

SAF-RC-001
Industrial Hygiene Sampling
FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 06I-0619-01 SAF-RC-001

Rad only Chem only Rad & Chem

Complete Partial

300 Area 304/304A Bldgs

RECEIVED
APR 24 2006

EDMC



Cover Page

Report Identification Number: 06I-0619-01
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 / R30400 J452
Payroll#: 72947



Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
09 Feb 2006	J114T4	06I04912	NMAM 7300M	G061G019	G WIPE
09 Feb 2006	J114T5	06I04913	NMAM 7300M	G061G019	G WIPE
09 Feb 2006	J114T6	06I04914	NMAM 7300M	G061G019	G WIPE
09 Feb 2006	J114T7	06I04915	NMAM 7300M	G061G019	G WIPE

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Name: Lisa M. Reid
Title: Chemist
Date: February 16, 2006



Case Narrative Page

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General Set Information: There are 4 samples in set 06I-0619-01, 4 samples in set 06I-0620-01, 6 samples in set 06I-0621-01, 16 samples in set 06I-0648-02, and 6 samples in set 06I-0649-01 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 0.02 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 0.07 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 2. 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: Three Laboratory Control Samples (LCSs) and three Laboratory Control Sample Duplicates (LCSDs) 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 LCSs and the LCSDs were within the control limit of 20%.

Replicate Analysis: Four samples in this batch were replicated. The RPD between the samples and the replicates 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: The LOQ for sample 06I04583 for cadmium is 0.6 because of interference.



Report Page

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Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium µg/sample		Cadmium µg/sample		Lead µg/sample	
J114T4	06I04912	15 Feb 2006	<0.02	U	<0.07	U	<2.	U
J114T5	06I04913	15 Feb 2006	<0.02	U	<0.07	U	<2.	U
J114T6	06I04914	15 Feb 2006	<0.02	U	<0.07	U	<2.	U
J114T7	06I04915	15 Feb 2006	<0.02	U	<0.07	U	<2.	U
Limit of Detection (LOD)			0.02		0.07		2.	
Required Detection Limit (RDL)								

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



QC Summary Page

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Batch ID: G061G019

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-241310-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
BL-241310-1	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
BL-241310-1	MB	Lead	µg/sample	ND	NA	NA	NA	NA
QC-241310-1	LCS	Beryllium	µg/sample	10.9	NA	10.0	109.	NA
QC-241310-1	LCS	Cadmium	µg/sample	33.3	NA	30.0	111.	NA
QC-241310-1	LCS	Lead	µg/sample	110.	NA	100.	110.	NA
QD-241310-1	LCSD	Beryllium	µg/sample	11.0	10.9	10.0	110.	0.609
QD-241310-1	LCSD	Cadmium	µg/sample	33.4	33.3	30.0	111.	0.562
QD-241310-1	LCSD	Lead	µg/sample	110.	110.	100.	110.	0.430

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

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

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



CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: T Wester	Company Contact Denise A. Pitts and Henry W. Ruby	Telephone No. 531-1229	Project Coordinator Joan H. Kessner	Data Turnaround standard
Payroll #: 72947	Sampling Location 300 Area 304/304A	SPECIAL INSTRUCTIONS All relevant COAs must be provided: R30400J452		SAF No. RC-001
Type of Sample: Be wipe		ANALYSIS METHOD (SPECIFIC): NIOSH 7300-Be/Pb/Cd		Method of Shipment <i>Fed Ex</i>
Shipped To: Data Chem 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 4770</i>		

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

SAMPLE ANALYSIS					Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Pb/Cd Wipe
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area <i>100cm²</i>	Comments						
J114T4	WI	2/9/06	X	NA				X		X
J114T5	WI	2/9/06	X	NA				X		X
J114T6	WI	2/9/06	NA	BLANK				X		X
J114T7	WI	2/9/06	NA	BLANK				X		X
FIELD SAMPLE COPY										
COPY										

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

511474

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
SIGN / PRINT NAMES / USE MILITARY TIME			
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
<i>D. J. Steffler</i>	2/9/06 1630	locked drawer, room 16, bldg. 3746	2/9/06 1630
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
locked cabinet bldg 3746 Rm # 16 <i>G. M. Mall</i> Godie Malhan	02-13-06 / 1430	<i>R. J. Steffler</i> R. J. Steffler	2-13-06 / 1430
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
<i>R. J. Steffler</i> R. J. Steffler	WCH 2-13-06 / 1600	Fed Ex	
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: _____ DATE: _____
 PRINT/SIGN NAME