

# SAF-RC-001 Industrial Hygiene Sampling FINAL DATA

**NO DISTRIBUTION REQUIRED**

**COMMENTS:**

SDG 05I-4491-01 SAF-RC-001

Rad only     Chem only    Rad & Chem

Complete                      Partial

**300 Area 333 Bldg**

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**EDMC**



# Cover Page

Report Identification Number: 05I-4491-01  
Subcontract Number: 0000X-B)-G0058-B-M0d#4  
Name of Industrial Hygienist: Henry W. Ruby / Denise A. Pitts  
Laboratory Identification Number: DCHM  
SAF#: RC-001 / R300XX J451  
Payroll#: 73357



### Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
27 Oct 2005	J10BN2	05I42398	NMAM 7300M	G05B0014	MCE
27 Oct 2005	J10BJ1	05I42399	NMAM 7300M	G05B0014	MCE
27 Oct 2005	J10BJ0	05I42400	NMAM 7300M	G05B0014	MCE
27 Oct 2005	J10BN3	05I42401	NMAM 7300M	G05B0014	MCE

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Name: Lisa M. Reid  
Title: Chemist  
Date: November 02, 2005

Report Identification Number: 05I-4491-01  
Subcontract Number: 0000X-B)-G0058-B-M0d#4  
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**General Set Information:** There are 4 samples in set 05I-4491-01 and 4 samples in set 05I-4492-01 that were analyzed for beryllium on MCE filter. There are 6 samples in set 05I-4494-01 and 4 samples in set 05I-4495-01 that were analyzed for lead and 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 92°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 lead 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 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 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:** One Laboratory Control Sample (LCS) and one Laboratory Control Sample Duplicate (LCSD) were prepared and analyzed with the sample batch. The LCS results for both beryllium and lead were within the control limit of  $\pm 20\%$ . The Relative Percent Differences (RPD) between the LCSs and the LCSDs were within the control limit of 20%.

**Replicate Analysis:** Two 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

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

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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 Laboratory Identification Number: DCHM  
 SAF#: RC-001 / R300XX J451  
 Payroll#: 73357

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium $\mu\text{g}/\text{sample}$		Beryllium $\mu\text{g}/\text{m}^3$	Air Volume L
J10BN2	05I42398	02 Nov 2005	<0.02	U	**	0.00
J10BJ1	05I42399	02 Nov 2005	<0.02	U	**	0.00
J10BJ0	05I42400	02 Nov 2005	<0.02	U	<0.066	302.
J10BN3	05I42401	02 Nov 2005	<0.02	U	<0.070	287.
Limit of Detection (LOD)			0.02			
Required Detection Limit (RDL)						

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



# QC Summary Page

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Name of Industrial Hygienist: Henry W. Ruby / Denise A. Pitts  
Laboratory Identification Number: DCHM  
SAF: RC-001 / R300XX J451  
Payroll#: 73357

Batch ID: G05B0014

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-237832-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
QC-237832-1	LCS	Beryllium	µg/sample	10.3	NA	10.0	103.	NA
QD-237832-1	LCSD	Beryllium	µg/sample	10.4	10.3	10.0	104.	0.589

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

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

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

05I-4491-01



CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST											
Collector: David Warren		Company Contact: Denise A. Pitts and Henry W. Ruby			Telephone No. 531-1229		Project Coordinator: Joan H. Kessner		Data Turnaround: 24 hrs.		
Payroll #: 73357		Sampling Location: 300 Am/ 333 Bldg.		SPECIAL INSTRUCTIONS: All relevant COAs must be provided: A300x x J451			SAF No. RC-001		Method of Shipment: Federal Express		
Type of Sample: Beryllium		Shipped To: Outchem Salt Lake City UT			Wipe Sample Media: Ghost <input type="checkbox"/> Yes <input type="checkbox"/> No Other N/A			ANALYSIS METHOD (SPECIFIC): Wash 7300 Be			
POSSIBLE SAMPLE HAZARD/REMARKS: Be		MATRIX: A - AIR, WI - WIPE, X - OTHER		Preservation (i.e., cooling required, etc.):		No	No	No	No	No	
Special Handling and/or Storage: N/A		Bill of Lading/Air Bill No. 854193375237									
SAMPLE ANALYSIS											
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area cm <sup>2</sup>	Comments	Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold		
J108N2	A	10/27/05	N/A	Blank			X			05I42368	
J108J1	A	↓	N/A	Blank			X			99	
J108J0	A	↓	302	personal			X			400	
J108N3	A	10/27/05	287	personal			X			01	

DataChem Laboratories, Inc.  
960 West Levoy Drive  
Salt Lake City, Utah 84123-2547

Phone: (801) 266-7700  
FAX: (801) 268-9992

Web Page: www.datachem.com  
E-mail: lab@datachem.com

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

J10BN2

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
SIGN / PRINT NAMES / USE MILITARY TIME			
Relinquished By/Client:	DATE/TIME	Received By/Client:	DATE/TIME
<i>[Signature]</i> Daniel Wolf	10/27/05 1400	3746 Bldg, Room 16, Locked Cabinet	10/27/05 1400
David Warren / <i>[Signature]</i> David Wan	10-27-05/1455	David St John <i>[Signature]</i> David St John	10/27/05 1455
David St. John wcht <i>[Signature]</i> David St John	10/31/05 0900	Fed Ex	
Fed Ex	11-1-05 10:00	Heather Tampion <i>[Signature]</i> Heather Tampion	11-1-05 10:00
Heather Tampion <i>[Signature]</i> Heather Tampion	11-1-05 10:00		
LABORATORY SECTION	Received By	Title	DATE / TIME

REVIEWED BY: *[Signature]* Heather Tampion DATE: 11-1-05  
PRINT/SIGN NAME

DataChem Laboratories, Inc.  
960 West Levey Drive  
Salt Lake City, Utah 84123-2547

Phone: (801) 266-7700  
FAX: (801) 268-9992

Web Page: [www.datachem.com](http://www.datachem.com)  
E-mail: [lab@datachem.com](mailto:lab@datachem.com)