

SAF-RC-001 Industrial Hygiene Sampling FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 06I-0376-01 SAF-RC-001

Rad only Chem only Rad & Chem

Complete Partial

300 Area 334 Pad

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Cover Page

Report Identification Number: 06I-0376-01
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 / R31400J452
Payroll#: 8C278



Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
26 Jan 2006	J10YC7	06I02983	NMAM 7300M	G061000Z	G WIPE
26 Jan 2006	J10YC5	06I02984	NMAM 7300M	G061000Z	G WIPE
26 Jan 2006	J10YC6	06I02985	NMAM 7300M	G061000Z	G WIPE

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Name: Joanna C. Sanchez
Title: Chemist
Date: February 07, 2006



Case Narrative Page

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General Set Information: There are 3 samples in set 06I-0374-02 and 3 samples in set 06I-0376-01 which were analyzed for cadmium, lead and beryllium on Ghost Wipe. 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 5 mL of nitric acid and 5 mL of ASTM Type II water. Samples were digested in a hot block set at 110°C for 60 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 Contract Required Detection Limits (CRDL) 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 Contract Required Detection Limits (CRDL) of 0.1 ug/sample. No lead results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 3. ug/sample.

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

Dilution(s): None.

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 results were within the control limits of +/- 20%. The Relative Percent Difference (RPD) between the LCS and the LCSD were within the control limit of 20%.

Replicate Analysis: One sample in this batch was replicated. 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



Report Page

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Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium $\mu\text{g}/\text{sample}$	Cadmium $\mu\text{g}/\text{sample}$	Lead $\mu\text{g}/\text{sample}$
J10YC7	06I02983	03 Feb 2006	<0.01 U	<0.1 U	<3. U
J10YC5	06I02984	03 Feb 2006	<0.01 U	<0.1 U	<3. U
J10YC6	06I02985	03 Feb 2006	<0.01 U	<0.1 U	<3. U
Limit of Detection (LOD)			0.01	0.1	3.
Required Detection Limit (RDL)					

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



QC Summary Page

Report Identification Number: 06I-0376-01
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 Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
 Laboratory Identification Number: DCHM
 SAF: RC-001 / R31400J452
 Payroll#: 8C278

Batch ID: G061000Z

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-240750-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
BL-240750-1	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
BL-240750-1	MB	Lead	µg/sample	ND	NA	NA	NA	NA
QC-240750-1	LCS	Beryllium	µg/sample	12.0	NA	10.0	120.	NA
QC-240750-1	LCS	Cadmium	µg/sample	32.7	NA	30.0	109.	NA
QC-240750-1	LCS	Lead	µg/sample	104.	NA	100.	104.	NA
QD-240750-1	LCSD	Beryllium	µg/sample	12.1	12.0	10.0	121.	0.472
QD-240750-1	LCSD	Cadmium	µg/sample	32.9	32.7	30.0	110.	0.709
QD-240750-1	LCSD	Lead	µg/sample	105.	104.	100.	105.	0.297

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

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

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

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

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

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

001037601

CHAIN OF CUSTODY SAMPLE ANALYSIS REQUEST		Client	Standard						
Collector: James Skilly	Sampling Location: 300 Ave. 354 Pad	Method of Shipment: Fed Ex	Bill of Lading/Air Bill No. 8544 9435 4704						
Payroll #: 8CZ78	SPECIAL INSTRUCTIONS: All relevant COAs must be provided: R31400 AS2	ANALYSIS METHOD (SPECIFIC): NIOSH 7300							
Type of Sample: Wipe	Wipe Sample Media: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No								
Shipped To: DataChem Salt Lake City, UT									
POSSIBLE SAMPLE HAZARD/REMARKS: Bi, Cd, Pb									
Special Handling and/or Storage: NO									
Sample ID	Date	Time	Volume (L) or Area (cm ²)	For Indication	Large Area	Lead Wipe	Cadmium Wipe	No	No
J10YC7	01/26/06		WI	NOT FOR INDICATION		X	X	X	X
J10YC5	01/26/06		WI	BLANK		X	X	X	X
J10YC6	01/26/06		WI	BLANK		X	X	X	X

Page 1 of 2

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

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

J10YC7

Received By/Name	DATE/TIME	Received By/Name	DATE/TIME
James Shiley	01/20/06 1705	Locked Cabinet, Room 16, Bldg 3746	01/20/06 1705
James Shiley	01/20/06 1705	locked cabinet bldg 3746 Rm#16	
Goldie Malhan	01-31-06/1430	R2 Steffler R.J. Steffler	1-31-06/1430
R2 Steffler R.J. Steffler	1-31-06/1515	Fed Ex	
Fed Ex		Julie Warrator	2/10/06 1000
Metals 3 ju			
LABORATORY SECTION	Received By: Julie Warrator	Title	DATE/TIME 2/10/06 1000

REVIEWED BY: _____ DATE: _____
 PRINT/SIGN NAME



CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: James Shiley	Company Contact Denise A. Pitts and Henry W. Ruby	Telephone No. 531-1229	Project Coordinator Joan H. Kessner	Data Turnaround Standard
Payroll #: 8C278	Sampling Location 300 Area, 334 Pad	SPECIAL INSTRUCTIONS All relevant COAs must be provided: R31400 J452		SAF No. RC-001
Type of Sample: Wipe		ANALYSIS METHOD (SPECIFIC): NIOSH 7300		Method of Shipment <i>Fed Ex</i>
Shipped To: Datachem Salt Lake City, UT	Wipe Sample Media: Ghost <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Other _____	Bill of Lading/Air Bill No. <i>8544 9435 4704</i>		

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

SAMPLE ANALYSIS					Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Cadmium Wipe	Lead Wipe
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area cm ²	Comments							
J10YC7	WI	01/26/06	Large Area.	For Indication				x		X	X
J10YC5	WI	01/26/06	N/A	BLANK				x		X	X
J10YC6	WI	01/26/06	N/A	BLANK				x		X	X

COPY
FIELD SAMPLE COPY

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

J10YC7

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

SIGN / PRINT NAMES / USE MILITARY TIME

Relinquished By/Stored: James Shiley <i>James Shiley</i>	DATE / TIME 01/30/06 / 1705	Received By/Stored: Locked Cabinet, Room 16, Bldg 3746 <i>JRS</i>	DATE / TIME 01/30/06 / 1705
Relinquished By/Stored: <i>locked cabinet bldg 3746 Rm#16</i>	DATE / TIME	Received By/Stored:	DATE / TIME
<i>Goldie Malhan Goldie Malhan</i>	<i>01-31-06 / 1430</i>	<i>RZ Steffler R.Z. Steffler</i>	<i>1-31-06 / 1430</i>
Relinquished By/Stored: <i>RZ Steffler R.Z. Steffler</i>	DATE / TIME <i>WCH</i> <i>1-31-06 / 1515</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
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
LABORATORY SECTION	Received By	Title	DATE / TIME

FIELD SAMPLE COPY

COPY

REVIEWED BY: _____ DATE: _____
 PRINT/SIGN NAME