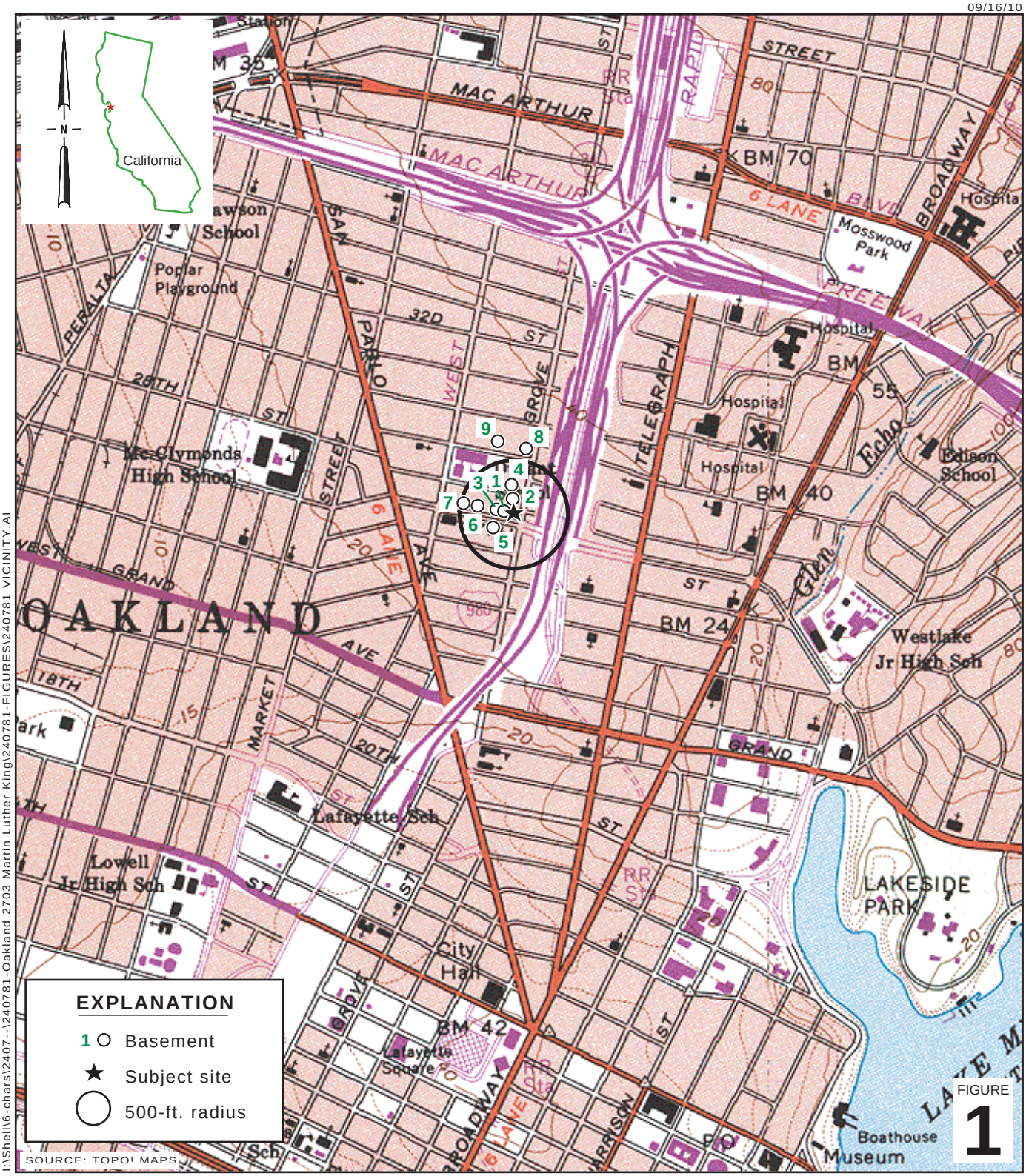
All of Which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES

Peter Schaefer, CEG, CHG

Aubrey K. Cool, PG

FIGURES

09/16/10



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0 1/8 1/4 1/2 1

SCALE (MILES)

FIGURE 1

Former Shell Service Station

2703 Martin Luther King Jr. Way
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map

EXPLANATION

- HA-9 — Hand auger location (CRA, 2013)
- B-1 — Soil sample location (CRA, 2013)
- HA-9 — Hand auger location (CRA, 2010, 2012)
- HA-1 — Hand auger boring location (CRA, 2009)
- MW-1 — Monitoring well location
- V-1 — Soil vapor well location
- Electrical line (E)
- Telecommunication line (T)
- Gas line (G)
- Sanitary sewer line (SAN)
- Water line (W)
- Unknown utility line (?)

ID	Date	Depth	TPHmo	TPHd	BaP	Lead
HA-9-0	4/22/2013	0	NA	NA	<1.3	NA

Notes:
Soil sample ID, date, depth in feet below grade (fbg), and concentrations in milligrams per kilogram (mg/kg)
TPHmo = Total petroleum hydrocarbons as motor oil
TPHd = Total petroleum hydrocarbons as diesel
BaP = Benzo(a) Pyrene
NA = Not analyzed
<X = Not detected at reporting limit X
- Results in **BOLD** equal or exceed applicable environmental screening level

HA-21

1.9' fbg

ID	Date	Depth	TPHmo	TPHd	BaP	Lead
HA-21-0	4/22/2013	0	250	**100**	NA	**350**

HA-20

ID	Date	Depth	TPHmo	TPHd	BaP	Lead
HA-20-0	4/22/2013	0	<5.0	<5.0	NA	**170**

Residential
669 28th St.

Residential
665 28th St.

Residential
663 28th St.

Vacant Lot
2727-29 Martin Luther King

MW-12

ID	Date	Depth	TPHmo	TPHd	BaP	Lead
HA-19-0	4/22/2013	0	120	90	NA	**10,000**

ID	Date	Depth	TPHmo	TPHd	BaP	Lead
HA-22-0	4/22/2013	0	93	52	NA	**1,300**

ID	Date	Depth	TPHmo	TPHd	BaP	Lead
HA-23-0	4/22/2013	0	160	97	NA	**1,200**

ID	Date	Depth	TPHmo	TPHd	BaP	Lead
HA-12-0	4/22/2013	0	NA	NA	<3.3	NA

ID	Date	Depth	TPHmo	TPHd	BaP	Lead
HA-13-0	4/22/2013	0	NA	NA	<6.6	NA

HA-19
HA-22
HA-23
HA-24

ID	Date	Depth	TPHmo	TPHd	BaP	Lead
HA-24-0	4/22/2013	0	99	69	NA	**1,200**

ID	Date	Depth	TPHmo	TPHd	BaP	Lead
HA-10-0	4/22/2013	0	NA	NA	**1.7**	NA
HA-10-1	4/22/2013	1	NA	NA	<0.66	NA

Residential
2719-23 Martin Luther King

ID	Date	Depth	TPHmo	TPHd	BaP	Lead
HA-9-0	4/22/2013	0	NA	NA	<1.3	NA

HA-14
HA-13
HA-12
HA-11
HA-10
HA-9
HA-15
HA-17
Former W/O AST
Over-Excavation Area 3 fbg
HA-4
OX-1
N-1
N-2
HA-3
N-3
HA-2
HA-1
HA-18
W-2
OX-2
B-1
B-3
HA-7
B-5
S-3
HA-16
OX-3
B-4
HA-8
HA-5
W-1
B-2
HA-6
S-2
S-1
Excavation Area 2 fbg
MW-8
MW-7
Anode
Former Vent Lines
Building
Trench
Former Shell Station
2703 Martin Luther King

N

0 5 10ft

Basemap from Virgil Chavez Land Surveying and Alameda County Assessors Parcel Map

Figure 2

Soil Chemical Concentration Map
Former Shell Service Station
2703 Martin Luther King Jr. Way
Oakland, California

I:\Shell\6-chars\2407--\240781-Oakland 2703 Martin Luther King\240781-FIGURES\240781 SITE PLAN.DWG (05/22/2013)

TABLE

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA FOR TPHMO, TPHD, PAHS, AND LEAD
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHmo (mg/kg)*	*TPHd (mg/kg)*	*Naphthalene (mg/kg)*	*2-Methylnaphthalene (mg/kg)*	*Acenaphthylene (mg/kg)*	*Acenaphthene (mg/kg)*	*Fluorene (mg/kg)*	*Phenanthrene (mg/kg)*	*Anthracene (mg/kg)*	*Bis(2-ethylhexyl)phthalate (mg/kg)*	*Diethyl Phthalate (mg/kg)*	*Fluoranthene (mg/kg)*	*Pyrene (mg/kg)*	*Benzo(a) Anthracene (mg/kg)*	*Chrysene (mg/kg)*	*Benzo(k) Fluoranthene (mg/kg)*	*Benzo(b) Fluoranthene (mg/kg)*	*Benzo(a) Pyrene (mg/kg)*	*Benzo(g,h,i) Perylene (mg/kg)*	*Indeno(1,2,3-c,d) Pyrene (mg/kg)*	*Dibenz(a,h) Anthracene (mg/kg)*	*1-Methylnaphthalene (mg/kg)*	*Lead (mg/kg)*
HA-1-0.7'	4/8/2009	0.7	**7,900**	**1,300 a**	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	---	---	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	**0.18**	<0.040	<0.040	<0.040	<0.040	24.5
HA-1-1.5'	4/8/2009	1.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	7.73
HA-1-5'	4/8/2009	5	97	19 a	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	7.74
HA-2-0.7'	4/8/2009	0.7	**6,700**	**560 a**	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	---	---	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	**0.19**	<0.040	<0.040	<0.040	<0.040	44.0
HA-2-1.5'	4/8/2009	1.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	29.5
HA-2-5'	4/8/2009	5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	19.4
HA-3-0.7'	4/8/2009	0.7	**6,300**	**570 a**	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	---	---	<0.040	<0.040	<0.040	0.070	<0.040	<0.040	**0.16**	<0.040	<0.040	<0.040	<0.040	59.9
HA-3-1.5'	4/8/2009	1.5	50	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	20.8
HA-3-5'	4/8/2009	5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	6.65
HA-4-0.7'	4/8/2009	0.7	**7,800**	**4,500 a**	1.2	<1.0	<1.0	1.6	1.7	8.5	2.6	---	---	7.9	8.1	**3.6**	**4.0**	**7.1**	<1.0	**4.2**	1.6	**2.2**	<1.0	<1.0	43.5
HA-4-1.5'	4/8/2009	1.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	10.1
HA-4-5'	4/8/2009	5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	5.81
HA-5-0.7'	4/8/2009	0.7	**5,800**	**700 a**	<0.040	<0.040	<0.040	<0.040	<0.040	0.25	0.075	---	---	0.39	0.98	0.29	0.48	**0.61**	**0.56**	**0.51**	0.18	0.16	0.048	<0.040	46.0
HA-5-1.5'	4/8/2009	1.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	8.14
HA-5-5'	4/8/2009	5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	7.85
HA-6-0.7'	4/8/2009	0.7	**7,400**	**1,800 a**	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	---	---	<0.040	0.077	<0.040	0.12	<0.040	<0.040	**0.21**	0.077	<0.040	<0.040	<0.040	40.3
HA-6-1.5'	4/8/2009	1.5	290	**110 a**	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	11.3
HA-6-5'	4/8/2009	5	230	**130 a**	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	12.1
HA-7-0.7'	4/8/2009	0.7	**11,000**	**910 a**	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	---	---	<0.040	<0.040	<0.040	0.091	<0.040	<0.040	**0.18**	<0.040	<0.040	<0.040	<0.040	37.1
HA-7-1.5'	4/8/2009	1.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	8.82
HA-7-5'	4/8/2009	5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	7.45
HA-8-0.7'	4/8/2009	0.7	**9,600**	**810 a**	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	---	---	<0.040	<0.040	<0.040	0.079	<0.040	<0.040	**0.17**	<0.040	<0.040	<0.040	<0.040	32.8
HA-8-1.5'	4/8/2009	1.5	74	11 a	<0.020	<0.020	<0.020	<0.020	<0.020	0.10	0.027	---	---	0.29	0.31	0.17	0.18	0.18	0.15	**0.20**	0.045	0.061	<0.020	<0.020	**1,060**
HA-8-5'	4/8/2009	5	190	35 a	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	19.7

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA FOR TPHMO, TPHD, PAHS, AND LEAD
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHmo (mg/kg)*	*TPHd (mg/kg)*	*Naphthalene (mg/kg)*	*2-Methylnaphthalene (mg/kg)*	*Acenaphthylene (mg/kg)*	*Acenaphthene (mg/kg)*	*Fluorene (mg/kg)*	*Phenanthrene (mg/kg)*	*Anthracene (mg/kg)*	*Bis(2-ethylhexyl)phthalate (mg/kg)*	*Diethyl Phthalate (mg/kg)*	*Fluoranthene (mg/kg)*	*Pyrene (mg/kg)*	*Benzo(a) Anthracene (mg/kg)*	*Chrysene (mg/kg)*	*Benzo(k) Fluoranthene (mg/kg)*	*Benzo(b) Fluoranthene (mg/kg)*	*Benzo(a) Pyrene (mg/kg)*	*Benzo(g,h,i) Perylene (mg/kg)*	*Indeno(1,2,3-c,d) Pyrene (mg/kg)*	*Dibenz(a,h) Anthracene (mg/kg)*	*1-Methylnaphthalene (mg/kg)*	*Lead (mg/kg)*
HA-9-0	12/13/2010	0	470	**140a**	<0.10	<0.10	<0.10	<0.10	<0.10	0.12	<0.10	---	---	0.19	0.23	0.12	0.15	0.10	0.12	**0.14**	0.15	0.10	<0.10	<0.10	**1,410**
HA-9-1	12/13/2010	1	26	11 a	<0.020	<0.020	<0.020	<0.020	<0.020	0.091	0.027	---	---	0.14	0.14	0.093	0.10	0.062	0.071	**0.092**	0.057	0.044	<0.020	<0.020	**357**
HA-9-4.5	12/13/2010	4.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	5.53
HA-10-0	12/13/2010	0	370a	**150a**	<0.10	<0.10	<0.10	<0.10	<0.10	0.11	<0.10	---	---	0.17	0.22	0.11	0.17	0.11	0.15	**0.14**	0.22	0.14	<0.10	<0.10	**1,240**
HA-10-1	12/13/2010	1	**1,200**	**430a**	0.020	<0.020	<0.020	<0.020	<0.020	0.098	0.030	---	---	0.20	0.24	0.12	0.15	0.094	0.11	**0.16**	0.14	0.10	0.022	<0.020	**529**
HA-10-4.5	12/13/2010	4.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	7.39
HA-11-0	12/13/2010	0	340a	**120a**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	---	---	0.19	0.27	0.11	0.17	0.10	0.14	**0.16**	0.18	0.12	<0.10	<0.10	**1,950**
HA-11-1	12/13/2010	1	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	0.048	<0.020	---	---	0.074	0.070	0.047	0.052	0.035	0.027	**0.043**	0.024	<0.020	<0.020	<0.020	**166**
HA-11-4.5	12/13/2010	4.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	73.2
HA-12-0	12/13/2010	0	120	39 a	0.059	0.042	0.048	<0.020	<0.020	0.26	0.055	---	---	0.41	0.55	0.20	0.25	0.17	0.18	**0.26**	0.21	0.15	0.035	0.029	**4,550**
HA-12-1	12/13/2010	1	130	39 a	<0.020	<0.020	<0.020	<0.020	<0.020	0.089	0.026	---	---	0.086	0.088	0.050	0.057	0.040	0.035	**0.045**	0.035	0.025	<0.020	<0.020	**1,150**
HA-12-4.5	12/13/2010	4.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	9.25
HA-13-0	12/13/2010	0	**920**	**210a**	<0.10	<0.10	<0.10	<0.10	<0.10	0.26	<0.10	---	---	0.38	0.42	0.22	0.25	0.19	0.18	**0.24**	0.19	0.15	<0.10	<0.10	**3,940**
HA-13-1	12/13/2010	1	<25	7.8a	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	**291**
HA-13-4.5	12/13/2010	4.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	**498**
HA-14-0	4/18/2012	0	69	47	<0.18	---	<0.18	<0.18	<0.18	<0.18	<0.18	---	---	<0.18	0.27	<0.18	<0.18	<0.18	0.25	**0.22**	0.20	<0.18	<0.18	---	**1,800**
HA-14-1	4/18/2012	1	<5.0	<5.0	<0.030	---	<0.030	<0.030	<0.030	<0.030	<0.030	---	---	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	---	**87**
HA-14-4.5	4/18/2012	4.5	<5.0	<5.0	<0.030	---	<0.030	<0.030	<0.030	<0.030	<0.030	---	---	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	---	7.7
HA-15-0	4/18/2012	0	<10	23	<0.45	---	<0.45	<0.45	<0.45	<0.45	<0.45	---	---	0.054	0.080	<0.45	<0.45	<0.45	0.058	<0.45	<0.45	<0.45	<0.45	---	**1,400**
HA-15-1	4/18/2012	1	<10	11	<0.045	---	<0.045	<0.045	<0.045	<0.045	<0.045	---	---	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	---	40
HA-15-4.5	4/18/2012	4.5	<5.0	<5.0	<0.030	---	<0.030	<0.030	<0.030	<0.030	<0.030	---	---	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	---	6.4
HA-16-0	4/18/2012	0	75	89	<0.18	---	<0.18	<0.18	<0.18	0.19	<0.18	---	---	<0.18	0.26	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	---	**1,100**
HA-16-1	4/18/2012	1	10	7.3	<0.045	---	<0.045	<0.045	<0.045	<0.045	<0.045	---	---	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	---	**220**

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA FOR TPHMO, TPHD, PAHS, AND LEAD
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHmo (mg/kg)*	*TPHd (mg/kg)*	*Naphthalene (mg/kg)*	*2-Methylnaphthalene (mg/kg)*	*Acenaphthylene (mg/kg)*	*Acenaphthene (mg/kg)*	*Fluorene (mg/kg)*	*Phenanthrene (mg/kg)*	*Anthracene (mg/kg)*	*Bis(2-ethylhexyl)phthalate (mg/kg)*	*Diethyl Phthalate (mg/kg)*	*Fluoranthene (mg/kg)*	*Pyrene (mg/kg)*	*Benzo(a) Anthracene (mg/kg)*	*Chrysene (mg/kg)*	*Benzo(k) Fluoranthene (mg/kg)*	*Benzo(b) Fluoranthene (mg/kg)*	*Benzo(a) Pyrene (mg/kg)*	*Benzo(g,h,i) Perylene (mg/kg)*	*Indeno(1,2,3-c,d) Pyrene (mg/kg)*	*Dibenz(a,h) Anthracene (mg/kg)*	*1-Methylnaphthalene (mg/kg)*	*Lead (mg/kg)*
HA-16-4.5	4/18/2012	4.5	<5.0	<5.0	<0.045	---	<0.045	<0.045	<0.045	<0.045	<0.045	---	---	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	---	**150**
HA-17-0	4/18/2012	0	81	50	<0.45	---	<0.45	<0.45	<0.45	<0.45	<0.45	---	---	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	---	**4,200**
HA-17-1	4/18/2012	1	<10	<10	<0.030	---	<0.030	<0.030	<0.030	<0.030	<0.030	---	---	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	---	38
HA-17-4.5	4/18/2012	4.5	<5.0	<5.0	<0.030	---	<0.030	<0.030	<0.030	<0.030	<0.030	---	---	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	---	14
HA-18-0	4/18/2012	0	61	53	<0.45	---	<0.45	<0.45	<0.45	<0.45	<0.45	---	---	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	---	**1,000**
HA-18-1	4/18/2012	1	8.3	7.3	<0.045	---	<0.045	<0.045	<0.045	<0.045	<0.045	---	---	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	---	**410**
HA-18-4.5	4/18/2012	4.5	<5.0	<5.0	<0.030	---	<0.030	<0.030	<0.030	<0.030	<0.030	---	---	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	---	11
B-1	1/22/2013	2	109	50.6	<0.31	<0.32	<0.31	<0.29	<0.29	<0.23	<0.21	<0.26	<0.23	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.17	<0.17	<0.16	<0.30	55.9
B-2	1/22/2013	2	<4.9	2.85 b	<0.077	<0.079	<0.078	<0.073	<0.072	<0.058	<0.053	0.467	**0.0788 b**	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.043	<0.043	<0.041	<0.076	6.8
B-3	1/22/2013	2	<5.0	3.74 b	<0.077	<0.079	<0.078	<0.073	<0.072	<0.058	<0.053	0.0683 b	**0.0595 b**	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.043	<0.042	<0.041	<0.076	7.3
B-4	1/22/2013	2	<4.9	<2.5	<0.15	<0.16	<0.15	<0.15	<0.14	<0.12	<0.11	<0.13	<0.11	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	<0.086	<0.085	<0.082	<0.15	97.3
B-5	1/22/2013	2	36.9	13.8	<0.15	<0.16	<0.16	<0.15	<0.14	<0.12	<0.11	<0.13	<0.11	0.151 b	0.158 b	0.0800 b	0.0832 b	0.0687 b	0.0858 b	0.0868 b	<0.086	<0.085	<0.082	<0.15	83.8
N-1	1/22/2013	2	116	28.6 b	<0.31	<0.32	<0.31	<0.29	<0.29	<0.23	<0.21	<0.27	<0.23	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.17	<0.17	<0.16	<0.30	306
N-2	1/22/2013	2	<5.0	2.63 b	<0.077	<0.079	<0.078	<0.073	<0.072	<0.058	<0.053	<0.66	**0.0756 b**	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.043	<0.042	<0.041	<0.076	48.8
N-3	1/22/2013	2	184	40.2	<0.15	<0.16	<0.16	<0.15	<0.14	<0.12	<0.11	0.415 b	<0.11	0.113 b	0.136 b	0.0767 b	0.0925 b	0.0808 b	0.0900 b	0.100 b	<0.086	<0.085	<0.083	<0.15	**721**
S-1	1/22/2013	2	23.4	4.84 b	<0.077	<0.080	<0.078	<0.073	<0.072	<0.058	<0.054	<0.067	<0.057	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.043	<0.043	<0.041	<0.076	7.6
S-2	1/22/2013	2	<4.8	2.55 b	<0.077	<0.079	<0.078	<0.073	<0.072	<0.058	<0.053	<0.66	**0.0644 b**	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.043	<0.042	<0.041	<0.076	13.3
S-3	1/22/2013	2	<4.9	<2.4	<0.077	<0.079	<0.078	<0.073	<0.072	<0.058	<0.053	<0.66	<0.056	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.043	<0.042	<0.041	<0.076	9.4
W-1	1/22/2013	2	23.6	8.52 b	<0.077	<0.16	<0.16	<0.15	<0.14	<0.12	<0.11	<0.13	<0.11	<0.067	<0.067	<0.067	<0.067	<0.067	<0.067	<0.067	<0.087	<0.085	<0.083	<0.15	41.8
W-2	1/22/2013	2	254	162	<0.15	<0.16	<0.16	<0.15	<0.14	<0.12	<0.11	<0.13	<0.11	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	<0.086	<0.085	<0.082	<0.15	215
OX-1	2/21/2013	3	53.0	41.9	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.66	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	13.0
OX-2	2/21/2013	3	54.9	13.2	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.33	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	11.5
OX-3	2/21/2013	3	14.4	7.36	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	0.0771 b	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	6.4

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA FOR TPHMO, TPHD, PAHS, AND LEAD
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHmo (mg/kg)*	*TPHd (mg/kg)*	*Naphthalene (mg/kg)*	*2-Methylnaphthalene (mg/kg)*	*Acenaphthylene (mg/kg)*	*Acenaphthene (mg/kg)*	*Fluorene (mg/kg)*	*Phenanthrene (mg/kg)*	*Anthracene (mg/kg)*	*Bis(2-ethylhexyl)phthalate (mg/kg)*	*Diethyl Phthalate (mg/kg)*	*Fluoranthene (mg/kg)*	*Pyrene (mg/kg)*	*Benzo(a) Anthracene (mg/kg)*	*Chrysene (mg/kg)*	*Benzo(k) Fluoranthene (mg/kg)*	*Benzo(b) Fluoranthene (mg/kg)*	*Benzo(a) Pyrene (mg/kg)*	*Benzo(g,h,i) Perylene (mg/kg)*	*Indeno(1,2,3-c,d) Pyrene (mg/kg)*	*Dibenz(a,h) Anthracene (mg/kg)*	*1-Methylnaphthalene (mg/kg)*	*Lead (mg/kg)*
HA-9-0 d	4/22/2013	0	---	---	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	3.7 c	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<0.17	---	---
HA-10-0 d	4/22/2013	0	---	---	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	1.4	1.6	<0.66	1.0	<0.66	**2.0**	**1.7**	2.4	**1.7**	<0.84	---	---
HA-10-1 d	4/22/2013	1	---	---	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	1.3 c	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	<0.84	---	---
HA-12-0 d	4/22/2013	0	---	---	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3	5.6 c	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3	<4.2	---	---
HA-13-0 d	4/22/2013	0	---	---	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<8.4	---	---
HA-19	4/22/2013	0	120	90	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**10,000**
HA-20	4/22/2013	0	<5.0	<5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**170**
HA-21	4/22/2013	0	250	**100**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**350**
HA-22	4/22/2013	0	93	52	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1,300**
HA-23	4/22/2013	0	160	97	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1,200**
HA-24	4/22/2013	0	99	69	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1,200**
Shallow Soils (≤10 fbg) Screening Level:																									
Residential [e]			500	100	3.1	0.25	13	19	8.9	11	2.8	160	0.035	40	85	0.38	3.8	0.38	0.38	0.038	27	0.38	0.11	NA	80
Commercial [f]			2,500	500	4.8	0.25	13	19	8.9	11	2.8	220	0.035	40	85	0.45	4.5	0.45	0.45	0.045	27	0.45	0.13	NA	320

Notes:
TPHmo = Total petroleum hydrocarbons as motor oil analyzed by EPA Method 8015B (M)
TPHd = Total petroleum hydrocarbons as diesel analyzed by EPA Method 8015B
Polycyclic aromatic hydrocarbons (PAHs) analyzed by EPA Method 8270C; before April 22, 2013, analyzed by EPA Method 8270C SIM PAHS. Individual constituents tabulated.
Lead analyzed by EPA Method 6010B
fbg = feet below grade
mg/kg = Milligrams per kilogram

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA FOR TPHMO, TPHD, PAHS, AND LEAD
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth* (fbg)	*TPHmo* (mg/kg)	*TPHd* (mg/kg)	*Naphthalene* (mg/kg)	*2-Methylnaphthalene* (mg/kg)	*Acenaphthylene* (mg/kg)	*Acenaphthene* (mg/kg)	*Fluorene* (mg/kg)	*Phenanthrene* (mg/kg)	*Anthracene* (mg/kg)	*Bis(2-ethylhexyl)phthalate* (mg/kg)	*Diethyl Phthalate* (mg/kg)	*Fluoranthene* (mg/kg)	*Pyrene* (mg/kg)	*Benzo(a) Anthracene* (mg/kg)	*Chrysene* (mg/kg)	*Benzo(k) Fluoranthene* (mg/kg)	*Benzo(b) Fluoranthene* (mg/kg)	*Benzo(a) Pyrene* (mg/kg)	*Benzo(g,h,i) Perylene* (mg/kg)	*Indeno(1,2,3-c,d) Pyrene* (mg/kg)	*Dibenz(a,h) Anthracene* (mg/kg)	*1-Methylnaphthalene* (mg/kg)	*Lead* (mg/kg)

<x = Not detected at reporting limit x
--- = Not analyzed
ESLs = Environmental screening levels
NA = No applicable ESL
Results in **bold** equal or exceed applicable screening level
Shading indicates that soil sample location was subsequently excavated; results are not representative of residual soil.

a = The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard. Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.
b = Indicates an estimated value below method reporting limit.
c = Compound found in blank and in sample
d = Boring drilled in same location as December 2010 boring
e = San Francisco Bay Regional Water Quality Control Board ESL for shallow soil where groundwater is not a current or potential source of drinking water with residential land use (Table B in Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater -Interim Final -November 2007 [Revised May 2008] - updated May 2013).
f = San Francisco Bay Regional Water Quality Control Board ESL for shallow soil where groundwater is not a current or potential source of drinking water with commercial land use (Table B in Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater -Interim Final -November 2007 [Revised May 2008] - updated May 2013).

APPENDIX A

SITE HISTORY

SITE HISTORY

1979 Underground Storage Tank (UST) Removal: Prior to vacating the property in 1979, Shell Oil Products US (Shell) reportedly removed three fuel USTs and a waste oil storage tank.

1994 UST Removal: In October 1994, KTW & Associates removed a 2,000-gallon UST on behalf of Auto Tech West (ATW). Two soil samples (TP-1-N and TP-2-S) collected from beneath the tank contained up to 18,000 milligrams per kilogram (mg/kg) total petroleum hydrocarbons as gasoline (TPHg) and 100 mg/kg benzene.

1995 Phase I Environmental Site Assessment (ESA): In August and September 1995, Enviros Inc. (Enviros) performed a Phase I ESA. The Phase I ESA indicated that the site was occupied by housing prior to approximately 1959.

During a site survey conducted in conjunction with the Phase I ESA, an excavation was observed near the southwest corner of the service building. The excavation's location was consistent with the location of the 2,000-gallon UST removed in 1994 by ATW, with a large concrete slab observed in aerial photographs taken in 1971 and 1973, and with a smaller concrete slab observed in aerial photographs taken in 1981 and 1985. The concrete slabs observed in the aerial photographs were likely covering the USTs operated by Shell from 1959 to 1979, and by Acme Ambulance Company (Acme) after 1979.

1995 Phase II ESA: On May 23, 1995, ACC Environmental Consultants (ACC) drilled nine soil borings (B-1 through B-9) using a pneumatic sampling tool in the vicinity of the UST excavation and the product dispenser islands. Soil samples contained up to 830 mg/kg TPHg and 1.8 mg/kg benzene. Separate-phase hydrocarbons (SPHs) were identified in grab groundwater samples collected from four of the soil borings (B-1, B-5, B-6, and B-9). Grab groundwater samples collected from borings without SPH contained up to 89,000 micrograms per liter (µg/L) TPHg and 21,000 µg/L benzene. Results of the investigation are presented in ACC's June 1995 *Phase II- Environmental Site Investigation* report.

1996 Over-Excavation: On March 19, 1996, Acme's former UST excavation was over-excavated and backfilled. The excavation, originally left open to 9 feet below grade (fbg), was over-excavated to approximately 11 fbg. Two soil samples (TP-3-W and TP-4-E) were collected after over-excavation was completed. The soil samples contained up to 2,700 mg/kg TPHg and 3.1 mg/kg benzene. Soil sampling and backfilling are documented in Enviros' May 10, 1996 correspondence.

1996 Subsurface Investigation: In July 1996, Enviros drilled six exploratory borings (B-10, B-11, B-12, B-13, V-1, and V-2). Borings B-11 and B-12 were completed as groundwater monitoring wells MW-1 and MW-2, and borings V-1 and V-2 were completed as soil vapor extraction wells V-1 and V-2. TPHg and benzene were not detected in soil samples collected from B-11, B-12, and B-13. Soil samples collected from B-10 and V-2 contained up to 110 mg/kg TPHg and 0.29 mg/kg benzene. Grab groundwater samples collected from borings B-10, B-12, and B-13 contained up to 290,000 µg/L TPHg and 34,000 µg/L benzene. Enviros' October 30, 1996 *Soil Boring and Well Installation Report* details the investigation results.

1997 Modified Phase I ESA: In February 1997, Enviros performed a modified Phase I ESA for the subject facility. A review of aerial photographs (1952 to 1994), city directories (1967 to 1993) and Sanborn maps (1912 to 1970) did not reveal evidence of an off-site source of petroleum hydrocarbons which would have impacted groundwater on site. The properties located north and west of the subject facility appear to have been occupied by residential houses from at least 1912 to the present. The nearest gasoline stations identified in the vicinity of the subject facility were a former Chevron station (740 27th Street at West Street) approximately 450 feet to the west, a former station (26th Street and Martin Luther King Jr. Way) approximately 300 feet to the south, and a former Mobil station (554 27th Street) approximately 950 feet to the east.

2000 Sensitive Receptor Survey (SRS): In 2000, Cambria Environmental Technology, Inc. (Cambria) performed an SRS to identify wells and underground utility conduits. Cambria identified the local sanitary and storm sewer systems as the only utility conduits which may act as preferential pathways for groundwater and soil vapor migration. Conduits identified in the area are located at depths of approximately 3.5 to 9 fbg. Cambria concluded that the potential does exist for groundwater to flow within these conduit trenches since groundwater depth on site historically ranges from approximately 4.5 to 10 fbg. However, since the typical groundwater flow direction on site has generally been to the south, it is likely that any contaminant migration within the utility conduits would be limited, since the utility conduits located to the south of the site are the shallowest of all the conduits identified adjacent to the site at depths of 3.5 to 5.5 fbg.

Cambria also obtained well installation and destruction records from the California Department of Water Resources (DWR) to identify any active water-producing wells within one-half mile of the site. DWR records did not identify any existing wells within the search area. Cambria's May 16, 2001 *Subsurface Investigation Report* provides SRS details.

2000 Subsurface Investigation: In November 2000, Cambria drilled three soil borings (B-17, B-18, and B-19) and installed three groundwater monitoring wells (MW-3, MW-4, and MW-5). Soil samples contained up to 2,100 mg/kg TPHg and 3.3 mg/kg benzene. Methyl tertiary-butyl ether (MTBE) was detected in one soil sample at a concentration of 0.0070 mg/kg. Tertiary-butyl alcohol (TBA) was detected in two soil samples at concentrations up to 0.0079 mg/kg. No SPHs were observed during the investigation. Grab groundwater samples collected from borings B-17 through B-19 contained up to 190,000 µg/L TPHg, 13,000 µg/L benzene, and 300 µg/L MTBE. TBA was detected at a concentration of 240 µg/L in B-19. Investigation results are presented in Cambria's May 16, 2001 *Subsurface Investigation Report.*

2001 Oxygen Releasing Compound (ORC) Installation: On May 2, 2001, Blaine Tech Services, Inc. (Blaine) installed ORC socks in wells V-1 and V-2. The ORC socks were removed during the fourth quarter 2001 monitoring event. Details of the ORC installation activities are presented in Cambria's quarterly groundwater monitoring reports for the second through the fourth quarter of 2001.

2002 Subsurface Investigation: In April 2002, Cambria drilled borings B-20 through B-22. MTBE was not detected in any of the soil or grab groundwater samples. Soil samples contained up to 380 mg/kg TPHg and 0.17 mg/kg benzene. Grab groundwater samples contained up to 160,000 µg/L TPHg and 18,000 µg/L benzene. Results of the investigation are presented in Cambria's June 21, 2002 *Site Investigation Report.*

2003 - 2005 ORC Installation: Blaine installed ORC socks in wells MW-5 and V-2 during first quarter of 2003. The ORCs were replaced on a semiannual basis. The use of ORC was discontinued during the first quarter 2005. Details of the ORC installation activities are presented in Cambria's quarterly groundwater monitoring reports for the first quarter 2003 through the first quarter of 2005.

2005 Subsurface Investigation: In August 2005, Cambria drilled 10 soil borings (GP-1 through GP-10). Soil samples contained up to 3,300 mg/kg TPHg and 15 mg/kg benzene. Grab groundwater samples contained up to 140,000 µg/L TPHg and 17,000 µg/L benzene. Soil vapor samples contained up to 71,000,000 micrograms per cubic meter (µg/m^3) TPHg and 170,000 µg/m^3 benzene. Details of these activities are included in Cambria's November 15, 2005 *Site Investigation Report.*

2005 Door-to-Door Survey: Cambria conducted a door-to-door survey within 300 feet of the subject site for wells, basements, and foundation type to identify building construction and potential vapor receptors. Questionnaires were sent to 110 properties, and responses for 25 properties were received as of January 13, 2006. Of the 25 responses received, none of the properties had basements. Three properties were

denoted as vacant; nine properties contained buildings constructed with slab-on-grade foundations; and three contained buildings constructed with perimeter foundations. Tabulated data and a list of properties included in the survey are included in Cambria's January 15, 2006 *Door to Door Survey Report, Access Agreement Update, and Status/Schedule Update*.

2006 Subsurface Investigation: In January 2006, Cambria installed three monitoring wells (MW-6 through MW-8), drilled one soil boring (B-23), and installed six soil vapor probes (VP-1 through VP-6). Soil samples contained up to 3,800 mg/kg TPHg and 33 mg/kg benzene. Cambria's April 14, 2006 *Site Investigation Report, and First Quarter 2006 – Groundwater Monitoring Report* presents investigation results.

2006 Dual-Phase Extraction (DPE) Pilot Test: In January 2006, Cambria conducted a 5-day DPE pilot test on wells V-1, V-2, MW-6, MW-7, MW-4, MW-5, and MW-8 and a constant vacuum DPE test on well MW-6. The report concluded 1) the absence of vapor-phase concentrations (and groundwater concentrations) from well V-1 indicates that the former UST excavation does not contain residual source material; 2) high sustained and increasing vapor concentrations suggest source material is present in the vicinity of wells V-2, MW-5, and MW-8; 3) variability in extraction flow rates across the site may reflect heterogeneities in subsurface soils or may suggest preferential pathways; and 4) the extremely high effective radius of influence calculated for wells MW-5 and MW-8 during DPE testing on well MW-7 supports the presence of a preferential pathway in the vicinity of these wells. The data from the DPE pilot test suggests that DPE is feasible at this site. The groundwater table was effectively drawn down by DPE, and moderate vapor extraction flow rates were yielded from some of the extraction points. Although DPE is deemed feasible, Cambria did not recommend implementing DPE at this site. The extraction points that yielded the highest vapor concentrations did not yield an effective vapor extraction flow rate. Conversely, low vapor concentrations were yielded from the extraction point that did yield an effective vapor extraction flow rate. Therefore, DPE is not considered feasible in the target areas at this site. The pilot test details and results are presented in Cambria's March 14, 2006 *Pilot Test Report*.

2006 Subsurface Investigation: In February 2006, Cambria installed two monitoring wells (MW-12 and MW-14) on off-site properties. TPHg, benzene, toluene, ethylbenzene, and total xylenes (BTEX) were not detected in soil samples from well boring MW-12. Soil samples from MW-14 contained up to 970 mg/kg TPHg and 2.3 mg/kg benzene. Cambria's May 25, 2006 *Subsurface Investigation Report* documents the well installations.

2006 Site Visit: During the site visit in April 2006, Cambria identified two bathrooms inside the former station building. A floor drain was observed in the northernmost

bathroom. Standing liquid was present in the floor drain and automotive parts and cleaners were stored in this area. A water sample from the floor drain contained carbon disulfide (3.69 µg/L), ethylbenzene (0.610 µg/L), and toluene (0.770 µg/L). This information is reported in Cambria's May 25, 2006 *Subsurface Investigation Report.*

2006 Geophysical Survey: In May 2006, Norcal Geophysical Consultants, Inc. (Norcal) conducted a geophysical survey to determine if a waste oil UST was present in the northwest portion of the property and to evaluate the presence of subsurface utilities in this area that could act as preferential pathways. This included the mapping of the sewer line from the floor drain found inside the northwest corner of the building during the April 19, 2006 site inspection. Norcal did not locate a UST in the northwest corner of the site, but did find a vent line located behind the northeast corner of the station building. A subsurface electric line was traced from the station building to the western property boundary, and an unidentified subsurface utility was traced from the northwest corner of the station building to the southwest, near MW-5 and toward MW-6. The presence of the unknown utility line in the northwest corner confirms the observations of a possible preferential pathway in this area based on the DPE pilot test performed in January 2006. Based on a ground-penetrating radar (GPR) survey that was performed to try to locate a non-metallic sewer line, Norcal concluded that the sewer line from the bathroom could be more than 4 fbg since the GPR was unable to identify the line. Cambria's July 25, 2006 *Status Update, Report of Geophysical Survey, and Request for Agency Meeting* documents this survey.

2006 Subsurface Investigation and Vapor Probe Installation: In October 2006, Cambria drilled five cone-penetrometer test (CPT) borings (CPT-1 through CPT-5) and installed six soil vapor probes (VP-1 through VP-6). Grab groundwater samples contained up to 25,000 µg/L TPHg and 1,100 µg/L benzene (both in CPT-5 at 16 to 20 fbg). Grab groundwater sample results from between 31-37 fbg confirmed significant attenuation of contaminants by at least one order of magnitude from the interval monitored by the site wells (5-20 fbg). Comparison of data from 1995, 2000, and 2006 in similar locations (B-6, B-9, B-19, and CPT-5) demonstrated attenuation of contaminant concentrations over time was occurring. These activities are documented in Cambria's January 31, 2007 *CPT Investigation and Vapor Probe Installation Report.*

2007 Subsurface Investigation and Vapor Probe Installation: In May and June 2007, Conestoga-Rovers & Associates (CRA) drilled two CPT borings (CPT-6 and CPT-7) within 27th Street southwest of the site, drilled one CPT boring (CPT-10) on the Marcus-Foster school property northwest of the site, and installed two soil vapor probes (VP-7 and VP-8) on private properties west-northwest of the site. Three soil samples from the borings contained up to 0.0020 mg/kg benzene, and TPHg was not detected in the samples. Grab groundwater samples contained up to 38,000 µg/L TPHg and

1,600 µg/L benzene (both in CPT-10 at 13 to 17 fbg). Results of the investigation are presented in CRA's August 27, 2007 *Plume Delineation and Soil Vapor Sampling Report.*

2007 - 2010 Soil Vapor Monitoring: Vapor monitoring was conducted between May 2007 and September 2010. BTEX concentrations in off-site soil vapor samples were consistently below residential environmental screening levels (ESLs).

2008 Site Conceptual Model (SCM) and Feasibility Study/Corrective Action Plan (FS/CAP): CRA submitted a February 2, 2008 SCM and FS/CAP for the site. Excavation of source material followed by installation of a bio-sparge curtain to assist biodegradation was the recommended remedial action for the site. CRA's May 28, 2008 *Remedial Action Plan* details plans for conducting the excavation and installing the bio-sparge system.

2008 Subsurface Investigation: In June 2008, CRA installed one off-site soil vapor probe (VP-9) at 2721 Martin Luther King Jr. Way. No TPHg, benzene, or MTBE was detected in a soil sample from the probe boring at 4.5 fbg. CRA's September 16, 2008 *Site Investigation Report and Soil Vapor Monitoring Report – Third Quarter 2008* provides soil vapor probe installation details.

2009 Subsurface Investigation: In April 2009, CRA drilled eight hand-auger borings (HA-1 through HA-8) behind the former station building to assess the extent hydrocarbon and lead concentrations in the vicinity of a former waste oil aboveground storage tank (AST) located behind the former station building. Up to 11,000 mg/kg total petroleum hydrocarbons as motor oil (TPHmo) and 1,060 mg/kg total lead, 4,500 mg/kg total petroleum hydrocarbons as diesel (TPHd) were detected in soil samples from the hand-auger borings. Maximum concentrations were all detected in samples from less than 2 fbg. Results of the investigation are presented in CRA's May 12, 2009 *Subsurface Investigation Report.*

2010 Door-to-Door Survey Addendum: CRA conducted a door-to-door survey of four properties near the site, which did not respond to the previous door-to-door surveys for wells, basements, or sumps. Questionnaires were sent to the four properties, and CRA received responses for three of the properties. Of the three responses received, two of the properties had basements. None reported wells or sumps. CRA's September 22, 2010 *Door to Door Survey Report Addendum* provides details of the survey responses.

2010 Subsurface Investigations and Remedial Action Plan (RAP): In August 2010, CRA installed three off-site groundwater monitoring wells (MW-9 through MW-11) and one soil vapor probe (VP-10) down gradient of the site. No benzene was detected in any soil

samples. Soil samples contained up to 1,200 mg/kg TPHg. CRA's October 27, 2010 *Subsurface Investigation and Third Quarter 2010 Groundwater Monitoring Report* presents well installation details and our October 27, 2010 *Soil Vapor Probe Installation and Soil Vapor Sampling Report* provides vapor probe installation and sampling details.

In December 2010, CRA drilled 25 soil borings (B-24 through B-48) on site to evaluate soil conditions in the area of the former UST complex and fuel delivery system. Five soil borings (HA-9 through HA-13) were drilled off site to evaluate soil conditions near the former waste oil AST. Soil samples from the on-site soil borings contained up to 28,000 mg/kg TPHg and 72 mg/kg benzene. Soil samples from the off-site borings contained up to 1,200 mg/kg TPHmo, 430 mg/kg TPHd, 4,550 mg/kg total lead, and 0.26 mg/kg benzo(a)pyrene. No other polycyclic aromatic hydrocarbons were detected at concentrations exceeding San Francisco Bay Regional Water Quality Control Board ESLs for soil where groundwater is not a drinking water source with residential land use[1]. CRA's March 4, 2011 *Subsurface Investigation Report and Revised Remedial Action Plan* presents these investigation results and includes a revised RAP which recommended a shallow excavation to remove residual petroleum hydrocarbon and lead impacts in soils in the northern portion of the subject site and the adjacent property to the north.

2012 Subsurface Investigation: In April 2012, CRA drilled five soil borings (HA-14 through HA-18) to evaluate soil conditions in the area adjacent to the former waste oil AST. Soil samples from the borings contained up to 81 mg/kg TPHmo, 89 mg/kg TPHd, 0.22 mg/kg benzo(a)pyrene, and 4,200 mg/kg total lead. No other polycyclic aromatic hydrocarbons were detected at concentrations exceeding ESLs. CRA's July 19, 2012 *Subsurface Investigation Report* presents soil investigation results.

2013 Excavation: From January through March 2013, CRA excavated shallow soil behind the former service station building to remove petroleum hydrocarbon and lead soil impacts. All constituent of concern detections in soil samples collected from the excavation were below RWQCB ESLs for commercial land use, with the exception of a lead detection in one sidewall sample from the north edge of the excavation, which was likely related to the off-site lead impacts detected during previous investigations. CRA's April 16, 2013 *Remedial Action Report* provides excavation and sampling details.

Groundwater Monitoring: Groundwater monitoring has been conducted since August 1996. Fuel oxygenates are not a significant component of the groundwater plume. Generally, groundwater flow direction is to the west, with some components to the northwest and southwest. Historically, monitoring wells MW-1, MW-2, MW-3, MW-11, and MW-12 have shown little or no impact from petroleum hydrocarbons.

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1 *Screening for Environmental Concerns at Site With Contaminated Soil and Groundwater,* California Regional Water Quality Control Board, Interim Final - November 2007 [Revised May 2008]

APPENDIX B

TESTAMERICA LABORATORIES, INC. – ANALYTICAL REPORT

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

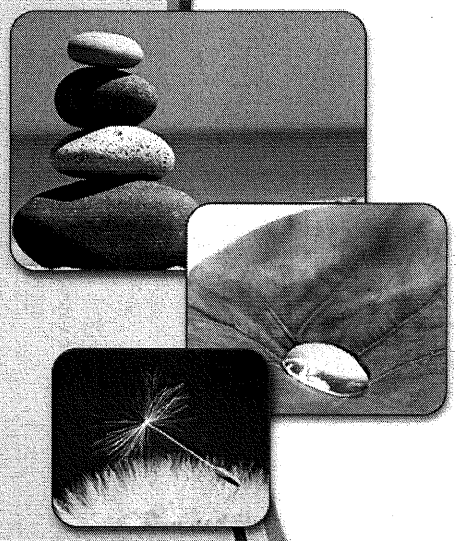
TestAmerica Job ID: 440-44698-1
Client Project/Site: 2703 MLK Jr. Way, Oakland, CA
Revision: 1

For:
Conestoga-Rovers & Associates, Inc.
5900 Hollis Street
Suite A
Emeryville, California 94608

Attn: Peter Schaefer

Authorized for release by:
5/22/2013 3:15:05 PM

Philip Sanelle, Project Manager I
philip.sanelle@testamericainc.com



The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-44698-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-44698-1	HA-9-0	Solid	04/22/13 12:30	04/24/13 10:00
440-44698-2	HA-10-0	Solid	04/22/13 11:50	04/24/13 10:00
440-44698-3	HA-10-1	Solid	04/22/13 12:15	04/24/13 10:00
440-44698-4	HA-12-0	Solid	04/22/13 11:30	04/24/13 10:00
440-44698-5	HA-13-0	Solid	04/22/13 11:20	04/24/13 10:00
440-44698-6	HA-19-0	Solid	04/22/13 13:20	04/24/13 10:00
440-44698-7	HA-20-0	Solid	04/22/13 14:05	04/24/13 10:00
440-44698-8	HA-21-0	Solid	04/22/13 13:55	04/24/13 10:00
440-44698-9	HA-22-0	Solid	04/22/13 13:30	04/24/13 10:00
440-44698-10	HA-23.0	Solid	04/22/13 13:00	04/24/13 10:00
440-44698-11	HA-24-0	Solid	04/22/13 12:50	04/24/13 10:00

Job ID: 440-44698-1

Laboratory: TestAmerica Irvine

4

Narrative

Job Narrative
440-44698-1

Comments
Revised report to change sample ID's

Receipt
The samples were received on 4/24/2013 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.5° C.

GC/MS Semi VOA
Method(s) 8270C: The matrix spike (MS) recoveries associated with batch 100932 were outside control limits: (440-44465-1 MS). Matrix interference is suspected. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 8270C: The matrix spike / matrix spike duplicate (MS/MSD) precision for batch 100932 was outside control limits likely due to matrix effects.

Method(s) 8270C: The following sample(s) was diluted due to the nature of the sample matrix: HA-9-0.0.5' (440-44698-1), HA-12-0.5' (440-44698-4), HA-13-0.5' (440-44698-5). Elevated reporting limits (RLs) are provided.

Method(s) 8270C: The following sample(s) required a dilution due to the nature of the sample matrix: HA-12-0.5' (440-44698-4), HA-13-0.5' (440-44698-5). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method(s) 8270C: Surrogate recovery for the following sample(s) was outside control limits: HA-10-0.5' (440-44698-2), HA-9-0.0.5' (440-44698-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No other analytical or quality issues were noted.

GC Semi VOA
No analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

Organic Prep
Method(s) 3546: Due to the matrix, the following sample(s) could not be concentrated to the final method required volume: HA-10-0.5' (440-44698-2), HA-10-1.5' (440-44698-3), HA-12-0.5' (440-44698-4), HA-13-0.5' (440-44698-5), HA-9-0.0.5' (440-44698-1). The reporting limits (RLs) are elevated proportionately.

Batch 100932
3546/8270

Method(s) CA LUFT: Due to the matrix, the following sample(s) could not be concentrated to the final method required volume: HA-19-0.5' (440-44698-6), HA-21-0.5' (440-44698-8), HA-22-0.5' (440-44698-9), HA-23.0.5' (440-44698-10), HA-24-0.5' (440-44698-11). The reporting limits (RLs) are elevated proportionately.

Batch 101062
8015B CA LUFT
44698-A-6,8,9,10&11
44778-A-1
44728-B-1

No other analytical or quality issues were noted.

Client Sample ID: HA-9-0
Date Collected: 04/22/13 12:30
Date Received: 04/24/13 10:00

Lab Sample ID: 440-44698-1
Matrix: Solid

5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
1,2-Dichlorobenzene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
1,2-Diphenylhydrazine(as Azobenzene)	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
1,3-Dichlorobenzene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
1,4-Dichlorobenzene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
2,4,5-Trichlorophenol	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
2,4,6-Trichlorophenol	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
2,4-Dichlorophenol	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
2,4-Dimethylphenol	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
2,4-Dinitrophenol	ND		2.6		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
2,4-Dinitrotoluene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
2,6-Dinitrotoluene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
2-Chloronaphthalene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
2-Chlorophenol	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
2-Methylnaphthalene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
2-Methylphenol	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
2-Nitroaniline	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
2-Nitrophenol	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
3,3'-Dichlorobenzidine	ND		3.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
3-Nitroaniline	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
4,6-Dinitro-2-methylphenol	ND		1.7		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
4-Bromophenyl phenyl ether	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
4-Chloro-3-methylphenol	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
4-Chloroaniline	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
4-Chlorophenyl phenyl ether	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
3-Methylphenol + 4-Methylphenol	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
4-Nitroaniline	ND		3.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
4-Nitrophenol	ND		3.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Acenaphthene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Acenaphthylene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Aniline	ND		1.7		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Anthracene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Benzidine	ND		2.6		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Benzo[a]anthracene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Benzo[a]pyrene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Benzo[b]fluoranthene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Benzo[g,h,i]perylene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Benzo[k]fluoranthene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Benzoic acid	ND		3.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Benzyl alcohol	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Bis(2-chloroethoxy)methane	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Bis(2-chloroethyl)ether	ND		0.68		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Bis(2-ethylhexyl) phthalate	**3.7**	**B**	1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Butyl benzyl phthalate	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Chrysene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Dibenz(a,h)anthracene	ND		1.7		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Dibenzofuran	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Diethyl phthalate	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2

Client Sample ID: HA-9-0
Date Collected: 04/22/13 12:30
Date Received: 04/24/13 10:00

Lab Sample ID: 440-44698-1
Matrix: Solid

5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Di-n-butyl phthalate	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Di-n-octyl phthalate	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Fluoranthene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Fluorene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Hexachlorobenzene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Hexachlorobutadiene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Hexachlorocyclopentadiene	ND		3.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Hexachloroethane	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Indeno[1,2,3-cd]pyrene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Isophorone	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Naphthalene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Nitrobenzene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
N-Nitrosodi-n-propylamine	ND		1.0		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
N-Nitrosodiphenylamine	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Pentachlorophenol	ND		3.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Phenanthrene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Phenol	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
Pyrene	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2
bis (2-chloroisopropyl) ether	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 01:48	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*102*		*35 - 120*	*04/27/13 18:26*	*05/04/13 01:48*	*2*
2-Fluorophenol (Surr)	*91*		*25 - 120*	*04/27/13 18:26*	*05/04/13 01:48*	*2*
2,4,6-Tribromophenol (Surr)	*128*	*X*	*35 - 125*	*04/27/13 18:26*	*05/04/13 01:48*	*2*
Nitrobenzene-d5 (Surr)	*78*		*30 - 120*	*04/27/13 18:26*	*05/04/13 01:48*	*2*
Terphenyl-d14 (Surr)	*121*		*40 - 135*	*04/27/13 18:26*	*05/04/13 01:48*	*2*
Phenol-d6 (Surr)	*89*		*35 - 120*	*04/27/13 18:26*	*05/04/13 01:48*	*2*

Client Sample ID: HA-10-0
Date Collected: 04/22/13 11:50
Date Received: 04/24/13 10:00

Lab Sample ID: 440-44698-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
1,2-Dichlorobenzene	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
1,3-Dichlorobenzene	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
1,4-Dichlorobenzene	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
2,4,5-Trichlorophenol	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
2,4,6-Trichlorophenol	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
2,4-Dichlorophenol	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
2,4-Dimethylphenol	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
2,4-Dinitrophenol	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
2,4-Dinitrotoluene	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
2,6-Dinitrotoluene	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
2-Chloronaphthalene	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
2-Chlorophenol	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-44698-1

Client Sample ID: HA-10-0
Date Collected: 04/22/13 11:50
Date Received: 04/24/13 10:00

Lab Sample ID: 440-44698-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
2-Methylphenol	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
2-Nitroaniline	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
2-Nitrophenol	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
3,3'-Dichlorobenzidine	ND		1.7		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
3-Nitroaniline	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
4,6-Dinitro-2-methylphenol	ND		0.84		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
4-Bromophenyl phenyl ether	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
4-Chloro-3-methylphenol	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
4-Chloroaniline	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
4-Chlorophenyl phenyl ether	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
3-Methylphenol + 4-Methylphenol	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
4-Nitroaniline	ND		1.7		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
4-Nitrophenol	ND		1.7		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Acenaphthene	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Acenaphthylene	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Aniline	ND		0.84		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Anthracene	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Benzidine	ND		1.3		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Benzo[a]anthracene	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Benzo[a]pyrene	**1.7**		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Benzo[b]fluoranthene	**2.0**		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Benzo[g,h,i]perylene	**2.4**		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Benzo[k]fluoranthene	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Benzoic acid	ND		1.7		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Benzyl alcohol	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Bis(2-chloroethoxy)methane	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Bis(2-chloroethyl)ether	ND		0.34		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Bis(2-ethylhexyl) phthalate	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Butyl benzyl phthalate	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Chrysene	**1.0**		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Dibenz(a,h)anthracene	ND		0.84		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Dibenzofuran	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Diethyl phthalate	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Dimethyl phthalate	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Di-n-butyl phthalate	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Di-n-octyl phthalate	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Fluoranthene	**1.4**		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Fluorene	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Hexachlorobenzene	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Hexachlorobutadiene	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Hexachlorocyclopentadiene	ND		1.7		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Hexachloroethane	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Indeno[1,2,3-cd]pyrene	**1.7**		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Isophorone	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Naphthalene	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Nitrobenzene	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
N-Nitrosodi-n-propylamine	ND		0.50		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
N-Nitrosodiphenylamine	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1

Client Sample ID: HA-10-0
Date Collected: 04/22/13 11:50
Date Received: 04/24/13 10:00

Lab Sample ID: 440-44698-2
Matrix: Solid

5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		1.7		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Phenanthrene	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Phenol	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
Pyrene	**1.6**		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1
bis (2-chloroisopropyl) ether	ND		0.66		mg/Kg		04/27/13 18:26	05/04/13 02:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*107*		*35 - 120*	*04/27/13 18:26*	*05/04/13 02:10*	*1*
2-Fluorophenol (Surr)	*102*		*25 - 120*	*04/27/13 18:26*	*05/04/13 02:10*	*1*
2,4,6-Tribromophenol (Surr)	*132*	*X*	*35 - 125*	*04/27/13 18:26*	*05/04/13 02:10*	*1*
Nitrobenzene-d5 (Surr)	*91*		*30 - 120*	*04/27/13 18:26*	*05/04/13 02:10*	*1*
Terphenyl-d14 (Surr)	*119*		*40 - 135*	*04/27/13 18:26*	*05/04/13 02:10*	*1*
Phenol-d6 (Surr)	*100*		*35 - 120*	*04/27/13 18:26*	*05/04/13 02:10*	*1*

Client Sample ID: HA-10-1
Date Collected: 04/22/13 12:15
Date Received: 04/24/13 10:00

Lab Sample ID: 440-44698-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
1,2-Dichlorobenzene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
1,3-Dichlorobenzene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
1,4-Dichlorobenzene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
2,4,5-Trichlorophenol	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
2,4,6-Trichlorophenol	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
2,4-Dichlorophenol	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
2,4-Dimethylphenol	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
2,4-Dinitrophenol	ND		1.3		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
2,4-Dinitrotoluene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
2,6-Dinitrotoluene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
2-Chloronaphthalene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
2-Chlorophenol	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
2-Methylnaphthalene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
2-Methylphenol	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
2-Nitroaniline	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
2-Nitrophenol	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
3,3'-Dichlorobenzidine	ND		1.7		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
3-Nitroaniline	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
4,6-Dinitro-2-methylphenol	ND		0.84		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
4-Bromophenyl phenyl ether	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
4-Chloro-3-methylphenol	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
4-Chloroaniline	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
4-Chlorophenyl phenyl ether	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
3-Methylphenol + 4-Methylphenol	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
4-Nitroaniline	ND		1.7		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
4-Nitrophenol	ND		1.7		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Acenaphthene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-44698-1

Client Sample ID: HA-10-1
Date Collected: 04/22/13 12:15
Date Received: 04/24/13 10:00

Lab Sample ID: 440-44698-3
Matrix: Solid

5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Aniline	ND		0.84		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Anthracene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Benzidine	ND		1.3		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Benzo[a]anthracene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Benzo[a]pyrene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Benzo[b]fluoranthene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Benzo[g,h,i]perylene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Benzo[k]fluoranthene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Benzoic acid	ND		1.7		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Benzyl alcohol	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Bis(2-chloroethoxy)methane	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Bis(2-chloroethyl)ether	ND		0.34		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Bis(2-ethylhexyl) phthalate	1.3	B	0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Butyl benzyl phthalate	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Chrysene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Dibenz(a,h)anthracene	ND		0.84		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Dibenzofuran	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Diethyl phthalate	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Dimethyl phthalate	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Di-n-butyl phthalate	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Di-n-octyl phthalate	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Fluoranthene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Fluorene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Hexachlorobenzene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Hexachlorobutadiene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Hexachlorocyclopentadiene	ND		1.7		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Hexachloroethane	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Indeno[1,2,3-cd]pyrene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Isophorone	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Naphthalene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Nitrobenzene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
N-Nitrosodi-n-propylamine	ND		0.50		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
N-Nitrosodiphenylamine	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Pentachlorophenol	ND		1.7		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Phenanthrene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Phenol	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
Pyrene	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1
bis (2-chloroisopropyl) ether	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 10:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*89*		*35 - 120*	*04/27/13 18:26*	*05/01/13 10:39*	*1*
2-Fluorophenol (Surr)	*90*		*25 - 120*	*04/27/13 18:26*	*05/01/13 10:39*	*1*
2,4,6-Tribromophenol (Surr)	*115*		*35 - 125*	*04/27/13 18:26*	*05/01/13 10:39*	*1*
Nitrobenzene-d5 (Surr)	*77*		*30 - 120*	*04/27/13 18:26*	*05/01/13 10:39*	*1*
Terphenyl-d14 (Surr)	*100*		*40 - 135*	*04/27/13 18:26*	*05/01/13 10:39*	*1*
Phenol-d6 (Surr)	*88*		*35 - 120*	*04/27/13 18:26*	*05/01/13 10:39*	*1*

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-44698-1

Client Sample ID: HA-12-0
Date Collected: 04/22/13 11:30
Date Received: 04/24/13 10:00

Lab Sample ID: 440-44698-4
Matrix: Solid

5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
1,2-Dichlorobenzene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
1,2-Diphenylhydrazine(as Azobenzene)	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
1,3-Dichlorobenzene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
1,4-Dichlorobenzene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
2,4,5-Trichlorophenol	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
2,4,6-Trichlorophenol	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
2,4-Dichlorophenol	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
2,4-Dimethylphenol	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
2,4-Dinitrophenol	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
2,4-Dinitrotoluene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
2,6-Dinitrotoluene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
2-Chloronaphthalene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
2-Chlorophenol	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
2-Methylnaphthalene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
2-Methylphenol	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
2-Nitroaniline	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
2-Nitrophenol	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
3,3'-Dichlorobenzidine	ND		8.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
3-Nitroaniline	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
4,6-Dinitro-2-methylphenol	ND		4.2		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
4-Bromophenyl phenyl ether	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
4-Chloro-3-methylphenol	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
4-Chloroaniline	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
4-Chlorophenyl phenyl ether	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
3-Methylphenol + 4-Methylphenol	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
4-Nitroaniline	ND		8.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
4-Nitrophenol	ND		8.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Acenaphthene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Acenaphthylene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Aniline	ND		4.2		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Anthracene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Benzidine	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Benzo[a]anthracene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Benzo[a]pyrene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Benzo[b]fluoranthene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Benzo[g,h,i]perylene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Benzo[k]fluoranthene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Benzoic acid	ND		8.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Benzyl alcohol	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Bis(2-chloroethoxy)methane	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Bis(2-chloroethyl)ether	ND		1.7		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Bis(2-ethylhexyl) phthalate	**5.6**	**B**	3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Butyl benzyl phthalate	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Chrysene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Dibenz(a,h)anthracene	ND		4.2		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Dibenzofuran	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Diethyl phthalate	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Dimethyl phthalate	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5

Client Sample ID: HA-12-0
Date Collected: 04/22/13 11:30
Date Received: 04/24/13 10:00

Lab Sample ID: 440-44698-4
Matrix: Solid

5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Di-n-octyl phthalate	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Fluoranthene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Fluorene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Hexachlorobenzene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Hexachlorobutadiene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Hexachlorocyclopentadiene	ND		8.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Hexachloroethane	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Indeno[1,2,3-cd]pyrene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Isophorone	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Naphthalene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Nitrobenzene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
N-Nitrosodi-n-propylamine	ND		2.5		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
N-Nitrosodiphenylamine	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Pentachlorophenol	ND		8.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Phenanthrene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Phenol	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
Pyrene	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5
bis (2-chloroisopropyl) ether	ND		3.3		mg/Kg		04/27/13 18:26	05/01/13 11:01	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*35 - 120*	*04/27/13 18:26*	*05/01/13 11:01*	*5*
2-Fluorophenol (Surr)	*66*		*25 - 120*	*04/27/13 18:26*	*05/01/13 11:01*	*5*
2,4,6-Tribromophenol (Surr)	*98*		*35 - 125*	*04/27/13 18:26*	*05/01/13 11:01*	*5*
Nitrobenzene-d5 (Surr)	*59*		*30 - 120*	*04/27/13 18:26*	*05/01/13 11:01*	*5*
Terphenyl-d14 (Surr)	*98*		*40 - 135*	*04/27/13 18:26*	*05/01/13 11:01*	*5*
Phenol-d6 (Surr)	*76*		*35 - 120*	*04/27/13 18:26*	*05/01/13 11:01*	*5*

Client Sample ID: HA-13-0
Date Collected: 04/22/13 11:20
Date Received: 04/24/13 10:00

Lab Sample ID: 440-44698-5
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
1,2-Dichlorobenzene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
1,2-Diphenylhydrazine(as Azobenzene)	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
1,3-Dichlorobenzene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
1,4-Dichlorobenzene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
2,4,5-Trichlorophenol	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
2,4,6-Trichlorophenol	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
2,4-Dichlorophenol	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
2,4-Dimethylphenol	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
2,4-Dinitrophenol	ND		13		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
2,4-Dinitrotoluene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
2,6-Dinitrotoluene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
2-Chloronaphthalene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
2-Chlorophenol	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
2-Methylnaphthalene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10

Client Sample ID: HA-13-0
Date Collected: 04/22/13 11:20
Date Received: 04/24/13 10:00

Lab Sample ID: 440-44698-5
Matrix: Solid

5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
2-Nitroaniline	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
2-Nitrophenol	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
3,3'-Dichlorobenzidine	ND		17		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
3-Nitroaniline	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
4,6-Dinitro-2-methylphenol	ND		8.4		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
4-Bromophenyl phenyl ether	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
4-Chloro-3-methylphenol	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
4-Chloroaniline	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
4-Chlorophenyl phenyl ether	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
3-Methylphenol + 4-Methylphenol	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
4-Nitroaniline	ND		17		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
4-Nitrophenol	ND		17		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Acenaphthene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Acenaphthylene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Aniline	ND		8.4		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Anthracene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Benzidine	ND		13		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Benzo[a]anthracene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Benzo[a]pyrene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Benzo[b]fluoranthene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Benzo[g,h,i]perylene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Benzo[k]fluoranthene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Benzoic acid	ND		17		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Benzyl alcohol	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Bis(2-chloroethoxy)methane	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Bis(2-chloroethyl)ether	ND		3.4		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Bis(2-ethylhexyl) phthalate	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Butyl benzyl phthalate	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Chrysene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Dibenz(a,h)anthracene	ND		8.4		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Dibenzofuran	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Diethyl phthalate	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Dimethyl phthalate	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Di-n-butyl phthalate	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Di-n-octyl phthalate	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Fluoranthene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Fluorene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Hexachlorobenzene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Hexachlorobutadiene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Hexachlorocyclopentadiene	ND		17		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Hexachloroethane	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Indeno[1,2,3-cd]pyrene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Isophorone	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Naphthalene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Nitrobenzene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
N-Nitrosodi-n-propylamine	ND		5.0		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
N-Nitrosodiphenylamine	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Pentachlorophenol	ND		17		mg/Kg		04/27/13 18:26	05/01/13 11:23	10

5

Client Sample ID: HA-13-0

Lab Sample ID: 440-44698-5

Date Collected: 04/22/13 11:20
Date Received: 04/24/13 10:00

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Phenol	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
Pyrene	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10
bis (2-chloroisopropyl) ether	ND		6.6		mg/Kg		04/27/13 18:26	05/01/13 11:23	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*35 - 120*	*04/27/13 18:26*	*05/01/13 11:23*	*10*
2-Fluorophenol (Surr)	*53*		*25 - 120*	*04/27/13 18:26*	*05/01/13 11:23*	*10*
2,4,6-Tribromophenol (Surr)	*99*		*35 - 125*	*04/27/13 18:26*	*05/01/13 11:23*	*10*
Nitrobenzene-d5 (Surr)	*50*		*30 - 120*	*04/27/13 18:26*	*05/01/13 11:23*	*10*
Terphenyl-d14 (Surr)	*100*		*40 - 135*	*04/27/13 18:26*	*05/01/13 11:23*	*10*
Phenol-d6 (Surr)	*81*		*35 - 120*	*04/27/13 18:26*	*05/01/13 11:23*	*10*

Client Sample ID: HA-19-0

Lab Sample ID: 440-44698-6

Date Collected: 04/22/13 13:20
Date Received: 04/24/13 10:00

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	**90**		25		mg/Kg		04/29/13 11:14	04/29/13 23:13	1
ORO (C29-C40)	**120**		25		mg/Kg		04/29/13 11:14	04/29/13 23:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*95*		*40 - 140*	*04/29/13 11:14*	*04/29/13 23:13*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**10000**		10		mg/Kg		04/29/13 08:17	04/29/13 23:17	25

Client Sample ID: HA-20-0

Lab Sample ID: 440-44698-7

Date Collected: 04/22/13 14:05
Date Received: 04/24/13 10:00

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		5.0		mg/Kg		04/29/13 11:14	04/29/13 22:51	1
ORO (C29-C40)	ND		5.0		mg/Kg		04/29/13 11:14	04/29/13 22:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*84*		*40 - 140*	*04/29/13 11:14*	*04/29/13 22:51*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**170**		2.0		mg/Kg		04/29/13 08:17	04/29/13 19:18	5

Client Sample ID: HA-21-0

Lab Sample ID: 440-44698-8
Matrix: Solid

Date Collected: 04/22/13 13:55
Date Received: 04/24/13 10:00

5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	100		25		mg/Kg		04/29/13 11:14	04/29/13 23:58	1
ORO (C29-C40)	250		25		mg/Kg		04/29/13 11:14	04/29/13 23:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*103*		*40 - 140*	*04/29/13 11:14*	*04/29/13 23:58*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	350		2.0		mg/Kg		04/29/13 08:17	04/29/13 19:19	5

Client Sample ID: HA-22-0

Lab Sample ID: 440-44698-9
Matrix: Solid

Date Collected: 04/22/13 13:30
Date Received: 04/24/13 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	52		25		mg/Kg		04/29/13 11:14	04/30/13 00:42	1
ORO (C29-C40)	93		25		mg/Kg		04/29/13 11:14	04/30/13 00:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*95*		*40 - 140*	*04/29/13 11:14*	*04/30/13 00:42*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1300		2.0		mg/Kg		04/29/13 08:17	04/29/13 19:21	5

Client Sample ID: HA-23.0

Lab Sample ID: 440-44698-10
Matrix: Solid

Date Collected: 04/22/13 13:00
Date Received: 04/24/13 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	97		25		mg/Kg		04/29/13 11:14	04/30/13 01:27	1
ORO (C29-C40)	160		25		mg/Kg		04/29/13 11:14	04/30/13 01:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*105*		*40 - 140*	*04/29/13 11:14*	*04/30/13 01:27*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1200		2.0		mg/Kg		04/29/13 08:17	04/29/13 19:22	5

Client Sample ID: HA-24-0

Lab Sample ID: 440-44698-11
Matrix: Solid

Date Collected: 04/22/13 12:50
Date Received: 04/24/13 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	69		25		mg/Kg		04/29/13 11:14	04/30/13 02:11	1
ORO (C29-C40)	99		25		mg/Kg		04/29/13 11:14	04/30/13 02:11	1

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-44698-1

Client Sample ID: HA-24-0
Date Collected: 04/22/13 12:50
Date Received: 04/24/13 10:00

Lab Sample ID: 440-44698-11
Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*84*		*40 - 140*	*04/29/13 11:14*	*04/30/13 02:11*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1200		2.0		mg/Kg		04/29/13 08:17	04/29/13 19:23	5

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-44698-1

Method	Method Description	Protocol	Laboratory
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL IRV
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL IRV
6010B	Metals (ICP)	SW846	TAL IRV

Protocol References:

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

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-44698-1

Client Sample ID: HA-9-0

Date Collected: 04/22/13 12:30
Date Received: 04/24/13 10:00

Lab Sample ID: 440-44698-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.06 g	2 mL	100932	04/27/13 18:26	CN	TAL IRV
Total/NA	Analysis	8270C		2			102274	05/04/13 01:48	AI	TAL IRV

Client Sample ID: HA-10-0

Date Collected: 04/22/13 11:50
Date Received: 04/24/13 10:00

Lab Sample ID: 440-44698-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.06 g	2 mL	100932	04/27/13 18:26	CN	TAL IRV
Total/NA	Analysis	8270C		1			102274	05/04/13 02:10	AI	TAL IRV

Client Sample ID: HA-10-1

Date Collected: 04/22/13 12:15
Date Received: 04/24/13 10:00

Lab Sample ID: 440-44698-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.08 g	2 mL	100932	04/27/13 18:26	CN	TAL IRV
Total/NA	Analysis	8270C		1			101503	05/01/13 10:39	DF	TAL IRV

Client Sample ID: HA-12-0

Date Collected: 04/22/13 11:30
Date Received: 04/24/13 10:00

Lab Sample ID: 440-44698-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.06 g	2 mL	100932	04/27/13 18:26	CN	TAL IRV
Total/NA	Analysis	8270C		5			101503	05/01/13 11:01	DF	TAL IRV

Client Sample ID: HA-13-0

Date Collected: 04/22/13 11:20
Date Received: 04/24/13 10:00

Lab Sample ID: 440-44698-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.04 g	2 mL	100932	04/27/13 18:26	CN	TAL IRV
Total/NA	Analysis	8270C		10			101503	05/01/13 11:23	DF	TAL IRV

Client Sample ID: HA-19-0

Date Collected: 04/22/13 13:20
Date Received: 04/24/13 10:00

Lab Sample ID: 440-44698-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	CA LUFT			30.03 g	5 mL	101062	04/29/13 11:14	HN	TAL IRV
Total/NA	Analysis	8015B		1			101081	04/29/13 23:13	JR	TAL IRV

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-44698-1

Client Sample ID: HA-19-0

Lab Sample ID: 440-44698-6
Matrix: Solid

Date Collected: 04/22/13 13:20
Date Received: 04/24/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.01 g	50 mL	101020	04/29/13 08:17	DT	TAL IRV
Total/NA	Analysis	6010B		25			101242	04/29/13 23:17	VS	TAL IRV

Client Sample ID: HA-20-0

Lab Sample ID: 440-44698-7
Matrix: Solid

Date Collected: 04/22/13 14:05
Date Received: 04/24/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	CA LUFT			30.04 g	1 mL	101062	04/29/13 11:14	HN	TAL IRV
Total/NA	Analysis	8015B		1			101081	04/29/13 22:51	JR	TAL IRV
Total/NA	Prep	3050B			2.01 g	50 mL	101020	04/29/13 08:17	DT	TAL IRV
Total/NA	Analysis	6010B		5			101214	04/29/13 19:18	TK	TAL IRV

Client Sample ID: HA-21-0

Lab Sample ID: 440-44698-8
Matrix: Solid

Date Collected: 04/22/13 13:55
Date Received: 04/24/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	CA LUFT			30.05 g	5 mL	101062	04/29/13 11:14	HN	TAL IRV
Total/NA	Analysis	8015B		1			101081	04/29/13 23:58	JR	TAL IRV
Total/NA	Prep	3050B			2.02 g	50 mL	101020	04/29/13 08:17	DT	TAL IRV
Total/NA	Analysis	6010B		5			101214	04/29/13 19:19	TK	TAL IRV

Client Sample ID: HA-22-0

Lab Sample ID: 440-44698-9
Matrix: Solid

Date Collected: 04/22/13 13:30
Date Received: 04/24/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	CA LUFT			30.00 g	5 mL	101062	04/29/13 11:14	HN	TAL IRV
Total/NA	Analysis	8015B		1			101081	04/30/13 00:42	JR	TAL IRV
Total/NA	Prep	3050B			1.99 g	50 mL	101020	04/29/13 08:17	DT	TAL IRV
Total/NA	Analysis	6010B		5			101214	04/29/13 19:21	TK	TAL IRV

Client Sample ID: HA-23.0

Lab Sample ID: 440-44698-10
Matrix: Solid

Date Collected: 04/22/13 13:00
Date Received: 04/24/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	CA LUFT			30.06 g	5 mL	101062	04/29/13 11:14	HN	TAL IRV
Total/NA	Analysis	8015B		1			101081	04/30/13 01:27	JR	TAL IRV
Total/NA	Prep	3050B			2.01 g	50 mL	101020	04/29/13 08:17	DT	TAL IRV
Total/NA	Analysis	6010B		5			101214	04/29/13 19:22	TK	TAL IRV

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-44698-1

Client Sample ID: HA-24-0
Date Collected: 04/22/13 12:50
Date Received: 04/24/13 10:00

Lab Sample ID: 440-44698-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	CA LUFT			30.00 g	5 mL	101062	04/29/13 11:14	HN	TAL IRV
Total/NA	Analysis	8015B		1			101081	04/30/13 02:11	JR	TAL IRV
Total/NA	Prep	3050B			2.04 g	50 mL	101020	04/29/13 08:17	DT	TAL IRV
Total/NA	Analysis	6010B		5			101214	04/29/13 19:23	TK	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

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

Lab Sample ID: MB 440-100932/1-A
Matrix: Solid
Analysis Batch: 101503

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 100932

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
1,2-Dichlorobenzene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
1,3-Dichlorobenzene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
1,4-Dichlorobenzene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
2,4,5-Trichlorophenol	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
2,4,6-Trichlorophenol	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
2,4-Dichlorophenol	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
2,4-Dimethylphenol	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
2,4-Dinitrophenol	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
2,4-Dinitrotoluene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
2,6-Dinitrotoluene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
2-Chloronaphthalene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
2-Chlorophenol	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
2-Methylnaphthalene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
2-Methylphenol	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
2-Nitroaniline	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
2-Nitrophenol	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
3,3'-Dichlorobenzidine	ND		0.83		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
3-Nitroaniline	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
4,6-Dinitro-2-methylphenol	ND		0.42		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
4-Bromophenyl phenyl ether	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
4-Chloro-3-methylphenol	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
4-Chloroaniline	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
4-Chlorophenyl phenyl ether	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
3-Methylphenol + 4-Methylphenol	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
4-Nitroaniline	ND		0.83		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
4-Nitrophenol	ND		0.83		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Acenaphthene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Acenaphthylene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Aniline	ND		0.42		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Anthracene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Benzidine	ND		0.66		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Benzo[a]anthracene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Benzo[a]pyrene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Benzo[b]fluoranthene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Benzo[g,h,i]perylene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Benzo[k]fluoranthene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Benzoic acid	ND		0.83		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Benzyl alcohol	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Bis(2-chloroethoxy)methane	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Bis(2-chloroethyl)ether	ND		0.17		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Bis(2-ethylhexyl) phthalate	0.585		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Butyl benzyl phthalate	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Chrysene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Dibenz(a,h)anthracene	ND		0.42		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Dibenzofuran	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1

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

Lab Sample ID: MB 440-100932/1-A
Matrix: Solid
Analysis Batch: 101503

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 100932

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diethyl phthalate	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Dimethyl phthalate	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Di-n-butyl phthalate	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Di-n-octyl phthalate	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Fluoranthene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Fluorene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Hexachlorobenzene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Hexachlorobutadiene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Hexachlorocyclopentadiene	ND		0.83		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Hexachloroethane	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Indeno[1,2,3-cd]pyrene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Isophorone	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Naphthalene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Nitrobenzene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
N-Nitrosodi-n-propylamine	ND		0.25		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
N-Nitrosodiphenylamine	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Pentachlorophenol	ND		0.83		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Phenanthrene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Phenol	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
Pyrene	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1
bis (2-chloroisopropyl) ether	ND		0.33		mg/Kg		04/27/13 18:26	05/01/13 00:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*35 - 120*	*04/27/13 18:26*	*05/01/13 00:22*	*1*
2-Fluorophenol (Surr)	*93*		*25 - 120*	*04/27/13 18:26*	*05/01/13 00:22*	*1*
2,4,6-Tribromophenol (Surr)	*101*		*35 - 125*	*04/27/13 18:26*	*05/01/13 00:22*	*1*
Nitrobenzene-d5 (Surr)	*79*		*30 - 120*	*04/27/13 18:26*	*05/01/13 00:22*	*1*
Terphenyl-d14 (Surr)	*87*		*40 - 135*	*04/27/13 18:26*	*05/01/13 00:22*	*1*
Phenol-d6 (Surr)	*86*		*35 - 120*	*04/27/13 18:26*	*05/01/13 00:22*	*1*

Lab Sample ID: LCS 440-100932/2-A
Matrix: Solid
Analysis Batch: 101503

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 100932

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	3.32	2.53		mg/Kg		76	40 - 120
1,2-Dichlorobenzene	3.32	2.65		mg/Kg		80	40 - 120
1,2-Diphenylhydrazine(as Azobenzene)	3.32	3.06		mg/Kg		92	50 - 125
1,3-Dichlorobenzene	3.32	2.60		mg/Kg		78	35 - 120
1,4-Dichlorobenzene	3.32	2.62		mg/Kg		79	35 - 120
2,4,5-Trichlorophenol	3.32	2.99		mg/Kg		90	50 - 120
2,4,6-Trichlorophenol	3.32	3.08		mg/Kg		93	50 - 120
2,4-Dichlorophenol	3.32	3.07		mg/Kg		92	45 - 120
2,4-Dimethylphenol	3.32	2.95		mg/Kg		89	40 - 120
2,4-Dinitrophenol	3.32	2.16		mg/Kg		65	25 - 120
2,4-Dinitrotoluene	3.32	3.33		mg/Kg		100	55 - 125
2,6-Dinitrotoluene	3.32	3.10		mg/Kg		93	55 - 125

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

Lab Sample ID: LCS 440-100932/2-A
Matrix: Solid
Analysis Batch: 101503

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 100932

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chloronaphthalene	3.32	2.72		mg/Kg		82	45 - 120
2-Chlorophenol	3.32	3.04		mg/Kg		92	40 - 120
2-Methylnaphthalene	3.32	2.93		mg/Kg		88	45 - 120
2-Methylphenol	3.32	3.30		mg/Kg		100	40 - 120
2-Nitroaniline	3.32	3.09		mg/Kg		93	50 - 125
2-Nitrophenol	3.32	2.72		mg/Kg		82	45 - 120
3,3'-Dichlorobenzidine	3.32	3.00		mg/Kg		90	20 - 130
3-Nitroaniline	3.32	3.03		mg/Kg		91	35 - 120
4,6-Dinitro-2-methylphenol	3.32	2.67		mg/Kg		80	40 - 120
4-Bromophenyl phenyl ether	3.32	3.19		mg/Kg		96	45 - 120
4-Chloro-3-methylphenol	3.32	3.11		mg/Kg		94	50 - 125
4-Chloroaniline	3.32	2.67		mg/Kg		80	20 - 120
4-Chlorophenyl phenyl ether	3.32	3.05		mg/Kg		92	55 - 120
3-Methylphenol + 4-Methylphenol	3.32	3.42		mg/Kg		103	50 - 120
4-Nitroaniline	3.32	2.96		mg/Kg		89	45 - 125
4-Nitrophenol	3.32	2.95		mg/Kg		89	40 - 125
Acenaphthene	3.32	2.85		mg/Kg		86	50 - 120
Acenaphthylene	3.32	2.98		mg/Kg		90	50 - 120
Aniline	3.32	2.62		mg/Kg		79	25 - 120
Anthracene	3.32	3.22		mg/Kg		97	55 - 120
Benzidine	3.32	2.00		mg/Kg		60	20 - 120
Benzo[a]anthracene	3.32	3.00		mg/Kg		90	55 - 120
Benzo[a]pyrene	3.32	3.03		mg/Kg		91	50 - 125
Benzo[b]fluoranthene	3.32	2.92		mg/Kg		88	45 - 125
Benzo[g,h,i]perylene	3.32	2.90		mg/Kg		87	35 - 130
Benzo[k]fluoranthene	3.32	3.10		mg/Kg		93	45 - 125
Benzoic acid	3.32	2.01		mg/Kg		61	20 - 120
Benzyl alcohol	3.32	2.76		mg/Kg		83	35 - 120
Bis(2-chloroethoxy)methane	3.32	2.74		mg/Kg		83	45 - 120
Bis(2-chloroethyl)ether	3.32	2.72		mg/Kg		82	35 - 120
Bis(2-ethylhexyl) phthalate	3.32	3.27		mg/Kg		99	50 - 130
Butyl benzyl phthalate	3.32	3.20		mg/Kg		96	50 - 125
Chrysene	3.32	3.03		mg/Kg		91	55 - 120
Dibenz(a,h)anthracene	3.32	2.96		mg/Kg		89	40 - 135
Dibenzofuran	3.32	2.86		mg/Kg		86	55 - 120
Diethyl phthalate	3.32	3.22		mg/Kg		97	50 - 125
Dimethyl phthalate	3.32	3.06		mg/Kg		92	50 - 125
Di-n-butyl phthalate	3.32	3.27		mg/Kg		99	50 - 125
Di-n-octyl phthalate	3.32	2.91		mg/Kg		88	50 - 135
Fluoranthene	3.32	3.19		mg/Kg		96	55 - 120
Fluorene	3.32	3.09		mg/Kg		93	55 - 120
Hexachlorobenzene	3.32	3.15		mg/Kg		95	50 - 120
Hexachlorobutadiene	3.32	2.53		mg/Kg		76	40 - 120
Hexachlorocyclopentadiene	3.32	1.63		mg/Kg		49	30 - 125
Hexachloroethane	3.32	2.60		mg/Kg		78	40 - 120
Indeno[1,2,3-cd]pyrene	3.32	2.91		mg/Kg		88	30 - 135
Isophorone	3.32	2.84		mg/Kg		86	40 - 120
Naphthalene	3.32	2.65		mg/Kg		80	45 - 120

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

Lab Sample ID: LCS 440-100932/2-A
Matrix: Solid
Analysis Batch: 101503

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 100932

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrobenzene	3.32	2.47		mg/Kg		75	45 - 120
N-Nitrosodi-n-propylamine	3.32	3.19		mg/Kg		96	40 - 120
N-Nitrosodiphenylamine	3.32	3.08		mg/Kg		93	50 - 120
Pentachlorophenol	3.32	2.79		mg/Kg		84	40 - 120
Phenanthrene	3.32	3.19		mg/Kg		96	50 - 120
Phenol	3.32	3.07		mg/Kg		93	40 - 120
Pyrene	3.32	3.22		mg/Kg		97	45 - 125
bis (2-chloroisopropyl) ether	3.32	2.91		mg/Kg		88	40 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*85*		*35 - 120*
2-Fluorophenol (Surr)	*90*		*25 - 120*
2,4,6-Tribromophenol (Surr)	*99*		*35 - 125*
Nitrobenzene-d5 (Surr)	*77*		*30 - 120*
Terphenyl-d14 (Surr)	*96*		*40 - 135*
Phenol-d6 (Surr)	*89*		*35 - 120*

Lab Sample ID: 440-44465-F-1-C MS
Matrix: Solid
Analysis Batch: 101503

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 100932

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	ND		3.35	2.54		mg/Kg		76	40 - 120
1,2-Dichlorobenzene	ND		3.35	2.47		mg/Kg		74	40 - 120
1,2-Diphenylhydrazine(as Azobenzene)	ND		3.35	3.01		mg/Kg		90	50 - 125
1,3-Dichlorobenzene	ND		3.35	2.42		mg/Kg		72	35 - 120
1,4-Dichlorobenzene	ND		3.35	2.45		mg/Kg		73	35 - 120
2,4,5-Trichlorophenol	ND		3.35	2.90		mg/Kg		86	45 - 120
2,4,6-Trichlorophenol	ND		3.35	3.03		mg/Kg		90	45 - 120
2,4-Dichlorophenol	ND		3.35	2.87		mg/Kg		86	45 - 120
2,4-Dimethylphenol	ND		3.35	2.71		mg/Kg		81	30 - 120
2,4-Dinitrophenol	ND		3.35	0.947		mg/Kg		28	20 - 120
2,4-Dinitrotoluene	ND		3.35	3.42		mg/Kg		102	50 - 125
2,6-Dinitrotoluene	ND		3.35	3.05		mg/Kg		91	50 - 125
2-Chloronaphthalene	ND		3.35	2.67		mg/Kg		80	45 - 120
2-Chlorophenol	ND		3.35	2.75		mg/Kg		82	40 - 120
2-Methylnaphthalene	ND		3.35	2.64		mg/Kg		79	40 - 120
2-Methylphenol	ND		3.35	2.81		mg/Kg		84	40 - 120
2-Nitroaniline	ND		3.35	3.07		mg/Kg		92	45 - 120
2-Nitrophenol	ND		3.35	2.67		mg/Kg		80	40 - 120
3,3'-Dichlorobenzidine	ND		3.35	2.81		mg/Kg		84	20 - 130
3-Nitroaniline	ND		3.35	3.01		mg/Kg		90	30 - 120
4,6-Dinitro-2-methylphenol	ND		3.35	2.48		mg/Kg		74	35 - 120
4-Bromophenyl phenyl ether	ND		3.35	2.85		mg/Kg		85	45 - 120
4-Chloro-3-methylphenol	ND		3.35	2.72		mg/Kg		81	50 - 125
4-Chloroaniline	ND		3.35	2.35		mg/Kg		70	20 - 120
4-Chlorophenyl phenyl ether	ND		3.35	2.90		mg/Kg		87	50 - 120

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

Lab Sample ID: 440-44465-F-1-C MS
Matrix: Solid
Analysis Batch: 101503

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 100932

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
3-Methylphenol + 4-Methylphenol	ND		3.35	2.88		mg/Kg		86	50 - 120
4-Nitroaniline	ND		3.35	3.38		mg/Kg		101	40 - 125
4-Nitrophenol	ND		3.35	3.34		mg/Kg		100	35 - 125
Acenaphthene	ND		3.35	2.81		mg/Kg		84	45 - 120
Acenaphthylene	ND		3.35	2.89		mg/Kg		86	45 - 120
Aniline	ND		3.35	2.49		mg/Kg		74	25 - 120
Anthracene	ND		3.35	3.04		mg/Kg		91	55 - 120
Benzidine	ND		3.35	2.08		mg/Kg		62	20 - 120
Benzo[a]anthracene	ND		3.35	2.93		mg/Kg		88	50 - 120
Benzo[a]pyrene	ND		3.35	3.04		mg/Kg		91	45 - 125
Benzo[b]fluoranthene	ND		3.35	2.92		mg/Kg		87	45 - 125
Benzo[g,h,i]perylene	ND		3.35	2.95		mg/Kg		88	25 - 130
Benzo[k]fluoranthene	ND		3.35	3.05		mg/Kg		91	45 - 125
Benzoic acid	ND		3.35	ND	F	mg/Kg		12	20 - 120
Benzyl alcohol	ND		3.35	2.42		mg/Kg		72	20 - 120
Bis(2-chloroethoxy)methane	ND		3.35	2.60		mg/Kg		78	45 - 120
Bis(2-chloroethyl)ether	ND		3.35	2.55		mg/Kg		76	35 - 110
Bis(2-ethylhexyl) phthalate	ND		3.35	3.28		mg/Kg		98	45 - 130
Butyl benzyl phthalate	ND		3.35	3.11		mg/Kg		93	45 - 125
Chrysene	ND		3.35	2.93		mg/Kg		88	55 - 120
Dibenz(a,h)anthracene	ND		3.35	2.94		mg/Kg		88	25 - 135
Dibenzofuran	ND		3.35	2.74		mg/Kg		82	50 - 120
Diethyl phthalate	ND		3.35	3.12		mg/Kg		93	50 - 125
Dimethyl phthalate	ND		3.35	2.92		mg/Kg		87	45 - 125
Di-n-butyl phthalate	ND		3.35	3.19		mg/Kg		95	50 - 125
Di-n-octyl phthalate	ND		3.35	2.91		mg/Kg		87	50 - 135
Fluoranthene	ND		3.35	3.26		mg/Kg		97	45 - 120
Fluorene	ND		3.35	3.03		mg/Kg		90	50 - 120
Hexachlorobenzene	ND		3.35	2.92		mg/Kg		87	50 - 120
Hexachlorobutadiene	ND		3.35	2.56		mg/Kg		77	40 - 120
Hexachlorocyclopentadiene	ND		3.35	1.84		mg/Kg		55	20 - 125
Hexachloroethane	ND		3.35	2.42		mg/Kg		72	35 - 120
Indeno[1,2,3-cd]pyrene	ND		3.35	2.95		mg/Kg		88	20 - 130
Isophorone	ND		3.35	2.62		mg/Kg		78	40 - 120
Naphthalene	ND		3.35	2.59		mg/Kg		77	40 - 120
Nitrobenzene	ND		3.35	2.50		mg/Kg		75	40 - 120
N-Nitrosodi-n-propylamine	ND		3.35	2.58		mg/Kg		77	35 - 120
N-Nitrosodiphenylamine	ND		3.35	2.83		mg/Kg		84	45 - 125
Pentachlorophenol	ND		3.35	3.20		mg/Kg		96	30 - 120
Phenanthrene	ND		3.35	3.02		mg/Kg		90	50 - 120
Phenol	ND		3.35	2.76		mg/Kg		82	40 - 120
Pyrene	ND		3.35	2.98		mg/Kg		89	40 - 125
bis (2-chloroisopropyl) ether	ND		3.35	2.47		mg/Kg		74	40 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*81*		*35 - 120*
2-Fluorophenol (Surr)	*84*		*25 - 120*
2,4,6-Tribromophenol (Surr)	*89*		*35 - 125*

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

Lab Sample ID: 440-44465-F-1-C MS
Matrix: Solid
Analysis Batch: 101503

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 100932

Surrogate	MS %Recovery	MS Qualifier	Limits
Nitrobenzene-d5 (Surr)	*75*		*30 - 120*
Terphenyl-d14 (Surr)	*88*		*40 - 135*
Phenol-d6 (Surr)	*77*		*35 - 120*

Lab Sample ID: 440-44465-F-1-D MSD
Matrix: Solid
Analysis Batch: 101503

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 100932

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	ND		3.35	2.75		mg/Kg		82	40 - 120	8	25
1,2-Dichlorobenzene	ND		3.35	2.78		mg/Kg		83	40 - 120	12	25
1,2-Diphenylhydrazine(as Azobenzene)	ND		3.35	3.21		mg/Kg		96	50 - 125	6	25
1,3-Dichlorobenzene	ND		3.35	2.76		mg/Kg		82	35 - 120	13	25
1,4-Dichlorobenzene	ND		3.35	2.77		mg/Kg		83	35 - 120	12	25
2,4,5-Trichlorophenol	ND		3.35	3.14		mg/Kg		94	45 - 120	8	20
2,4,6-Trichlorophenol	ND		3.35	3.26		mg/Kg		97	45 - 120	8	25
2,4-Dichlorophenol	ND		3.35	3.13		mg/Kg		93	45 - 120	9	25
2,4-Dimethylphenol	ND		3.35	2.85		mg/Kg		85	30 - 120	5	25
2,4-Dinitrophenol	ND		3.35	1.26	F	mg/Kg		38	20 - 120	28	25
2,4-Dinitrotoluene	ND		3.35	3.42		mg/Kg		102	50 - 125	0	25
2,6-Dinitrotoluene	ND		3.35	3.29		mg/Kg		98	50 - 125	8	20
2-Chloronaphthalene	ND		3.35	2.89		mg/Kg		86	45 - 120	8	20
2-Chlorophenol	ND		3.35	3.04		mg/Kg		91	40 - 120	10	20
2-Methylnaphthalene	ND		3.35	3.00		mg/Kg		89	40 - 120	13	20
2-Methylphenol	ND		3.35	3.04		mg/Kg		91	40 - 120	8	25
2-Nitroaniline	ND		3.35	3.19		mg/Kg		95	45 - 120	4	25
2-Nitrophenol	ND		3.35	2.88		mg/Kg		86	40 - 120	8	25
3,3'-Dichlorobenzidine	ND		3.35	2.95		mg/Kg		88	20 - 130	5	25
3-Nitroaniline	ND		3.35	2.94		mg/Kg		88	30 - 120	2	25
4,6-Dinitro-2-methylphenol	ND		3.35	2.50		mg/Kg		75	35 - 120	1	25
4-Bromophenyl phenyl ether	ND		3.35	3.29		mg/Kg		98	45 - 120	14	20
4-Chloro-3-methylphenol	ND		3.35	3.14		mg/Kg		94	50 - 125	15	25
4-Chloroaniline	ND		3.35	2.46		mg/Kg		73	20 - 120	5	30
4-Chlorophenyl phenyl ether	ND		3.35	3.19		mg/Kg		95	50 - 120	9	25
3-Methylphenol + 4-Methylphenol	ND		3.35	3.22		mg/Kg		96	50 - 120	11	25
4-Nitroaniline	ND		3.35	3.03		mg/Kg		90	40 - 125	11	30
4-Nitrophenol	ND		3.35	3.08		mg/Kg		92	35 - 125	8	30
Acenaphthene	ND		3.35	3.04		mg/Kg		91	45 - 120	8	25
Acenaphthylene	ND		3.35	3.12		mg/Kg		93	45 - 120	8	20
Aniline	ND		3.35	2.61		mg/Kg		78	25 - 120	4	30
Anthracene	ND		3.35	3.31		mg/Kg		99	55 - 120	8	25
Benzidine	ND		3.35	1.56		mg/Kg		47	20 - 120	29	30
Benzo[a]anthracene	ND		3.35	3.17		mg/Kg		95	50 - 120	8	25
Benzo[a]pyrene	ND		3.35	3.21		mg/Kg		96	45 - 125	5	25
Benzo[b]fluoranthene	ND		3.35	3.09		mg/Kg		92	45 - 125	6	30
Benzo[g,h,i]perylene	ND		3.35	3.12		mg/Kg		93	25 - 130	5	30
Benzo[k]fluoranthene	ND		3.35	3.23		mg/Kg		96	45 - 125	6	30

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

Lab Sample ID: 440-44465-F-1-D MSD
Matrix: Solid
Analysis Batch: 101503

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 100932

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzoic acid	ND		3.35	ND	F	mg/Kg		21	20 - 120	56	30
Benzyl alcohol	ND		3.35	2.69		mg/Kg		80	20 - 120	10	30
Bis(2-chloroethoxy)methane	ND		3.35	2.86		mg/Kg		85	45 - 120	10	25
Bis(2-chloroethyl)ether	ND		3.35	2.86		mg/Kg		85	35 - 110	11	25
Bis(2-ethylhexyl) phthalate	ND		3.35	3.70		mg/Kg		110	45 - 130	12	25
Butyl benzyl phthalate	ND		3.35	3.52		mg/Kg		105	45 - 125	12	25
Chrysene	ND		3.35	3.15		mg/Kg		94	55 - 120	7	25
Dibenz(a,h)anthracene	ND		3.35	3.17		mg/Kg		95	25 - 135	7	30
Dibenzofuran	ND		3.35	2.99		mg/Kg		89	50 - 120	9	25
Diethyl phthalate	ND		3.35	3.30		mg/Kg		98	50 - 125	6	25
Dimethyl phthalate	ND		3.35	3.19		mg/Kg		95	45 - 125	9	25
Di-n-butyl phthalate	ND		3.35	3.43		mg/Kg		102	50 - 125	7	25
Di-n-octyl phthalate	ND		3.35	3.30		mg/Kg		98	50 - 135	13	25
Fluoranthene	ND		3.35	3.27		mg/Kg		98	45 - 120	0	25
Fluorene	ND		3.35	3.19		mg/Kg		95	50 - 120	5	25
Hexachlorobenzene	ND		3.35	3.25		mg/Kg		97	50 - 120	11	25
Hexachlorobutadiene	ND		3.35	2.77		mg/Kg		83	40 - 120	8	25
Hexachlorocyclopentadiene	ND		3.35	1.86		mg/Kg		56	20 - 125	1	30
Hexachloroethane	ND		3.35	2.76		mg/Kg		82	35 - 120	13	30
Indeno[1,2,3-cd]pyrene	ND		3.35	3.14		mg/Kg		94	20 - 130	6	30
Isophorone	ND		3.35	2.96		mg/Kg		88	40 - 120	12	25
Naphthalene	ND		3.35	2.83		mg/Kg		84	40 - 120	9	25
Nitrobenzene	ND		3.35	2.67		mg/Kg		80	40 - 120	6	25
N-Nitrosodi-n-propylamine	ND		3.35	2.99		mg/Kg		89	35 - 120	15	25
N-Nitrosodiphenylamine	ND		3.35	3.18		mg/Kg		95	45 - 125	12	25
Pentachlorophenol	ND		3.35	2.98		mg/Kg		89	30 - 120	7	25
Phenanthrene	ND		3.35	3.27		mg/Kg		98	50 - 120	8	25
Phenol	ND		3.35	3.04		mg/Kg		91	40 - 120	10	25
Pyrene	ND		3.35	3.36		mg/Kg		100	40 - 125	12	30
bis (2-chloroisopropyl) ether	ND		3.35	2.86		mg/Kg		85	40 - 120	14	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*88*		*35 - 120*
2-Fluorophenol (Surr)	*91*		*25 - 120*
2,4,6-Tribromophenol (Surr)	*97*		*35 - 125*
Nitrobenzene-d5 (Surr)	*80*		*30 - 120*
Terphenyl-d14 (Surr)	*100*		*40 - 135*
Phenol-d6 (Surr)	*85*		*35 - 120*

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

Lab Sample ID: MB 440-101062/1-A
Matrix: Solid
Analysis Batch: 101081

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 101062

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		5.0		mg/Kg		04/29/13 11:14	04/29/13 18:37	1
ORO (C29-C40)	ND		5.0		mg/Kg		04/29/13 11:14	04/29/13 18:37	1

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

Lab Sample ID: MB 440-101062/1-A
Matrix: Solid
Analysis Batch: 101081

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 101062

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	84		40 - 140	04/29/13 11:14	04/29/13 18:37	1

Lab Sample ID: LCS 440-101062/2-A
Matrix: Solid
Analysis Batch: 101081

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 101062

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28)	33.3	26.2		mg/Kg		79	45 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
n-Octacosane	78		40 - 140

Lab Sample ID: 440-44485-E-1-A MS
Matrix: Solid
Analysis Batch: 101081

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 101062

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28)	ND		33.3	22.9		mg/Kg		69	40 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
n-Octacosane	74		40 - 140

Lab Sample ID: 440-44485-E-1-B MSD
Matrix: Solid
Analysis Batch: 101081

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 101062

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28)	ND		33.4	25.0		mg/Kg		75	40 - 120	9	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
n-Octacosane	79		40 - 140

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-101020/1-A ^5
Matrix: Solid
Analysis Batch: 101214

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 101020

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.0		mg/Kg		04/29/13 08:17	04/29/13 15:58	5

Lab Sample ID: LCS 440-101020/2-A ^5
Matrix: Solid
Analysis Batch: 101214

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 101020

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	49.5	47.6		mg/Kg		96	80 - 120

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

Lab Sample ID: 440-44502-A-2-B MS ^10
Matrix: Solid
Analysis Batch: 101242

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 101020

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	12		49.3	50.3		mg/Kg		78	75 - 125

Lab Sample ID: 440-44502-A-2-C MSD ^10
Matrix: Solid
Analysis Batch: 101242

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 101020

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	12		49.3	53.6		mg/Kg		84	75 - 125	6	20

GC/MS Semi VOA

Prep Batch: 100932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-44465-F-1-C MS	Matrix Spike	Total/NA	Solid	3546	
440-44465-F-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	
440-44698-1	HA-9-0	Total/NA	Solid	3546	
440-44698-2	HA-10-0	Total/NA	Solid	3546	
440-44698-3	HA-10-1	Total/NA	Solid	3546	
440-44698-4	HA-12-0	Total/NA	Solid	3546	
440-44698-5	HA-13-0	Total/NA	Solid	3546	
LCS 440-100932/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 440-100932/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 101503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-44465-F-1-C MS	Matrix Spike	Total/NA	Solid	8270C	100932
440-44465-F-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8270C	100932
440-44698-3	HA-10-1	Total/NA	Solid	8270C	100932
440-44698-4	HA-12-0	Total/NA	Solid	8270C	100932
440-44698-5	HA-13-0	Total/NA	Solid	8270C	100932
LCS 440-100932/2-A	Lab Control Sample	Total/NA	Solid	8270C	100932
MB 440-100932/1-A	Method Blank	Total/NA	Solid	8270C	100932

Analysis Batch: 102274

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-44698-1	HA-9-0	Total/NA	Solid	8270C	100932
440-44698-2	HA-10-0	Total/NA	Solid	8270C	100932

GC Semi VOA

Prep Batch: 101062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-44485-E-1-A MS	Matrix Spike	Total/NA	Solid	CA LUFT	
440-44485-E-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	CA LUFT	
440-44698-6	HA-19-0	Total/NA	Solid	CA LUFT	
440-44698-7	HA-20-0	Total/NA	Solid	CA LUFT	
440-44698-8	HA-21-0	Total/NA	Solid	CA LUFT	
440-44698-9	HA-22-0	Total/NA	Solid	CA LUFT	
440-44698-10	HA-23.0	Total/NA	Solid	CA LUFT	
440-44698-11	HA-24-0	Total/NA	Solid	CA LUFT	
LCS 440-101062/2-A	Lab Control Sample	Total/NA	Solid	CA LUFT	
MB 440-101062/1-A	Method Blank	Total/NA	Solid	CA LUFT	

Analysis Batch: 101081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-44485-E-1-A MS	Matrix Spike	Total/NA	Solid	8015B	101062
440-44485-E-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	101062
440-44698-6	HA-19-0	Total/NA	Solid	8015B	101062
440-44698-7	HA-20-0	Total/NA	Solid	8015B	101062
440-44698-8	HA-21-0	Total/NA	Solid	8015B	101062
440-44698-9	HA-22-0	Total/NA	Solid	8015B	101062
440-44698-10	HA-23.0	Total/NA	Solid	8015B	101062
440-44698-11	HA-24-0	Total/NA	Solid	8015B	101062

GC Semi VOA (Continued)

Analysis Batch: 101081 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 440-101062/2-A	Lab Control Sample	Total/NA	Solid	8015B	101062
MB 440-101062/1-A	Method Blank	Total/NA	Solid	8015B	101062

Metals

Prep Batch: 101020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-44502-A-2-B MS ^10	Matrix Spike	Total/NA	Solid	3050B	
440-44502-A-2-C MSD ^10	Matrix Spike Duplicate	Total/NA	Solid	3050B	
440-44698-6	HA-19-0	Total/NA	Solid	3050B	
440-44698-7	HA-20-0	Total/NA	Solid	3050B	
440-44698-8	HA-21-0	Total/NA	Solid	3050B	
440-44698-9	HA-22-0	Total/NA	Solid	3050B	
440-44698-10	HA-23.0	Total/NA	Solid	3050B	
440-44698-11	HA-24-0	Total/NA	Solid	3050B	
LCS 440-101020/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
MB 440-101020/1-A ^5	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 101214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-44698-7	HA-20-0	Total/NA	Solid	6010B	101020
440-44698-8	HA-21-0	Total/NA	Solid	6010B	101020
440-44698-9	HA-22-0	Total/NA	Solid	6010B	101020
440-44698-10	HA-23.0	Total/NA	Solid	6010B	101020
440-44698-11	HA-24-0	Total/NA	Solid	6010B	101020
LCS 440-101020/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	101020
MB 440-101020/1-A ^5	Method Blank	Total/NA	Solid	6010B	101020

Analysis Batch: 101242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-44502-A-2-B MS ^10	Matrix Spike	Total/NA	Solid	6010B	101020
440-44502-A-2-C MSD ^10	Matrix Spike Duplicate	Total/NA	Solid	6010B	101020
440-44698-6	HA-19-0	Total/NA	Solid	6010B	101020

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits
F	RPD of the MS and MSD exceeds the control limits
X	Surrogate is outside control limits
B	Compound was found in the blank and sample.

Glossary

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

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-44698-1

Laboratory: TestAmerica Irvine

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-13
Arizona	State Program	9	AZ0671	10-13-13
California	LA Cty Sanitation Districts	9	10256	01-31-14
California	NELAP	9	1108CA	01-31-14
California	State Program	9	2706	06-30-14
Guam	State Program	9	Cert. No. 12.002r	03-28-13 *
Hawaii	State Program	9	N/A	01-31-14
Nevada	State Program	9	CA015312007A	07-31-13
Northern Mariana Islands	State Program	9	MP0002	01-31-14
Oregon	NELAP	10	4005	09-12-13
USDA	Federal		P330-09-00080	06-06-14
USEPA UCMR	Federal	1	CA01531	01-31-15

* Expired certification is currently pending renewal and is considered valid.

Shell Oil Products Chain Of Custody Record

440-44698

LAB (LOCATION)
- ☐ CALSCIENCE (_____)
- ☐ SPL (_____)
- ☐ XENCO (_____)
- ☑ TEST AMERICA (_____)
- ☐ OTHER (_____)

Please Check Appropriate Box:
- ☐ ENV. SERVICES
- ☐ MOTIVA RETAIL
- ☐ SHELL RETAIL
- ☐ MOTIVA SD&CM
- ☑ CONSULTANT
- ☐ LUBES
- ☐ SHELL PIPELINE
- ☐ OTHER

Print Bill To Contact Name: Peter Schaefer 240781

INCIDENT # (ENV. SERVICES): 9 7 0 9 3 3 9 7 ☐ CHECK IF NO INCIDENT # APPLIES

DATE: 4/22/13

PAGE: 1 of 2

PO #:

SAP #: 1 2 9 4 4 9

SAMPLING COMPANY: Conestoga-Rovers & Associates

LOG CODE: CRAW

SITE ADDRESS: Street and City: 2703 Martin Luther King Jr. Way, Oakland

State: CA

GLOBAL ID NO.: T0600101376

ADDRESS: 5900 Hollis Street, Suite A, Emeryville, CA 94608

EDF DELIVERABLE TO (Name, Company, Office Location): Brenda Carter, CRA, Emeryville

PHONE NO.: 510-420-3343

E-MAIL: shell.em.edf@craworld.com

CONSULTANT PROJECT NO.: 240781

PROJECT CONTACT (Hardcopy or PDF Report to): Peter Schaefer

TELEPHONE: 510-420-3319

FAX: 510-420-9170

E-MAIL: pschaefer@CRAworld.com

SAMPLER NAME(S) (Print): Patrick O'Connell

LAB USE ONLY

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

SPECIAL INSTRUCTIONS OR NOTES :

Copy of final report to Shell.Lab.Billing@craworld.com

- ☑ SHELL CONTRACT RATE APPLIES
- ☐ STATE REIMBURSEMENT RATE APPLIES
- ☐ EDD NOT NEEDED
- ☑ RECEIPT VERIFICATION REQUESTED

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPH -GRO, Purgeable (8260B)	TPH -DRO, Extractable (8015M)	TPHg (8015M)	BTEX (5260B)	BTEX + MTBE (8260B)	BTEX + MTBE + TBA (8260B)	BTEX + 5 OXYs (MTBE, TBA, DIPE, TAME, ETBE) 8260B	Full VOC list (8260B)	Single Compound: (8260B)	1,2-DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	Full scan EPA 8270 with TICs	(* submit chromatographs with report)	TPHmo & TPHd (EPA 8015)	Lead (EPA 6010B)	TEMPERATURE ON RECEIPT C° / Container PID Readings or Laboratory Notes
	HA-9-0.5'	4/22/2013	1230	Soil				X																X				
	HA-10-0.5'	4/22/2013	1150	Soil				X																X				
	HA-10-1.5'	4/22/2013	1215	Soil				X																X				
	HA-12-0.5'	4/22/2013	1130	Soil				X																X				
	HA-13-0.5'	4/22/2013	1120	Soil				X																X				
	HA-19-0.5'	4/22/2013	1322	Soil				X																		X	X	
	HA-20-0.5'	4/22/2013	1405	Soil				X																		X	X	
	HA-21-0.5'	4/22/2013	1355	Soil				X																		X	X	
	HA-22-0.5'	4/22/2013	1320	Soil				X																		X	X	
	HA-23.0.5'	4/22/2013	1300	Soil				X																		X	X	

Relinquished by: (Signature)	Received by: (Signature)	Date: 4-22-13	Time: 1520
Relinquished by: (Signature)	Received by: (Signature)	Date: 4-22-13	Time: 1800
Relinquished by: (Signature) TMF 4/23/13 1600	Received by: (Signature) 3.5°C	Date: 4-24-13	Time: 10:00

2.9°C

06/2/06 Revision

C/S

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5/22/2013

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Shell Oil Products Chain Of Custody Record 440-44698

LAB (LOCATION)
- ☐ CALSCIENCE ( )
- ☐ SPL ( )
- ☐ XENCO ( )
- ☑ TEST AMERICA ( )
- ☐ OTHER ( )

Please Check Appropriate Box:
- ☐ ENV. SERVICES
- ☐ MOTIVA RETAIL
- ☐ SHELL RETAIL
- ☐ MOTIVA SD&CM
- ☑ CONSULTANT
- ☐ LUBES
- ☐ SHELL PIPELINE
- ☐ OTHER

Print Bill To Contact Name: Peter Schaefer 240781

INCIDENT # (ENV SERVICES): 97093937 ☐ CHECK IF NO INCIDENT # APPLIES

PO #:

SAP #: 124549

DATE: 4/22/13

PAGE: 2 of 2

SAMPLING COMPANY: Conestoga-Rovers & Associates

LOG CODE: CRAW

SITE ADDRESS: Street and City: 2703 Martin Luther King Jr. Way, Oakland

State: CA

GLOBAL ID NO.: T0600101876

ADDRESS: 5900 Hollis Street, Suite A, Emeryville, CA 94608

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TELEPHONE: 510-420-3319

FAX: 510-420-9170

E-MAIL: pschaefer@CRAworld.com

SAMPLER NAME(S) (Print): Patrick O'Connell

LAB USE ONLY

TURNAROUND TIME (CALENDAR DAYS):
- ☑ STANDARD (14 DAY)
- ☐ 5 DAYS
- ☐ 3 DAYS
- ☐ 2 DAYS
- ☐ 24 HOURS
- ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

SPECIAL INSTRUCTIONS OR NOTES :

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- ☑ SHELL CONTRACT RATE APPLIES
- ☐ STATE REIMBURSEMENT RATE APPLIES
- ☐ EDD NOT NEEDED
- ☑ RECEIPT VERIFICATION REQUESTED

REQUESTED ANALYSIS

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440-44698-36	HA-24-0.5'	4/22/2013	1250	Soil				X																				X	X		

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		4-22-13	1500
		4-22-13	1800
FedEx TRK# 4/23/13 1600	3.5°C	4-24-13	10:00

06/2/06 Revision

4/22/2013

Sanelle, Philip

From: Schaefer, Peter [pschaefer@craworld.com]
Sent: Monday, May 20, 2013 8:34 AM
To: Sanelle, Philip
Cc: Project Email Filing; O'Connell, Patrick
Subject: RE: Files from 440-44698-1 2703 MLK Jr. Way, Oakland, CA ~COR-240781~

Phillip,

Please re-issue this report and the chromatograms for EPA 8270c with the following revisions to the sample IDs:

Old ID	New ID
HA-9-0.0.5'	HA-9-0
HA-10-0.5'	HA-10-0
HA-10-1.5'	HA-10-1
HA-12-0.5'	HA-12-0
HA-13-0.5'	HA-13-0
HA-19-0.5'	HA-19-0
HA-20-0.5'	HA-20-0
HA-21-0.5'	HA-21-0
HA-22-0.5'	HA-21-0
HA-23-0.5'	HA-22-0
HA-24-0.5'	HA-23-0

Training new field staff to use our established naming conventions is always fun. Thank you for your help.

Regards,

Peter Schaefer
(510) 420-3319

From: Sanelle, Philip [mailto:philip.sanelle@testamericainc.com]
Sent: Tuesday, May 07, 2013 2:56 PM
To: Schaefer, Peter; Shell-US-LabDataManagement; Shell Lab Billing; Shell - EDF
Subject: Files from 440-44698-1 2703 MLK Jr. Way, Oakland, CA

Final Report and EDF

Equis file has been uploade to the CRA website.

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

PHILIP SANELLE

TestAmerica Irvine
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 949.261,1022

Reference: [081136]
Attachments: 3

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 440-44698-1

Login Number: 44698
List Number: 1
Creator: King, Ronald

List Source: TestAmerica Irvine

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

APPENDIX C

TESTAMERICA LABORATORIES, INC. – CHROMATOGRAMS

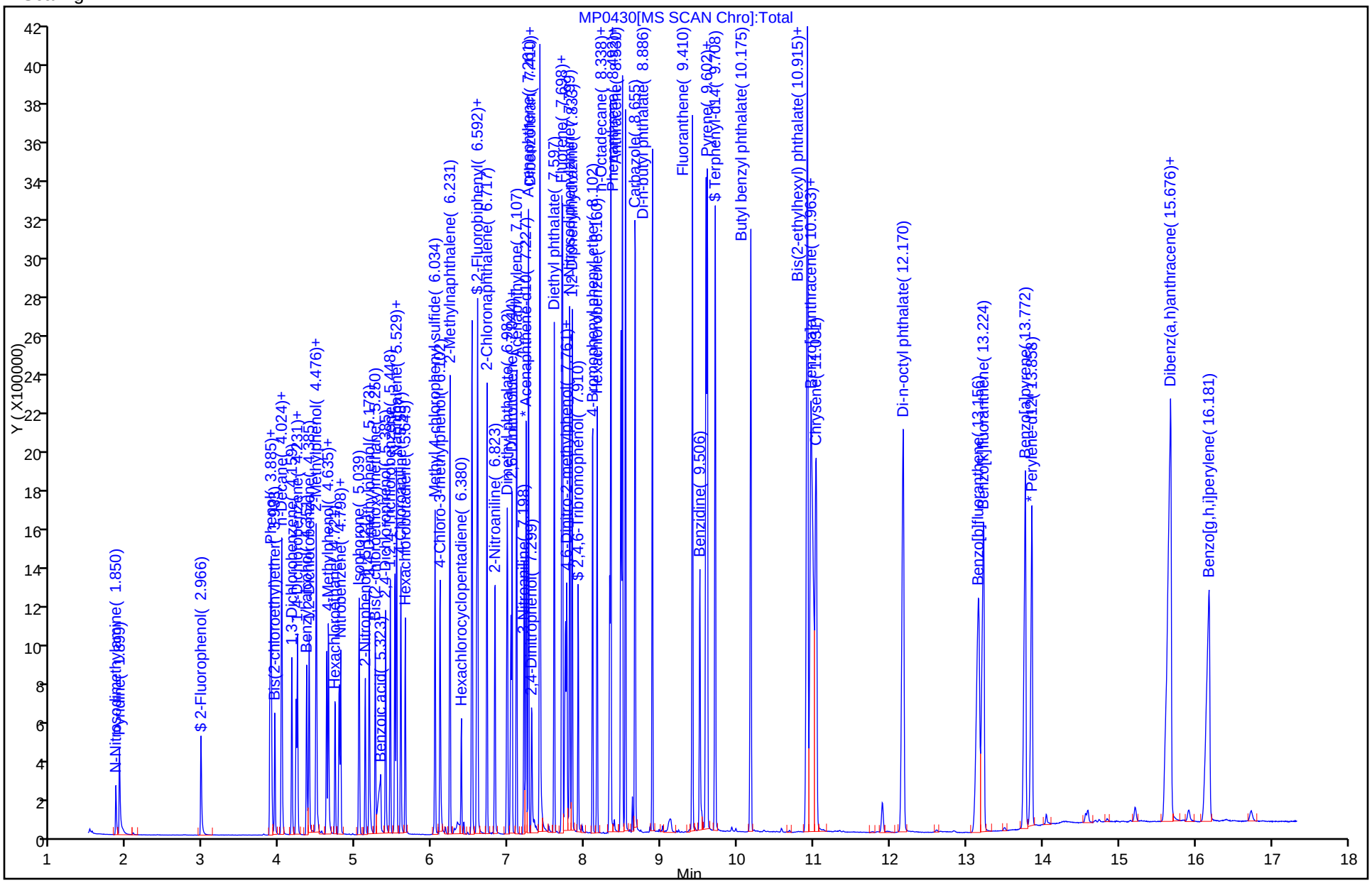
Report Date: 01-May-2013 12:16:04 Chrom Revision: 2.0 01-Feb-2013 10:03:10

TestAmerica Irvine

Data File: \\Irvchrom\ChromData\GCMS71\20130430-22596.b\MP0430.D

Injection Date:	30-Apr-2013 22:00:30	Limit Group:	MSS-8270
Client ID:		Instrument ID:	GCMS71
Lims Batch ID:	101503	Lims Sample ID:	2
Operator ID:	DF/AI/ES	Injection Vol:	0.5 ul
Column Type:	ZB-5MS	Column Dia:	0.18 mm

Y Scaling:

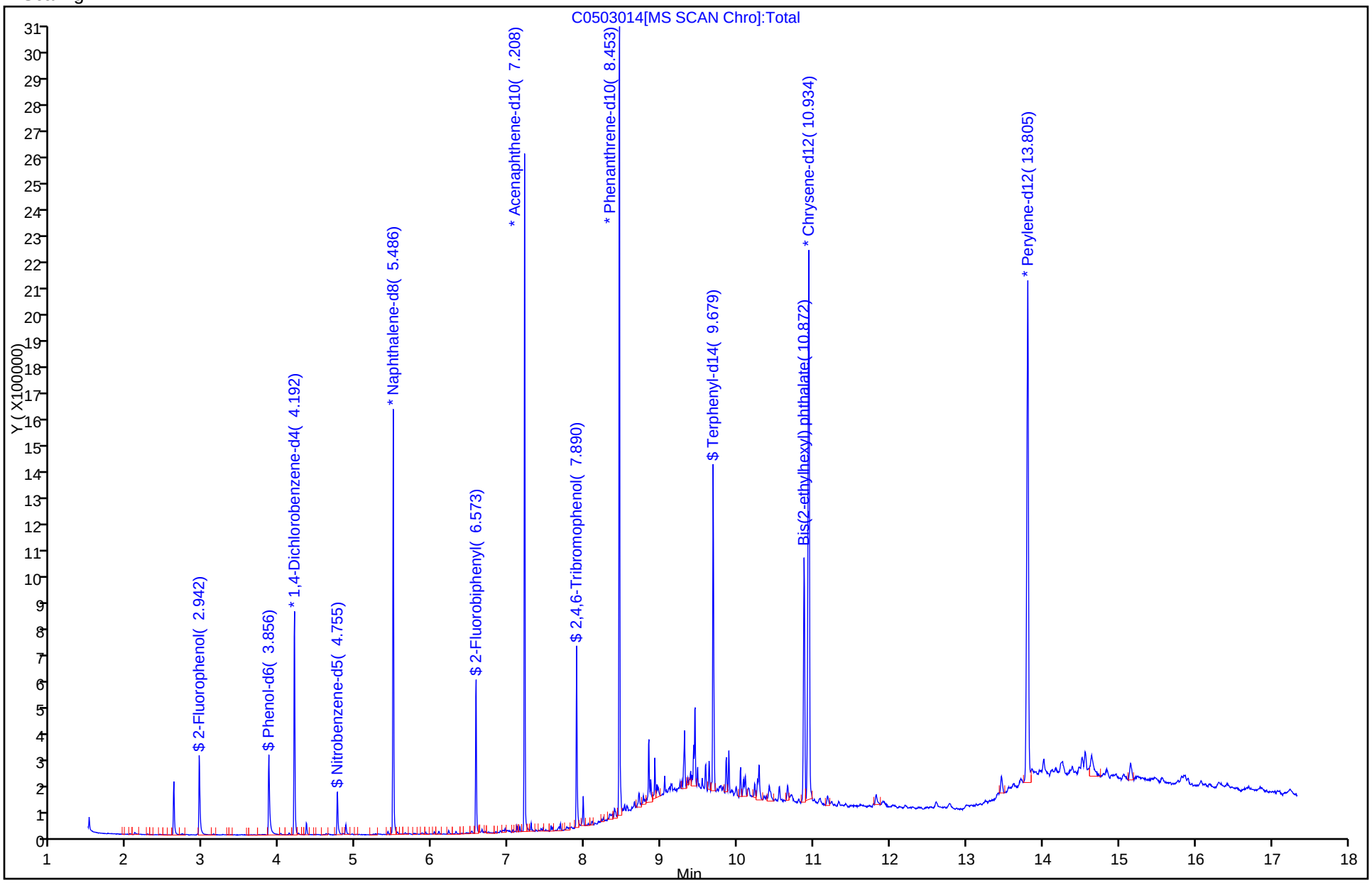


Report Date: 06-May-2013 09:18:48 Chrom Revision: 2.0 01-Feb-2013 10:03:10

TestAmerica Irvine

Data File:	\\Irvchrom\ChromData\GCMS71\20130503-22766.b\C0503014.D		
Injection Date:	04-May-2013 01:48:30	Limit Group:	MSS-8270
Client ID:	HA-90.0.5'	Instrument ID:	GCMS71
Lims Batch ID:	102274	Lims Sample ID:	18
Operator ID:	DF/AI/ES	Injection Vol:	0.5 ul
Column Type:	ZB-5MS	Column Dia:	0.18 mm

Y Scaling:



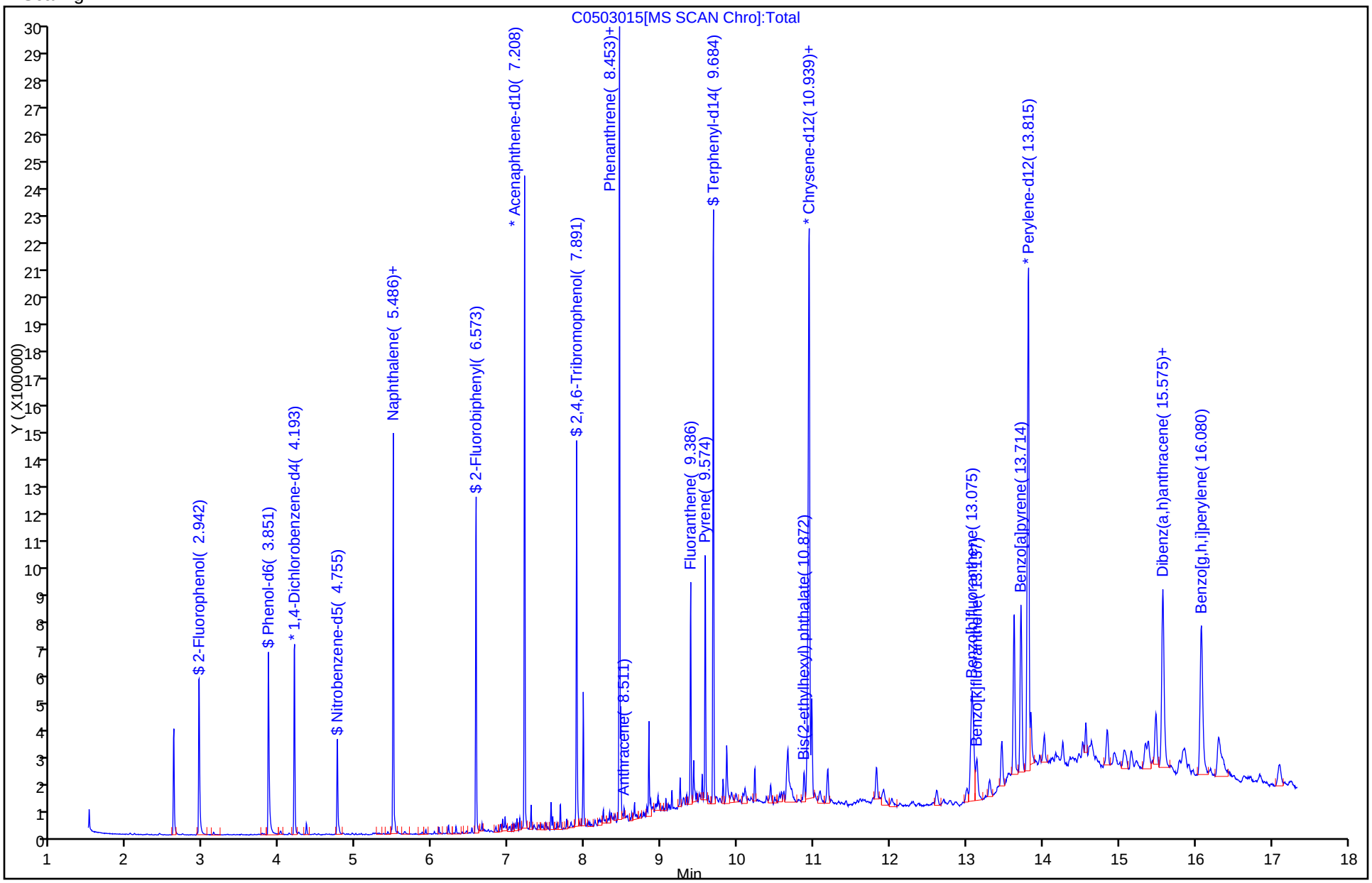
Report Date: 06-May-2013 09:19:10 Chrom Revision: 2.0 01-Feb-2013 10:03:10

TestAmerica Irvine

Data File: \\Irvchrom\ChromData\GCMS71\20130503-22766.b\C0503015.D

Injection Date:	04-May-2013 02:10:30	Limit Group:	MSS-8270
Client ID:	HA-10-0.5'	Instrument ID:	GCMS71
Lims Batch ID:	102274	Lims Sample ID:	19
Operator ID:	DF/AI/ES	Injection Vol:	0.5 ul
Column Type:	ZB-5MS	Column Dia:	0.18 mm

Y Scaling:



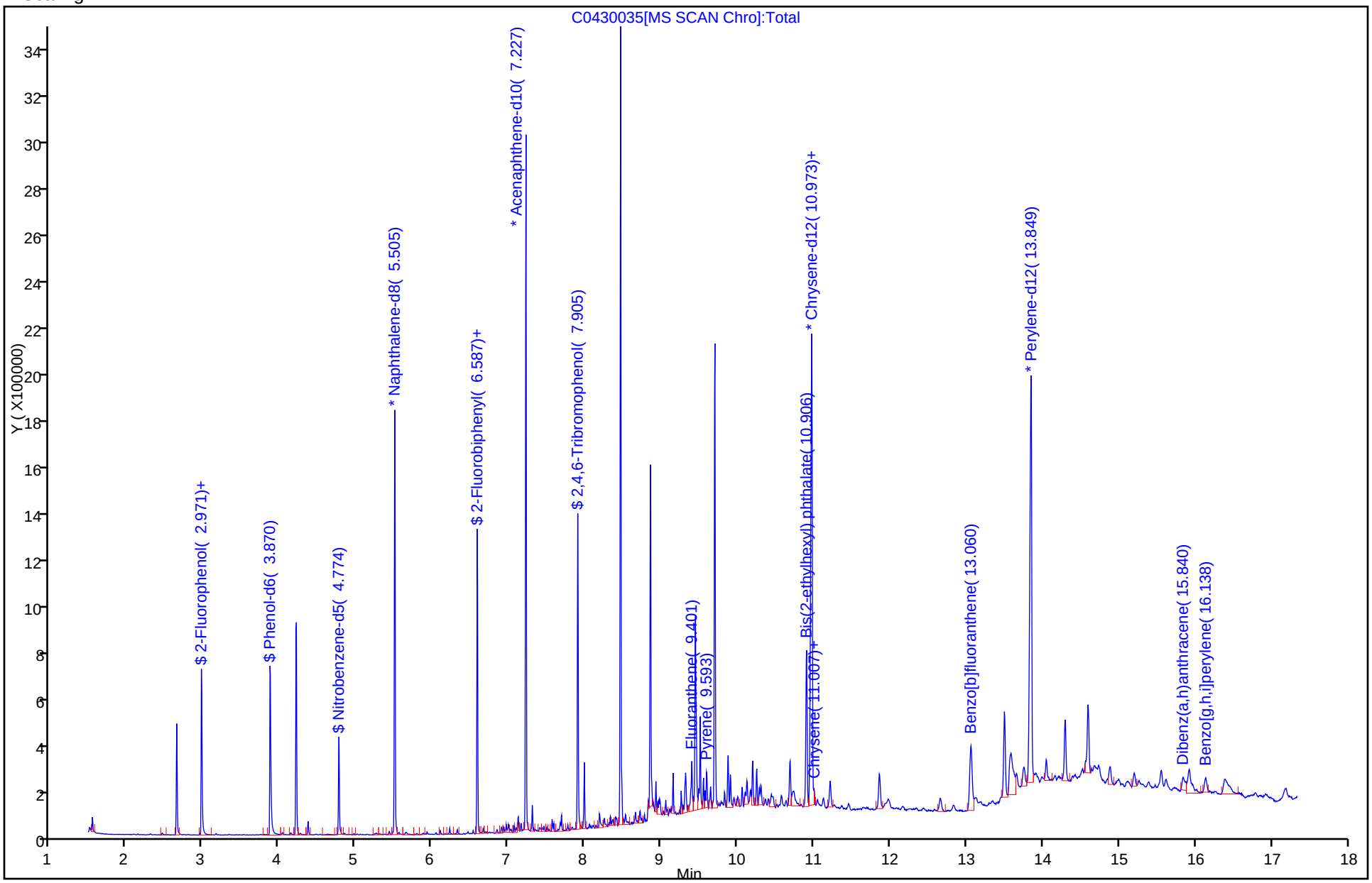
Report Date: 01-May-2013 18:43:22 Chrom Revision: 2.0 01-Feb-2013 10:03:10

TestAmerica Irvine

Data File: \\Irvchrom\ChromData\GCMS71\20130430-22596.b\C0430035.D

Injection Date:	01-May-2013 10:39:30	Limit Group:	MSS-8270
Client ID:	HA-10-1.5'	Instrument ID:	GCMS71
Lims Batch ID:	101503	Lims Sample ID:	37
Operator ID:	DF/AI/ES	Injection Vol:	0.5 ul
Column Type:	ZB-5MS	Column Dia:	0.18 mm

Y Scaling:



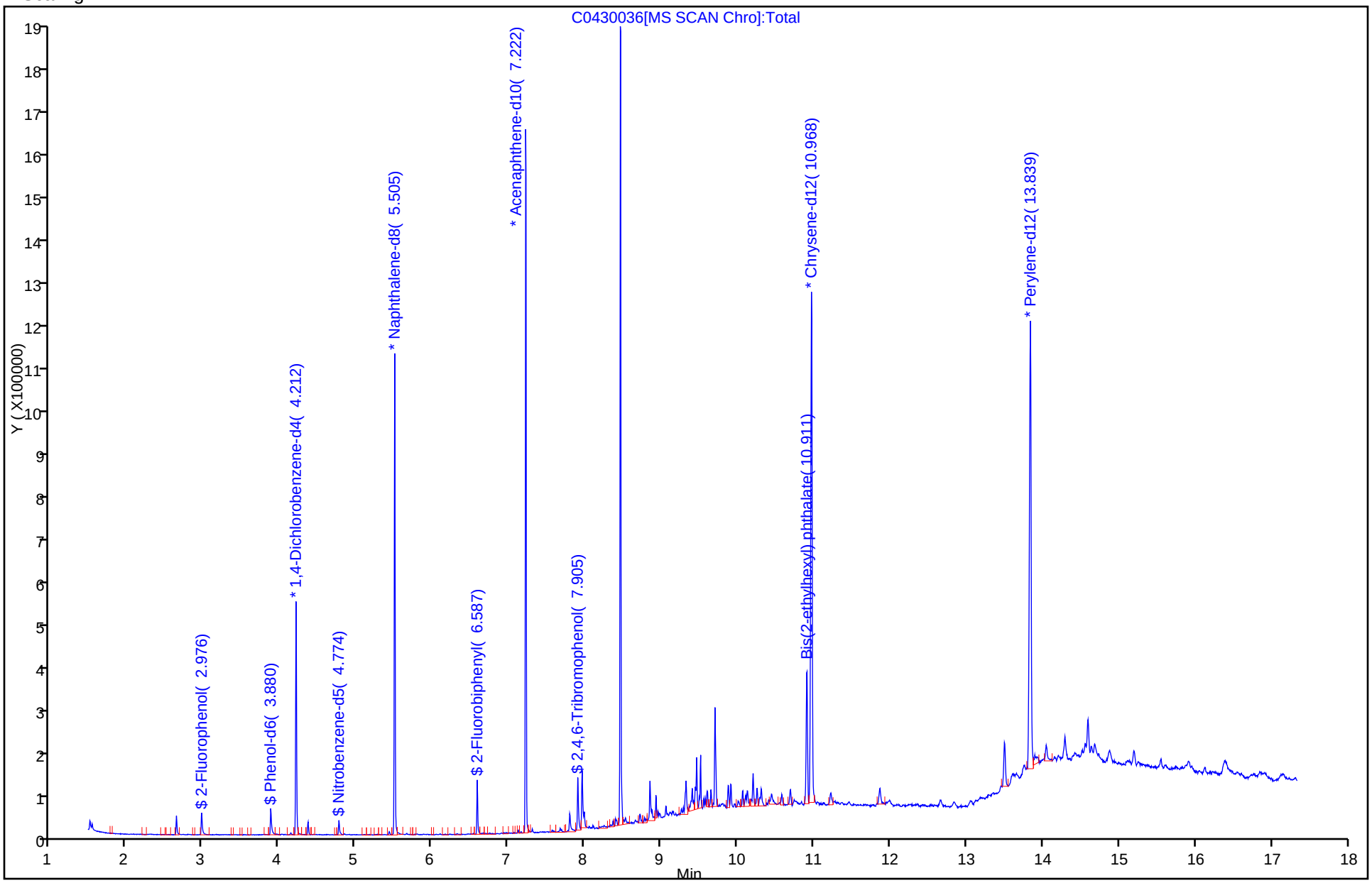
Report Date: 01-May-2013 18:45:08 Chrom Revision: 2.0 01-Feb-2013 10:03:10

TestAmerica Irvine

Data File: \\Irvchrom\ChromData\GCMS71\20130430-22596.b\C0430036.D

Injection Date:	01-May-2013 11:01:30	Limit Group:	MSS-8270
Client ID:	HA-12-0.5'	Instrument ID:	GCMS71
Lims Batch ID:	101503	Lims Sample ID:	38
Operator ID:	DF/AI/ES	Injection Vol:	0.5 ul
Column Type:	ZB-5MS	Column Dia:	0.18 mm

Y Scaling:



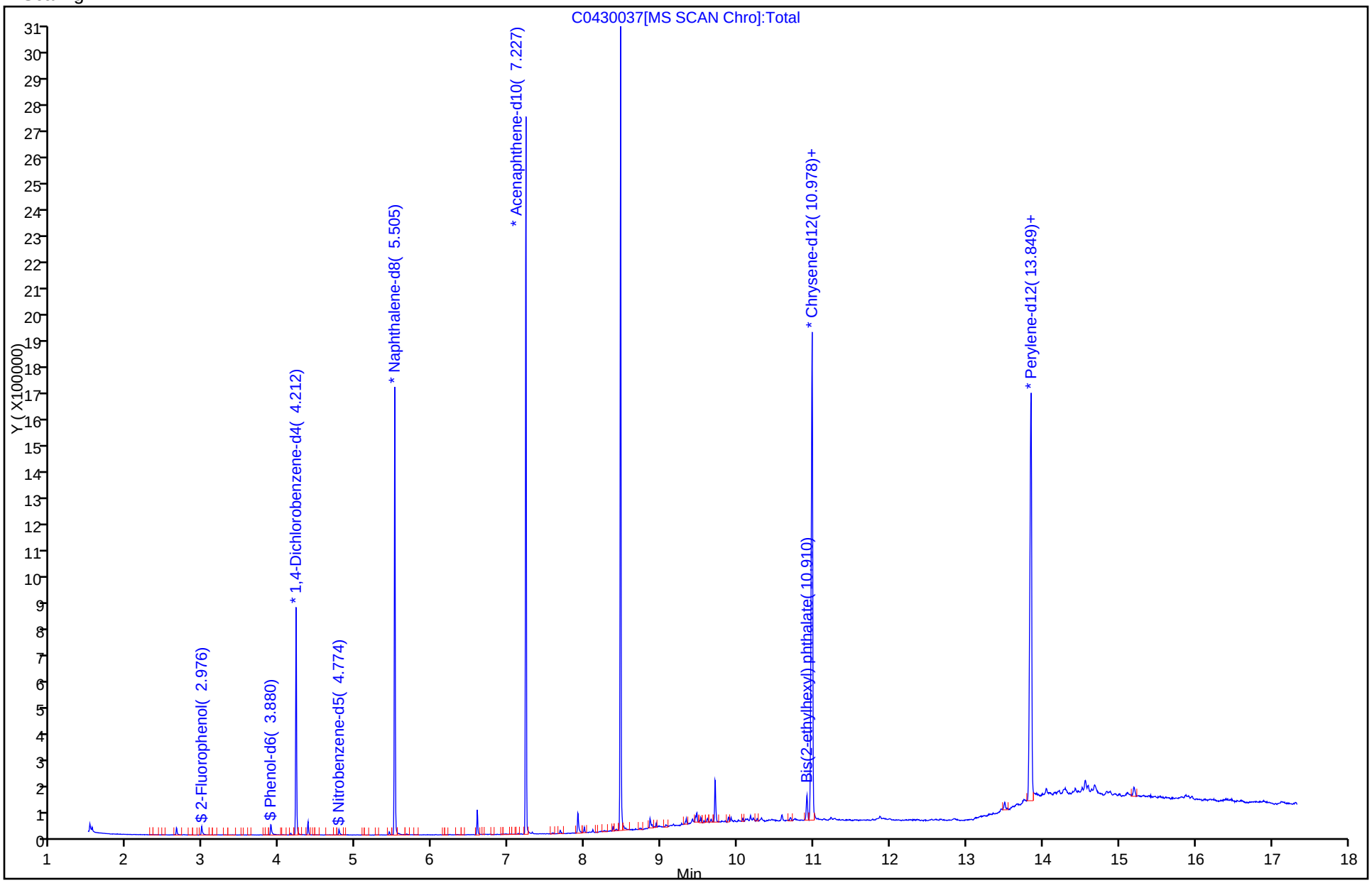
Report Date: 01-May-2013 18:46:59 Chrom Revision: 2.0 01-Feb-2013 10:03:10

TestAmerica Irvine

Data File: \\Irvchrom\ChromData\GCMS71\20130430-22596.b\C0430037.D

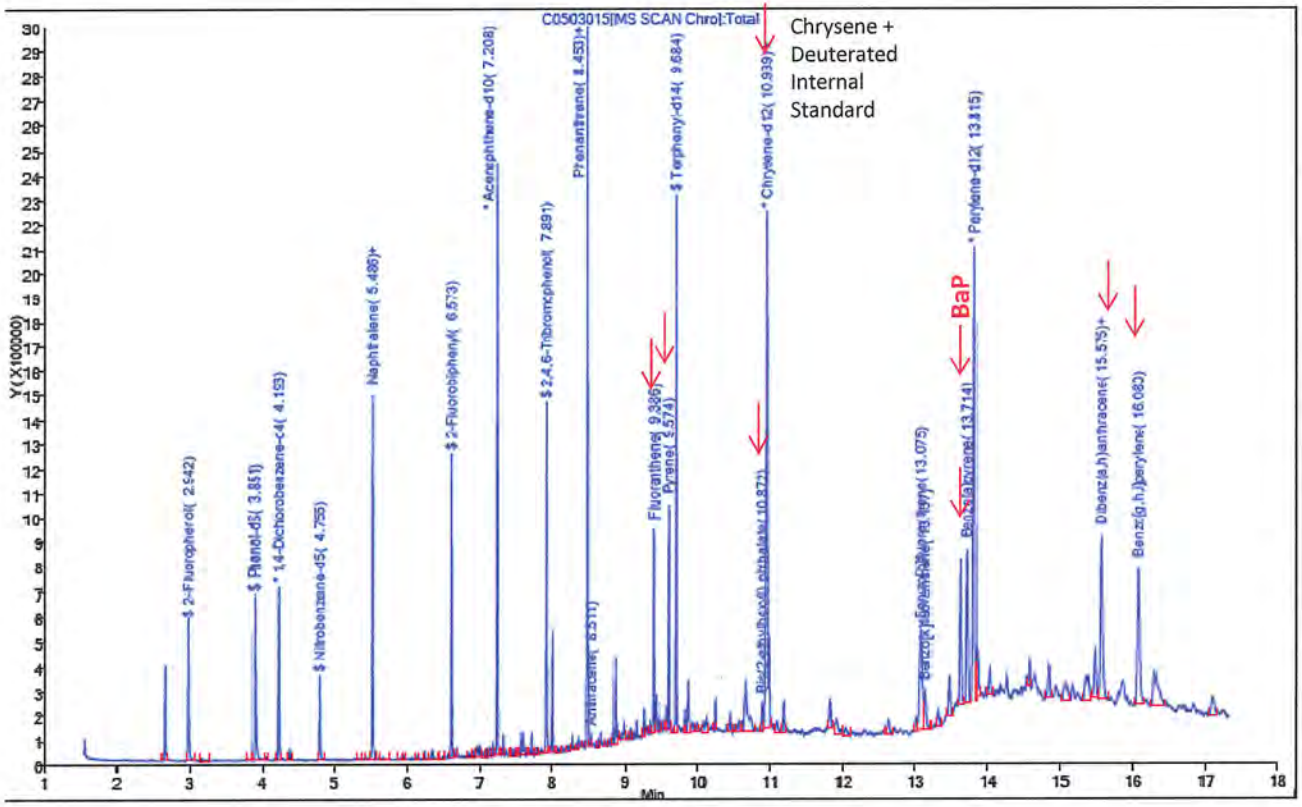
Injection Date:	01-May-2013 11:23:30	Limit Group:	MSS-8270
Client ID:	HA-13-0.5'	Instrument ID:	GCMS71
Lims Batch ID:	101503	Lims Sample ID:	39
Operator ID:	DF/AI/ES	Injection Vol:	0.5 ul
Column Type:	ZB-5MS	Column Dia:	0.18 mm

Y Scaling:



APPENDIX D

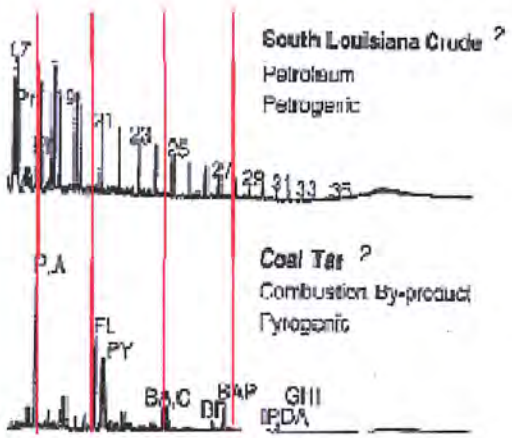
SHELL OIL PRODUCTS US – REVIEW OF PAH DATA



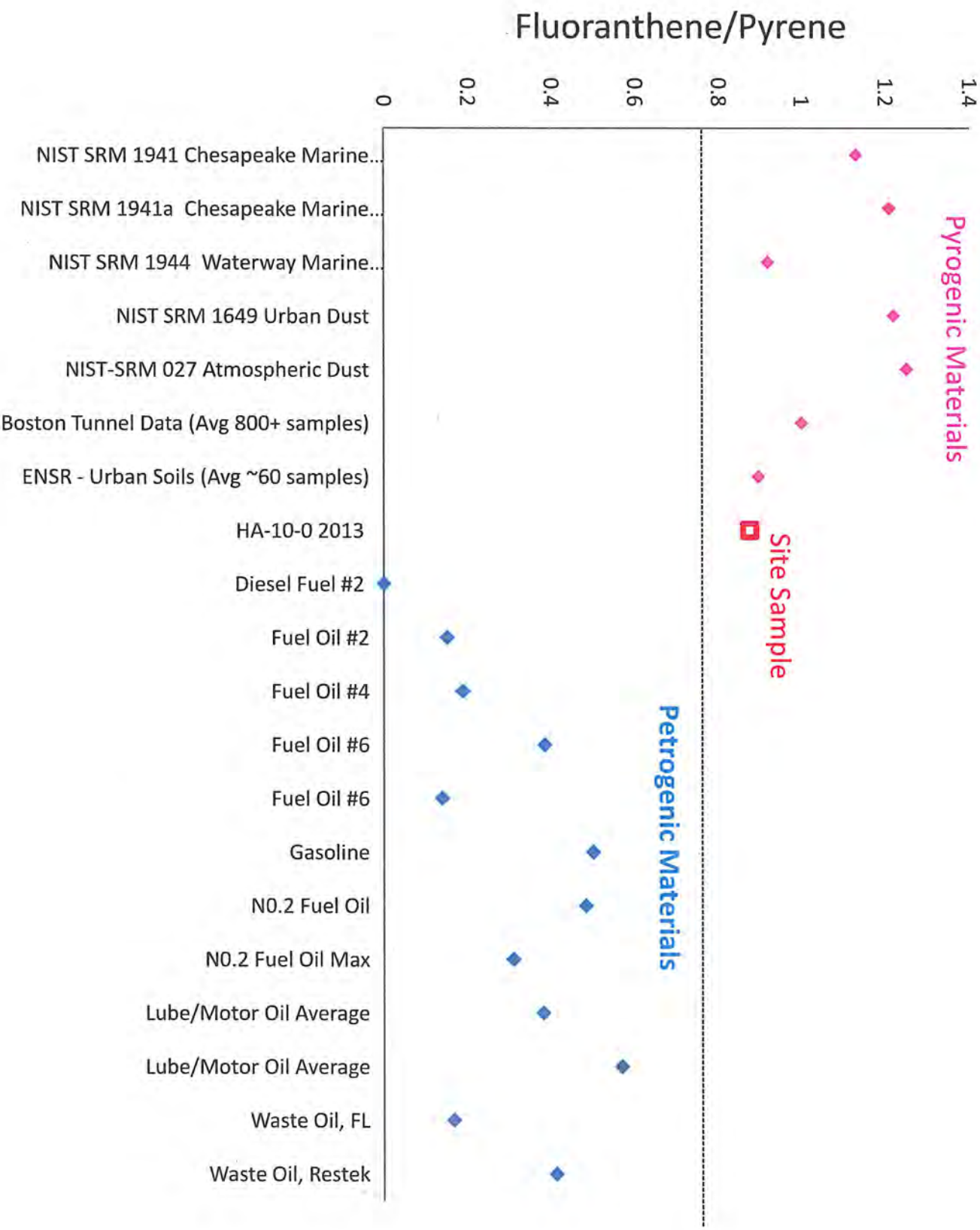
HA-10-0
GC/MS
EPA 8270

↓ **Target PAHs**

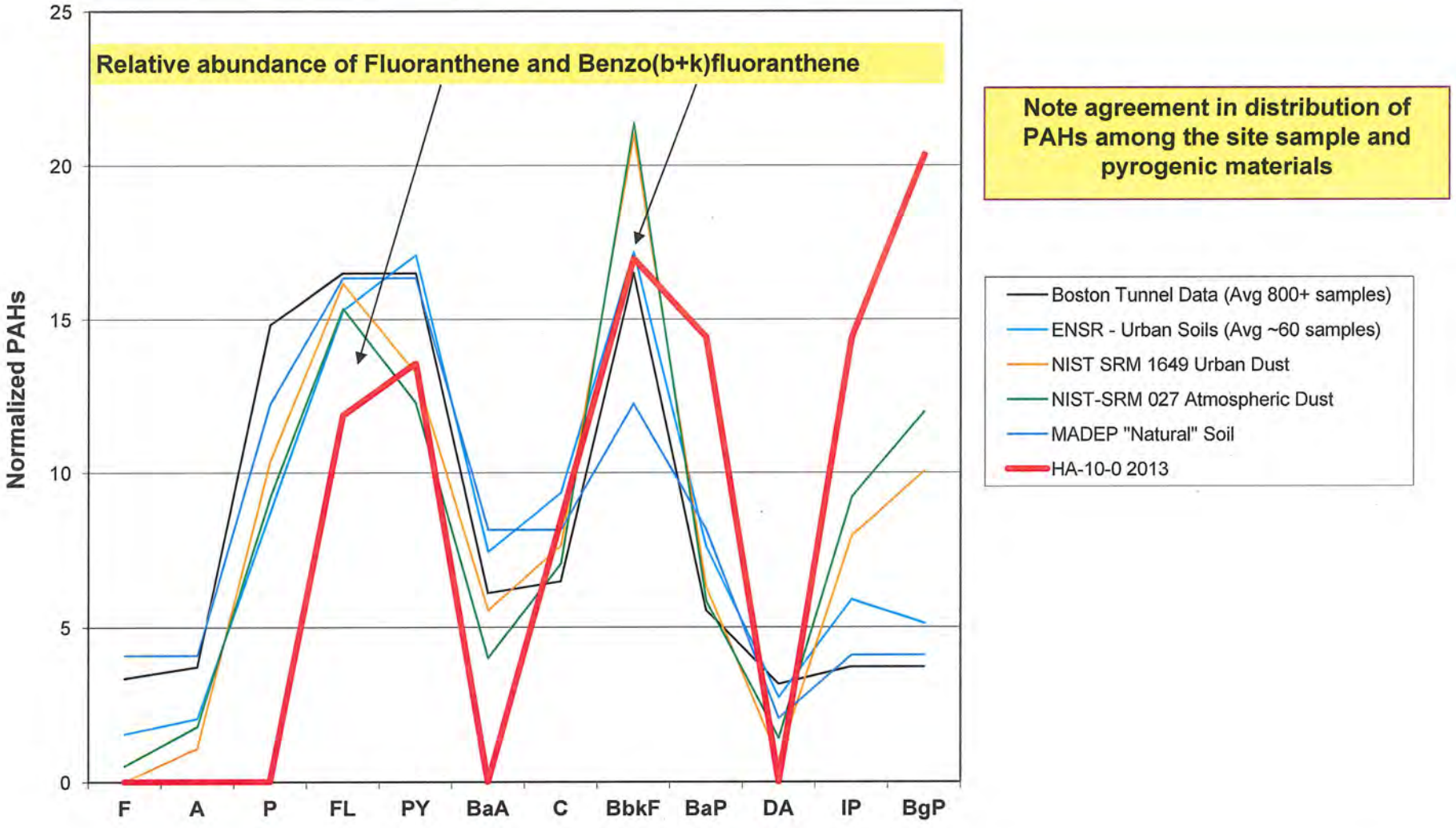
Comparison of the 8270 chromatogram from HA-10-0 sample with those from analysis of urban sediment and coal tars (known to have combustion products) and a crude oil. PAHs are predominant and chromatographic profiles are similar for the HA-10-0 sample and the pyrogenic materials. PAHs are not discernable in petroleum (resolved peaks are alkanes).

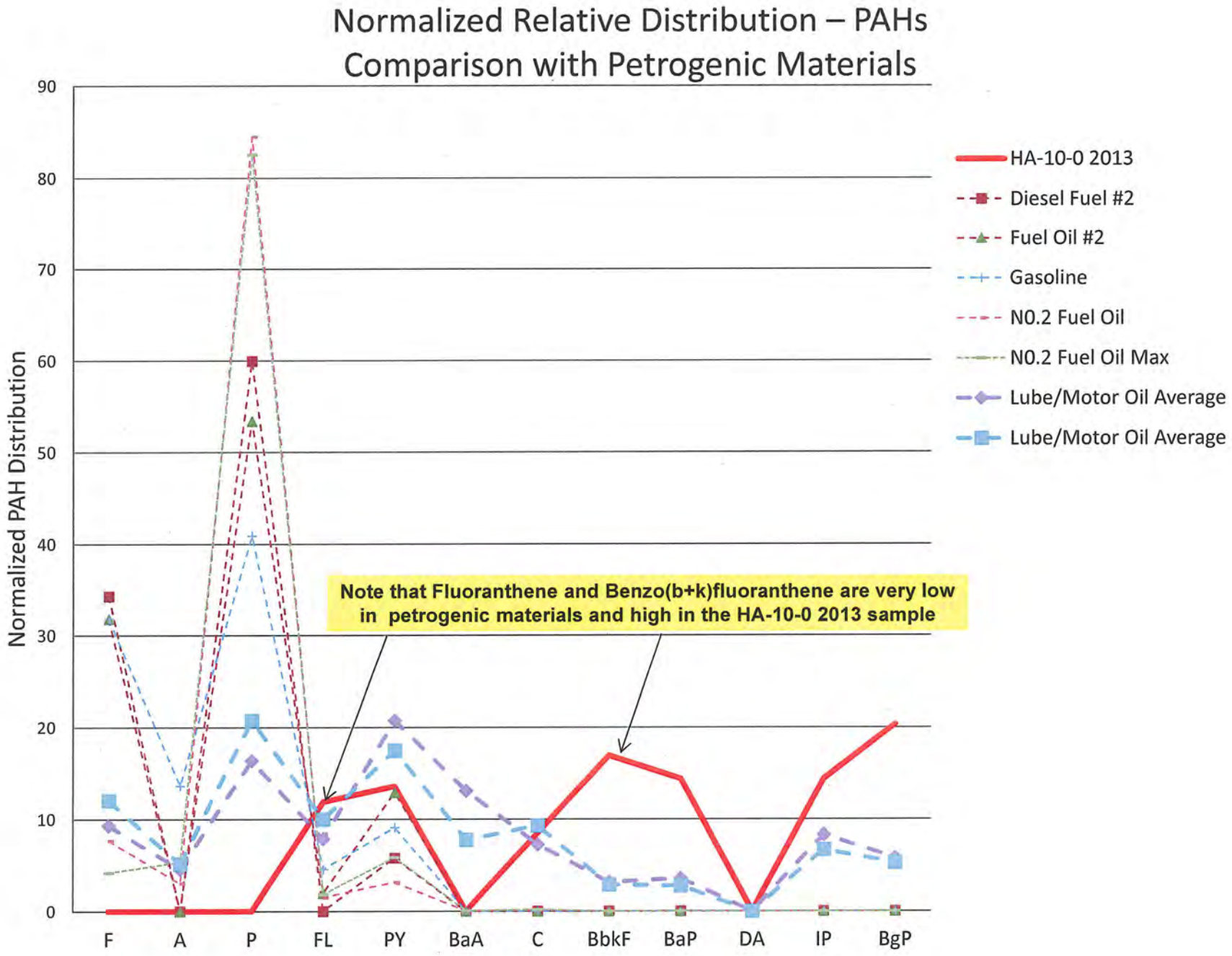


References: 1-SA Stout, AD Uhler, SD Emsbo-Mattingly, "Comparative Evaluation of Background Anthropogenic Hydrocarbons in Surficial Sediments from Nine Urban Waterways", Environ. Sci. Technol., 2004, 38, 2987-2994. 2-"Introduction to Environmental Forensics", BL Murphy, RD Morrison, Editors, Academic Press, 2002. Page 209.


Fluoranthene/Pyrene
0
0.2
0.4
0.6
0.8
1
1.2
1.4
NIST SRM 1941 Chesapeake Marine...
NIST SRM 1941a Chesapeake Marine...
NIST SRM 1944 Waterway Marine...
NIST SRM 1649 Urban Dust
NIST-SRM 027 Atmospheric Dust
Boston Tunnel Data (Avg 800+ samples)
ENSR - Urban Soils (Avg ~60 samples)
HA-10-0 2013
Diesel Fuel #2
Fuel Oil #2
Fuel Oil #4
Fuel Oil #6
Fuel Oil #6
Gasoline
N0.2 Fuel Oil
N0.2 Fuel Oil Max
Lube/Motor Oil Average
Lube/Motor Oil Average
Waste Oil, FL
Waste Oil, Restek
Pyrogenic Materials
Site Sample
Petrogenic Materials

Normalized Relative Distribution – PAHs
Comparison with Pyrogenic Materials




Normalized Relative Distribution – PAHs
Comparison with Petrogenic Materials
Normalized PAH Distribution
90
80
70
60
50
40
30
20
10
0
F
A
P
FL
PY
BaA
C
BbkF
BaP
DA
IP
BgP
Note that Fluoranthene and Benzo(b+k)fluoranthene are very low in petrogenic materials and high in the HA-10-0 2013 sample
HA-10-0 2013
Diesel Fuel #2
Fuel Oil #2
Gasoline
N0.2 Fuel Oil
N0.2 Fuel Oil Max
Lube/Motor Oil Average
Lube/Motor Oil Average