

SAF-RC-001 Industrial Hygiene Sampling FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 06I-0213-01 SAF-RC-001

Rad only Chem only Rad & Chem

Complete Partial

300 Area 303M Bldg

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Cover Page

Report Identification Number: 06I-0213-01
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
19 Jan 2006	J10XK9	06I01760	NMAM 7300M	G060M00N	MCE
19 Jan 2006	J10XK7	06I01761	NMAM 7300M	G060M00N	MCE
19 Jan 2006	J10XK8	06I01762	NMAM 7300M	G060M00N	MCE

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Name: Lisa M. Reid
Title: Chemist
Date: January 23, 2006

Report Identification Number: 06I-0213-01
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Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
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General Set Information: There are 3 samples in set 06I-0213-01 and 5 samples in set 06I-0214-02 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 cadmium or lead was found in the media blank sample above the Limit of Quantitation (LOQ). Beryllium in the media blank was 0.011 ug/sample.

Dilution(s): NA.

Laboratory Control Sample and Duplicate Analysis: One Laboratory Control Sample (LCS) and one Laboratory Control Sample Duplicate (LCSD) 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: One sample was 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:

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

Where:

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

B = Concentration factor from sample preparation

= $\frac{\text{Final Volume of Digestate (L)}}{\text{Sample}}$

C = Dilution performed at time of analysis

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

Miscellaneous Comments: None.

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 Payroll#: 73513

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium $\mu\text{g}/\text{sample}$		Beryllium $\mu\text{g}/\text{m}^3$		Air Volume L
J10XK9	06I01760	20 Jan 2006	0.026		0.097		268.
J10XK7	06I01761	20 Jan 2006	<0.01	U	**		0.00
J10XK8	06I01762	20 Jan 2006	0.022		**		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 $\mu\text{g}/\text{sample}$	
J10XK9	06I01760	20 Jan 2006	<1.	U	<3.7	U	<0.08	U
J10XK7	06I01761	20 Jan 2006	<1.	U	**		<0.08	U
J10XK8	06I01762	20 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 $\mu\text{g}/\text{m}^3$	
J10XK9	06I01760	20 Jan 2006	<0.30	U
J10XK7	06I01761	20 Jan 2006	**	
J10XK8	06I01762	20 Jan 2006	**	
Limit of Detection (LOD)				
Required Detection Limit (RDL)				

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

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Batch ID: G060M00N

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-240256-1	MB	Beryllium	µg/sample	0.011	NA	NA	NA	NA
BL-240256-1	MB	Lead	µg/sample	ND	NA	NA	NA	NA
BL-240256-1	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
QC-240256-1	LCS	Beryllium	µg/sample	10.9	NA	10.0	109.	NA
QC-240256-1	LCS	Lead	µg/sample	109.	NA	100.	109.	NA
QC-240256-1	LCS	Cadmium	µg/sample	33.2	NA	30.0	111.	NA
QD-240256-1	LCSD	Beryllium	µg/sample	10.6	10.9	10.0	106.	2.87
QD-240256-1	LCSD	Lead	µg/sample	107.	109.	100.	107.	1.51
QD-240256-1	LCSD	Cadmium	µg/sample	32.9	33.2	10.0	329.	1.11

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 Percent Rec. = (Result / Target) * 100.0
 MS, MSD Percent Rec. = ((Result - Parent) / Target) * 100.0

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

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CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST														
Collector: Ketha D. Jones		Company Contact Denise A. Pitts and Henry W. Ruby			Telephone No. 531-1229		Project Coordinator Joan H. Kessner			Data Turnaround 24 Hour				
Payroll #: 73513		Sampling Location 300 Area 303N Building		SPECIAL INSTRUCTIONS All relevant COAs must be provided: R303MO J451			SAF No. RC-001							
Type of Sample: Air and Wipes		Wipe Sample Media: Ghost <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Other		ANALYSIS METHOD (SPECIFIC): NIOSH 7300			Method of Shipment FED EX		Bill of Lading/Air Bill No. 8541 9337 5340					
Shipped To: Data Chem Salt Lake City		POSSIBLE SAMPLE HAZARD/RLMARKS Pb, Cd, Be		MATRIX A - AIR WI - WIPE X - OTHER		Preservation (i.e., cooling required, etc.)		No	No	No	No	No	No	na
Special Handling and/or Storage Na														
SAMPLE ANALYSIS														
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area cm ²	Comments	Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Lead Wipe	Cd Wipe	Cd Airborne		
J10XK9	A	1-19-06	268L	NA	na	X	X	NET 01700				X	na	
J10XK7	A	1-19-06	NA	Blank	na	X	X	01 #j				X	na	
J10XK8	A	1-19-06	NA	Blank	na	X	X	149-06				X	na	
J10XL1	WI	1-19-06	NA	Blank	NET 01703			X	na	X	X			
J10XL2	WI	1-19-06	NA	Blank	01 #j			X	na	X	X		01 #j	
J10XL3	WI	1-19-06	100cm ²	na	1-19-06			X	na	X	X	1-19-06		
J10XL4	WI	1-19-06	100cm ²	na				X	na	X	X			
J10XL5	WI	1-19-06	100cm ²	na				X	na	X	X			
				01 #j										
				1-19-06										

WCH-SH-202 (08/29/2005)

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DataChem Laboratories, Inc.
960 West Levoy Drive
Salt Lake City, Utah 84123-2547

Phone: (801) 266-7700
FAX: (801) 268-9992
Web Page: www.datachem.com
E-mail: lab@datachem.com

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

JTOX19

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
SIGN / PRINT NAMES / USE MILITARY TIME			
Released By/Serial	DATE / TIME	Received By/Serial	DATE / TIME
<i>[Signature]</i> Yetta D. Jones Building 3746 Rm 116 locked cabinet	1-19-06 1215	3746 Building, Rm 116, locked cabinet	1-19-06 1215
Gabriel Malhan Goldis Malhan	01-19-06 1510	R2 Steffler R. J. Steffler	1-19-06 1510
R2 Steffler R. J. Steffler	1-19-06 1530	Fed Ex	
Fed Ex		Meredith Edwards	2/20/06
Mehdi me	2/20/06		
LABORATORY SECTION	Received By <i>Meredith Edwards</i>	Title	DATE / TIME <i>2/20/06</i>

REVIEWED BY: _____ DATE: _____
PRINT/SIGN NAME

DataChem Laboratories, Inc.
960 West Levoy Drive
Salt Lake City, Utah 84123-2547

Phone: (801) 266-7700
FAX: (801) 268-9992

Web Page: www.datachem.com
E-mail: lab@datachem.com



CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: <i>Yetta D. Jones</i>	Company Contact Denise A. Pitts and Henry W. Ruby	Telephone No. 531-1229	Project Coordinator Joan H. Kessner	Data Turnaround
Payroll #: <i>73513</i>	Sampling Location <i>300 Area</i> <i>303M Building</i>	SPECIAL INSTRUCTIONS All relevant COAs must be provided: <i>R303MO J451</i>		SAF No. RC-001
Type of Sample: <i>Air and Wipes</i>	Wipe Sample Media: Ghost <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Other _____	ANALYSIS METHOD (SPECIFIC): <i>NIOSH 7300</i>		Method of Shipment <i>FED EX</i>
Shipped To: <i>Data Chem</i> <i>Salt Lake City</i>	Bill of Lading/Air Bill No. <i>8541 9337 5340</i>			

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

SAMPLE ANALYSIS

SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area ____ cm ²	Comments	Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Lead Wipe	Cd Wipe	Cd Airborne	na
J10XK9	A	1-19-06	268 L	NA	na	X	X					X	na
J10XK7	A	1-19-06	NA	Blank	na	X	X					X	na
J10XK8	A	1-19-06	NA	Blank	na	X	X		1-19-06			X	na
J10XL1	WI	1-19-06	NA	Blank				X	na	X	X		
J10XL2	WI	1-19-06	NA	Blank				X	na	X	X		Ydj
J10XL3	WI	1-19-06	100cm ²	na	1-19-06			X	na	X	X	1-19-06	
J10XL4	WI	1-19-06	100cm ²	na				X	na	X	X		
J10XL5	WI	1-19-06	100cm ²	na				X	na	X	X		
				Ydj									
				1-19-06									

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FIELD SAMPLE COPY

