

SAF-RC-001
Industrial Hygiene Sampling
FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 05I-4628-01 SAF-RC-001

Rad only Chem only Rad & Chem

X Complete Partial

300 Area 337/337B Bldgs.

RECEIVED
JAN 19 2006
EDMC

Report Identification Number: 05I-4628-01
 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 / R300SM 2210
 Payroll#: 73219



Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
07 Nov 2005	J10HC9	05I43558	NMAM 7300M	G05B8015	MCE
07 Nov 2005	J10HD0	05I43559	NMAM 7300M	G05B8015	MCE
07 Nov 2005	J10HD1	05I43560	NMAM 7300M	G05B8015	MCE
07 Nov 2005	J10HD2	05I43561	NMAM 7300M	G05B8015	MCE
07 Nov 2005	J10HD3	05I43562	NMAM 7300M	G05B8015	MCE
07 Nov 2005	J10HF4	05I43563	NMAM 7300M	G05B8015	MCE
07 Nov 2005	J10HF5	05I43564	NMAM 7300M	G05B8015	MCE
07 Nov 2005	J10HF6	05I43565	NMAM 7300M	G05B8015	MCE
07 Nov 2005	J10HF7	05I43566	NMAM 7300M	G05B8015	MCE

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Name: Joanna C. Sanchez
 Title: Chemist
 Date: November 10, 2005

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General Set Information: There are 9 samples in set 05I-4628-01, 12 samples in set 05I-4632-01, 6 samples in set 05I-4633-01, 3 samples in set 05I-4634-01, 11 samples in set 05I-4635-01, 3 samples in set 05I-4636-01, 12 samples in set 05I-4637-01 and 12 samples in set 05I-4638-01 for a total of 68 samples that were analyzed for beryllium 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 (with a thermometer reading of 95°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 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 0.01 ug/sample.

Method Blank Analysis: No beryllium was found in the media blank sample above the Contract Required Detection Limit (CRDL). No lead was found in the media blank sample above the Contract Required Detection Limit (CRDL).

Dilution(s): NA.

Laboratory Control Sample and Duplicate Analysis: Four Laboratory Control Samples (LCSs) and four Laboratory Control Sample Duplicates (LCSDs) were prepared and analyzed with the sample batch.

The LCS results for beryllium were within the control limit of $\pm 20\%$. The Relative Percent Differences (RPD) between the LCS and the LCSD were within the control limit of 20%.

Replicate Analysis: Seven samples in this batch were replicated. The RPDs between the samples and the replicates were 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.



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 Payroll#: 73219

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium $\mu\text{g}/\text{sample}$		Beryllium $\mu\text{g}/\text{m}^3$	Air Volume L
J10HC9	05I43558	09 Nov 2005	0.012		0.0057	2179.
J10HD0	05I43559	09 Nov 2005	<0.01	U	<0.0047	2115.
J10HD1	05I43560	09 Nov 2005	<0.01	U	<0.0045	2245.
J10HD2	05I43561	09 Nov 2005	<0.01	U	<0.0047	2149.
J10HD3	05I43562	09 Nov 2005	<0.01	U	<0.0039	2574.
J10HF4	05I43563	09 Nov 2005	<0.01	U	<0.043	233.
J10HF5	05I43564	09 Nov 2005	<0.01	U	<0.044	225.
J10HF6	05I43565	09 Nov 2005	<0.01	U	**	0.000
J10HF7	05I43566	09 Nov 2005	<0.01	U	**	0.000
Limit of Detection (LOD)			0.01			
Required Detection Limit (RDL)						

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

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Batch ID: G05B8015

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-238104-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
QC-238104-1	LCS	Beryllium	µg/sample	10.2	NA	10.0	102.	NA
QD-238104-1	LCSD	Beryllium	µg/sample	10.4	10.2	10.0	104.	1.38
BL-238104-2	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
QC-238104-2	LCS	Beryllium	µg/sample	10.3	NA	10.0	103.	NA
QD-238104-2	LCSD	Beryllium	µg/sample	10.6	10.3	10.0	106.	2.23
BL-238104-3	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
QC-238104-3	LCS	Beryllium	µg/sample	10.3	NA	10.0	103.	NA
QD-238104-3	LCSD	Beryllium	µg/sample	10.4	10.3	10.0	104.	1.33
BL-238104-4	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
QC-238104-4	LCS	Beryllium	µg/sample	10.5	NA	10.0	105.	NA
QD-238104-4	LCSD	Beryllium	µg/sample	10.5	10.5	10.0	105.	0.0832

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

From: 509 37239883 Page: 21/23 Date: 11/8/2005 3:38:46 PM

021-4028-81

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST									
Collector: Petrick Vignit		Company Contact: Denise A. Pitts and Henry W. Ruby		Telephone No. 531-1728		Project Coordinator: Jan H. Kassac		Data Turnaround: 24 hrs	
Payroll #: 73214		Sampling Location: Job # road 33715576		SPECIAL INSTRUCTIONS: All relevant COAs must be provided H300SM2210		SAF No. PC-001			
Type of Sample: Be		Vial Sample Media: Be		ANALYSIS METHOD (SPECIFIC): M105H7300 (800)		Method of Shipment: Federal Express			
Shipped To: Duke Olson		Client: Be				BIB of Labeling/Air Bill No.:			
Salt Lake City, UT		Other: Be							
POSSIBLE SAMPLE HAZARD/REMARKS:		MATRIX:		Preservation (i.e., cooling required, etc.):					
Be		A - AIR							
Special Handling and/or Storage:		W - WIPE							
None		X - OTHER							
SAMPLE ANALYSIS									
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area	Comments	Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold
J10H09	Wipe	11-7-05	2179	Area			X		
J10H00		11-7-05	2115	Area			X		
J10H01			2245	Area			X		
J10H02			2149	Area			X		
J10H03			2574	Area			X		
J10H04			233	Personal			X		
J10H05			225	Personal			X		
J10H06			NA	Blank			X		
J10H07		11-7-05	NA	Blank			X		
<p style="text-align: right;">85000000 S9 100 01 102 103 104 105 106</p>									

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

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

J104C9

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		
RECEIVED BY/NAME	DATE/TIME	SIGN / PRINT NAMES / USE MILITARY TIME
Received By/Name: <i>K. G. Vichit</i>	DATE/TIME: 11-7-05 1620	Received By/Name: <i>814 3746, Rm#16, Locked cabinet</i>
Received By/Name: <i>David Warren / David Chan</i>	DATE/TIME: 11-8-05 / 1400	Received By/Name: <i>David St John</i>
Received By/Name: <i>David St John</i>	DATE/TIME: 11/8/05 1445	Received By/Name: <i>David St John</i>
Received By/Name: <i>Paul by</i>	DATE/TIME:	Received By/Name: <i>Fed Ex</i>
Received By/Name: <i>M. H. S. J. M.</i>	DATE/TIME: 11/08/05 1100	Received By/Name: <i>Michael Edwards</i>
Received By/Name:	DATE/TIME:	Received By/Name:
Received By/Name:	DATE/TIME:	Received By/Name:
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Received By/Name:	DATE/TIME:	Received By/Name:
Received By/Name:	DATE/TIME:	Received By/Name:
LABORATORY SECTION: <i>Michael Edwards</i>	DATE/TIME:	DATE/TIME: 11/05/00

REVIEWED BY:

DATE:

PRINTSIGN NAME

2 2 ~