

SAF-RC-001 Industrial Hygiene Sampling FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 06I-0516-01 SAF-RC-001

Rad only Chem only Rad & Chem

X Complete Partial

300 Area 334 Pad

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Cover Page



Report Identification Number: 06I-0516-01
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 / R34400 J452
Payroll#: 8C278

Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
06 Feb 2006	J113F4	06I04305	NMAM 7300M	G0618003	MCE
06 Feb 2006	J113B1	06I04306	NMAM 7300M	G0618003	MCE
06 Feb 2006	J113L2	06I04307	NMAM 7300M	G0618003	MCE
06 Feb 2006	J113L1	06I04308	NMAM 7300M	G0618003	MCE
06 Feb 2006	J113R1	06I04309	NMAM 7300M	G0618003	MCE
06 Feb 2006	J113R2	06I04310	NMAM 7300M	G0618003	MCE

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Name: Lisa M. Reid
Title: Chemist
Date: February 13, 2006

Report Identification Number: 06I-0516-01
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Laboratory Identification Number: DCHM
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General Set Information: There are 6 samples in set 06I-0515-01 and 6 samples in set 05I-0516-01 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 0.02 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, 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: One Laboratory Control Sample (LCS) and one Laboratory Control Sample Duplicates (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: 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.



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 Payroll#: 8C278

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium $\mu\text{g}/\text{sample}$		Beryllium $\mu\text{g}/\text{m}^3$		Air Volume L	
J113F4	06I04305	09 Feb 2006	<0.02	U	<0.0028	U	7229.	
J113B1	06I04306	09 Feb 2006	<0.02	U	<0.0029	U	6813.	
J113L2	06I04307	09 Feb 2006	<0.02	U	<0.011	U	1747.	
J113L1	06I04308	09 Feb 2006	<0.02	U	<0.016	U	1257.	
J113R1	06I04309	09 Feb 2006	<0.02	U	**		0.000	
J113R2	06I04310	09 Feb 2006	<0.02	U	**		0.000	
Limit of Detection (LOD)			0.02					
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 $\mu\text{g}/\text{sample}$	
J113F4	06I04305	09 Feb 2006	<0.5	U	<0.069	U	<0.06	U
J113B1	06I04306	09 Feb 2006	<0.5	U	<0.073	U	<0.06	U
J113L2	06I04307	09 Feb 2006	<0.5	U	<0.29	U	<0.06	U
J113L1	06I04308	09 Feb 2006	<0.5	U	<0.40	U	<0.06	U
J113R1	06I04309	09 Feb 2006	<0.5	U	**		<0.06	U
J113R2	06I04310	09 Feb 2006	<0.5	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 $\mu\text{g}/\text{m}^3$	
J113F4	06I04305	09 Feb 2006	<0.0083	U
J113B1	06I04306	09 Feb 2006	<0.0088	U
J113L2	06I04307	09 Feb 2006	<0.034	U
J113L1	06I04308	09 Feb 2006	<0.048	U
J113R1	06I04309	09 Feb 2006	**	
J113R2	06I04310	09 Feb 2006	**	



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Customer Sample Number	Laboratory Sample Number	Date Analyzed	Cadmium $\mu\text{g}/\text{m}^3$
Limit of Detection (LOD)			
Required Detection Limit (RDL)			

U - Parameter not detected above LOD.

J - Parameter between LOD and RDL.

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 Payroll#: 8C278

Batch ID: G0618003

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-241087-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
BL-241087-1	MB	Lead	µg/sample	ND	NA	NA	NA	NA
BL-241087-1	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
QC-241087-1	LCS	Beryllium	µg/sample	10.7	NA	10.0	107.	NA
QC-241087-1	LCS	Lead	µg/sample	106.	NA	100.	106.	NA
QC-241087-1	LCS	Cadmium	µg/sample	32.8	NA	30.0	109.	NA
QD-241087-1	LCSD	Beryllium	µg/sample	10.8	10.7	10.0	108.	0.681
QD-241087-1	LCSD	Lead	µg/sample	107.	106.	100.	107.	1.22
QD-241087-1	LCSD	Cadmium	µg/sample	33.0	32.8	30.0	110.	0.320

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

ATL 051001

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST											
Collector: J. Shiky		Company Contact: Darice A. Pitts and Henry W. Ruby		Telephone No. 531-1229		Project Coordinator: Joan H. Kessler		Data Transmittal: Standard			
Payroll #: 9C278		Sampling Location: 300 Area, 334 Pad		SPECIAL INSTRUCTIONS: All relevant CDAs must be provided: R34400 J452		SAF No. RC-001		Method of Shipment: Fed Ex			
Type of Sample: Air		Wipe Sample Media: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		ANALYSIS METHOD (SPECIFIC): NIOSH 7300		Bill of Lading/Air Bill No. 8544 9435 4748					
Shipped To: Datachem Salt Lake City		Other: N/A		Preservation (i.e., cooling required, etc.):							
POSSIBLE SAMPLE HAZARD/MARKS: Ex. Pb, Cd		MATRIX: A - AIR		No		No		No			
Special Handling and/or Storage: NIC		W - WIPE		No		No		No			
		X - OTHER		No		No		No			
SAMPLE ANALYSIS											
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area	Comments	Airborne	Lead Airborne	Beryllium Airborne	Mold	Lead Wipe	Cd Wipe	Cd Airborne
J113F4	A	2-6-06	7829	Perimeter	X	X	X				X
J113B1	A		6813	Perimeter	X	X	X				X
J113L2	A		1747	Area	X	X	X				X
J113L1	A		1257	Personal	X	X	X				X
J113R1	A		N/A	Blank	X	X	X				X
J113R2	A	2-6-06	N/A	Blank	X	X	X				X

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WCH-SH-312 (180/29/2005)

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

J1354

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	
SIGN / PRINT NAMES / USE MILITARY TIME	DATE / TIME
James Shiley James Shiley Locked cabinet 946 Rm #6	2-6-06 / 1445
Goldie Malton Goldie Malton	02-07-06 / 1430
R2 Steffler R.J. Steffler	2-7-06 / 1530
Merrell Capwood Merrell Capwood	
Scott Hesse Scott Hesse	
Received By: [Signature]	DATE / TIME: [Signature]
LABORATORY SECTION	TOE

REVIEWED BY:

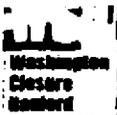
[Signature]

DATE:

02-07-06

WCH-SH-202 (08/29/05)

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CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: <i>J. Shiley</i>	Company Contact Denise A. Patis and Henry W. Ruby	Telephone No. 531-1229	Project Coordinator Joan H. Kessner	Data Turnaround
Payroll #: <i>8C278</i>	Sampling Location <i>300 Area, 334 Pad</i>	SPECIAL INSTRUCTIONS All relevant COAs must be provided: <i>R34400 J452</i>		SAF No. RC-001
Type of Sample: <i>Air</i>		ANALYSIS METHOD (SPECIFIC): <i>NIOSH 7300</i>		Method of Shipment <i>Fed Ex</i>
Shipped To: <i>Datachem Salt Lake City</i>	Wipe Sample Media: Ghost <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Other <i>N/A</i>	Bill of Lading/Air Bill No. <i>8544 9435 4748</i>		

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

SAMPLE ANALYSIS					Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Lead Wipe	Cd Wipe	Cd Airborne
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area <small>sq. ft.</small>	Comments								
<i>J113F4</i>	<i>A</i>	<i>2-6-06</i>	<i>7229</i>	<i>Perimeter</i>		<i>X</i>	<i>X</i>					<i>X</i>
<i>J113B1</i>	<i>A</i>		<i>6813</i>	<i>Perimeter</i>		<i>X</i>	<i>X</i>					<i>X</i>
<i>J113L2</i>	<i>A</i>		<i>1747</i>	<i>Area</i>		<i>X</i>	<i>X</i>					<i>X</i>
<i>J113L1</i>	<i>A</i>		<i>1257</i>	<i>Personal</i>	<i>IRS 2-6-06</i>	<i>X</i>	<i>X</i>			<i>IRS 2-6-06</i>		<i>X</i>
<i>J113R1</i>	<i>A</i>	<i>↓</i>	<i>N/A</i>	<i>Blank</i>		<i>X</i>	<i>X</i>					<i>X</i>
<i>J113R2</i>	<i>A</i>	<i>2-6-06</i>	<i>N/A</i>	<i>Blank</i>		<i>X</i>	<i>X</i>					<i>X</i>

COPY

FIELD SAMPLE COPY

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

J113F4

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
SIGN / PRINT NAMES / USE MILITARY TIME			
Relinquished By/Initial	DATE / TIME	Received By/Initial	DATE / TIME
James Shiley James Shiley	2-6-06 / 1645	Locked Cabinet Rm 16, Bldg 3746 JR	2-6-06 / 1645
Locked cabinet 3746 Rm # 16		RZ Steffler R.Z. Steffler	2-7-06 / 1430
Goldie Malhan Goldie Malhan	02-07-06 / 1430		
RZ Steffler R.Z. Steffler	WCH 2-7-06 / 1530	Fed Ex	
Relinquished By/Initial	DATE / TIME	Received By/Initial	DATE / TIME
Relinquished By/Initial	DATE / TIME	Received By/Initial	DATE / TIME
Relinquished By/Initial	DATE / TIME	Received By/Initial	DATE / TIME
Relinquished By/Initial	DATE / TIME	Received By/Initial	DATE / TIME
Relinquished By/Initial	DATE / TIME	Received By/Initial	DATE / TIME
Relinquished By/Initial	DATE / TIME	Received By/Initial	DATE / TIME
Relinquished By/Initial	DATE / TIME	Received By/Initial	DATE / TIME
LABORATORY SECTION	Received By	Title	DATE / TIME

REVIEWED BY: _____ DATE: _____
 PRINT/SIGN NAME