

SAF-RC-001 Industrial Hygiene Sampling FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG _____ 05I-4954-01 _____ SAF-RC-001

Rad only Chem only Rad & Chem

Complete Partial

300 Area 334A Bldg

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Cover Page

Report Identification Number: 05I-4954-01
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 / 300 AREA/330A BLDG
Payroll#: 7250 R33400J451



Sample Information

Table with 6 columns: Sample Date, Customer Sample Number, Laboratory Sample Number, Method, Analytical Batch Identification, Sample Matrix. Contains 7 rows of sample data.

I certify that this electronic image and all hardcopies produced from this image accurately represent the data and are in compliance with the contract specific requirements, both technically and for completeness, other than the conditions detailed above or in the sample data package narrative.

Name: Joanna C. Sanchez
Title: Chemist
Date: December 07, 2005

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General Set Information: There are 11 samples in set 05I-4955-01 which were analyzed for beryllium on MCE filter. There are 6 samples in set 05I-4954-01 and 3 samples in set 05I-4956-01 which were analyzed for beryllium 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 and cadmium recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of $\pm 10\%$.

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 0.08 ug/sample.

Method Blank Analysis: No beryllium 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: 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 $\pm 20\%$. The Relative Percent Differences (RPD) between the LCS and the LCSD was within the control limit of 20%.

Replicate Analysis: Two samples in this batch were 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:

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

= $\frac{\text{Final Volume of Digestate (L)}}{\text{Sample}}$

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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Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium $\mu\text{g}/\text{sample}$		Beryllium $\mu\text{g}/\text{m}^3$		Cadmium $\mu\text{g}/\text{sample}$	
J10MC5	05I46092	06 Dec 2005	0.023		0.0069		<0.08	U
J10MC4	05I46093	06 Dec 2005	<0.02	U	<0.0059		<0.08	U
J10MC6	05I46094	06 Dec 2005	0.021		0.0072		<0.08	U
J10MC7	05I46095	06 Dec 2005	<0.02	U	<0.040		<0.08	U
J10MC1	05I46096	06 Dec 2005	<0.02	U	**		<0.08	U
J10MC2	05I46097	06 Dec 2005	<0.02	U	**		<0.08	U
Limit of Detection (LOD)			0.02				0.08	
Required Detection Limit (RDL)								

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Cadmium $\mu\text{g}/\text{m}^3$	Air Volume L
J10MC5	05I46092	06 Dec 2005	<0.025	3260.
J10MC4	05I46093	06 Dec 2005	<0.024	3374.
J10MC6	05I46094	06 Dec 2005	<0.027	2954.
J10MC7	05I46095	06 Dec 2005	<0.16	495.
J10MC1	05I46096	06 Dec 2005	**	**
J10MC2	05I46097	06 Dec 2005	**	**
Limit of Detection (LOD)				
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: G05C500J

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-238882-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
BL-238882-1	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
QC-238882-1	LCS	Beryllium	µg/sample	10.8	NA	10.0	108.	NA
QC-238882-1	LCS	Cadmium	µg/sample	33.5	NA	30.0	112.	NA
QD-238882-1	LCSD	Beryllium	µg/sample	10.8	10.8	10.0	108.	0.440
QD-238882-1	LCSD	Cadmium	µg/sample	33.5	33.5	30.0	112.	0.127

- 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

051.4954.01

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: CS Williams Payroll #: 7250 Type of Sample: Decontamination Shipped To: DataChem Salt Lake City UT POSSIBLE SAMPLE HAZARD/REMARKS: Be/CD Special Handling and/or Storage: N/A		Company Contact: Denise A. Pitts and Henry W. Ruby Telephone No.: 531-1729 SPECIAL INSTRUCTIONS: All relevant COAs must be provided: R334 06J451 ANALYSIS METHOD (SPECIFIC): NIOSH 7300		Project Coordinator: Joan H. Kessler SAF No.: RC-001 Method of Shipment: Fed Ex Bill of Lading/Air Bill No.: 854193375513		Data Turnaround: 24 hrs			
Sampling Location: 300 area / 331A B106 Wipe Sample Media: Ghost <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Other:		Preservation (i.e., cooling required, etc.):		MATRIX ANALYSIS		Comments			
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area	Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Other
J10mc3	A	11-29-05	3260	X	X	X	X	X	05/10/92
J10mc4	A	11-29-05	3374	X	X	X	X	X	11-29-05 93
J10mc5	A	11-29-05	2954	X	X	X	X	X	11-29-05 94
J10mc7	A	11-29-05	495	X	X	X	X	X	11-29-05 95
J10mc1	A	11-29-05	N/A	X	X	X	X	X	90
J10mc2	A	11-29-05	N/A	X	X	X	X	X	91

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

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
SIGN / PRINT NAMES / USE MILITARY TIME			
Released By/Date:	DATE / TIME	Received By/Date:	DATE / TIME
EJ Williams Cynthia Williams	11-29-05 / 1500	3746 BIO 6 Emilio locked cabinet	11-29-05 / 1500
3746 BIO 6 Emilio locked cabinet EJ Williams / Cynthia Williams	12-5-05 / 1313	RZ Steffler RZ Steffler	12-5-05 / 1313
RZ Steffler RZ Steffler	12-5-05 / 1330	Fed Ex	
Fed Ex		Meredith Edward	12/5/05
Metals B	12/5/05		
LABORATORY SECTION	Received By Meredith Edward	Title	DATE / TIME 12/5/05

REVIEWED BY: _____ DATE: _____
PRINT/SIGN NAME

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