

**CONTRACT COMPLIANCE SCREENING FORM FOR HARDCOPY DATA**

AMEC Earth & Environmental  
550 South Wadsworth Boulevard  
Suite 500  
Lakewood, CO 80226

Package ID T713WC1Task Order 313150010SDG No. IOJ1122No. of Analyses 5Laboratory Del Mar - IrvineDate: December 12, 2005Reviewer E. WesslingReviewer's Signature Analysis/Method General Minerals**ACTION ITEMS\***

1. 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.,

Holding Times

GC/MS Tune/Inst. Performance

Calibration

Method blanks

Surrogates

Matrix Spike/Dup I.C.S

Field QC

Internal Standard Performance

Compound Identification

Quantitation

System Performance

Qualifications were assigned for the following:

- no sample weights for surfactants

- estimated values between the MDL and RL

- Closing CCV outlier for cyanide ~~SAW~~

- H-T for MBAD

- ~~MBAD~~ for MBAD SAW

- closing CCV for cyanide

**COMMENTS<sup>b</sup>**

\* Subcontracted analytical laboratory is not meeting contract and/or method requirements.

<sup>b</sup> Differences in protocol have been adopted by the laboratory but no action against the laboratory is required.



# DATA VALIDATION REPORT

Topanga Fire

ANALYSIS: GENERAL MINERALS  
SAMPLE DELIVERY GROUP: IOJ1122

Prepared by

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

DATA VALIDATION REPORT

Project: Fire support  
SDG No.: IOJ1122  
Analysis: General Minerals

## 1. INTRODUCTION

Task Order Title: Fire Support  
Contract Task Order #: 313150010  
Sample Delivery Group #: IOJ1122  
Project Manager: P. Costa  
Matrix: Soil and Ash  
Analysis: General Minerals  
QC Level: Level IV  
No. of Samples: 5  
Reviewer: E. Wessling  
Date of Review: December 12, 2005

The sample listed in Table 1 was validated based on the guidelines outlined in the AMEC *Data Validation Procedures* SOP DVP-6, Rev. 2, USEPA *Methods for Chemical Analysis of Water and Wastes Method 300.0, 350.3, and 9014, Standard Methods for the Examination of Water and Wastewater Method SM5540-CMOD* and validation guidelines outlined in the USEPA *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (2/94)*. Any deviations from these procedures and guidelines 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 I 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.

DATA VALIDATION REPORT

Project: Fire support  
SDG No.: IOJ1122  
Analysis: General Minerals

**Table 1. Sample identification**

Client ID	EPA ID	Laboratory ID	Matrix	COC Method
BCSS09S01	WL024	IOJ1122-01	Ash	General Minerals
BCSS09S01	WL025	IOJ1122-02	Soil	General Minerals
BZSS05S01	WL026	IOJ1122-03	Soil	General Minerals
BZSS06S01	WL027	IOJ1122-04	Ash	General Minerals
BZSS05S01	WL028	IOJ1122-05	Soil	General Minerals

DATA VALIDATION REPORT

Project: Fire support  
SDG No.: IOJ1122  
Analysis: General Minerals

## 2. DATA VALIDATION FINDINGS

### 2.1 SAMPLE MANAGEMENT

Following are findings associated with sample management:

#### 2.1.1 Sample Preservation, Handling, and Transport

The samples in these SDGs were received at the laboratory within the temperature limits of  $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ . No preservation problems were noted by the laboratory. No qualifications were required.

#### 2.1.2 Chain of Custody

The COCs were signed and dated by field and laboratory personnel and accounted for the samples and all analyses presented in these SDGs. No sample qualifications were required.

#### 2.1.3 Holding Times

The holding times were assessed by comparing the dates of collection with the dates of analysis. The analytical holding times for all analyses except MBAS were met. MBAS results were qualified as estimated, "J," for detects and "UJ," for nondetects. No further qualifications were required.

### 2.2 CALIBRATION

For the applicable analyses, the initial calibration correlation coefficients were  $\geq 0.995$ . Initial and continuing calibration information was acceptable with recoveries within the control limits of 90-110% with the exception of the closing CCV for the cyanide analysis and the MBAS analysis which were above the control limits. Detects for these compounds were qualified as estimated, "J." No further qualifications were required.

### 2.3 BLANKS

Target compounds were not detected in the associated method blanks, (5J18066-BLK1, 5J19111-BLK1, 5J19117-BLK1, 5J20143-BLK1 and 5J26001-BLK1). Raw data was reviewed to verify the blank data. No qualifications were required.

### 2.4 BLANK SPIKES AND LABORATORY CONTROL SAMPLES

The laboratory control sample recoveries were within the laboratory-established control limits. Raw data was reviewed to verify the values reported for the LCS recoveries. No qualifications were required.

DATA VALIDATION REPORT

Project: Fire support  
SDG No.: IOJ1122  
Analysis: General Minerals

**2.5 SURROGATES RECOVERY**

Surrogate recovery is not applicable to the analyses presented in this SDG.

**2.6 LABORATORY DUPLICATES**

No MS/MSD or duplicate analyses were performed in association with this SDG; therefore, no assessment was made with respect to this criterion.

**2.7 MATRIX SPIKE/MATRIX SPIKE DUPLICATE**

No MS/MSD analyses were performed on samples in association with this SDG; therefore, no assessment was made with respect to this criterion. Method accuracy was based on LCS results. No qualifications were required.

**2.8 FURNACE ATOMIC ABSORPTION QC**

Furnace atomic absorption was not utilized for the analyses of this sample; therefore, furnace atomic absorption QC is not applicable.

**2.9 ICP SERIAL DILUTION**

ICP serial dilution is not applicable to the analyses presented in this data validation report.

**2.10 SAMPLE RESULT VERIFICATION**

A Level IV review was performed for the sample in this data package. Calculations were verified, and the sample results reported on the Form Is were verified against the raw data. Actual sample weights were not recorded for the MBAS analysis. All MBAS data were qualified as estimated, "J," for detects and "UJ," for nondetects. No transcription errors or calculation errors were noted. Results reported by the laboratory between the MDL and reporting limit were qualified as "J." Samples collected for the soil background evaluation program were qualified following the RFI program criteria. No further qualifications were required.

**2.11 FIELD QC SAMPLES**

Field QC samples are evaluated, and if necessary, qualified based only on laboratory blanks. Any remaining detects are used to evaluate the associated sample. The following are findings associated with field QC samples:

DATA VALIDATION REPORT

Project: Fire support  
SDG No.: IOJ1122  
Analysis: General Minerals

**2.11.1 Field Blanks and Equipment Rinsates**

The sample in this SDG had no associated field QC samples. No qualifications were required.

**2.11.2 Field Duplicates**

There were no field duplicate pairs associated with this SDG.



17461 Dorlan Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297  
1014 F. Conley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046  
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-8689  
9830 South 51st St., Suite B-120, Phoenix, AZ 05014 (602) 785-0043 FAX (800) 785-0857  
2520 L. Sunset Rd. #3, Las Vegas, NV 89170 (702) 798-3620 FAX (702) 798-3621

Sampled: 10/14/05  
Received: 10/14/05

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOJ1122-01 (WL024 - Solid)									
Reporting Units: %									
Percent Solids	EPA 160.3 MOD	SJ19111	0.10	0.10	97	1	10/19/05	10/19/05	
Sample ID: IOJ1122-02 (WL025 - Soil)									
Reporting Units: %									
Percent Solids	EPA 160.3 MOD	SJ19111	0.10	0.10	99	1	10/19/05	10/19/05	
Sample ID: IOJ1122-03 (WL026 - Soil)									
Reporting Units: %									
Percent Solids	EPA 160.3 MOD	SJ19111	0.10	0.10	99	1	10/19/05	10/19/05	
Sample ID: IOJ1122-04 (WL027 - Soil)									
Reporting Units: %									
Percent Solids	EPA 160.3 MOD	SJ19111	0.10	0.10	98	1	10/19/05	10/19/05	
Sample ID: IOJ1122-05 (WL028 - Solid)									
Reporting Units: %									
Percent Solids	EPA 160.3 MOD	SJ19111	0.10	0.10	99	1	10/19/05	10/19/05	
Sample ID: IOJ1122-01 (WL024 - Solid)									
Reporting Units: mg/kg dry									
Ammonia-NH3	EPA 350.3 MOD.	SJ20143	1.4	6.2	13	0.998	10/20/05	10/20/05	
Total Cyanide	EPA 9014	SJ19117	0.44	0.52	1.9	1	10/19/05	10/20/05	
Sulfate	EPA 300.0	SJ18066	93	100	6800	20	10/18/05	10/19/05	
Surfactants (MBAS)	SM5540-C MOD.	SJ26001	0.91	2.1	4.5	2	10/24/05	10/26/05	
Sample ID: IOJ1122-02 (WL025 - Soil)									
Reporting Units: mg/kg dry									
Ammonia-NH3	EPA 350.3 MOD.	SJ20143	1.4	6.0	27	0.998	10/20/05	10/20/05	
Total Cyanide	EPA 9014	SJ19117	0.43	0.50	1.5	0.995	10/19/05	10/20/05	
Sulfate	EPA 300.0	SJ18066	4.5	5.1	440	1	10/18/05	10/19/05	
Surfactants (MBAS)	SM5540-C MOD.	SJ26001	0.89	2.0	3.0	2	10/24/05	10/26/05	
Sample ID: IOJ1122-03 (WL026 - Soil)									
Reporting Units: mg/kg dry									
Ammonia-NH3	EPA 350.3 MOD.	SJ20143	1.4	6.0	16	0.996	10/20/05	10/20/05	
Total Cyanide	EPA 9014	SJ19117	0.43	0.50	ND	0.99	10/19/05	10/20/05	
Sulfate	EPA 300.0	SJ18066	9.1	10	340	2	10/18/05	10/19/05	
Surfactants (MBAS)	SM5540-C MOD.	SJ26001	2.2	5.0	ND	4.99	10/24/05	10/26/05	

*The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.*

10J1122 <Page 7 of 17>





17461 Darian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297  
 1014 L. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9684  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

MWH-San Diego  
 9444 Farnham Street, Suite 300  
 San Diego, CA 92123  
 Attention: Lisa J. Tucker

Project ID: Ash samples - RFI  
 Boeing SSFL  
 Report Number: IOJ1122

Sampled: 10/14/05  
 Received: 10/14/05

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOJ1122-04 (WL027 - Soil)									
Reporting Units: mg/kg dry									
Ammonia-NH3	EPA 350.3 MOD.	SJ20143	1.4	6.1	5.1	0.996	10/20/05	10/20/05	✓
Total Cyanide	EPA 9014	SJ19117	0.44	0.51	ND	1	10/19/05	10/20/05	✓
Sulfate	EPA 300.0	SJ18066	4.6	5.1	37	1	10/18/05	10/19/05	✓
Surfactants (MBAS)	SM5540-C MOD.	SJ26001	2.2	5.1	ND	5	10/24/05	10/26/05	✓
Sample ID: IOJ1122-05 (WL028 - Solid)									
Reporting Units: mg/kg dry									
Ammonia-NH3	EPA 350.3 MOD.	SJ20143	1.4	6.0	7.6	0.998	10/20/05	10/20/05	✓
Total Cyanide	EPA 9014	SJ19117	0.43	0.50	5.6	1	10/19/05	10/20/05	✓
Sulfate	EPA 300.0	SJ18066	4.5	50	4000	10	10/18/05	10/19/05	✓
Surfactants (MBAS)	SM5540-C MOD.	SJ26001	0.89	2.0	6.6	2	10/24/05	10/26/05	✓

Del Mar Analytical, Irvine  
 Michele Harper  
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

IOJ1122 <Page 8 of 17>