



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Environmental Sciences Center
701 Mapes Road
Fort Meade, Maryland 20755-5350

DATE : May 28, 2009

SUBJECT: Region III Data QA Review

FROM : Colleen Walling *Colleen K. Walling*
Region III ESAT RPO (3EA20)

TO : Michael Towle
Regional Project Manager (3HS31)

Attached is the organic data validation report for the Tank Car Corp. of America Site (Case #38495; SDG#: C0675) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2743.

Attachments

cc: Joshua Cope (TT EMI)

TO File #: 0021 TDF#: 05043

ANALYTICAL SERVICES AND QUALITY ASSURANCE BRANCH



Lockheed Martin Enterprise Solutions & Services
ESAT Region 3
US EPA Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-530
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DATE: May 22, 2009

SUBJECT: Level M2 Organic Data Validation for Case 38495
SDG: C0675
Site: Tank Car Corporation of America

FROM: Shilpa Udani *Su*
Organic Data Reviewer

Mahboobeh Mecanic *MM*
Senior Oversight Chemist

TO: Colleen Walling
ESAT Region 3 Project Officer

OVERVIEW

Case 38495, Sample Delivery Group (SDG) C0675, consisted of twenty (20) soil samples submitted to A4 Scientific, Inc. (A4) for semivolatile analysis. The sample set included no field Quality Control (QC) sample. Samples were analyzed according to Contract Laboratory Program (CLP) Statement of Work (SOW) SOM01.2 through the Routine Analytical Services (RAS) program.

SUMMARY

Data were validated according to Region 3 Innovative Approaches for Validation of Organic Data, Level M2. This level of review includes assessment of all Quality Assurance/Quality Control (QA/QC) data and review of chromatograms, but excludes review of raw data and sample spectra. Areas that may impact data usability are listed below.

The rinsate and field blanks associated with this sample set were analyzed in SDG C0635. The results for these blanks were utilized to evaluate sample results for field contamination.

MINOR PROBLEMS

- Several compounds failed precision criteria [Percent Difference (%D)] in the continuing calibrations. Positive results reported for these compounds in affected samples were qualified "J" on the DSFs. Precisions did not exceed fifty percent (50%) criteria; therefore, quantitation limits were not qualified.
- The following samples had recoveries of Deuterated Monitoring Compounds (DMCs) outside the lower Quality Control (QC) limits. Reported results and quantitation limits for compounds associated with these DMCs were qualified "L" and "UL", respectively, on the DSFs unless superseded by "J".

<u>Sample</u>	<u>DMC</u>
C0688, C0691, C0695	Dimethylphthalate-d6
C0695	Pyrene-d10

NOTES

- Naphthalene was detected at a concentration of 1.4 J ug/L in the analysis of the rinsate blank (C0647). Samples C0675, C0676 and C0677, which had concentrations of this contaminant less than five times (<5X) the blank concentration have been qualified "B" on the DSFs.
- The concentration of fluoranthene in sample C0685 exceeded the calibration range in the initial analysis. This sample was re-analyzed at a five fold (5X) dilution to bring the concentration of this compound within the calibration range. The result for fluoranthene in this sample is reported from the diluted analysis and annotated with a (+) symbol on the DSF by the reviewer.
- A sample weight other than thirty (30) grams was used for exception of samples associated with this case. Dilution factors reported on DSFs reflect actual sample weight used.
- Tentatively Identified Compounds (TICs) were reviewed during data validation. Compounds identified as target compounds were crossed off TIC Form Is by the reviewer. Several TICs were identified as the same target compounds at different retention times. Identifications for these TICs were changed to "unknown" by the reviewer. TIC Form Is for samples in which TICs were identified are included in Appendix E.

- Compounds detected below Contract Required Quantitation Limit (CRQL) were qualified “J” on the DSFs unless superseded by “B”.

All data for Case 38495, SDG C0675, were reviewed in accordance with national functional guideline Innovative Approaches for Validation of Organic Data (Level M2), June 1995.

ATTACHMENTS

Appendix A	Glossary of Data Qualifier Terms
Appendix B	Data Summary Form
Appendix C	Chain-of-Custody Records
Appendix D	Laboratory Case Narrative
Appendix E	Tentatively Identified Compounds (TICs)

DCN: 38495 – C0675

Appendix A

Glossary of Data Qualifiers

GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

CODES RELATED TO IDENTIFICATION

(confidence concerning presence or absence of compounds)

U = Not detected. The associated number indicates approximate sample concentration necessary to be detected.

NO CODE = Confirmed identification.

B = Not detected substantially above the level reported in laboratory or field blanks.

R = Unusable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.

N = Tentative identification. Consider present. Special methods may be needed to confirm its presence or absence in future sampling efforts.

CODES RELATED TO QUANTITATION

(can be used for both positive results and sample quantitation limits):

J = Analyte present. Reported value may not be accurate or precise.

K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.

L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

UL = Not detected, quantitation limit is probably higher.

OTHER CODES

NJ = Qualitative identification questionable due to poor resolution. Presumptively present at approximate quantity.

Q = No analytical result.

Appendix B

Data Summary Forms

DATA SUMMARY FORM: BNA

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Case #: 38495

SDG : C0675

Number of Soil Samples : 20

Site :

TANK CAR CORPORATION OF AMERICA

Number of Water Samples : 0

Lab. :

A4

Sample Number :		C0675		C0676		C0677		C0678		C0679	
Sampling Location :		TCCA-RSS-01		TCCA-RSS-02		TCCA-RSS-05		TCCA-RSS-07		TCCA-RSS-08	
Matrix :		Soil		Soil		Soil		Soil		Soil	
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :		4/30/2009		4/30/2009		4/30/2009		4/30/2009		4/30/2009	
Time Sampled :		08:20		08:25		08:38		08:46		08:50	
%Moisture :		17.4		25.2		21.2		22.6		11.3	
Dilution Factor :		1.0		0.97		0.99		0.98		1.0	
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	170										
Phenol	170										
Bis(2-Chloroethyl)ether	170										
2-Chlorophenol	170										
2-Methylphenol	170										
2,2'-Oxybis(1-chloropropane)	170										
Acetophenone	170										
4-Methylphenol	170										
N-Nitroso-di-n-propylamine	170										
Hexachloroethane	170										
Nitrobenzene	170										
Isophorone	170										
2-Nitrophenol	170										
2,4-Dimethylphenol	170										
Bis(2-chloroethoxy)methane	170										
2,4-Dichlorophenol	170										
Naphthalene	170	92	B	110	B	130	B				
4-Chloroaniline	170										
Hexachlorobutadiene	170										
Caprolactam	170										
4-Chloro-3-methylphenol	170										
2-Methylnaphthalene	170	51	J	65	J	58	J				
Hexachlorocyclopentadiene	170										
2,4,6-Trichlorophenol	170										
2,4,5-Trichlorophenol	170										
1,1'-Biphenyl	170										
2-Chloronaphthalene	170										
2-Nitroaniline	330										
Dimethylphthalate	170										
2,6-Dinitrotoluene	170										
Acenaphthylene	170	130	J	78	J	46	J	50	J		
3-Nitroaniline	330										
Acenaphthene	170	98	J	130	J	84	J	89	J		

Case #: 38495

SDG : C0675

Site :

TANK CAR CORPORATION OF AMERICA

Lab. :

A4

Sample Number :		C0675		C0676		C0677		C0678		C0679	
Sampling Location :		TCCA-RSS-01		TCCA-RSS-02		TCCA-RSS-05		TCCA-RSS-07		TCCA-RSS-08	
Matrix :		Soil		Soil		Soil		Soil		Soil	
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :		4/30/2009		4/30/2009		4/30/2009		4/30/2009		4/30/2009	
Time Sampled :		08:20		08:25		08:38		08:46		08:50	
%Moisture :		17.4		25.2		21.2		22.6		11.3	
Dilution Factor :		1.0		0.97		0.99		0.98		1.0	
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-Dinitrophenol	330										
4-Nitrophenol	330										
Dibenzofuran	170	120	J	150	J	88	J				
2,4-Dinitrotoluene	170										
Diethylphthalate	170										
Fluorene	170	190	J	280		150	J	94	J		
4-Chlorophenyl-phenylether	170										
4-Nitroaniline	330										
4,6-Dinitro-2-methylphenol	330										
N-Nitrosodiphenylamine	170										
1,2,4,5-Tetrachlorobenzene	170										
4-Bromophenyl-phenylether	170										
Hexachlorobenzene	170										
Atrazine	170										
Pentachlorophenol	330										
Phenanthrene	170	1700		1100		600		1400		280	
Anthracene	170	190	J	210	J	110	J	240			
Carbazole	170	260		160	J	87	J	180	J		
Di-n-butylphthalate	170	110	J								
Fluoranthene	170	2700		1500		750		3300		660	
Pyrene	170	1900		1100		540		2600		470	
Butylbenzylphthalate	170										
3,3'-Dichlorobenzidine	170										
Benzo(a)anthracene	170	970		570		290		1600		240	
Chrysene	170	1300		640		320		1600		300	
Bis(2-ethylhexyl)phthalate	170	200	J	140	J	150	J	320	J	140	J
Di-n-octylphthalate	170										
Benzo(b)fluoranthene	170	1400		710	J	280	J	2300		270	J
Benzo(k)fluoranthene	170	1000		330		250		920		230	
Benzo(a)pyrene	170	960		490		270		1400		250	
Indeno(1,2,3-cd)pyrene	170	1100	J	470	J	250	J	1600	J	240	J
Dibenzo(a,h)anthracene	170	390		170	J	92	J	580		88	J
Benzo(g,h,i)perylene	170	820		340		190	J	1200		190	J
2,3,4,6-Tetrachlorophenol	170										

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor) / [(100 - %Moisture) / 100]

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SDG : C0675

TANK CAR CORPORATION OF AMERICA

A4

[illegible]

DATA SUMMARY FORM: BNA

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Case #: 38495

SDG : C0675

Site :

TANK CAR CORPORATION OF AMERICA

Lab. :

A4

Sample Number :		C0680		C0681		C0682		C0683		C0684	
Sampling Location :		TCCA-RSS-11		TCCA-RSS-17		TCCA-RSS-18		TCCA-RSS-24		TCCA-RSS-28	
Matrix :		Soil		Soil		Soil		Soil		Soil	
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :		4/30/2009		4/30/2009		4/30/2009		4/30/2009		4/30/2009	
Time Sampled :		09:05		09:33		09:39		10:04		10:18	
%Moisture :		25.7		28.1		11.7		25.2		10.6	
Dilution Factor :		0.97		1.0		0.97		0.99		0.97	
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-Dinitrophenol	330										
4-Nitrophenol	330										
Dibenzofuran	170										
2,4-Dinitrotoluene	170										
Diethylphthalate	170										
Fluorene	170										
4-Chlorophenyl-phenylether	170										
4-Nitroaniline	330										
4,6-Dinitro-2-methylphenol	330										
N-Nitrosodiphenylamine	170										
1,2,4,5-Tetrachlorobenzene	170										
4-Bromophenyl-phenylether	170										
Hexachlorobenzene	170										
Atrazine	170										
Pentachlorophenol	330										
Phenanthrene	170	360		60	J	260		220	J	390	
Anthracene	170	47	J					45	J	38	J
Carbazole	170	48	J			41	J			55	J
Di-n-butylphthalate	170										
Fluoranthene	170	1000		140	J	720		500		970	
Pyrene	170	800		110	J	580		390		710	
Butylbenzylphthalate	170										
3,3'-Dichlorobenzidine	170										
Benzo(a)anthracene	170	450		58	J	300		210	J	390	
Chrysene	170	550		72	J	380		240		490	
Bis(2-ethylhexyl)phthalate	170	240		90	J	210		1600		77	J
Di-n-octylphthalate	170										
Benzo(b)fluoranthene	170	660	J	66	J	500	J	280	J	620	J
Benzo(k)fluoranthene	170	280		58	J	230		120	J	280	
Benzo(a)pyrene	170	430		67	J	330		190	J	390	
Indeno(1,2,3-cd)pyrene	170	460	J	59	J	350	J	190	J	410	J
Dibenzo(a,h)anthracene	170	170	J			120	J	73	J	140	J
Benzo(g,h,i)perylene	170	320		50	J	270		140	J	310	
2,3,4,6-Tetrachlorophenol	170										

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor) / [(100 - %Moisture) / 100]

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DATA SUMMARY FORM: BNA

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Case #: 38495

SDG : C0675

Site :

TANK CAR CORPORATION OF AMERICA

Lab. :

A4

Sample Number :		C0685		C0686		C0687		C0688		C0689	
Sampling Location :		TCCA-RSS-29		TCCA-RSS-32		TCCA-RSS-33		TCCA-RSS-37		TCCA-RSS-39	
Matrix :		Soil		Soil		Soil		Soil		Soil	
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :		4/30/2009		4/30/2009		4/30/2009		4/30/2009		4/30/2009	
Time Sampled :		10:23		10:37		10:42		10:58		11:03	
%Moisture :		26.2		27.7		31.8		18.3		15.1	
Dilution Factor :		1.0/5.0		0.99		1.0		0.97		0.97	
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	170										
Phenol	170										
Bis(2-Chloroethyl)ether	170										
2-Chlorophenol	170										
2-Methylphenol	170										
2,2'-Oxybis(1-chloropropane)	170										
Acetophenone	170										
4-Methylphenol	170										
N-Nitroso-di-n-propylamine	170										
Hexachloroethane	170										
Nitrobenzene	170										
Isophorone	170										
2-Nitrophenol	170										
2,4-Dimethylphenol	170										
Bis(2-chloroethoxy)methane	170										
2,4-Dichlorophenol	170										
Naphthalene	170										
4-Chloroaniline	170										
Hexachlorobutadiene	170										
Caprolactam	170								UL		
4-Chloro-3-methylphenol	170										
2-Methylnaphthalene	170										
Hexachlorocyclopentadiene	170										
2,4,6-Trichlorophenol	170										
2,4,5-Trichlorophenol	170										
1,1'-Biphenyl	170								UL		
2-Chloronaphthalene	170										
2-Nitroaniline	330										
Dimethylphthalate	170								UL		
2,6-Dinitrotoluene	170										
Acenaphthylene	170	51	J							72	J
3-Nitroaniline	330										
Acenaphthene	170	120	J								

DATA SUMMARY FORM: BNA

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Case #: 38495

SDG : C0675

Site :

TANK CAR CORPORATION OF AMERICA

Lab. :

A4

Sample Number :		C0685		C0686		C0687		C0688		C0689	
Sampling Location :		TCCA-RSS-29		TCCA-RSS-32		TCCA-RSS-33		TCCA-RSS-37		TCCA-RSS-39	
Matrix :		Soil		Soil		Soil		Soil		Soil	
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :		4/30/2009		4/30/2009		4/30/2009		4/30/2009		4/30/2009	
Time Sampled :		10:23		10:37		10:42		10:58		11:03	
%Moisture :		26.2		27.7		31.8		18.3		15.1	
Dilution Factor :		1.0/5.0		0.99		1.0		0.97		0.97	
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-Dinitrophenol	330										
4-Nitrophenol	330										
Dibenzofuran	170	96	J								
2,4-Dinitrotoluene	170										
Diethylphthalate	170							UL			
Fluorene	170	160	J								
4-Chlorophenyl-phenylether	170										
4-Nitroaniline	330										
4,6-Dinitro-2-methylphenol	330										
N-Nitrosodiphenylamine	170										
1,2,4,5-Tetrachlorobenzene	170										
4-Bromophenyl-phenylether	170										
Hexachlorobenzene	170										
Atrazine	170										
Pentachlorophenol	330										
Phenanthrene	170	2700		190	J	240	J	96	J	380	
Anthracene	170	190	J							54	J
Carbazole	170	370								59	J
Di-n-butylphthalate	170	64	J						UL		
Fluoranthene	170	5100 +		470		630		280		970	
Pyrene	170	3500		350		540		230		840	
Butylbenzylphthalate	170								UL	46	J
3,3'-Dichlorobenzidine	170										
Benzo(a)anthracene	170	1600		170	J	320		130	J	450	
Chrysene	170	2100		220	J	370		150	J	520	
Bis(2-ethylhexyl)phthalate	170	310	J	310		370	J	46	J	650	J
Di-n-octylphthalate	170								UL		
Benzo(b)fluoranthene	170	2500		200	J	470		190	J	650	
Benzo(k)fluoranthene	170	1000		180	J	230	J	82	J	420	
Benzo(a)pyrene	170	1600		170	J	320		130	J	500	
Indeno(1,2,3-cd)pyrene	170	1600	J	180	J	340	J	130	J	540	J
Dibenzo(a,h)anthracene	170	570		63	J	110	J	48	J	190	J
Benzo(g,h,i)perylene	170	1200		140	J	250	J	110	J	410	
2,3,4,6-Tetrachlorophenol	170										

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor) / [(100 - %Moisture) / 100]

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"+" = The result is reported from diluted analysis.

DATA SUMMARY FORM: BNA

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Case #: 38495

SDG : C0675

Site :

TANK CAR CORPORATION OF AMERICA

Lab. :

A4

Sample Number :		C0690		C0691		C0692		C0694		C0695	
Sampling Location :		TCCA-RSS-41		TCCA-RSS-43		TCCA-RSS-44		TCCA-RSS-49		TCCA-RSS-51	
Matrix :		Soil		Soil		Soil		Soil		Soil	
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :		4/30/2009		4/30/2009		4/30/2009		4/30/2009		4/30/2009	
Time Sampled :		11:09		11:14		11:21		11:45		11:51	
%Moisture :		22.0		22.5		17.3		26.1		21.5	
Dilution Factor :		0.97		0.97		1.0		1.0		1.0	
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	170										
Phenol	170										
Bis(2-Chloroethyl)ether	170										
2-Chlorophenol	170										
2-Methylphenol	170										
2,2'-Oxybis(1-chloropropane)	170										
Acetophenone	170										
4-Methylphenol	170										
N-Nitroso-di-n-propylamine	170										
Hexachloroethane	170										
Nitrobenzene	170										
Isophorone	170										
2-Nitrophenol	170										
2,4-Dimethylphenol	170										
Bis(2-chloroethoxy)methane	170										
2,4-Dichlorophenol	170										
Naphthalene	170										
4-Chloroaniline	170										
Hexachlorobutadiene	170										
Caprolactam	170				UL						UL
4-Chloro-3-methylphenol	170										
2-Methylnaphthalene	170										
Hexachlorocyclopentadiene	170										
2,4,6-Trichlorophenol	170										
2,4,5-Trichlorophenol	170										
1,1'-Biphenyl	170				UL						UL
2-Chloronaphthalene	170										
2-Nitroaniline	330										
Dimethylphthalate	170				UL						UL
2,6-Dinitrotoluene	170										
Acenaphthylene	170					58	J	140	J	45	J
3-Nitroaniline	330										
Acenaphthene	170			68	J			52	J		

DATA SUMMARY FORM: BNA

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Case #: 38495

SDG : C0675

Site :

TANK CAR CORPORATION OF AMERICA

Lab. :

A4

Sample Number :		C0690		C0691		C0692		C0694		C0695	
Sampling Location :		TCCA-RSS-41		TCCA-RSS-43		TCCA-RSS-44		TCCA-RSS-49		TCCA-RSS-51	
Matrix :		Soil		Soil		Soil		Soil		Soil	
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :		4/30/2009		4/30/2009		4/30/2009		4/30/2009		4/30/2009	
Time Sampled :		11:09		11:14		11:21		11:45		11:51	
%Moisture :		22.0		22.5		17.3		26.1		21.5	
Dilution Factor :		0.97		0.97		1.0		1.0		1.0	
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-Dinitrophenol	330										
4-Nitrophenol	330										
Dibenzofuran	170										
2,4-Dinitrotoluene	170										
Diethylphthalate	170				UL						UL
Fluorene	170			52	J			77	J		
4-Chlorophenyl-phenylether	170										
4-Nitroaniline	330										
4,6-Dinitro-2-methylphenol	330										
N-Nitrosodiphenylamine	170										
1,2,4,5-Tetrachlorobenzene	170										
4-Bromophenyl-phenylether	170										
Hexachlorobenzene	170										
Atrazine	170										
Pentachlorophenol	330										
Phenanthrene	170	120	J	690		540		1000		330	
Anthracene	170			130	J	66	J	120	J	43	J
Carbazole	170			85	J	82	J	140	J	54	J
Di-n-butylphthalate	170				UL						UL
Fluoranthene	170	270		1500		1600		2500		1000	L
Pyrene	170	220		1300		1300		2200		900	L
Butylbenzylphthalate	170				UL	220		120	J	55	J
3,3'-Dichlorobenzidine	170										
Benzo(a)anthracene	170	130	J	730		730		1200		450	L
Chrysene	170	130	J	770		870		1300		580	L
Bis(2-ethylhexyl)phthalate	170			130	J	350	J	1400	J	350	J
Di-n-octylphthalate	170				UL						UL
Benzo(b)fluoranthene	170	110	J	1000		910		1800		710	
Benzo(k)fluoranthene	170	98	J	360		680		790		470	
Benzo(a)pyrene	170	100	J	650		730		1200		510	
Indeno(1,2,3-cd)pyrene	170	97	J	690	J	770	J	1200	J	600	J
Dibenzo(a,h)anthracene	170			260		280		430		200	J
Benzo(g,h,i)perylene	170	80	J	500		580		900		440	
2,3,4,6-Tetrachlorophenol	170										

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor) / [(100 - %Moisture) / 100]

Revised 09/99

Appendix C

Chain of Custody (COC) Records



**USEPA Contract Laboratory Program
Organic Traffic Report & Chain of Custody Record**

Case No: 38495
DAS No: R

Region: 3	Date Shipped: 4/30/2009	Carrier Name: FedEx	Shipped to: A4 Scientific 1544 Sawdust Road Suite 505 The Woodlands TX 77380 (281) 292-5277
Project Code: CT4550	Carrier Name: FedEx	Airbill: 854559928715	
Account Code: PAN000306553			
CERCLIS ID: AGX			
Spill ID: TCCA April 09 VOC & SVOC/PA			
Site Name/State: Jordan Vaughn			
Project Leader: Jordan Vaughn			
Action: Tetra Tech			
Sampling Co: Tetra Tech			

Chain of Custody Record	
Relinquished By	Received By
1	
2	
3	
4	

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No/ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	INORGANIC SAMPLE No.	QC Type
C0675	Soil (0"-12")/ Jordan Vaughn	L/G	SVOC soil (14)	TCCA1891 (1)	TCCA-RSS-01	S: 4/30/2009 8:20		-
C0676	Soil (0"-12")/ Jordan Vaughn	L/G	SVOC soil (14)	TCCA1892 (1)	TCCA-RSS-02	S: 4/30/2009 8:25		-
C0677	Soil (0"-12")/ Jordan Vaughn	L/G	SVOC soil (14)	TCCA1893 (1)	TCCA-RSS-05	S: 4/30/2009 8:38		-
C0678	Soil (0"-12")/ Jordan Vaughn	L/G	SVOC soil (14)	TCCA1894 (1)	TCCA-RSS-07	S: 4/30/2009 8:46		-
C0679	Soil (0"-12")/ Jordan Vaughn	L/G	SVOC soil (14)	TCCA1895 (1)	TCCA-RSS-08	S: 4/30/2009 8:50		-
C0680	Soil (0"-12")/ Jordan Vaughn	L/G	SVOC soil (14)	TCCA1896 (1)	TCCA-RSS-11	S: 4/30/2009 9:05		-
C0681	Soil (0"-12")/ Jordan Vaughn	L/G	SVOC soil (14)	TCCA1897 (1)	TCCA-RSS-17	S: 4/30/2009 9:33		-
C0682	Soil (0"-12")/ Jordan Vaughn	L/G	SVOC soil (14)	TCCA1898 (1)	TCCA-RSS-18	S: 4/30/2009 9:39		-
C0683	Soil (0"-12")/ Jordan Vaughn	L/G	SVOC soil (14)	TCCA1899 (1)	TCCA-RSS-24	S: 4/30/2009 10:04		-
C0684	Soil (0"-12")/ Jordan Vaughn	L/G	SVOC soil (14)	TCCA1900 (1)	TCCA-RSS-28	S: 4/30/2009 10:18		-
C0685	Soil (0"-12")/ Jordan Vaughn	L/G	SVOC soil (14)	TCCA1901 (1)	TCCA-RSS-29	S: 4/30/2009 10:23		-

Shipment for Case Complete? Y	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key: SVOC soil = SVOC soil	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment lead? _____

TR Number: 3-023200937-043009-0002

PR provides preliminary results. Requests for preliminary results will increase analytical costs.

Send Copy to: Sample Management Office, Attn: Heather Bauer, CSC, 15000 Conference Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax 703/818-4602

REGION COPY



**USEPA Contract Laboratory Program
Organic Traffic Report & Chain of Custody Record**

Case No: 38495

R

DAS No:

Region: 3		Date Shipped: 4/30/2009		Chain of Custody Record	
Project Code: CT4550	Carrier Name: FedEx	Airbill: 854559928715		Sampler Signature:	
CERCLIS ID: PAN000308553	Shipped to: A4 Scientific	1544 Sawdust Road		Relinquished By (Date / Time)	(Date / Time)
Spill ID: AGX	TCCA April 09 VOC & SVOC/PA		Suite 505	1	
Site Name/State: Jordan Vaughn			The Woodlands TX 77380	2	
Project Leader: Jordan Vaughn			(281) 292-5277	3	
Action:				4	
Sampling Co: Tetra Tech					

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No/ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	INORGANIC SAMPLE No.	QC Type
C0686	Soil (0"-12")/ Jordan Vaughn	L/G	SVOC soil (14)	TCCA1902 (1)	TCCA-RSS-32	S: 4/30/2009 10:37		-
C0687	Soil (0"-12")/ Jordan Vaughn	L/G	SVOC soil (14)	TCCA1903 (1)	TCCA-RSS-33	S: 4/30/2009 10:42		-
C0688	Soil (0"-12")/ Jordan Vaughn	L/G	SVOC soil (14)	TCCA1904 (1)	TCCA-RSS-37	S: 4/30/2009 10:58		-
C0689	Soil (0"-12")/ Jordan Vaughn	L/G	SVOC soil (14)	TCCA1905 (1)	TCCA-RSS-39	S: 4/30/2009 11:03		-
C0690	Soil (0"-12")/ Jordan Vaughn	L/G	SVOC soil (14)	TCCA1906 (1)	TCCA-RSS-41	S: 4/30/2009 11:09		-
C0691	Soil (0"-12")/ Jordan Vaughn	L/G	SVOC soil (14)	TCCA1907 (1)	TCCA-RSS-43	S: 4/30/2009 11:14		-
C0692	Soil (0"-12")/ Jordan Vaughn	L/G	SVOC soil (14)	TCCA1908 (1)	TCCA-RSS-44	S: 4/30/2009 11:21		-
C0694	Soil (0"-12")/ Jordan Vaughn	L/G	SVOC soil (14)	TCCA1911 (1)	TCCA-RSS-49	S: 4/30/2009 11:45		-
C0695	Soil (0"-12")/ Jordan Vaughn	L/G	SVOC soil (14)	TCCA1912 (1)	TCCA-RSS-51	S: 4/30/2009 11:51		-
C0697	Soil (0"-12")/ Jordan Vaughn	L/G	SVOC soil (14)	TCCA1917 (1)	TCCA-RSS-45	S: 4/30/2009 11:25		-

Shipment for Case Complete? Y	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key: SVOC soil = SVOC soil	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Issued?

TR Number: 3-023200937-043009-0002

PR provides preliminary results. Requests for preliminary results will increase analytical costs.

Send Copy to: Sample Management Office, Attn: Heather Bauer, CSC, 15000 Conference Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax

703/818-4602

REGION COPY

U.S. EPA Region III Analytical Request Form

Revision 10.06

38495

875 4-20-09

ASQAB USE ONLY	
RASH#	CT4550
DASH#	Analytical TAT
NSF#	14 Days

Date: 4/20/09		Site Activity: Removal Site Evaluations <i>Assessment</i>	
Site Name: Tank Car Corporation of America		Street Address: 1725 Walnut Ave	
City: Orland	State: PA	Latitude:	Longitude:
Program: Superfund	Acct. #: 2009 T03 N 302DC6C A3GXRS00	CERCLIS #:	PA/000 306553
Site ID:	Spill ID: A3GX	Operable Unit:	
Site Specific QA Plan Submitted: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		Title: START3 QAPP	Date Approved: November 2006
EPA Project Leader: Michael Towle	Phone#: 215-814-3272	Cell Phone #:	E-mail: towle.michael@epa.gov
Request Preparer: JOSHUA COPE	Phone#: 610-364-2130	Cell Phone #:	E-mail: Joshua.cope@ttemi.com
Site Leader: Jordan Vaughn	Phone#: 610-364-2141	Cell Phone #:	E-mail: Jordan.vaughn@ttemi.com
Contractor: Tetra Tech EM Inc			
#Samples 10	Matrix: soil	Parameter: TCL VOC	Method: SOM01.2 30458
#Samples 35	Matrix: soil	Parameter: TCL SVOC	Method: SOM01.2 30459
#Samples 40	Matrix: soil	Parameter: TAL Metals & Hg + 31 more CAMEM	Method: ILM05.4 ICPAES & Hg 30463
#Samples 13	Matrix: soil	Parameter: Cyanide	Method: ILM05.4 ICPAES 30464
#Samples 9	Matrix: water	Parameter: TCL VOC	Method: SOM01.2 30461
#Samples 6	Matrix: water	Parameter: TCL SVOC	Method: SOM01.2 30460
#Samples 6	Matrix: water	Parameter: TAL Metals & Hg	Method: ILM05.4 ICPAES & Hg 30462
Ship Date From: 4/27/09		Ship Date To: 4/30/09	Inorg. Validation Level IM2
Unvalidated Data Requested: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes		If Yes, TAT Needed: <input checked="" type="checkbox"/> 14 days <input type="checkbox"/> 7 days <input type="checkbox"/> 48hrs <input type="checkbox"/> 24hrs <input type="checkbox"/> Other (Specify) PR's by ESM	
Validated Data Package Due: <input type="checkbox"/> 42 days <input checked="" type="checkbox"/> 30 days <input type="checkbox"/> 21 days <input type="checkbox"/> 14 days <input type="checkbox"/> Other (Specify)		14/16	
Electronic Data Deliverables Required: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (EDDs will be provided in Region 3 EDD Format)			
Special Instructions: See attached Required Limits and CRQL/CRDLs Needed. *Method substitution permitted.			

FORM ARF- 10/06

Revision 1.1



Dwayne
Hall/ESC/R3/USEPA/US
02/03/2006 02:34 PM

To Colleen Walling/DC/USEPA/US, Michael
Towle/R3/USEPA/US, Jeffrey Fang/R3/USEPA/US, Karen
Wodarczyk/R3/USEPA/US
cc John Kwedar/ESC/R3/USEPA/US@EPA, Dan
Slizys/ESC/R3/USEPA/US@EPA, Victor
Yastrop/ESC/R3/USEPA/US@EPA, Judy
bcc

Subject Requesting resolution of issues for case 38495.

Disclaimer: Information contain below does not constitute technical direction. The Sampling/Field contractor shall contact their applicable EPA Contracting Officer Representative (COR) for technical direction

Case: 38495
Lab: A4 Scientific
SDG: C0675

Site: Tank Car Corporation of America
EPA Project Leader: Michael Towle
Site Leader: Jordan Vaughn

Issue 1:

For sample number C0677, corresponding sample tag did not reference the sample tag number. Please submit a memo to file that references this information.

Issue 2:

The chain of custody document (3-023200937-043009-0002, page 1) did not reference the sample relinquish time. Please submit a memo to file that references this information. Thanks.

Dwayne Hall
ESAT Region 3 R.S.C.C. Auditor/PM2.5 Field Auditor
Lockheed Martin Enterprise Solutions & Services
701 Mapes Road
Ft. Meade, MD 20755-5350
Phone: 410-305-2602
Field Cell Phone: 202-256-5518
Fax: 410-305-3095

DATA SUMMARY FORM: BNA (Lab Results)

Page ____ of ____

Case #: 38495

SDG : C0635

Number of Soil Samples : 0

Site :

TANK CAR CORPORATION OF AMERICA

Number of Water Samples : 5

Lab. :

A4

Sample Number :		C0639		C0644		C0645		C0646		C0647	
Sampling Location :		TCCA-FB-042809-1		TCCA-TW-13		TCCA-TW-26		TCCA-TW-33		TCCA-RB-042809-1	
Field QC :		Field Blank								Rinsate Blank	
Matrix :		Water		Water		Water		Water		Water	
Units :		ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :		4/28/2009		4/27/2009		4/27/2009		4/28/2009		4/28/2009	
Time Sampled :		12:06		16:28		16:25		12:37		14:18	
Dilution Factor :		1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	5.0										
Phenol	5.0							23			
Bis(2-Chloroethyl)ether	5.0										
2-Chlorophenol	5.0										
2-Methylphenol	5.0							37			
2,2'-Oxybis(1-chloropropane)	5.0										
Acetophenone	5.0										
4-Methylphenol	5.0							40			
N-Nitroso-di-n-propylamine	5.0										
Hexachloroethane	5.0										
Nitrobenzene	5.0										
Isophorone	5.0										
2-Nitrophenol	5.0										
2,4-Dimethylphenol	5.0							100	E		
Bis(2-chloroethoxy)methane	5.0										
2,4-Dichlorophenol	5.0										
Naphthalene	5.0			1.4	J			1500	E	1.4	J
4-Chloroaniline	5.0										
Hexachlorobutadiene	5.0										
Caprolactam	5.0										
4-Chloro-3-methylphenol	5.0	2.0	J							1.8	J
2-Methylnaphthalene	5.0							120	E		
Hexachlorocyclopentadiene	5.0										
2,4,6-Trichlorophenol	5.0										
2,4,5-Trichlorophenol	5.0										
1,1'-Biphenyl	5.0							12			
2-Chloronaphthalene	5.0										
2-Nitroaniline	10										
Dimethylphthalate	5.0										
2,6-Dinitrotoluene	5.0										
Acenaphthylene	5.0							42			
3-Nitroaniline	10										
Acenaphthene	5.0							60			

DATA SUMMARY FORM: BNA (Lab Results)

Page ____ of ____

Case #: 38495

SDG : C0635

Site :

TANK CAR CORPORATION OF AMERICA

Lab. :

A4

Sample Number :		C0639		C0644		C0645		C0646		C0647	
Sampling Location :		TCCA-FB-042809-1		TCCA-TW-13		TCCA-TW-26		TCCA-TW-33		TCCA-RB-042809-1	
Field QC :		Field Blank								Rinsate Blank	
Matrix :		Water		Water		Water		Water		Water	
Units :		ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :		4/28/2009		4/27/2009		4/27/2009		4/28/2009		4/28/2009	
Time Sampled :		12:06		16:28		16:25		12:37		14:18	
Dilution Factor :		1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-Dinitrophenol	10										
4-Nitrophenol	10										
Dibenzofuran	5.0							58			
2,4-Dinitrotoluene	5.0							11			
Diethylphthalate	5.0										
Fluorene	5.0							72			
4-Chlorophenyl-phenylether	5.0										
4-Nitroaniline	10										
4,6-Dinitro-2-methylphenol	10										
N-Nitrosodiphenylamine	5.0										
1,2,4,5-Tetrachlorobenzene	5.0										
4-Bromophenyl-phenylether	5.0										
*Hexachlorobenzene	5.0										
Atrazine	5.0										
*Pentachlorophenol	10										
Phenanthrene	5.0					2.0	J	110	E		
Anthracene	5.0							35			
Carbazole	5.0							100	E		
Di-n-butylphthalate	5.0										
Fluoranthene	5.0					6.2		110	E		
Pyrene	5.0					5.8		74			
Butylbenzylphthalate	5.0										
3,3'-Dichlorobenzidine	5.0										
Benzo(a)anthracene	5.0					3.3	J	38			
Chrysene	5.0					3.7	J	33			
Bis(2-ethylhexyl)phthalate	5.0										
Di-n-octylphthalate	5.0										
Benzo(b)fluoranthene	5.0					4.4	J	35			
Benzo(k)fluoranthene	5.0					3.5	J	17			
Benzo(a)pyrene	5.0					3.9	J	27			
Indeno(1,2,3-cd)pyrene	5.0					4.6	J	25			
Dibenzo(a,h)anthracene	5.0					1.6	J	9.2			
Benzo(g,h,i)perylene	5.0					3.2	J	15			
2,3,4,6-Tetrachlorophenol	5.0										

CRQL = Contract Required Quantitation Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor)

Revised 09/99

Appendix D

Laboratory Case Narrative

A4 SCIENTIFIC, INC.
1544 Sawdust Road, Suite 505 • The Woodlands, TX 77380 • Phone (281) 292-5277

Contract #: EPW05036	Case #: 38495	SDG #: C0675
----------------------	---------------	--------------

No other discrepancies or issues were noted during sample receipt and login.

SEMI-VOLATILES

1) Extractions

Soil samples were extracted by sonication method. GPC cleanup was performed on soil samples and the associated Blank. No problems were encountered during the extraction.

2) Analysis

All samples were analyzed on an Agilent-5973 GC/MS using a 30-meter HP-5MS column (Agilent cat#19091S-433) having a 0.25mm ID and a 0.25µm film thickness. A 1µL injection was used.

MS/MSD was not required.

The following samples were run at dilution, listed against them to get all the compounds within range.

EPA SAMPLE ID	DILUTION
C0685	5

Manual integrations were performed for the following samples for the compounds listed against them.

Compound	EPA Sample ID
Benzo (b) fluoranthene	C0675, C0676, C0677, C0678, C0679, C0680, C0681, C0682, C0683, C0684, C0685, C0685DL, C0686, C0687, C0688, C0689, C0690, C0691, C0692, C0694, C0695
Benzo (k) fluoranthene	C0675, C0676, C0677, C0678, C0679, C0680, C0681, C0682, C0683, C0684, C0685, C0685DL, C0686, C0687, C0688, C0689, C0690, C0691, C0692, C0694, C0695, SSTD0105E, SSTD0055E,
Indeno (1, 2, 3-dc) pyrene	C0675, C0676, C0677, C0678, C0679, C0680, C0681, C0682, C0683, C0684, C0685, C0685DL, C0686, C0687, C0688, C0689, C0690, C0691, C0692, C0694, C0695, SSTD0205E, SSTD0805E, SSTD0405E, SSTD0105E, SSTD0055E, SSTD0205O, SSTD0205P, SSTD0205K, SSTD0205L, SSTD0205N
Phenol-d5	C0676, C0677, C0679, C0680, C0681, C0682, C0683, C0684, C0686, C0687, C0688, C0689, C0690, C0691, C0692, C0694, C0695, SSTD0205K, SSTD0205L, SSTD0205O, SBLK2X
Caprolactam	SSTD0805E

These manual integrations were necessary because the software failed to accurately integrate the entire peak. In all the above instances, the quantitation reports are flagged with "m". A hard copy printout of the manual integration, the scan ranges, and initials of the analyst or manager is included in the data package.

The following equations were used for calculation of the sample results from raw instrument output data:

Semivolatiles:

Soil/Sediment:

000000002

A4 SCIENTIFIC, INC.
1544 Sawdust Road, Suite 505 • The Woodlands, TX 77380 • Phone (281) 292-5277

Contract #: EPW05036	Case #: 38495	SDG #: C0675
----------------------	---------------	--------------

$$\text{Concentration } (\mu\text{g/Kg}) \text{ (Dry weight Basis)} = \frac{(A_x)(I_s)(V_i)(D_f)(GPC)}{(A_{is})(RRF)(V_i)(W_s)(D)}$$

A_x = Area of the characteristic ion for the compound to be measured.

A_{is} = Area of the characteristic ion for the internal standard.

I_s = Amount of internal standard injected in nanograms (ng).

V_i = Volume of concentrated extract in microliters (μL).

V_i = Volume of extracted infected in microliters (μL).

$$D = \frac{100 - \% \text{moisture}}{100}$$

W_s = Weight of sample extracted in grams (g).

D_f = Dilution Factor.

$$GPC = \frac{V_{in}}{V_{out}} = \text{GPC Factor. (If, no GPC is performed, GPC=1).}$$

V_{in} = Volume of extract loaded onto GPC column.

V_{out} = Volume of extract collected after the GPC cleanup.

\overline{RRF} = Mean relative response factor determined from the initial calibration.

I certify that this Sample Data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy Sample Data Package and in the electronic data deliverable has been authorized by the laboratory Manager or Manager's designee, as verified by the following signature.

SN (Lab Director)
Signature and Title

05/13/09
Date of Signature

000000003

Appendix E

TIC Form Is

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0675

Lab Name: A4 SCIENTIFIC, INC. Contract: EPW05036
Lab Code: A4 Case No.: 38495 Mod. Ref No.: SDG No.: C0675
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 0010244-01
Sample wt/vol: 30.0 (g/mL) g Lab File ID: D0720.D
Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC
% Moisture: 17.4 Decanted: (Y/N) N Date Received: 05/01/2009
Concentrated Extract Volume: 500 (uL) Date Extracted: 05/01/2009
Injection Volume: 1.0 (uL) GPC Factor: 2.0 Date Analyzed: 05/09/2009
GPC Cleanup: (Y/N) Y pH: 5.9 Dilution Factor: 1.0
CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		UNKNOWN 4.07	1.75	710	J
02		UNKNOWN 4.07	2.02	4600	J
03		UNKNOWN 4.07	2.28	4700	J
04	000084-65-1	9,10-Anthracenedione	12.15	820	JN
05	000081-84-5	1,8-Naphthalic anhydride	12.58	590	JN
06	001024-57-3	Heptachlor epoxide	12.68	1100	JN
07		UNKNOWN 10.82	12.91	460	J
08	005103-74-2	trans-Chlordane	12.98	450	JN
09	000057-74-9	Chlordane	13.17	610	JN
10	000192-97-2	Benzo[e]pyrene	16.75	790	JN
11		UNKNOWN 17.12	16.91	500	J
12		UNKNOWN 17.12	17.95	2100	J
13		UNKNOWN 17.12	18.15	430	J
14		UNKNOWN 17.12	18.33	530	J
15	000215-58-7	Benzo[b]triphenylene	18.63	380	JN
16		UNKNOWN 17.12	18.79	1600	J
17	014021-26-2	Olean-12-ene, 3-methoxy-, (.beta.-	18.93	360	JN
18	000083-46-5	.beta.-Sitosterol	18.98	4700	JN
19		UNKNOWN 17.12	19.19	1300	J
20		UNKNOWN 17.12	19.35	770	J
21	010376-42-8	9,19-Cycloergost-24(28)-en-.beta.-	19.46	920	JN
22	001058-61-3	Stigmast-4-en-3-one	19.53	8000	JN
23		UNKNOWN 17.12	19.71	760	J
24	005385-75-1	Dibenz(a,e)aceanthrylene	19.91	870	JN
25		UNKNOWN 17.12	20.05	620	J
26		UNKNOWN 17.12	20.21	710	J
27		UNKNOWN 17.12	20.28	930	J
28		UNKNOWN 17.12	20.40	500	J
29		UNKNOWN 17.12	20.83	1600	J
30					
	E966796 ²	Total Alkanes	N/A		

²EPA-designated Registry Number.

000000022

SOM01.2 (8/2007)

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0676

Lab Name: A4 SCIENTIFIC, INC. Contract: EPW05036
Lab Code: A4 Case No.: 38495 Mod. Ref No.: SDG No.: C0675
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 0010244-02
Sample wt/vol: 30.9 (g/mL) g Lab File ID: D0693.D
Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC
% Moisture: 25.2 Decanted: (Y/N) N Date Received: 05/01/2009
Concentrated Extract Volume: 500 (uL) Date Extracted: 05/01/2009
Injection Volume: 1.0 (uL) GPC Factor: 2.0 Date Analyzed: 05/08/2009
GPC Cleanup: (Y/N) Y pH: 5.6 Dilution Factor: 1.0
CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		UNKNOWN 4.10	1.76	250	J
02		UNKNOWN 4.10	2.04	3000	J
03		UNKNOWN 8.55	7.59	100	J
04	000099-93-4	Acetophenone, 4'-hydroxy-	8.17	130	JN
05	000613-12-7	Anthracene, 2-methyl-	11.67	150	JN
06	002531-84-2	Phenanthrene, 2-methyl-	11.72	160	JN
07	000203-64-5	4H-Cyclopenta[def]phenanthrene	11.83	270	JN
08		UNKNOWN 10.85	11.88	96	J
09	000084-65-1	9,10-Anthracenedione	12.18	260	JN
10		UNKNOWN 10.85	12.71	200	J
11		UNKNOWN 15.05	13.00	110	J
12	000057-74-9	Chlordane	13.20	150	JN
13		UNKNOWN 15.05	13.26	120	J
14	000243-17-4	11H-Benzo[b]fluorene	13.68	190	JN
15	000479-79-8	11H-Benzo[a]fluoren-11-one	14.49	150	JN
16	001705-84-6	Triphenylene, 2-methyl-	15.69	100	JN
17		UNKNOWN 17.14	16.29	100	J
18	067860-04-2	Oxirane, heptadecyl-	16.77	850	JN
19		UNKNOWN 17.14	16.93	110	J
20		UNKNOWN 17.14	17.24	120	J
21		UNKNOWN 17.14	17.98	400	J
22		UNKNOWN 17.14	18.36	190	J
23		UNKNOWN 17.14	18.81	390	J
24	000083-46-5	.beta.-Sitosterol	19.01	280	JN
25	001058-61-3	Stigmast-4-en-3-one	19.54	410	JN
26	005385-75-1	Dibenz(a,e)aceanthrylene	19.93	250	JN
27					
28					
29					
30					
	E966796 ²	Total Alkanes	N/A	3300	

²EPA-designated Registry Number.

000000080

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0677

Lab Name: A4 SCIENTIFIC, INC. Contract: EPW05036
Lab Code: A4 Case No.: 38495 Mod. Ref No.: SDG No.: C0675
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 0010244-03
Sample wt/vol: 30.3 (g/mL) g Lab File ID: D0695.D
Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC
% Moisture: 21.2 Decanted: (Y/N) N Date Received: 05/01/2009
Concentrated Extract Volume: 500 (uL) Date Extracted: 05/01/2009
Injection Volume: 1.0 (uL) GPC Factor: 2.0 Date Analyzed: 05/08/2009
GPC Cleanup: (Y/N) Y pH: 5.8 Dilution Factor: 1.0
CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		UNKNOWN 4.10	2.04	2300	J
02		UNKNOWN 4.10	2.30	2300	J
03	000779-02-2	Anthracene, 9-methyl-	11.71	87	JN
04	000203-64-5	4H-Cyclopenta[def]phenanthrene	11.83	160	JN
05		UNKNOWN 10.85	12.17	110	J
06		UNKNOWN 10.85	12.68	86	J
07		UNKNOWN 10.85	12.71	110	J
08	000238-84-6	11H-Benzo[a]fluorene	13.67	110	JN
09	000479-79-8	11H-Benzo[a]fluoren-11-one	14.49	110	JN
10		UNKNOWN 15.05	15.30	88	J
11	014811-95-1	1,19-Eicosadiene	16.77	580	JN
12		UNKNOWN 17.14	17.68	100	J
13		UNKNOWN 17.14	18.18	170	J
14		UNKNOWN 17.14	18.36	110	J
15	000083-47-6	.gamma.-Sitosterol	19.01	480	JN
16		UNKNOWN 17.14	19.25	160	J
17	001058-61-3	Stigmast-4-en-3-one	19.54	460	JN
18		UNKNOWN 17.14	19.92	230	J
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796 ²	Total Alkanes	N/A	280	

²EPA-designated Registry Number.

000000139

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0678

Lab Name: A4 SCIENTIFIC, INC. Contract: EPW05036
Lab Code: A4 Case No.: 38495 Mod. Ref No.: SDG No.: C0675
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 0010244-04
Sample wt/vol: 30.5 (g/mL) g Lab File ID: D0721.D
Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC
% Moisture: 22.6 Decanted: (Y/N) N Date Received: 05/01/2009
Concentrated Extract Volume: 500 (uL) Date Extracted: 05/01/2009
Injection Volume: 1.0 (uL) GPC Factor: 2.0 Date Analyzed: 05/09/2009
GPC Cleanup: (Y/N) Y pH: 5.7 Dilution Factor: 1.0
CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		UNKNOWN 4.07	1.75	900	J
02		UNKNOWN 4.07	2.03	6400	J
03		UNKNOWN 4.07	2.29	6800	J
04		UNKNOWN 4.07	2.48	300	J
05		UNKNOWN 8.53	7.56	190	J
06	002531-84-2	Phenanthrene, 2-methyl- (01) unknown	11.64	200	JN
07	002531-84-2	Phenanthrene, 2-methyl- (02) unknown	11.69	250	JN
08	000203-64-5	4H-Cyclopenta[def]phenanthrene	11.80	460	JN
09	000084-65-1	9,10-Anthracenedione	12.15	520	JN
10	005737-13-3	Cyclopenta(def)phenanthrenon	12.64	180	JN
11	000243-17-4	11H-Benzo[b]fluorene	13.65	150	JN
12	001090-13-7	5,12-Naphthacenedione	16.15	200	JN
13	000205-99-2	Benz[e]acephenanthrylene	16.75	700	JN
14		UNKNOWN 17.12	16.91	280	J
15		UNKNOWN 17.12	17.22	210	J
16		UNKNOWN 17.12	17.82	260	J
17		UNKNOWN 17.12	18.34	620	J
18		UNKNOWN 17.12	18.57	260	J
19	000213-46-7	1,2:7,8-Dibenzophenanthrene	18.63	290	JN
20		UNKNOWN 17.12	18.67	160	J
21		UNKNOWN 17.12	18.79	290	J
22	000191-24-2	Dibenzo[def,mno]chrysene	18.87	170	JN
23		UNKNOWN 17.12	18.99	370	J
24	001058-61-3	Stigmast-4-en-3-one	19.51	280	JN
25	005385-75-1	Dibenz(a,e)aceanthrylene	19.91	650	JN
26	000189-55-9	3,4:9,10-Dibenzopyrene	20.00	370	JN
27		UNKNOWN 17.12	20.04	380	J
28		UNKNOWN 17.12	20.40	440	J
29					
30					
	E966796 ²	Total Alkanes	N/A	330	

²EPA-designated Registry Number.

Su 05/18/09.

000000189

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0679

Lab Name: A4 SCIENTIFIC, INC. Contract: EPW05036
Lab Code: A4 Case No.: 38495 Mod. Ref No.: SDG No.: C0675
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 0010244-05
Sample wt/vol: 30.0 (g/mL) g Lab File ID: D0688.D
Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC
% Moisture: 11.3 Decanted: (Y/N) N Date Received: 05/01/2009
Concentrated Extract Volume: 500 (uL) Date Extracted: 05/01/2009
Injection Volume: 1.0 (uL) GPC Factor: 2.0 Date Analyzed: 05/08/2009
GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.0
CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		UNKNOWN 4.10	1.89	92	J
02		UNKNOWN 4.10	2.04	3600	J
03		UNKNOWN 4.10	2.21	110	J
04		UNKNOWN 4.10	2.30	3500	J
05		UNKNOWN 4.10	2.44	120	J
06	007785-70-8	1R-.alpha.-Pinene	3.31	140	JN
07	000203-64-5	4H-Cyclopenta[def]phenanthre	11.83	94	JN
08		UNKNOWN 10.85	12.01	83	J
09	000084-65-1	9,10-Anthracenedione	12.18	170	JN
10	000243-17-4	11H-Benzo[b]fluorene	13.68	97	JN
11		UNKNOWN 15.05	14.37	89	J
12		UNKNOWN 15.05	14.78	150	J
13		UNKNOWN 17.14	16.77	230	J
14		UNKNOWN 17.14	18.36	100	J
15		UNKNOWN 17.14	18.81	310	J
16		UNKNOWN 17.14	19.00	280	J
17	001058-61-3	Stigmast-4-en-3-one	19.53	350	JN
18	000189-55-9	3,4:9,10-Dibenzopyrene	19.93	130	JN
19		UNKNOWN 17.14	20.81	430	J
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796 ²	Total Alkanes	N/A	260	

²EPA-designated Registry Number.

000000245

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0680

Lab Name: A4 SCIENTIFIC, INC. Contract: EPW05036
Lab Code: A4 Case No.: 38495 Mod. Ref No.: SDG No.: C0675
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 0010244-06
Sample wt/vol: 30.9 (g/mL) g Lab File ID: D0694.D
Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC
% Moisture: 25.7 Decanted: (Y/N) N Date Received: 05/01/2009
Concentrated Extract Volume: 500 (uL) Date Extracted: 05/01/2009
Injection Volume: 1.0 (uL) GPC Factor: 2.0 Date Analyzed: 05/08/2009
GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.0
CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		UNKNOWN 4.10	2.04	5600	J
02		UNKNOWN 4.10	2.21	110	J
03		UNKNOWN 4.10	2.30	5600	J
04		UNKNOWN 4.10	3.66	89	J
05	002531-84-2	Phenanthrene, 2-methyl-	11.72	110	JN
06	000203-64-5	4H-Cyclopenta[def]phenanthrene	11.83	160	JN
07	000084-65-1	9,10-Anthracenedione	12.18	270	JN
08	000238-84-6	11H-Benzo[a]fluorene	13.68	130	JN
09	000479-79-8	11H-Benzo[a]fluoren-11-one	14.49	110	JN
10	001705-84-6	Triphenylene, 2-methyl-	15.69	97	JN
11		UNKNOWN 17.14	16.77	600	J
12		UNKNOWN 17.14	18.19	110	J
13		UNKNOWN 17.14	18.36	230	J
14		UNKNOWN 17.14	18.81	110	J
15	000083-47-6	.gamma.-Sitosterol	19.01	570	JN
16	001058-61-3	Stigmast-4-en-3-one	19.54	680	JN
17	000189-55-9	3,4:9,10-Dibenzopyrene	19.93	260	JN
18		UNKNOWN 17.14	20.03	160	J
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796 ²	Total Alkanes	N/A	630	

²EPA-designated Registry Number.

000000294

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0681

Lab Name: A4 SCIENTIFIC, INC. Contract: EPW05036
Lab Code: A4 Case No.: 38495 Mod. Ref No.: SDG No.: C0675
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 0010244-07
Sample wt/vol: 30.0 (g/mL) g Lab File ID: D0697.D
Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC
% Moisture: 28.1 Decanted: (Y/N) N Date Received: 05/01/2009
Concentrated Extract Volume: 500 (uL) Date Extracted: 05/01/2009
Injection Volume: 1.0 (uL) GPC Factor: 2.0 Date Analyzed: 05/08/2009
GPC Cleanup: (Y/N) Y pH: 6.1 Dilution Factor: 1.0
CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		UNKNOWN 4.10	2.04	2600	J
02		UNKNOWN 4.10	2.21	100	J
03	003387-41-5	Bicyclo[3.1.0]hexane, 4-met.	3.72	130	JN
04		UNKNOWN 4.10	4.02	100	J
05		UNKNOWN 10.85	11.70	130	J
06	003564-54-3	17-Norkaur-15-ene, 13-methy.	11.93	680	JN
07	000511-15-9	2-Phenanthrenol, 4b,5,6,7,8.	14.21	140	JN
08		UNKNOWN 17.14	16.77	130	J
09	000083-46-5	.beta.-Sitosterol	19.01	330	JN
10		UNKNOWN 17.14	19.25	130	J
11	001058-61-3	Stigmast-4-en-3-one	19.54	460	JN
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796 ²	Total Alkanes	N/A	2700	

²EPA-designated Registry Number.

000000343

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0682

Lab Name: A4 SCIENTIFIC, INC. Contract: EPW05036
Lab Code: A4 Case No.: 38495 Mod. Ref No.: SDG No.: C0675
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 0010244-08
Sample wt/vol: 30.9 (g/mL) g Lab File ID: D0689.D
Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC
% Moisture: 11.7 Decanted: (Y/N) N Date Received: 05/01/2009
Concentrated Extract Volume: 500 (uL) Date Extracted: 05/01/2009
Injection Volume: 1.0 (uL) GPC Factor: 2.0 Date Analyzed: 05/08/2009
GPC Cleanup: (Y/N) Y pH: 5.9 Dilution Factor: 1.0
CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		UNKNOWN 4.10	2.04	6300	J
02		UNKNOWN 4.10	3.25	280	J
03	007785-70-8	1R-.alpha.-Pinene	3.31	1100	JN
04	003387-41-5	Bicyclo[3.1.0]hexane, 4-met.	3.72	370	JN
05	005989-27-5	d-Limonene	4.28	860	JN
06		UNKNOWN 5.85	5.42	240	J
07		UNKNOWN 5.85	5.47	240	J
08		UNKNOWN 10.85	10.57	200	J
09	000084-65-1	9,10-Anthracenedione	12.18	190	JN
10	1000197-14-1	4b,8-Dimethyl-2-isopropylph.	12.47	260	JN
11		UNKNOWN 10.85	12.68	600	J
12		UNKNOWN 15.05	14.70	230	J
13	001740-19-8	1-Phenanthrenecarboxylic ac.	14.91	930	JN
14		UNKNOWN 17.14	16.77	400	J
15		UNKNOWN 17.14	17.55	280	J
16		UNKNOWN 17.14	17.68	250	J
17		UNKNOWN 17.14	18.70	220	J
18		UNKNOWN 17.14	18.81	880	J
19	000083-46-5	.beta.-Sitosterol	19.00	1600	JN
20		UNKNOWN 17.14	19.18	370	J
21		UNKNOWN 17.14	19.39	410	J
22		UNKNOWN 17.14	19.48	180	J
23	001058-61-3	Stigmast-4-en-3-one	19.54	3500	JN
24		UNKNOWN 17.14	20.24	470	J
25		UNKNOWN 17.14	20.81	1000	J
26					
27					
28					
29					
30					
	E966796 ²	Total Alkanes	N/A	8100	

²EPA-designated Registry Number.

000000382

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0683

Lab Name: A4 SCIENTIFIC, INC. Contract: EPW05036

Lab Code: A4 Case No.: 38495 Mod. Ref No.: SDG No.: C0675

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 0010244-09

Sample wt/vol: 30.2 (g/mL) g Lab File ID: D0696.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 25.2 Decanted: (Y/N) N Date Received: 05/01/2009

Concentrated Extract Volume: 500 (uL) Date Extracted: 05/01/2009

Injection Volume: 1.0 (uL) GPC Factor: 2.0 Date Analyzed: 05/08/2009

GPC Cleanup: (Y/N) Y pH: 6.2 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		UNKNOWN 4.10	2.04	4100	J
02		UNKNOWN 4.10	2.21	120	J
03		UNKNOWN 4.10	2.30	4200	J
04	000080-56-8	.alpha.-Pinene	3.31	600	JN
05		UNKNOWN 4.10	4.02	130	J
06	005989-27-5	d-Limonene	4.27	180	JN
07		UNKNOWN 5.85	5.42	180	J
08		UNKNOWN 5.85	5.47	170	J
09		UNKNOWN 8.55	9.42	150	J
10		UNKNOWN 10.85	10.57	110	J
11	033543-31-6	Fluoranthene, 2-methyl-	13.68	90	JN
12		UNKNOWN 15.05	14.71	110	J
13	001740-19-8	1-Phenanthrenecarboxylic ac.	14.90	110	JN
14	007390-81-0	Oxirane, hexadecyl-	16.77	220	JN
15	1000131-11-0	Z-2-Octadecen-1-ol	17.68	140	JN
16		UNKNOWN 17.14	17.98	240	J
17	000083-47-6	.gamma.-Sitosterol	19.01	1000	JN
18	001617-70-5	Lup-20(29)-en-3-one	19.25	540	JN
19		UNKNOWN 17.14	19.38	280	J
20		UNKNOWN 17.14	19.49	140	J
21	001058-61-3	Stigmast-4-en-3-one	19.54	1600	JN
22		UNKNOWN 17.14	19.71	180	J
23		UNKNOWN 17.14	19.93	170	J
24		UNKNOWN 17.14	20.81	280	J
25					
26					
27					
28					
29					
30					
	E966796 ²	Total Alkanes	N/A	1000	

²EPA-designated Registry Number.

000000438

SOM01.2 (8/2007)

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0684

Lab Name: A4 SCIENTIFIC, INC. Contract: EPW05036
Lab Code: A4 Case No.: 38495 Mod. Ref No.: SDG No.: C0675
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 0010244-10
Sample wt/vol: 30.8 (g/mL) g Lab File ID: D0690.D
Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC
% Moisture: 10.6 Decanted: (Y/N) N Date Received: 05/01/2009
Concentrated Extract Volume: 500 (uL) Date Extracted: 05/01/2009
Injection Volume: 1.0 (uL) GPC Factor: 2.0 Date Analyzed: 05/08/2009
GPC Cleanup: (Y/N) Y pH: 6.3 Dilution Factor: 1.0
CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		UNKNOWN 4.10	1.89	87	J
02		UNKNOWN 4.10	2.04	3300	J
03		UNKNOWN 4.10	2.21	78	J
04		UNKNOWN 4.10	2.30	3400	J
05		UNKNOWN 4.10	4.02	84	J
06	000613-12-7	Anthracene, 2-methyl-	11.68	76	JN
07	002531-84-2	Phenanthrene, 2-methyl-	11.72	93	JN
08		UNKNOWN 10.85	11.84	140	J
09	000779-02-2	Anthracene, 9-methyl-	11.88	80	JN
10	000084-65-1	9,10-Anthracenedione	12.18	210	JN
11		UNKNOWN 10.85	12.62	84	J
12		UNKNOWN 10.85	12.92	79	J
13	000243-17-4	11H-Benzo[b]fluorene	13.68	130	JN
14	000082-05-3	7H-Benz[de]anthracen-7-one	14.49	82	JN
15		UNKNOWN 15.05	14.71	79	J
16	001705-85-7	Chrysene, 6-methyl-	15.69	94	JN
17	000205-99-2	Benz[e]acephenanthrylene	16.78	300	JN
18		UNKNOWN 17.14	16.93	95	J
19		UNKNOWN 17.14	17.98	140	J
20		UNKNOWN 17.14	18.36	180	J
21	000053-70-3	Dibenz[a,h]anthracene	18.61	93	JN
22		UNKNOWN 17.14	18.65	97	J
23	000083-46-5	.beta.-Sitosterol	19.01	290	JN
24		UNKNOWN 17.14	19.54	450	J
25	000189-55-9	3,4:9,10-Dibenzopyrene	19.93	190	JN
26					
27					
28					
29					
30					
	E966796 ²	Total Alkanes	N/A	170	

²EPA-designated Registry Number.

000000491

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0685

Lab Name: A4 SCIENTIFIC, INC. Contract: EPW05036
Lab Code: A4 Case No.: 38495 Mod. Ref No.: SDG No.: C0675
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 0010244-11
Sample wt/vol: 30.0 (g/mL) g Lab File ID: D0722.D
Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC
% Moisture: 26.2 Decanted: (Y/N) N Date Received: 05/01/2009
Concentrated Extract Volume: 500 (uL) Date Extracted: 05/01/2009
Injection Volume: 1.0 (uL) GPC Factor: 2.0 Date Analyzed: 05/09/2009
GPC Cleanup: (Y/N) Y pH: 6.2 Dilution Factor: 1.0
CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		UNKNOWN 4.08	2.03	7600	J
02		UNKNOWN 4.08	2.29	7600	J
03	000481-39-0	1,4-Naphthalenedione, 5-hyd.	8.76	1300	JN
04	000486-25-9	9H-Fluoren-9-one	10.55	220	JN
05	000132-65-0	Dibenzothiophene	10.66	220	JN
06	000262-89-5	Dibenzo[a,e]cyclooctene	11.38	220	JN
07	000613-12-7	Anthracene, 2-methyl-	11.64	320	JN
08	002531-84-2	Phenanthrene, 2-methyl- (01)	11.68	410	JN
09	000203-64-5	4H-Cyclopenta[def]phenanthrene	11.81	570	JN
10	002531-84-2	Phenanthrene, 2-methyl- (02)	11.85	230	JN
11	000084-65-1	9,10-Anthracenedione	12.15	1300	JN
12		UNKNOWN 10.83	12.59	210	J
13	005737-13-3	Cyclopenta(def)phenanthrenon	12.64	300	JN
14	000243-17-4	11H-Benzo[b]fluorene	13.65	250	JN
15	001090-13-7	5,12-Naphthacenedione	16.15	280	JN
16	000207-08-9	Benzo[e]pyrene	16.75	790	JN
17	000207-08-9	Benzo[k]fluoranthene	16.75	790	JN
18		UNKNOWN 17.12	16.91	220	J
19	000239-85-0	13H-Dibenzo[a,h]fluorene	17.22	360	JN
20		UNKNOWN 17.12	18.15	230	J
21		UNKNOWN 17.12	18.24	280	J
22		UNKNOWN 17.12	18.33	590	J
23	000053-70-3	Dibenz[a,h]anthracene	18.59	260	JN
24	000213-46-7	1,2:7,8-Dibenzophenanthrene	18.63	270	JN
25	000083-46-5	.beta.-Sitosterol	18.98	900	JN
26	001058-61-3	Stigmast-4-en-3-one	19.51	1100	JN
27	000189-55-9	3,4:9,10-Dibenzopyrene	19.91	680	JN
28	000192-65-4	1,2:4,5-Dibenzopyrene	20.00	380	JN
29		UNKNOWN 17.12	20.40	700	J
30					
	E966796 ²	Total Alkanes	N/A	710	

²EPA-designated Registry Number.

Su 05/22/09.

000000547

SOM01.2 (8/2007)

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0685DL

Lab Name: A4 SCIENTIFIC, INC. Contract: EPW05036

Lab Code: A4 Case No.: 38495 Mod. Ref No.: SDG No.: C0675

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 0010244-11RE1

Sample wt/vol: 30.0 (g/mL) g Lab File ID: D0736.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 26.2 Decanted: (Y/N) N Date Received: 05/01/2009

Concentrated Extract Volume: 500 (uL) Date Extracted: 05/01/2009

Injection Volume: 1.0 (uL) GPC Factor: 2.0 Date Analyzed: 05/09/2009

GPC Cleanup: (Y/N) Y pH: 6.2 Dilution Factor: 5.0

CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		UNKNOWN 4.06	2.01	8800	JD
02		UNKNOWN 4.06	2.27	8800	JD
03	000481-39-0	1,4-Naphthalenedione, 5-hyd.	8.74	1000	JDN
04	002531-84-2	Phenanthrene, 2-methyl-	11.66	450	JDN
05	000203-64-5	4H-Cyclopenta[def]phenanthrene	11.79	570	JDN
06	000084-65-1	9,10-Anthracenedione	12.13	1300	JDN
07	033543-31-6	Fluoranthene, 2-methyl-	13.63	620	JDN
08		UNKNOWN 17.10	16.73	760	JD
09	068351-74-6	1-Methyl-1-hydridotetrachlo.	18.31	510	JDN
10		UNKNOWN 17.10	18.97	1100	JD
11	001058-61-3	Stigmast-4-en-3-one	19.50	1100	JDN
12	000189-64-0	3,4:8,9-Dibenzopyrene	19.88	610	JDN
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796 ²	Total Alkanes	N/A	690	

²EPA-designated Registry Number.

000000604

SOM01.2 (8/2007)

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0686

Lab Name: A4 SCIENTIFIC, INC.

Contract: EPW05036

Lab Code: A4 Case No.: 38495

Mod. Ref No.: SDG No.: C0675

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: 0010244-12

Sample wt/vol: 30.3 (g/mL) g

Lab File ID: D0691.D

Level: (TRACE or LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 27.7 Decanted: (Y/N) N

Date Received: 05/01/2009

Concentrated Extract Volume: 500 (uL)

Date Extracted: 05/01/2009

Injection Volume: 1.0 (uL) GPC Factor: 2.0

Date Analyzed: 05/08/2009

GPC Cleanup: (Y/N) Y pH: 6.4

Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		UNKNOWN 4.10	1.77	97	J
02		UNKNOWN 4.10	2.04	3800	J
03		UNKNOWN 4.10	2.21	95	J
04		UNKNOWN 4.10	2.30	3900	J
05	000203-64-5	4H-Cyclopenta[def]phenanthre	11.83	94	JN
06		UNKNOWN 10.85	11.96	94	J
07	000084-65-1	9,10-Anthracenedione	12.18	110	JN
08		UNKNOWN 17.14	16.77	380	J
09		UNKNOWN 17.14	17.68	120	J
10		UNKNOWN 17.14	18.65	150	J
11		UNKNOWN 17.14	18.81	1200	J
12	014021-28-4	Urs-12-ene, 3-methoxy-, (3..	18.96	510	JN
13	000083-46-5	.beta.-Sitosterol	19.01	420	JN
14		UNKNOWN 17.14	19.16	680	J
15	1000194-64-2	4,4,6a,6b,8a,11,12,14b-Octa.	19.26	340	JN
16		UNKNOWN 17.14	19.54	560	J
17		UNKNOWN 17.14	19.73	300	J
18		UNKNOWN 17.14	19.92	330	J
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796 ²	Total Alkanes	N/A	820	

²EPA-designated Registry Number.

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0687

Lab Name: A4 SCIENTIFIC, INC. Contract: EPW05036
Lab Code: A4 Case No.: 38495 Mod. Ref No.: SDG No.: C0675
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 0010244-13
Sample wt/vol: 30.0 (g/mL) g Lab File ID: D0723.D
Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC
% Moisture: 31.8 Decanted: (Y/N) N Date Received: 05/01/2009
Concentrated Extract Volume: 500 (uL) Date Extracted: 05/01/2009
Injection Volume: 1.0 (uL) GPC Factor: 2.0 Date Analyzed: 05/09/2009
GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.0
CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		UNKNOWN 4.07	1.65	150	J
02		UNKNOWN 4.07	1.75	130	J
03		UNKNOWN 4.07	2.02	6200	J
04		UNKNOWN 4.07	2.19	120	J
05		UNKNOWN 4.07	2.49	120	J
06		UNKNOWN 10.82	11.81	120	J
07	000057-10-3	n-Hexadecanoic acid	11.94	140	JN
08	000084-65-1	9,10-Anthracenedione	12.15	140	JN
09		UNKNOWN 15.02	14.34	120	J
10		UNKNOWN 17.12	16.75	380	J
11	000638-66-4	Octadecanal	17.66	170	JN
12		UNKNOWN 17.12	17.95	560	J
13	1000210-38-4	17-(1,5-Dimethylhexyl)-10,1.	18.15	480	JN
14		UNKNOWN 17.12	18.34	290	J
15		UNKNOWN 17.12	18.78	180	J
16	000083-46-5	.beta.-Sitosterol	18.98	1700	JN
17		UNKNOWN 17.12	19.18	1100	J
18	001617-70-5	Lup-20(29)-en-3-one	19.23	650	JN
19	000638-95-9	.alpha.-Amyrin	19.36	870	JN
20	001058-61-3	Stigmast-4-en-3-one	19.52	2400	JN
21		UNKNOWN 17.12	19.68	190	J
22		UNKNOWN 17.12	19.89	520	J
23		UNKNOWN 17.12	20.20	210	J
24		UNKNOWN 17.12	20.78	660	J
25		UNKNOWN 17.12	21.50	350	J
26					
27					
28					
29					
30					
	E966796 ²	Total Alkanes	N/A	6900	

²EPA-designated Registry Number.

000000690

SOM01.2 (8/2007)

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0688

Lab Name: A4 SCIENTIFIC, INC. Contract: EPW05036
Lab Code: A4 Case No.: 38495 Mod. Ref No.: SDG No.: C0675
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 0010244-14
Sample wt/vol: 30.8 (g/mL) g Lab File ID: D0692.D
Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC
% Moisture: 18.3 Decanted: (Y/N) N Date Received: 05/01/2009
Concentrated Extract Volume: 500 (uL) Date Extracted: 05/01/2009
Injection Volume: 1.0 (uL) GPC Factor: 2.0 Date Analyzed: 05/08/2009
GPC Cleanup: (Y/N) Y pH: 6.9 Dilution Factor: 1.0
CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		UNKNOWN 4.10	1.77	89	J
02		UNKNOWN 4.10	2.04	4000	J
03		UNKNOWN 4.10	2.21	99	J
04		UNKNOWN 4.10	2.30	4100	J
05		UNKNOWN 17.14	16.77	210	J
06	000083-46-5	.beta.-Sitosterol	19.01	210	JN
07		UNKNOWN 17.14	19.25	120	J
08		UNKNOWN 17.14	19.54	360	J
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796 ²	Total Alkanes	N/A	300	

²EPA-designated Registry Number.

000000743
SOM01.2 (8/2007)

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0689

Lab Name: A4 SCIENTIFIC, INC. Contract: EPW05036

Lab Code: A4 Case No.: 38495 Mod. Ref No.: SDG No.: C0675

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 0010244-15

Sample wt/vol: 30.9 (g/mL) g Lab File ID: D0724.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 15.1 Decanted: (Y/N) N Date Received: 05/01/2009

Concentrated Extract Volume: 500 (uL) Date Extracted: 05/01/2009

Injection Volume: 1.0 (uL) GPC Factor: 2.0 Date Analyzed: 05/09/2009

GPC Cleanup: (Y/N) Y pH: 6.4 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		UNKNOWN 4.08	1.70	99	J
02		UNKNOWN 4.08	1.75	470	J
03	001576-87-0	2-Pentenal, (E)-	1.96	100	JN
04		UNKNOWN 4.08	2.03	7200	J
05		UNKNOWN 4.08	2.19	110	J
06		UNKNOWN 4.08	2.29	7200	J
07		UNKNOWN 4.08	2.48	260	J
08		UNKNOWN 4.08	3.56	78	J
09		UNKNOWN 4.08	3.63	130	J
10		UNKNOWN 8.53	7.56	87	J
11	000779-02-2	Anthracene, 9-methyl-	11.64	77	JN
12	000949-41-7	1H-Cyclopropa[1]phenanthren.	11.69	99	JN
13		UNKNOWN 10.82	11.81	170	J
14	000057-10-3	n-Hexadecanoic acid	11.94	140	JN
15	000084-65-1	9,10-Anthracenedione	12.15	220	JN
16	000238-84-6	11H-Benzo[a]fluorene	13.65	130	JN
17	000479-79-8	11H-Benzo[a]fluoren-11-one	14.46	81	JN
18	003351-32-4	Chrysene, 2-methyl-	15.66	100	JN
19	000205-82-3	Benzo[j]fluoranthene	16.75	430	JN
20		UNKNOWN 17.12	18.98	340	J
21	001058-61-3	Stigmast-4-en-3-one	19.52	480	JN
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796 ²	Total Alkanes	N/A	880	

²EPA-designated Registry Number.

000000779
SOM01.2 (8/2007)

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0690

Lab Name: A4 SCIENTIFIC, INC.

Contract: EPW05036

Lab Code: A4 Case No.: 38495

Mod. Ref No.: SDG No.: C0675

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: 0010244-16

Sample wt/vol: 30.8 (g/mL) g

Lab File ID: D0698.D

Level: (TRACE or LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 22.0 Decanted: (Y/N) N

Date Received: 05/01/2009

Concentrated Extract Volume: 500 (uL)

Date Extracted: 05/01/2009

Injection Volume: 1.0 (uL) GPC Factor: 2.0

Date Analyzed: 05/08/2009

GPC Cleanup: (Y/N) Y pH: 6.6

Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		UNKNOWN 4.10	2.04	2200	J
02		UNKNOWN 4.10	2.21	95	J
03		UNKNOWN 4.10	2.30	2200	J
04		UNKNOWN 4.10	4.02	110	J
05	002381-21-7	Pyrene, 1-methyl-	13.68	84	JN
06		UNKNOWN 17.15	17.39	180	J
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796 ²	Total Alkanes	N/A		

²EPA-designated Registry Number.

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0691

Lab Name: A4 SCIENTIFIC, INC. Contract: EPW05036
Lab Code: A4 Case No.: 38495 Mod. Ref No.: SDG No.: C0675
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 0010244-17
Sample wt/vol: 30.8 (g/mL) g Lab File ID: D0725.D
Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC
% Moisture: 22.5 Decanted: (Y/N) N Date Received: 05/01/2009
Concentrated Extract Volume: 500 (uL) Date Extracted: 05/01/2009
Injection Volume: 1.0 (uL) GPC Factor: 2.0 Date Analyzed: 05/09/2009
GPC Cleanup: (Y/N) Y pH: 6.3 Dilution Factor: 1.0
CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		UNKNOWN 4.08	1.75	470	J
02		UNKNOWN 4.08	1.88	110	J
03		UNKNOWN 4.08	1.96	130	J
04		UNKNOWN 4.08	2.03	6200	J
05		UNKNOWN 4.08	2.29	6300	J
06		UNKNOWN 4.08	2.48	240	J
07		UNKNOWN 4.08	3.63	160	J
08		UNKNOWN 8.53	7.56	130	J
09	000613-12-7	Anthracene, 2-methyl-	11.69	110	JN
10	000203-64-5	4H-Cyclopenta[def]phenanthrene	11.81	220	JN
11		UNKNOWN 10.83	12.15	210	J
12	033543-31-6	Fluoranthene, 2-methyl-	13.65	140	JN
13	000479-79-8	11H-Benzo[a]fluoren-11-one	14.47	92	JN
14	000243-46-9	Benzo[b]naphtho[2,3-d]thiop.	14.61	100	JN
15		UNKNOWN 15.02	14.68	110	J
16	002498-77-3	Benz[a]anthracene, 1-methyl-	15.66	110	JN
17	001090-13-7	5,12-Naphthacenedione	16.15	99	JN
18	000198-55-0	Perylene	16.76	450	JN
19		UNKNOWN 17.12	18.34	280	J
20	000053-70-3	Dibenz[a,h]anthracene	18.59	260	JN
21	000083-46-5	.beta.-Sitosterol	18.98	1100	JN
22	001617-70-5	Lup-20(29)-en-3-one	19.23	570	JN
23	000464-97-1	Urs-12-ene	19.37	890	JN
24	001058-61-3	Stigmast-4-en-3-one	19.52	670	JN
25		UNKNOWN 17.12	19.80	340	J
26	000559-74-0	Friedelan-3-one	19.90	1400	JN
27					
28					
29					
30					
	E966796 ²	Total Alkanes	N/A	640	

²EPA-designated Registry Number.

0000000861
SOM01.2 (8/2007)

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0692

Lab Name: A4 SCIENTIFIC, INC. Contract: EPW05036

Lab Code: A4 Case No.: 38495 Mod. Ref No.: SDG No.: C0675

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 0010244-18

Sample wt/vol: 30.0 (g/mL) g Lab File ID: D0735.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 17.3 Decanted: (Y/N) N Date Received: 05/01/2009

Concentrated Extract Volume: 500 (uL) Date Extracted: 05/01/2009

Injection Volume: 1.0 (uL) GPC Factor: 2.0 Date Analyzed: 05/09/2009

GPC Cleanup: (Y/N) Y pH: 6.3 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		UNKNOWN 4.06	1.74	260	J
02		UNKNOWN 4.06	2.01	6800	J
03		UNKNOWN 4.06	2.27	6900	J
04	000613-12-7	Anthracene, 2-methyl-	11.66	140	JN
05		UNKNOWN 10.80	11.79	260	J
06	000057-10-3	n-Hexadecanoic acid	11.92	180	JN
07	000084-65-1	9,10-Anthracenedione	12.13	330	JN
08	003674-65-5	Phenanthrene, 2,3-dimethyl-	12.53	120	JN
09		UNKNOWN 10.80	12.57	120	J
10	005737-13-3	Cyclopenta(def)phenanthrenon	12.62	120	JN
11	000243-17-4	11H-Benzo[b]fluorene	13.63	160	JN
12	001705-85-7	Chrysene, 6-methyl-	15.65	120	JN
13	001090-13-7	5,12-Naphthacenedione	16.13	110	JN
14	000192-97-2	Benzo[e]pyrene	16.74	480	JN
15		UNKNOWN 17.10	16.89	140	J
16	1000294-14-8	Benzoxazole, 2-[2-(4-piperi.	18.13	130	JN
17	014113-80-5	Cyclodecacyclododecene, 1,2.	18.32	290	JN
18		UNKNOWN 17.10	18.58	140	J
19	000083-46-5	.beta.-Sitosterol	18.96	1200	JN
20		UNKNOWN 17.10	19.17	130	J
21		UNKNOWN 17.10	19.21	630	J
22		UNKNOWN 17.10	19.32	1100	J
23		UNKNOWN 17.10	19.44	140	J
24	001058-61-3	Stigmast-4-en-3-one	19.50	740	JN
25		UNKNOWN 17.10	19.79	130	J
26		UNKNOWN 17.10	19.88	940	J
27	000192-65-4	1,2:4,5-Dibenzopyrene (02)	20.26	210	JN
28					
29					
30					
	E966796 ²	Total Alkanes	N/A	630	

²EPA-designated Registry Number.

000000918

SOM01.2 (8/2007)

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0694

Lab Name: A4 SCIENTIFIC, INC. Contract: EPW05036
Lab Code: A4 Case No.: 38495 Mod. Ref No.: SDG No.: C0675
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 0010244-19
Sample wt/vol: 30.0 (g/mL) g Lab File ID: D0727.D
Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC
% Moisture: 26.1 Decanted: (Y/N) N Date Received: 05/01/2009
Concentrated Extract Volume: 500 (uL) Date Extracted: 05/01/2009
Injection Volume: 1.0 (uL) GPC Factor: 2.0 Date Analyzed: 05/09/2009
GPC Cleanup: (Y/N) Y pH: 6.5 Dilution Factor: 1.0
CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		UNKNOWN 4.08	2.02	3000	J
02	002531-84-2	Phenanthrene, 2-methyl- (01) unknown	11.64	180	JN
03	002531-84-2	Phenanthrene, 2-methyl- (02) unknown	11.69	230	JN
04	000203-64-5	4H-Cyclopenta[def]phenanthrene	11.81	430	JN
05	000057-10-3	n-Hexadecanoic acid	11.94	280	JN
06	000084-65-1	9,10-Anthracenedione	12.15	540	JN
07		UNKNOWN 10.83	12.90	170	J
08	000243-17-4	11H-Benzo[b]fluorene	13.65	210	JN
09		UNKNOWN 17.12	16.55	160	J
10	000205-99-2	Benz[e]acephenanthrylene	16.75	1200	JN
11		UNKNOWN 17.12	16.91	270	J
12		UNKNOWN 17.12	17.22	220	J
13		UNKNOWN 17.12	17.36	300	J
14		UNKNOWN 17.12	17.46	230	J
15		UNKNOWN 17.12	17.51	330	J
16	000638-66-4	Octadecanal	17.66	240	JN
17		UNKNOWN 17.12	18.15	170	J
18		UNKNOWN 17.12	18.21	220	J
19		UNKNOWN 17.12	18.34	660	J
20		UNKNOWN 17.12	18.60	330	J
21	000213-46-7	1,2:7,8-Dibenzophenanthrene	18.63	220	JN
22	000083-47-6	.gamma.-Sitosterol	18.98	1400	JN
23		UNKNOWN 17.12	19.19	270	J
24		UNKNOWN 17.12	19.52	950	J
25	000559-74-0	Friedelan-3-one	19.90	3300	JN
26		UNKNOWN 17.12	20.40	750	J
27					
28					
29					
30					
	E966796 ²	Total Alkanes	N/A	7300	

²EPA-designated Registry Number.

Su 05/18/09.

000000975

SOM01.2 (8/2007)

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0695

Lab Name: A4 SCIENTIFIC, INC. Contract: EPW05036

Lab Code: A4 Case No.: 38495 Mod. Ref No.: SDG No.: C0675

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 0010244-20

Sample wt/vol: 30.0 (g/mL) g Lab File ID: D0728.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 21.5 Decanted: (Y/N) N Date Received: 05/01/2009

Concentrated Extract Volume: 500 (uL) Date Extracted: 05/01/2009

Injection Volume: 1.0 (uL) GPC Factor: 2.0 Date Analyzed: 05/09/2009

GPC Cleanup: (Y/N) Y pH: 6.4 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		UNKNOWN 4.08	1.75	180	J
02		UNKNOWN 4.08	2.03	2600	J
03		UNKNOWN 4.08	2.20	130	J
04		UNKNOWN 4.08	2.29	2400	J
05		UNKNOWN 4.08	2.49	120	J
06		UNKNOWN 8.53	8.69	330	J
07		UNKNOWN 10.83	11.81	160	J
08	000057-10-3	n-Hexadecanoic acid	11.94	140	JN
09	000084-65-1	9,10-Anthracenedione	12.15	220	JN
10	033543-31-6	Fluoranthene, 2-methyl-	13.65	150	JN
11	002422-79-9	Benz[a]anthracene, 12-methyl	15.66	110	JN
12	014811-95-1	1,19-Eicosadiene	16.75	820	JN
13		UNKNOWN 17.12	17.22	160	J
14	000638-66-4	Octadecanal	17.66	180	JN
15		UNKNOWN 17.12	18.14	200	J
16		UNKNOWN 17.12	18.34	220	J
17	000474-62-4	Campesterol	18.60	660	JN
18		UNKNOWN 17.12	18.79	2500	J
19		UNKNOWN 17.12	18.93	1200	J
20	000083-47-6	.gamma.-Sitosterol	18.97	810	JN
21		UNKNOWN 17.12	19.14	340	J
22		UNKNOWN 17.12	19.19	350	J
23	023455-44-9	Spinasterone	19.28	430	JN
24		UNKNOWN 17.12	19.32	300	J
25	001058-61-3	Stigmast-4-en-3-one	19.52	1000	JN
26	000192-65-4	1,2:4,5-Dibenzopyrene	19.90	620	JN
27					
28					
29					
30					
	E966796 ²	Total Alkanes	N/A	830	

²EPA-designated Registry Number.

000001033