CONTRACT COMPLIANCE SCREENING FORM FOR HARDCOPY DATA

AMEC Earth & Environmental
355 South Teller Street
Suite 300
Lakewood, CO 80226

Laboratory Calscience Environmental Laboratories, Inc.
Reviewer K. Shadowlight
Analysis/Method PAHs by Method 8270/SIM

Package ID T713PA1
Task Order 313150010
SDG No. IOJ0411
No. of Analyses 5

Date: December 8, 2005

Reviewer's Signature K Shadowlight

ACTION ITEMS[a]	
Case Narrative Deficiencies	
2. **Out of Scope Analyses**	
3. **Analyses Not Conducted**	
4. **Missing Hardcopy Deliverables**	
5. **Incorrect Hardcopy Deliverables**	
6. **Deviations from Analysis Protocol, e.g.,**	Qualifications were assigned for continuing calibration outliers
Holding Times	
GC/MS Tune/Inst. Performance	
Calibration	
Method blanks	
Surrogates	
Matrix Spike/Dup LCS	
Field QC	
Internal Standard Performance	
Compound Identification	
Quantitation	
System Performance	

COMMENTS[b]

[a] Subcontracted analytical laboratory is not meeting contract and/or method requirements.
[b] Differences in protocol have been adopted by the laboratory but no action against the laboratory is required.

DATA VALIDATION REPORT

Topanga Fire Sampling

ANALYSIS: SEMIVOLATILES (PAHs)

SAMPLE DELIVERY GROUP: IOJ0411

Prepared by

AMEC Denver Operations
355 South Teller Street, Suite 300
Lakewood, Colorado 80226

1. INTRODUCTION

Task Order Title:	Topanga Fire Sampling
Contract Task Order #:	313150010
SDG#:	IOJ0411
Project Manager:	P. Costa
Matrix:	Soil/Solid
Analysis:	Semivolatiles (PAHs)
QC Level:	Level IV
No. of Samples:	5
No. of Reanalyses/Dilutions:	0
Reviewer:	K. Shadowlight
Date of Review:	December 8, 2005

The samples listed in Table 1 were validated based on the guidelines outlined in the *AMEC Data Validation Procedure for Levels C and D Semivolatile Organics (DVP-3, Rev. 2), SW-846 Method 8270C* , and the *National Functional Guidelines For Organic Data Review* (2/94). Any deviations from these procedures are documented herein. Qualifiers were applied in cases where the data did not meet the required QC criteria or where special consideration by the data user is required. Data qualifiers were placed on Form Is with the associated qualification codes. Analytes that were rejected for any reason are denoted on the Form I as having only the "R" data qualifier and associated qualification code(s) denoting the reason for rejection. Any additional problems with the data that may have resulted in an estimated value were not denoted by a qualification code since the data had already been rejected.

Table 1. Sample identification

Client ID	EPA ID	Del Mar Lab No.	Matrix	Method
Upstream 001-Ash	WL001	IOJ0411-01	solid	8270C/SIM
Upstream 001-Soil	WL002	IOJ0411-02	soil	8270C/SIM
Upstream 002	WL004	IOJ0411-04	solid	8270C/SIM
Upstream 002	WL005	IOJ0411-05	soil	8270C/SIM
RP-1	WL006	IOJ0411-06	soil	8270C/SIM

2. DATA VALIDATION FINDINGS

2.1 SAMPLE MANAGEMENT

The polyaromatic hydrocarbon analysis by 8270/SIM was subcontracted to Calscience Environmental Laboratories, Inc. The samples were received at both laboratories within the temperature limits of 4°C ±2°C, intact, and in good condition. The analysis did not require preservation, and no preservation was noted in the field. No qualifications were required.

2.1.2 Chain of Custody

The COC and transfer COC were signed and dated by the appropriate field and laboratory personnel. The COC and transfer COC accounted for the samples and analysis presented in this SDG. Custody seals were not present on the coolers or samples at either laboratory; however, as the samples were couriered directly to the laboratory, custody seals were not required. No qualifications were required.

2.1.3 Holding Times

The soil/solid samples were extracted within 14 days of collection and analyzed within 40 days of collection. No qualifications were required.

2.2 GC/MS TUNING

Tune criteria is not required for Single Ion Monitoring (SIM) analysis. No qualifications were required.

2.3 CALIBRATION

There was one initial calibration associated with this SDG dated 03/09/05. The average RRFs were ≥0.05 and the %RSDs were ≤15% in the initial calibration. An ICV was analyzed immediately following the initial calibration and the RRFs were ≥0.05 and %Ds were ≤20% for all target compounds. There were two continuing calibrations associated with the samples in this SDG dated 10/10/05 and 10/11/05. All RRFs were ≥0.05. The %Ds for indeno(1,2,3-cd)pyrene and dibenz(a,h)anthracene exceeded 20% in the continuing calibration dated 10/10/05. Nondetect results for indeno(1,2,3-cd)pyrene and dibenz(a,h)anthracene were qualified as estimated, "UJ," in samples WL001, WL002, and WL004. The %D for pyrene exceeded 20% in the continuing calibration analyzed 10/11/05; therefore, the results for pyrene were qualified as estimated "J," for detects and "UJ," for nondetects in samples WL005 and WL006. The %Ds for the remaining target compounds were ≤20% in both calibrations.

A representative number of average RRFs and %RSDs in the initial calibration and RRFs and %Ds in the continuing calibrations were checked from the raw data, and no calculation or transcription errors were noted. No further qualifications were required.

2.4 BLANKS

One method blank (051007L09-MB) was extracted and analyzed with this SDG. There were no target compounds detected in the method blank. Review of the raw data indicated no false negatives. No qualifications were required.

2.5 BLANK SPIKES AND LABORATORY CONTROL SAMPLES

One laboratory control sample/laboratory control sample duplicate pair (051007L09-LCS/LCSD) was extracted and analyzed with this SDG. The recoveries and RPDs for spiked target compounds acenaphthene and pyrene were within the laboratory QC limits. A representative number of recoveries and RPDs were calculated from the raw data and no calculation or transcription errors were found. No qualifications were required.

2.6 SURROGATE RECOVERY

The base-neutral surrogate recoveries were within the laboratory QC limits for all samples in this SDG. A representative number of recoveries were calculated from the raw data, and no transcription or calculation errors were noted. No qualifications were required.

2.7 MATRIX SPIKE/MATRIX SPIKE DUPLICATE

MS/MSD analyses were not performed for this SDG. Evaluation of method accuracy and precision was based on blank spike/blank spike duplicate results. No qualifications were required.

2.8 FIELD QC SAMPLES

Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

2.8.1 Field Blanks and Equipment Rinsates

There were no field QC samples identified for this SDG. No qualifications were required.

2.8.2 Field Duplicates

There were no field duplicate samples identified for this SDG.

2.9 INTERNAL STANDARDS PERFORMANCE

The internal standard area counts and retention times were within the control limits established by the continuing calibration standards: -50%/+100% for internal standard areas and ±30 seconds for retention times. A representative number of recoveries were checked from the raw data, and no transcription or calculation errors were noted. No qualifications were required.

2.10 COMPOUND IDENTIFICATION

The laboratory analyzed for 18 polyaromatic hydrocarbons target compounds by SW-846 Method 8270/SIM. Review of the sample chromatograms and retention times indicated no problems with target compound identification. No qualifications were required.

2.11 COMPOUND QUANTIFICATION AND REPORTED DETECTION LIMITS

Compound quantification is verified at a Level IV data validation. No calculation or transcription errors were found. Sample WL005 was analyzed at a 5× dilution only. The results and reporting limits were appropriately adjusted for sample amount, percent moisture, and dilution when applicable. The reporting limits were supported by the low point of the initial calibration and the laboratory MDL. Any detects between the MDL and the reporting limit were qualified as estimated, "J," by the laboratory. The results were reported in ppm (mg/kg). No further qualifications were required.

2.12 TENTATIVELY IDENTIFIED COMPOUNDS

TICs are not reported for SIM analysis. No qualifications were required.

2.13 SYSTEM PERFORMANCE

Review of the raw data indicated no problems with system performance. No qualifications were required.

Calscience Environmental Laboratories, Inc.

Analytical Report

Del Mar Analytical
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5845

Date Received: 10/07/05
Work Order No: 05-10-0445
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: IOJ0411

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
IOJ0411-01 W L001	05-10-0445-1	10/06/05	Solid	10/08/05	10/10/05	051007L09

Comment(s): -Results are reported on a dry weight basis. Raw Qual | Qual code
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual	Raw Qual	Qual code
Naphthalene	0.27	0.02	0.0037	1		Benzo (a) Anthracene	0.017	0.02	0.0026	1	J	J	DNQ
2-Methylnaphthalene	0.037	0.02	0.0024	1		Chrysene	0.088	0.02	0.0047	1			
Acenaphthylene	ND	0.020	0.0024	1	U	Benzo (k) Fluoranthene	ND	0.020	0.0045	1	U		
Acenaphthene	ND	0.020	0.0050	1		Benzo (b) Fluoranthene	0.014	0.02	0.0014	1	J	J	DNQ
Fluorene	ND	0.020	0.0031	1		Benzo (a) Pyrene	0.013	0.02	0.0020	1	J	J	DNQ
Phenanthrene	0.24	0.02	0.0038	1		Benzo (g,h,i) Perylene	ND	0.020	0.0033	1	U		
Anthracene	0.014	0.02	0.0082	1	J	Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0035	1	UJ	C	
Fluoranthene	0.076	0.02	0.0019	1		Dibenz (a,h) Anthracene	ND	0.020	0.0027	1	UJ	C	
Pyrene	0.040	0.02	0.0033	1		1-Methylnaphthalene	0.024	0.02	0.0043	1			

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Nitrobenzene-d5	110	28-139		2-Fluorobiphenyl	80	33-144	
p-Terphenyl-d14	136	23-160					

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
IOJ0411-02 W L002	05-10-0445-2	10/06/05	Solid	10/08/05	10/10/05	051007L09

Comment(s): -Results are reported on a dry weight basis. Raw Qual | Qual code
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual	Raw Qual	Qual code
Naphthalene	0.023	0.02	0.0037	1		Benzo (a) Anthracene	0.015	0.02	0.0026	1	J	J	DNQ
2-Methylnaphthalene	0.012	0.02	0.0024	1	J	Chrysene	0.021	0.02	0.0047	1			
Acenaphthylene	ND	0.020	0.0024	1	U	Benzo (k) Fluoranthene	ND	0.020	0.0045	1	U		
Acenaphthene	ND	0.020	0.0050	1		Benzo (b) Fluoranthene	0.0066	0.02	0.0014	1	J	J	DNQ
Fluorene	ND	0.020	0.0031	1		Benzo (a) Pyrene	ND	0.020	0.0020	1	U		
Phenanthrene	0.038	0.02	0.0038	1		Benzo (g,h,i) Perylene	ND	0.020	0.0033	1	U		
Anthracene	ND	0.020	0.0082	1	U	Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0035	1	UJ	C	
Fluoranthene	0.036	0.02	0.0019	1		Dibenz (a,h) Anthracene	ND	0.020	0.0027	1	UJ	C	
Pyrene	0.035	0.02	0.0033	1		1-Methylnaphthalene	0.0081	0.02	0.0043	1	J	J	DNQ

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Nitrobenzene-d5	99	28-139		2-Fluorobiphenyl	73	33-144	
p-Terphenyl-d14	123	23-160					

Level IV

KS 12/14/05

RL - Reporting Limit . DF - Dilution Factor . Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

Del Mar Analytical
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5845

Date Received:	10/07/05
Work Order No:	05-10-0445
Preparation:	EPA 3545
Method:	EPA 8270C SIM PAHs
Units:	mg/kg

Project: IOJ0411

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
IOJ0411-04 W1004	05-10-0445-3	10/06/05	Solid	10/08/05	10/10/05	051007L09

Comment(s): -Results are reported on a dry weight basis. Raw Qual | Qual code
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Naphthalene	0.057	0.02	0.0038	1.02		Benzo (a) Anthracene	ND	0.020	0.0027	1.02	U
2-Methylnaphthalene	0.024	0.02	0.0024	1.02		Chrysene	ND	0.020	0.0048	1.02	
Acenaphthylene	0.013	0.02	0.0025	1.02	J	Benzo (k) Fluoranthene	ND	0.020	0.0046	1.02	
Acenaphthene	ND	0.020	0.0051	1.02	U	Benzo (b) Fluoranthene	ND	0.020	0.0014	1.02	
Fluorene	0.013	0.02	0.0031	1.02	J	Benzo (a) Pyrene	ND	0.020	0.0020	1.02	
Phenanthrene	0.041	0.02	0.0039	1.02		Benzo (g,h,i) Perylene	ND	0.020	0.0033	1.02	
Anthracene	ND	0.020	0.0063	1.02	U	Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0035	1.02	UJ C
Fluoranthene	0.014	0.02	0.0020	1.02	J	Dibenz (a,h) Anthracene	ND	0.020	0.0028	1.02	UJ C
Pyrene	0.014	0.02	0.0033	1.02	J	1-Methylnaphthalene	0.018	0.02	0.0044	1.02	J

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Nitrobenzene-d5	138	28-139		2-Fluorobiphenyl	86	33-144	
p-Terphenyl-d14	144	23-160					

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
IOJ0411-05 W1005	05-10-0445-4	10/06/05	Solid	10/08/05	10/11/05	051007L09

Comment(s): -Results are reported on a dry weight basis. Raw Qual | Qual code
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Naphthalene	2.3	0.1	0.019	5		Benzo (a) Anthracene	ND	0.10	0.013	5	U
2-Methylnaphthalene	0.13	0.1	0.012	5		Chrysene	ND	0.10	0.024	5	
Acenaphthylene	ND	0.10	0.012	5	U	Benzo (k) Fluoranthene	ND	0.10	0.023	5	
Acenaphthene	ND	0.10	0.025	5		Benzo (b) Fluoranthene	ND	0.10	0.0070	5	
Fluorene	ND	0.10	0.015	5		Benzo (a) Pyrene	ND	0.10	0.0099	5	
Phenanthrene	0.16	0.1	0.019	5		Benzo (g,h,i) Perylene	ND	0.10	0.016	5	
Anthracene	ND	0.10	0.031	5	U	Indeno (1,2,3-c,d) Pyrene	ND	0.10	0.017	5	
Fluoranthene	ND	0.10	0.0097	5	U	Dibenz (a,h) Anthracene	ND	0.10	0.013	5	
Pyrene	ND	0.10	0.016	5	UJ C	1-Methylnaphthalene	0.11	0.1	0.021	5	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Nitrobenzene-d5	122	28-139		2-Fluorobiphenyl	86	33-144	
p-Terphenyl-d14	122	23-160					

Level IV

12/8/05

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

Del Mar Analytical
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5845

Date Received:	10/07/05
Work Order No:	05-10-0445
Preparation:	EPA 3545
Method:	EPA 8270C SIM PAHs
Units:	mg/kg
	Page 3 of 3

Project: IOJ0411

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
IOJ0411-06	05-10-0445-5	10/06/05	Solid	10/08/05	10/11/05	051007L09

Comment(s): -Results are reported on a dry weight basis. Rev Qual | Qual code

-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag. Rev Qual | Qual code

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Naphthalene	0.041	0.02	0.0037	1.01		Benzo (a) Anthracene	ND	0.020	0.0026	1.01	U
2-Methylnaphthalene	0.018	0.02	0.0024	1.01	J	Chrysene	ND	0.020	0.0048	1.01	
Acenaphthylene	ND	0.020	0.0024	1.01	U	Benzo (k) Fluoranthene	ND	0.020	0.0045	1.01	
Acenaphthene	ND	0.020	0.0051	1.01		Benzo (b) Fluoranthene	ND	0.020	0.0014	1.01	
Fluorene	ND	0.020	0.0031	1.01		Benzo (a) Pyrene	ND	0.020	0.0020	1.01	
Phenanthrene	0.019	0.02	0.0038	1.01	J	Benzo (g,h,i) Perylene	ND	0.020	0.0033	1.01	
Anthracene	ND	0.020	0.0063	1.01	U	Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0035	1.01	
Fluoranthene	0.011	0.02	0.0020	1.01	J	Dibenz (a,h) Anthracene	ND	0.020	0.0027	1.01	
Pyrene	0.0085	0.02	0.0033	1.01	J	1-Methylnaphthalene	0.016	0.02	0.0043	1.01	J

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Nitrobenzene-d5	131	28-139		2-Fluorobiphenyl	73	33-144	
p-Terphenyl-d14	124	23-160					

Method Blank	099-08-010-59	N/A	Solid	10/07/05	10/08/05	051007L09

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag. Rev Qual | Qual code

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Naphthalene	ND	0.020	0.0037	1	*	Benzo (a) Anthracene	ND	0.020	0.0026	1	*
2-Methylnaphthalene	ND	0.020	0.0024	1		Chrysene	ND	0.020	0.0047	1	
Acenaphthylene	ND	0.020	0.0024	1		Benzo (k) Fluoranthene	ND	0.020	0.0045	1	
Acenaphthene	ND	0.020	0.0050	1		Benzo (b) Fluoranthene	ND	0.020	0.0014	1	
Fluorene	ND	0.020	0.0031	1		Benzo (a) Pyrene	ND	0.020	0.0020	1	
Phenanthrene	ND	0.020	0.0038	1		Benzo (g,h,i) Perylene	ND	0.020	0.0033	1	
Anthracene	ND	0.020	0.0062	1		Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0035	1	
Fluoranthene	ND	0.020	0.0019	1		Dibenz (a,h) Anthracene	ND	0.020	0.0027	1	
Pyrene	ND	0.020	0.0033	1		1-Methylnaphthalene	ND	0.020	0.0043	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Nitrobenzene-d5	87	28-139		2-Fluorobiphenyl	78	33-144	
p-Terphenyl-d14	131	23-160					

* not validated

Level IV
10/14/05

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers