

SAF-RC-001 Industrial Hygiene Sampling FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 05I-5091-01 SAF-RC-001

Rad only Chem only Rad & Chem

Complete Partial

300 Area 3716 Bldg

RECEIVED
MAR 29 2006

EDMC

Report Identification Number: 05I-5091-01
 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 / R37120 J451
 Payroll#: 73513/72520



Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
12 Dec 2005	J10NC5	05I47279	NMAM 7300M	G05CG01H	MCE
12 Dec 2005	J10NC2	05I47280	NMAM 7300M	G05CG01H	MCE
12 Dec 2005	J10NN4	05I47281	NMAM 7300M	G05CG01H	MCE

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Name: Joanna C. Sanchez
 Title: Chemist
 Date: December 16, 2005

Report Identification Number: 05I-5091-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
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Laboratory Identification Number: DCHM
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General Set Information: There are 4 samples in set 05I-5073-01, 3 samples in set 05I-5091-01 and 3 samples in set 05I-5092-01 which were analyzed for beryllium cadmium and lead 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, lead and cadmium 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 0.06 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 0.5 ug/sample.

Method Blank Analysis: No beryllium, lead or cadmium 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 results were within the control limits. The Relative Percent Differences (RPD) between the LCSs and the LCSDs were 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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 Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
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 Payroll#: 73513/72520

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium $\mu\text{g}/\text{sample}$	Beryllium $\mu\text{g}/\text{m}^3$	Air Volume L
J10NC5	05I47279	15 Dec 2005	<0.01 U	**	**
J10NC2	05I47280	15 Dec 2005	<0.01 U	**	**
J10NN4	05I47281	15 Dec 2005	0.014	0.017	790.
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 $\mu\text{g}/\text{sample}$
J10NC5	05I47279	15 Dec 2005	<0.5 U	**	<0.06 U
J10NC2	05I47280	15 Dec 2005	<0.5 U	**	<0.06 U
J10NN4	05I47281	15 Dec 2005	8.2	10.	4.2
Limit of Detection (LOD)			0.5		0.06
Required Detection Limit (RDL)					

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Cadmium $\mu\text{g}/\text{m}^3$
J10NC5	05I47279	15 Dec 2005	**
J10NC2	05I47280	15 Dec 2005	**
J10NN4	05I47281	15 Dec 2005	5.3
Limit of Detection (LOD)			
Required Detection Limit (RDL)			

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



QC Summary Page

Report Identification Number: 05I-5091-01
 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 / R37120 J451
 Payroll#: 73513/72520

Batch ID: G05CG01H

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-239329-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
BL-239329-1	MB	Lead	µg/sample	ND	NA	NA	NA	NA
BL-239329-1	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
QC-239329-1	LCS	Beryllium	µg/sample	10.8	NA	10.0	108.	NA
QC-239329-1	LCS	Lead	µg/sample	108.	NA	100.	108.	NA
QC-239329-1	LCS	Cadmium	µg/sample	32.9	NA	30.0	110.	NA
QD-239329-1	LCSD	Beryllium	µg/sample	11.1	10.8	10.0	111.	3.16
QD-239329-1	LCSD	Lead	µg/sample	111.	108.	100.	111.	3.44
QD-239329-1	LCSD	Cadmium	µg/sample	33.9	32.9	30.0	113.	3.17

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

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

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

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

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

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

051-5091-d



CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: <i>Yetta D. Jones / CJ Williams</i>	Company Contact <i>Denise A. Pitts and Henry W. Roby</i>	Telephone No. 531-1229	Project Coordinator <i>Joan H. Kessner</i>	Data Turnaround <i>24 hrs</i>
Payroll #: <i>73513 / 172520</i>	Sampling Location <i>300 Area</i>	SPECIAL INSTRUCTIONS All relevant COAs must be provided: <i>R37120 J451</i>		SAF No. RC-001
Type of Sample: <i>Be, Cd, Pb personals</i>	<i>3716 Building</i>	ANALYSIS METHOD (SPECIFIC): <i>NIOSH 7300 (Be, Cd, Pb)</i>		Method of Shipment <i>Fed Ex</i>
Shipped To: <i>Data Chem Salt Lake City</i>	Wipe Sample Media: <i>NA</i> Ghost <input type="checkbox"/> Yes <input type="checkbox"/> No Other	Bill of Lading/Air Bill No. <i>8541 9337 5260</i>		

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

SAMPLE ANALYSIS					Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Cadmium Airborne
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area ___ cm ²	Comments						
<i>JIONC5</i>										
<i>JIONC3</i>	<i>A</i>	<i>12-12-05</i>	<i>na</i>	<i>Blank</i>	<i>na</i>	<i>x</i>	<i>x</i>	<i>na</i>	<i>na</i>	<i>x</i>
<i>JIONC2</i>										
<i>JIONN1</i>	<i>A</i>	<i>12-12-05</i>	<i>na</i>	<i>Blank</i>	<i>na</i>	<i>x</i>	<i>x</i>	<i>na</i>	<i>na</i>	<i>x</i>
<i>JIONN4</i>	<i>A</i>	<i>12-12-05</i>	<i>790</i>	<i>personals</i>	<i>na</i>	<i>x</i>	<i>x</i>	<i>na</i>	<i>na</i>	<i>x</i>
<i>(JW) 12-12-05</i>										

05147279
80
81
05150
12-12-05

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:

J10NC5

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
SIGN / PRINT NAMES / USE MILITARY TIME			
Released By/Secd.	DATE/TIME	Received By/Secd.	DATE/TIME
CJ Williams Cynthia Williams Room 116 / 3746 Bldg.	12-12-05 / 1100	3746 Bldg RM 116 locked cabinet	12-12-05 / 1100
Z. Gunn Whately	12/14/05 1440	RZ Steffler R. J. Steffler	12-14-05 1440
RZ Steffler R. J. Steffler WCH	12-14-05 1500	Fed Ex	
Fed Ex		Julie Williams	12/15/05 1000
Metals 3JW			
LABORATORY SECTION	Received By Julie Williams	Title	DATE/TIME 12/15/05 1000

REVIEWED BY: _____ DATE: _____
PRINT/SIGN NAME

Data Chem 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 / CJ Williams</i>	Company Contact <i>Denise A. Pitts and Henry W. Ruby</i>	Telephone No. <i>531-1229</i>	Project Coordinator <i>Joan H. Kessner</i>	Data Turnaround <i>24 hrs</i>
Payroll #: <i>73513 / 172520</i>	Sampling Location <i>300 Area</i>	SPECIAL INSTRUCTIONS All relevant COAs must be provided: <i>R37120 J451</i>		SAF No. RC-001
Type of Sample: <i>Personal</i>	<i>3716 Building</i>	ANALYSIS METHOD (SPECIFIC): <i>NIOSH 7300 (Be, Cd, Pb)</i>		Method of Shipment <i>Fed Ex</i>
Shipped To: <i>Data Chem</i>	Wipe Sample Media: <i>NA</i>	Bill of Lading/Air Bill No. <i>8541 9337 5260</i>		
	Ghost <input type="checkbox"/> Yes <input type="checkbox"/> No			
	Other _____			

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

SAMPLE ANALYSIS					Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Cadmium Airborne
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area <small>cm²</small>	Comments						
J10NC5	A	12-12-05	na	Blank	na	x	x	na	na	x
J10NC2	A	12-12-05	na	Blank	na	x	x	na	na	x
J10NN4	A	12-12-05	790	Personal	na	x	x	na	na	x
<i>(CJW) 12-12-05</i>					COPY					
					FIELD SAMPLE COPY					

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

J10NC5

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

SIGN / PRINT NAMES / USE MILITARY TIME

Relinquished By/Stored: <i>CJ Williams</i> <i>Cynthia Williams</i>	DATE / TIME <i>12-12-05 / 1600</i>	Received By/Stored: <i>3746 Bldg RM 16 locked cabinet</i>	DATE / TIME <i>12-12-05 / 1600</i>
Relinquished By/Stored: <i>Room 16 3746 Bldg.</i> <i>Z. Gwen Whately</i>	DATE / TIME <i>12/14/05 1440</i>	Received By/Stored: <i>RZ Steffler R.Z. Steffler</i>	DATE / TIME <i>12-14-05 1440</i>
Relinquished By/Stored: <i>RZ Steffler R.Z. Steffler w/lt</i>	DATE / TIME <i>12-14-05 1500</i>	Received By/Stored: <i>Fed Ex</i>	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: _____

PRINT/SIGN NAME

DATE: _____