

SAF-RC-001 Industrial Hygiene Sampling FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 06I-0132-01 SAF-RC-001

Rad only Chem only Rad & Chem

Complete Partial

300 Area 303M Bldg

RECEIVED
MAR 09 2006
EDMC



Report Identification Number: 06I-0132-01
 Subcontract Number: 0000X-BO-G0058-B-Mod#4
 Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
 Laboratory Identification Number: DCHM
 SAF#: RC-001 / R303M0 J451
 Payroll#: 73513

Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
10 Jan 2006	J10WM9	06I00917	NMAM 7300M	G060D00V	MCE
10 Jan 2006	J10WN0	06I00918	NMAM 7300M	G060D00V	MCE
10 Jan 2006	J10RL0	06I00919	NMAM 7300M	G060D00V	MCE
10 Jan 2006	J10WM8	06I00920	NMAM 7300M	G060D00V	MCE

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Name: Lisa M. Reid
 Title: Chemist
 Date: January 16, 2006



Case Narrative Page

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General Set Information: There are 4 samples in set 06I-0132-01, 4 samples in set 06I-0133-02, 4 samples in set 06I-0134-01 and 9 samples in set 06I-0135-01 which were analyzed for beryllium, lead and cadmium on MCE filter. No problems were encountered with the receipt of these samples and no contact with the CTR was required.

Method Summary: Samples were transferred to 50 ml centrifuge tubes and digested in the presence of 10 mL of 1:1 (v/v) nitric acid. Samples were digested in a hot block set at 110°C for 40 minutes. Samples were then diluted to a 25 mL volume with ASTM Type II Water. Samples were shaken and delivered for ICP analysis.

Sample Preparation: All samples were prepared in accordance with DCL SOP "IH-AN-021" and NIOSH method NMAM 7300 modified for hot block digestion.

Holding Times: The holding times were met for both sample preparation and analysis.

Instrument Calibration: Instrument calibration was performed in accordance with NIOSH method NMAM 7300.

Initial and Continuing Calibration Verification Analysis: Beryllium, cadmium and lead recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of +/- 10%.

Initial and Continuing Calibration Blank Analysis: No beryllium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 0.01 ug/sample. No cadmium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 0.08 ug/sample. No lead results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 1. ug/sample.

Method Blank Analysis: No beryllium, cadmium or lead was found in the media blank sample above the Contract Required Detection Limit (CRDL).

Dilution(s): NA.

Laboratory Control Sample and Duplicate Analysis: Two Laboratory Control Samples (LCSs) and two Laboratory Control Sample Duplicates (LCSDs) were prepared and analyzed with the sample batch. The LCS result was within the control limit of +/- 20%. The Relative Percent Differences (RPD) between the LCS and the LCSD was within the control limit of 20%.

Replicate Analysis: Two samples were replicated with this analysis run. The RPD between the sample and the replicate was within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

Flagging Codes: None

Nonconformance/Corrective Action Report (NC/CAR): N/A

Sample Calculation: The final results are calculated by the following equation:

Final result for aqueous samples ($\mu\text{g}/\text{sample}$) = (A) x (B) x (C)

Where:

A = Analyte concentration from instrument determination ($\mu\text{g}/\text{L}$)

B = Concentration factor from sample preparation
= $\frac{\text{Final Volume of Digestate (L)}}{\text{Sample}}$

C = Dilution performed at time of analysis

Example Calculation: $(1 \mu\text{g}/\text{L}) \times (0.025 \text{ L}/\text{sample}) \times (1) = 0.025 \mu\text{g}/\text{sample}$

Miscellaneous Comments: None.



Report Page

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Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium $\mu\text{g}/\text{sample}$		Beryllium $\mu\text{g}/\text{m}^3$		Air Volume L	
J10WM9	06I00917	13 Jan 2006	<0.01	U	<0.030	U	330.	
J10WN0	06I00918	13 Jan 2006	<0.01	U	<0.058	U	173.	
J10RLO	06I00919	13 Jan 2006	<0.01	U	**		0.00	
J10WM8	06I00920	13 Jan 2006	0.011		**		0.00	
Limit of Detection (LOD)			0.01					
Required Detection Limit (RDL)								

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Lead $\mu\text{g}/\text{sample}$		Lead $\mu\text{g}/\text{m}^3$		Cadmium $\mu\text{g}/\text{sample}$	
J10WM9	06I00917	13 Jan 2006	<1.	U	<6.1	U	<0.08	U
J10WN0	06I00918	13 Jan 2006	<1.	U	<12.	U	<0.08	U
J10RLO	06I00919	13 Jan 2006	<1.	U	**		<0.08	U
J10WM8	06I00920	13 Jan 2006	<1.	U	**		<0.08	U
Limit of Detection (LOD)			1.		0.08			
Required Detection Limit (RDL)								

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Cadmium $\mu\text{g}/\text{m}^3$	
J10WM9	06I00917	13 Jan 2006	<0.21	U
J10WN0	06I00918	13 Jan 2006	<0.40	U
J10RLO	06I00919	13 Jan 2006	**	
J10WM8	06I00920	13 Jan 2006	**	
Limit of Detection (LOD)				
Required Detection Limit (RDL)				

U - Parameter not detected above LOD.
 J - Parameter between LOD and RDL.



QC Summary Page

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 Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
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 SAF: RC-001 / R303M0 J451
 Payroll#: 73513

Batch ID: G060D00V

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-240030-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
BL-240030-1	MB	Lead	µg/sample	ND	NA	NA	NA	NA
BL-240030-1	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
QC-240030-1	LCS	Beryllium	µg/sample	10.6	NA	10.0	106.	NA
QC-240030-1	LCS	Lead	µg/sample	105.	NA	100.	105.	NA
QC-240030-1	LCS	Cadmium	µg/sample	32.8	NA	30.0	109.	NA
QD-240030-1	LCSD	Beryllium	µg/sample	10.7	10.6	10.0	107.	1.01
QD-240030-1	LCSD	Lead	µg/sample	108.	105.	100.	108.	2.51
QD-240030-1	LCSD	Cadmium	µg/sample	33.1	32.8	30.0	110.	0.922

MB - Method Blank
 LCS - Laboratory Control Sample
 LCSD - Laboratory Control Sample Duplicate
 MS - Matrix Spike
 MSD - Matrix Spike Duplicate
 LD - Laboratory Duplicate

 NA - Not Applicable
 ND - Parameter not detected above LOD

$LCS, LCSD \text{ Percent Rec.} = (\text{Result} / \text{Target}) * 100.0$
 $MS, MSD \text{ Percent Rec.} = ((\text{Result} - \text{Parent}) / \text{Target}) * 100.0$

$LCS, LCSD \text{ Relative Percent Diff.} = ((|\text{LCS} - \text{LCSD}|) / ((\text{LCS} + \text{LCSD})/2.0)) * 100.$
 $MS, MSD \text{ Relative Percent Diff.} = ((|\text{MS} - \text{MSD}|) / ((\text{MS} + \text{MSD})/2.0)) * 100.$
 $LD \text{ Relative Percent Diff.} = ((|\text{Parent} - \text{LD}|) / ((\text{Parent} + \text{LD})/2.0)) * 100$

Enter on line below the first Sample Number from Page One:

J102M9

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
Received By/Sheet	Sign/Print Names / USE MILITARY TIME	DATE/TIME	DATE/TIME
Received By/Sheet	3746 Building		
Received By/Sheet	Yetta D. Jones	1-10-06 1630	1-10-06 1630
Received By/Sheet	3746 Building Room #16 locked cabinet		
Received By/Sheet	Colleen Maloney	01-10-06 1445	1-12-06 1445
Received By/Sheet	R2 Steffie R. Stoffel	1-12-06 1515	
Received By/Sheet	Feet Ex		1/13/06 1030
Received By/Sheet	Metals 3JW		
Received By/Sheet			
LABORATORY SECTION	Received By		DATE/TIME
	Julie Warratu		1/21/06 1030

REVIEWED BY: _____ DATE: _____
 PRINTSIGN NAME: _____
 Page ____ of ____

WCH-SH-202 (06/29/2005)



CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: Yetta D. Jones	Company Contact Denise A. Pitts and Henry W. Ruby	Telephone No. 531-1229	Project Coordinator Joan H. Kessner	Data Turnaround
Payroll #: 73513	Sampling Location 800 Area	SPECIAL INSTRUCTIONS All relevant COAs must be provided: R303MO J451		SAF No. RC-001
Type of Sample: Airborne & Wipes	303M Building	ANALYSIS METHOD (SPECIFIC): NIOSH 7300		Method of Shipment Fed Ex
Shipped To: Data Chem Salt Lake City	Wipe Sample Media: Ghost <input type="checkbox"/> Yes <input type="checkbox"/> No Other _____	Bill of Lading/Air Bill No. 8541 9337 5318		

POSSIBLE SAMPLE HAZARD/REMARKS Be, Cd, Pb	MATRIX A - AIR WI - WIPE X - OTHER	Preservation (i.e., cooling required, etc.)	No									
Special Handling and/or Storage NA												tdj

SAMPLE ANALYSIS					Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Cadmium Airborne	Cadmium Wipe	Lead Wipe	
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area ___ cm ²	Comments									
J10WM9	A	1-10-06	330L	personal	na	X	X	na	na	X			
J10WNO	A	1-10-06	173L	personal	na	X	X	na	na	X			tdj
J10RLO	A	1-10-06	NA	Blank	na	X	X	na	na	X		1-10-06	
J10WM8	A	1-10-06	NA	Blank	na	X	X	na	na	X			
J10RTO	WI	1-10-06	100cm ²	na				X			X	X	
J10WFO	WI	1-10-06	100cm ²	na		tdj		X		tdj	X	X	tdj
J10RM1	WI	1-10-06	NA 100cm²	Blank	1-10-06			X	1-10-06		X	X	1-10-06
J10RM2	WI	1-10-06	NA 100cm²	Blank				X			X	X	
				tdj									
				1-10-06									

COPY

FIELD SAMPLE COPY

Enter on line below the first Sample Number from Page One:

J10WM9

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

SIGN / PRINT NAMES / USE MILITARY TIME

Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
<i>[Signature]</i> Yetta D. Jones	1-10-06 1630	3746 Building 4-10-06 Rm 16, locked cabinet	1-10-06 1630
3746 Building Rm #16 locked cabinet <i>[Signature]</i> Golden Mathan	01-12-06 1445	RZ Steffler <i>[Signature]</i>	1-12-06 1445
<i>[Signature]</i> RZ Steffler <i>[Signature]</i> w/H	1-12-06 1515	Fed Ex	
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
LABORATORY SECTION	Received By	Title	DATE / TIME

REVIEWED BY:

DATE:

PRINT/SIGN NAME