

0069109

SAF-RC-001
Industrial Hygiene Sampling
FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 06I-0214-02 SAF-RC-001

Rad only Chem only Rad & Chem

X Complete Partial

300 Area 303M Bldg

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EDMC



Cover Page



Report Identification Number: 06I-0214-02
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

Table with 6 columns: Sample Date, Customer Sample Number, Laboratory Sample Number, Method, Analytical Batch Identification, Sample Matrix. Contains 5 rows of sample data.

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

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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:

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.



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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
J10XB8	06I01772	20 Jan 2006	0.015		**		0.00
J10XB9	06I01773	20 Jan 2006	0.012		**		0.00
J10X46	06I01774	20 Jan 2006	<0.01	U	<0.011	U	884.
J10WW3	06I01775	20 Jan 2006	<0.01	U	<0.11	U	92.
J10X99	06I01776	20 Jan 2006	<0.01	U	<0.12	U	83.
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 $\mu\text{g}/\text{sample}$	
J10XB8	06I01772	20 Jan 2006	<0.5	U	**		<0.06	U
J10XB9	06I01773	20 Jan 2006	<0.5	U	**		<0.06	U
J10X46	06I01774	20 Jan 2006	<0.5	U	<0.57	U	<0.06	U
J10WW3	06I01775	20 Jan 2006	<0.5	U	<5.4	U	<0.06	U
J10X99	06I01776	20 Jan 2006	<0.5	U	<6.0	U	<0.06	U
Limit of Detection (LOD)			0.5				0.06	
Required Detection Limit (RDL)								

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Cadmium $\mu\text{g}/\text{m}^3$	
J10XB8	06I01772	20 Jan 2006	**	
J10XB9	06I01773	20 Jan 2006	**	
J10X46	06I01774	20 Jan 2006	<0.068	U
J10WW3	06I01775	20 Jan 2006	<0.65	U
J10X99	06I01776	20 Jan 2006	<0.72	U
Limit of Detection (LOD)				
Required Detection Limit (RDL)				



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



QC Summary Page

Report Identification Number: 06I-0214-02
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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: 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

001-0214-01P

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST										
Collector: <u>Yehuda Jones</u>	Company Contact: <u>Denise A. Pitts and Henry W. Ruby</u>	Telephone No.: <u>511-1229</u>	Project Coordinator: <u>Jean H. Kessner</u>	Data Turnaround: <u>24 HOUR</u>						
Payroll #: <u>73513</u>	Sampling Location: <u>300 Area</u>	SPECIAL INSTRUCTIONS: <u>All relevant COAs must be provided: R303MO J451</u>	SAF No.: <u>RC-001</u>							
Type of Sample: <u>Wipes & Air</u>	Wipe Sample Media: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	ANALYSIS METHOD (SPECIFIC): <u>N106H T300</u>	Method of Shipment: <u>FED EX</u>							
Shipped To: <u>Data Chem Salt Lake City</u>	Other: <u>Blank</u>	Preservation (i.e. cooling required, etc.):	Bill of Lading/Air Bill No.: <u>8541 9337 5340</u>							
POSSIBLE SAMPLE HAZARD/MARKS: <u>Be Pb, Cd</u>	MATRIX: <input type="checkbox"/> AIR <input type="checkbox"/> WIPE <input type="checkbox"/> OTHER	Comments								
Special Handling and/or Storage: <u>NO</u>										
SAMPLE ANALYSIS										
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) / Area (sq ft)	Asbestos Airborne	Lead Airborne	Beryllium Airborne	Mold	Lead Wipe	Cd Wipe	Cd Airborne
J10x04	WI	1-18-06	na	NOT DPA	NOT DPA	NOT DPA	NOT DPA	X	X	na
J10x06	WI	1-18-06	na	NOT DPA	NOT DPA	NOT DPA	NOT DPA	X	X	na
J10x06	WI	1-18-06	100cm ²	NOT DPA	NOT DPA	NOT DPA	NOT DPA	X	X	1-18-06
J10x07	WI	1-18-06	100cm ²	NOT DPA	NOT DPA	NOT DPA	NOT DPA	X	X	
J10x88	A	1-18-06	na	na	X	X	NOT DPA	NOT DPA	X	na
J10x89	A	1-18-06	na	na	X	X	NOT DPA	NOT DPA	X	na
J10x46	A	1-18-06	884 L	na	X	X	1-18-06	7F	X	na
J10x03	A	1-18-06	91 L	na	X	X		7F	X	na
J10x99	A	1-18-06	83 L	na	X	X		7F	X	na

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

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

J10x04

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 Jones 1-18-06 1615	3746 Building Rm 16 locked cabinet	1-18-06 1615
Building 3746 Rm#16 locked cabinet			
Goldie Malhan	Goldie Malhan 01-19-06 / 1510	RZ Steffler R. J. Steffler	1-19-06 / 1510
RZ Steffler R. J. Steffler	1-19-06 1530	Fed Ex	
Fed Ex		Meredith Edwards	2/20/06 / 1600
Melba Mc	2/20/06 / 1600		
LABORATORY SECTION	Received By	Title	DATE / TIME
	<i>[Signature]</i>		2/20/06

REVIEWED BY: _____ DATE: _____
PRINT/SIGN NAME

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

J10X04

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
SIGN / PRINT NAMES / USE MILITARY TIME			
Relinquished By/Store:	DATE / TIME:	Received By/Store:	DATE / TIME:
<i>[Signature]</i> Yetta D. Jones	1-18-06 1615	3746 Building, Rm #16, locked cabinet	1-18-06 1615
Building 3746 Rm #16 locked cabinet			
Relinquished By/Store:	DATE / TIME:	Received By/Store:	DATE / TIME:
Goldie Malhan	01-19-06 / 1510	RZ Steffler R.J. Steffler	1-19-06 / 1510
Relinquished By/Store:	DATE / TIME:	Received By/Store:	DATE / TIME:
RZ Steffler R.J. Steffler	1-19-06 1530	Fed Ex	
Relinquished By/Store:	DATE / TIME:	Received By/Store:	DATE / TIME:
Relinquished By/Store:	DATE / TIME:	Received By/Store:	DATE / TIME:
Relinquished By/Store:	DATE / TIME:	Received By/Store:	DATE / TIME:
Relinquished By/Store:	DATE / TIME:	Received By/Store:	DATE / TIME:
Relinquished By/Store:	DATE / TIME:	Received By/Store:	DATE / TIME:
LABORATORY SECTION	Received By	Title	DATE / TIME

COPY

FIELD SAMPLE COPY

REVIEWED BY: _____

DATE: _____

PRINT/SIGN NAME