



**Environment, Safety, Health & Assurance**

G40 TASF

PH: 515/294-9769

Interoffice Communication

**To:** Sean Whalen  
**cc:** Shawn Nelson  
**From:** Julia Sager, ESH&A  
**Date:** March 31, 2016  
**Subject:** 2015 Annual Performance Review of the Chronic Beryllium Disease Prevention Plan

The annual performance review of the CBDPP, covering events of calendar year 2015, is attached.

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# 2015 ANNUAL PERFORMANCE FEEDBACK

## CHRONIC BERYLLIUM DISEASE PREVENTION PROGRAM

### 1.0 SCOPE

This annual review has been conducted in order to assess compliance with the requirements of the written Ames Laboratory (AL) Chronic Beryllium Disease Prevention Plan (CBDPP), as mandated by 10 CFR Part 850 – Chronic Beryllium Disease Prevention Program. This review addresses the requirements found at 850.40, Performance Feedback.

### 2.0 DATES

Julia Sager, CIH CSP, performed this Annual Program Review in March 2016, reviewing information from Calendar Year 2015.

### 3.0 DISCUSSION

#### 3.1 GENERAL REQUIREMENTS

The standard requires that the employer “conduct periodic analyses and assessments of monitoring activities, hazards, medical surveillance, exposure reduction and minimization, and occurrence reporting data.” In addition, the standard requires that the employer identify a list of beryllium-associated workers and provide the site medical officer with the information needed to operate the medical surveillance program. All these requirements have been met.

#### 3.2 PROGRAM DOCUMENTATION

The following program documents and information sources were reviewed:

- Ames Laboratory Chronic Beryllium Disease Prevention Plan (CBDPP), Plan 10200.031, Revision 5.0. The effective date for this revision was 1/15/14 and the next review date is 1/15/17.
- Industrial hygiene sampling records related to beryllium during CY 2015.
- Occupational Health Manager (OHM) records.
- Ames Laboratory Training Department Records.
- Readiness Review database reports.

#### 3.3 SUMMARY OF PERFORMANCE

Results of this review are as follows:

1. PLAN REVIEW: The Ames Laboratory Chronic Beryllium Disease Prevention Plan, Plan 10200.031, Revision 5.0 (the "Ames Lab CBDPP") contains all of the elements required by 10 CFR Part 850.
2. BERYLLIUM-ASSOCIATED WORKERS: The operations conducted during 2015 with the potential for causing beryllium exposure to workers or the inadvertent spread of contamination are as follows:
  - a. Cutting small openings into block walls or drilling penetrations in Spedding Hall, Metals Development, or Wilhelm Hall, associated with facility renovations or plumbing work. This work was only conducted by skilled craftsmen utilizing one or more of the following control measures:
    - i. Where entry or penetrations are planned in areas where beryllium-containing dust is potentially present, the area is first thoroughly vacuumed using a HEPA vacuum and surveyed for radiation. If there is removable dust and there is no documentation of a thorough cleaning with post-cleaning sampling within the last decade, the area will also be wipe-sampled for beryllium. Respiratory protection is used during the cleaning process. Based on previous sampling results, an N95 is allowed for vacuuming and damp-wiping small areas in preparation for localized work, since exposures for these activities have been documented to be well below the DOE action level. For larger areas, dustier areas, or enclosed areas, the minimum respiratory protection is a tight-fitting half-face respirator with P100 cartridges.
    - ii. Since drilling into cementitious materials or breaking ceramic tile or block walls can also release other hazardous air contaminants such as crystalline silica or lead, the industrial hygienist conducting oversight of such operations will identify the contaminant believed to be the most likely to cause an exposure greater than applicable exposure limits, and conduct quantitative exposure assessment of at least that contaminant. For very short-term operations in which the operation will take less than the time required for a sample with an adequate detection limit, the exposure is defined as "unknown" and personal protective equipment (PPE) will be always be utilized as described above to ensure employee exposures remain controlled.
    - iii. To date there have been no sampling results on such operations, even within containment structures and involving extended work time, in which the measured exposure has exceeded 10 times the applicable exposure limit or Action Level. Therefore, the respiratory protection specified in 2.a.i. is deemed to be adequate protection for such routine facilities work.
  - b. Beryllium Alloy production: During February of 2015, a researcher requested that a hazard analysis be done regarding adding the beryllium hazard to an existing approved activity. A meeting was held and agreements were made regarding notification when the operation commenced (See Meeting Minutes, Attachment 1). No notification of the commencement of the operation was received, and the research group indicated in March 2016, when contacted, that this operation was never begun

3. TRAINING: Last year, in the 2014 Annual Performance Review of the CBDPP, a corrective action regarding training was noted. A new classroom training course, AL-236, "Beryllium Awareness" had been created and entered into the CyberTrain catalog. The learning objectives and slides for this class are maintained on the Training server. The Training department maintains attendance records for this course.
  - a. Updated beryllium-specific training was last conducted in Q4 of 2013, and thus the refresher was due in Q4 of 2015. Unfortunately, the re-train interval was incorrectly specified in the course initiation form, and therefore the CyberTrain system did not automatically notify the employees of the requirement for a retrain.
    - i. A refresher course for AL-236 awareness training was conducted on March 29, 2016, for those employees currently in beryllium-associated worker status. In order to provide a fresh perspective and maintain learner interest, training videos shot at Los Alamos National Laboratory and sourced from the DOE's Beryllium site were incorporated into the training curriculum this year.
    - ii. The retrain interval has been corrected in the CyberTrain system. See email correspondence at Attachment 2.

## **4.0 SUMMARY OF PROGRAM PERFORMANCE**

### **4.1 MEDICAL SURVEILLANCE**

No new cases of beryllium sensitization or CBD were identified in the time frame covered in this report. The SOMD and the IH Manager communicate regularly about areas of concern both in meetings and with email documentation.

### **4.2 TRAINING**

All currently-identified beryllium-associated workers are up-to-date on training as of March 29, 2016.

### **4.3 EXPOSURE ASSESSMENTS**

No operations requiring wipe sampling for beryllium were conducted during Calendar Year 2015. One operation requiring air sampling for beryllium was conducted, on December 9, 2015. The results for this sample were non-detect, and the calculated TWA was less than (<)  $0.1 \mu\text{g}/\text{m}^3$ . This is below the Action Level of  $0.2 \mu\text{g}/\text{m}^3$ . See result and calculation at Attachment 3, page 2.

## **5.0 CONCLUSION**

The program is currently compliant with Implementation Guide DOE G 440.1-7A.

## **6.0 ATTACHMENTS**

1. Email correspondence regarding re-train interval
2. Activity 30411.015 Beryllium Meeting Minutes and Hazard Analysis Document
3. Air sample result, sampling event of 12-09-15.

## Attachment 1: Email Correspondence regarding re-train interval

Re: Beryllium Awareness AL-236

Subject: Re: Beryllium Awareness AL-236  
From: Molly Granseth <mgranseth@ameslab.gov>  
Date: 3/11/2016 9:01 AM  
To: Julia Sager <sager@ameslab.gov>  
CC: Hilary Burns <hburns@ameslab.gov>

Ok, I'll get it changed in the course description, Cyber Train and get the retrains added. Would you like to set up a time to do a classroom training with all the facilities people (and anyone else needing it) in the next couple of weeks?

I have 3/29/16 at 10 AM open, or anytime on 3/30/16.

- Molly

On 3/10/2016 4:47 PM, Julia Sager wrote:

Oops, that was a mistake on my part. It is 2 years, for sure ("Employers must provide beryllium training before or at the time of the worker's initial assignment to the job and at least every 2 years thereafter [10 CFR 850.37(d)].").

I got it right in the CBDPP but apparently flubbed it in the course initiation form.

Julia

On 3/10/2016 4:32 PM, Molly Granseth wrote:

B) The course initiation form shows a retrain of 5 years. There is no retrain set up in Cyber Train. I'll run a report and have Stella add the retrain requirements. Do you want it at 2 or 5 years?

A) Sean Whalen (3/3/15) and Henrietta Elliott (6/16/15) completed the course in 2015.

- Molly

On 3/10/2016 4:27 PM, Julia Sager wrote:

A) Did anyone get credit for this course during CY 2015?

B) There is a 2-year retrain requirement by regulation, and I think that means a whole bunch of Facilities guys are overdue. Can you check?

--

Molly Granseth  
Training and Documents  
Ames Laboratory  
515-294-2864  
[mgranseth@ameslab.gov](mailto:mgranseth@ameslab.gov)

## Attachment 2: Activity 30411.015 Beryllium Meeting Minutes with Hazard Analysis Document



Environment, Safety, Health & Assurance

640 TASF  
PH: 616/294-7923  
kayser@ameslab.gov

**Date:** February 12, 2015

**To:** Readiness Review File 30411.015  
Larry Jones (Activity Supervisor)  
Kevin Dennis  
Sean Whalen  
Julia Sager  
Sarah Morris-Benavides  
Dan Kayser

**From:** Dan Kayser

**Subject:** Meeting minutes for adding beryllium work to activity 30411.015, Arc Melting/Welding Systems

Today's (February 12, 2015) meeting was conducted in G40 TASF from 3:00 – 4:00 pm and was attended by those addressed above. Activity 30411.015 was approved June 19, 2014 using the readiness review procedure. Larry Jones is collaborating with another university to form alloys containing beryllium. The purpose of this meeting was to evaluate and address any potential beryllium hazards/exposures.

The attached standard operating procedure will be used when performing beryllium work in the arc melter located in 135 MD.

- There will be no fabrication activities (milling, swaging, etc.).
- It was determined that there is no need to monitor for beryllium particulate in the breathing zone. There is a HEPA vacuum connected to the arc melter eliminating this hazard.
- Larry Jones will notify Julia Sager and/or Sara Morris-Benavides prior to starting beryllium work.
- A minimum of two beryllium ghost wipes will be taken, by ESH&A to verify the level of beryllium contamination, if any.
- MPC will incur the cost of beryllium sampling.
- The arc melter may be used after the initial ghost wipe.
- Julia Sager will include the beryllium arc melter activity into the beryllium surveillance inventory when the beryllium work starts.
- Arne Swanson will be the only authorized user for the arc melting beryllium work.

## Attachment 2: Activity 30411.015 Beryllium Meeting Minutes with Hazard Analysis Document

### Description Document

This document was prepared to demonstrate compliance with the laboratory's Chronic Beryllium Prevention Plan (CBDPP), 10200.031.

The Materials Preparation Center under the supervision of Larry Jones will be creating glass alloys consisting of 1.2 grams (~2.4%) of beryllium. A total of 14 alloys (50 gram buttons) will be melted using Arc Melter activity 30411.015. After the alloy buttons are arc melted they will be processed into 5mm thick sheets and 5mm diameter rods using Fabrication Equipment activity 30411.018.

**Arc Melter Hazard Assessment (Be):** The greatest potential for beryllium exposure will be when the arc melter is opened after the alloy buttons are melted as particulates can form on the inside of the arc melter. To eliminate particulate exposure a dedicated HEPA vacuum will be used and/or a liquid spray may be applied to wet any loose material prior to wiping down. The copper mold will be removed from the arc melter and placed in a hood in 135 MD for decontamination. All cleaning materials will be collected and disposed of through ESH&A. Alloy buttons will be handled with a gloved (latex or nitrile) hand. Standard Operating Procedures will be followed and can be found in the activities readiness review folder.

**Fabrication Equipment Hazard Assessment (Be):** A small swager will be used to mill the 5mm diameter rods and the Sanat rolling mill will be used to mill the 5mm thick sheets. There will be no beryllium releases as airborne particulate during this process. Alloy buttons will be handled with a gloved (latex or nitrile) hand. Standard Operating Procedures will be followed and can be found in the activities readiness review folder.

Note: This work was never done and the operational status of beryllium work in this area is currently "Dormant."

Attachment 3: Laboratory results from air sampling, Dec 9, 2015



Ms. Julia Sager  
Amen Laboratory  
647 TASH  
Amen, TX 50011

March 28, 2016

DOH BLAP #11626  
ALLIA-LAP #100324

Account# 25616

Login# L370212

Dear Ms. Sager:

Enclosed are the analytical results for the samples received by our laboratory on March 21, 2016. All test results meet the quality control requirements of ALLIA-LAP and NELAP, unless otherwise stated in this report. All samples on the chain of custody were received in good condition unless otherwise noted.

Results in this report are based on the sampling data provided by the client and refer only to the samples as they were received at the laboratory. Unless otherwise requested, all samples will be discarded 14 days from the date of this report, with the exception of IOMs, which will be cleaned and disposed of after seven calendar days.

Current Scopes of Accreditation can be viewed at [www.galsonlabs.com](http://www.galsonlabs.com) in the accreditation section under the "about Galson" tab.

Please contact Patty Gregorich at (888) 432-6227, if you would like any additional information regarding this report. Thank you for using SGS Galson Laboratories.

Sincerely,

SGS Galson Laboratories

A handwritten signature in cursive script that reads "Lisa Swab".

Lisa Swab  
Laboratory Director

Enclosure(s)

Galson Laboratories, Inc. is now a part of SGS, the world's leading inspection, verification, testing, and certification company. As part of our transition to SGS, you will begin to see some formatting changes with reports that will improve the presentation of data and allow for the transition to the new logo.



**GALSON  
LABORATORIES**

LABORATORY ANALYSIS REPORT

6671 KINGSVILLE ROAD  
ROCKY HILL, CONNECTICUT 06151  
PHONE: (860) 322-3227  
FAX: (860) 327-0511  
WWW.GALSONLABS.COM

CLIENT:  
SITE:  
ANALYSIS:  
DATE SAMPLED:  
DATE RECEIVED:

ACCOUNT NO.: 25015  
CITY NO.: 137022  
DATE ANALYZED: 25-MAR-16  
REPORT ID: 823163

**Barium**

Sample ID	Lab ID	Air Vol L/min	Total µg	Conc µg/m <sup>3</sup>
1-120515-12-04	107027-01	387.5	<0.15	<0.00393
2-120515-16	107027-02	387.5	<0.15	NA

IH Notes: Balance of 8-hour day at 0 exposure. Time sampled was 129 minutes.

8hr TWA calc: < ((129 min\* .00039 mg/m<sup>3</sup>)/480 min)\* 1000µg/1 mg  
8hr TWA= <0.1 µg/m<sup>3</sup>

Julia Sager, CIH CSP

COMMENTS: Please see attached lab methods report. For any applicable Extractors.

Level of quantitation: 0.1 µg	Method: NIOSH 7090/mod. OSHA 10.253; ICF	Submitted by: JSA
Analysis Method: 9.002 µg/m <sup>3</sup> (max)	Date: 25-MAR-16	Approved by: KEG
Collection Method: NIOSH 7090	Supervisor: BAC	Site: 25-MAR-16
Level: 1	kg - Kilogram	OS: 01:00
Unit: mg - milligram	kg - Kilogram	NA - Not Applicable
Unit: µg - microgram	kg - Not specified	AP - Not Detected
Unit: µg/m <sup>3</sup> - microgram per cubic meter	kg - Not specified	PPM - Parts per Million

Attachment 3: Laboratory results from air sampling, Dec 9, 2015



**GALSON**  
LABORATORIES

LABORATORY ANALYSIS REPORT

6661 Kirkville Road  
East Syracuse, NY 13059  
(315) 432-5227  
FAX: (315) 437-0871  
www.galsonlabs.com

Client : Ames Laboratory  
Site : Ames Lab  
Date Sampled : 09-DEC-15 - 16-MAR-16  
Date Received : 21-MAR-16

Account No. : 45616  
Login No. : 1570212  
Date Analyzed : 23-MAR-16  
Report ID : 925376

**Lead**

Sample ID	Lab ID	Air Vol Liter	Total ug	Conc µg/m3
1-20916-RR-EM	L370212-1	397.8	0.67	0.0017
2-20916-RR-EM	L370212-2	NA	<0.34	NA
3-031616-RR-SE	L370212-5	147.793	5.3	0.036
4-031616-RR-SE	L370212-6	NA	<0.30	NA

**IH Note: Not applicable to beryllium report. Page included to maintain integrity of the laboratory report.**  
Julia Sager CIH CSP

**REMARKS:** Please see attached lab isolate report for any applicable footnotes.

Level of quantitation: 0.36 ug	Submitted by: JMR
Analytical Method : mod. ALOSH 750C/mod. OSHA ID-125G: 1CF	Approved by : keg
OSHA PEL : 0.05 mg/m3 (TWA)	Date : 23-MAR-16
Collection Media : MCE ON 37mm	NYS DCL # : 11626
	Supervisor: KEG
	QC by: CRD

< -Less Than	ug -Micrograms	m3 -Cubic Meters	kg -Kilograms	NA -Not Applicable	ND -Not Detected
> -Greater Than	ug -Micrograms	L -Liters	NS -No. Specified	ppm -Parts per Million	

Attachment 3: Laboratory results from air sampling, Dec 9, 2015



**GALSON**  
LABORATORIES

LABORATORY ANALYSIS REPORT

4501 Kinrossville Road  
Geneva, Syracuse, NY 13057  
(315) 432-5227  
FAX: (315) 432-0071  
www.galsonlabs.com

Client : Amas Laboratory  
Site : Amas Lab  
Date Sampled : 16-MAR-16  
Date Received : 21-MAR-16

Account No.: 25616  
Logic no. : 1375212  
Date Analyzed : 22-MAR-16  
Report ID : 921926

Respirable Dust and Crystalline Silica: Quartz, Cristobalite, Tridymite

Sample ID	Lab ID	Analyte	Air Vol.		%	mg/m3	Dust
			l	cu			FEI
							mg/m3
1-031616-ND-02	L270212-3	Dust	718.811	<0.050		<0.070	5.0
		Quartz	718.811	<0.0050	ND	<0.0070	
		Cristobalite	718.811	<0.0050	ND	<0.0070	
		Tridymite	718.811	<0.0050	ND	<0.0070	
3-031616-FA	L270212-4	Dust	NA	<0.050		NA	NA
		Quartz	NA	<0.0050	ND	NA	
		Cristobalite	NA	<0.0050	ND	NA	
		Tridymite	NA	<0.0050	ND	NA	

IH Note: Not applicable to beryllium report. Page included to maintain integrity of the laboratory report.  
Julia Sager CIH CSP

REMARKS: Please see attached lab footnote report for any applicable footnotes.

Level of quantitation: Dust 0.050mg Q:0.0050mg Cr:0.0050mg T10.000mg  
 Analytical Method : mod. NIOSH 1600/7501/mod. OSHA 10-142; Grav./NAD  
 OSHA PEL : see 1910.1000 (Table Z-3)  
 Collection Media : PVC TW 37mm  
 Submitted: DER/CR/BJD  
 Approved: CRI/CHK  
 Date : 20-MAR-16 NYS DOH #: 11628  
 Supervisor: KRK/CR OC by : CRD

< -Less than mg -Milligrams kg -Kilograms ppm -Parts per Million  
 > -Greater Than ug -Micrograms m3 -Cubic Meters NS -Not Specified  
 NA -Not Applicable ND -Not Detected l -Liters ppmcf -Million Particles per Cubic Foot

Attachment 3: Laboratory results from air sampling, Dec 9, 2015



**GALSON**  
LABORATORIES

LABORATORY REPORT REVIEW

6601 Knoxville Road  
East Syracuse, NY 13057  
315 437-5229  
FAX: 315 437-0574  
www.sgs-lab.com

Client Name : Aqua Laboratory  
Site : Area 15b

Date Sampled : 03-09-16 - 03-09-16 Report No. : 25676  
Date Received : 21-MAR-16 Sample No. : 1312412  
Date Analyzed : 22-MAR-16 - 24-MAR-16

This document is issued by the Company under the General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and arbitration clauses defined therein.

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Unless otherwise noted below, all quality control results associated with the samples were within established control limits or did not impact reported results.

**REMARKS:** The expected to which the findings reported herein, the "findings" include analytical errors and / or procedures by the Client or by a third party acting at the Client's direction. The findings constitute no warranty of the sample's representativeness of any zone and strictly relate to the sample(s). The Company accepts no liability with regard to the origin or source from which the samples tested said to be collected.

Detected results are carried through the calculations that give the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceding the final result column may have been rounded and therefore, if carried through the calculations, may not yield an identical final result to the one reported.

The stated LOD for each analyte represent the concentration LOD concentration prior to correction for detection efficiency (if applicable).

Unless otherwise noted below, reported results have not been blank corrected for any field blank or reagent blank.

0370212 Report ID: 228360:  
Reported results reflect elemental analysis of the requested particle. Certain requests may not be solubilized during digestion, resulting in data that is biased low.  
Date: 03/09/2016, 15:00:11:198

0370212 Report ID: 928761:  
Accuracy and mean recovery data presented below is based on a 94% confidence interval (CI). The estimated uncertainty applies to the media, technology, and SOP referenced in this report and does not account for the uncertainty associated with the sampling process.

Parameter	Recovery	Mean Recovery
Deposition	97-10.5%	105%

0370212 Report ID: 992071:  
Reported results reflect elemental analysis of the requested particle. Certain

Media Type	Filter	Flow Rate	Flow Rate	Flow Rate	Flow Rate per Minute	Flow Rate
Greater Than	PA-Radiograph	10	Quartz Fiberglass	10	10	10
	High-Efficiency	10	10	10	10	10

Attachment 3: Laboratory results from air sampling, Dec 9, 2015



**GALSON**  
LABORATORIES

LABORATORY FINDINGS REPORT

Client Name : Area Laboratory  
Site : 1900 S.E.

6601 N. 11th St. Bldg  
East, 9240100, MS 13027  
OEM: 800 422  
FAX: (313) 437-0841  
www.sgs.com

Date Sampled : 09-08-15 - 16-08-15 Account No: 25615  
Data Received : 21-08-15 Day: No. : 124612  
Data Analyzed : 22-MAR-15 - 23-MAR-15

059022 (Report ID: 059079):  
Sample may not be submitted during digestion, resulting in loss due to  
broken jar.  
SOP: SI-SOP-0129, rev02/1/14

1137012-5 (Report ID: 030376):  
Particulate present on the back-up pad. Back-up pad was digested and analyzed with the filter.  
Reported results may be biased high due to particulate background from the back up pad.

Accuracy and bias recovery data presented below is based on a 95% confidence interval level.  
The estimated uncertainty applies to the media, technology, and SOP referenced in this report  
and does not account for the uncertainty associated with the sampling process.

Parameter	Accuracy	Bias Recovery
Lead	+/-5%	99.1%

031012 (Report ID: 020269):  
Sampled in duplicate. Accuracy of the sampling media is  $\pm 0.01 \pm 0.002$  mg (average blank  
weight change +/- 95% confidence interval) to  $\pm 0.01$ . The estimated uncertainty applies to the media, technology, and  
SOP. The method is this report and does not account for any uncertainty associated with the sampling process.  
SOP: SRM-SOP-1(1), SRM-SOP-1(1), re-validation(1), re-validation(1), re-validation(1), re-validation(1),  
re-validation(1)

031012 (Report ID: 020269):  
Accuracy and bias recovery data presented below is based on a 95% confidence interval level.  
The estimated uncertainty applies to the media, technology, and SOP referenced in this report  
and does not account for the uncertainty associated with the sampling process.

Parameter	Accuracy	Bias Recovery
Chlorobenzene	+/-15.4%	94.0%
Quinone	+/-12.8%	99.1%
Triphenyl	+/-12.1%	100%

g	mg	µg	ng	pg	fg	ag
1	1000	1000000	1000000000	1000000000000	1000000000000000	1000000000000000000

Attachment 3: Laboratory results from air sampling, Dec 9, 2015

C3701212

175311750143336475  
 Date: 03/21/16  
 Shipper: UPS  
 Initials: SK  
 Prep: UNKNOWN

New Client? Report To: Julia Sagar Invoice To: \_\_\_\_\_  
 Client Account No.: \_\_\_\_\_  
 Phone No.: 515-294-9880 Phone No.: \_\_\_\_\_  
 Cell No.: \_\_\_\_\_ Email: \_\_\_\_\_  
 Email Results to: Julia Sagar Email address: sagar@ameslab.gov Email address: \_\_\_\_\_  
 Credit Card:  Card on file  Call for Credit Card Info.

Samples submitted using the FreeCompass™ Program  Samples submitted using the FreeSamplingBadges™ Program

Need Results by: (in large)  Standard 0% Site Name: Ames Lab Project: \_\_\_\_\_ Sampled by: Julia Sagar / Laura Kim  
 4 Business Days 35%  
 3 Business Days 50%  
 2 Business Days 75%  
 Next Day by 8pm 100%  
 Next Day by Noon 150%  
 Same Day 200%

List description of industry or process/interferences present in sampling area: \_\_\_\_\_  
 State samples were collected in (e.g., NY) IA Please indicate which OEL this data will be used for:  
 OSHA PEL  ACGH TLV  Cal OSHA  
 MSHA  Other (specify): \_\_\_\_\_

Sample Identifier* (Maximum of 30 characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Unit* L, mL, m³, µm, cm, m²	Analysis Requested*	Method Reference*	Resonance Correction Factors (e.g., welding plasma, grinding, etc.)*
1-120915-SZ-RM <u>Spec. outside</u>	12/09/15	37 mm Cassette	387.9	L	Be, Pb		Demolition Brick
2-120915-FB	12/09/15	37 mm Cassette	Field Blank	0	Be, Pb		
1-031616-AD-BZ	03/16/16	37 mm PW PVC	718.B1	L	Silica <u>RD/100 CT</u>	Dorr Oliver	Removing plaster
3-031616-FB	03/16/16	37 mm PW PVC	Field Blank	L	Silica <u>11</u>		
2-031616-RM-BZ	03/16/16	37 MM Cassette	147.795	L	Pb <u>indirect</u>		Unexposed galvanized
4-031616-FB	03/16/16	37 mm Cassette	Field Blank	L	Pb		
		<u>Spec. outside</u>					
		<u>Be 2/1</u>					

\*Ames Lab studies will substitute our routine/preferred method if it does not match the method listed on the COC unless this box is checked:  Use method(s) listed on COC  
 For metals analysis, if requesting an analysis with the option of a lower LOQ, please indicate if the lower LOQ is required (only available for certain analytes - see SAC):  
 For crystalline silica (form(s) of silica needed must be indicated (quartz, cristobalite, and/or tridymite)):

Chain of Custody	Print Name/Signature	Date	Time	Print Name/Signature	Date	Time
Requisitioned by:	<u>Laura Kim</u>	<u>3-18-16</u>	<u>2:55 pm</u>	Received by:	<u>Zach King</u>	<u>3/21/16</u>
Requisitioned by:				Received by:		

\*Samples received after 3pm will be considered as next day's business  
 \*Required fields, failure to complete these fields may result in a delay in your samples being processed.

Page \_\_\_ of \_\_\_

Note: Pages 8 and 9 are sample data sheets that are not related to the beryllium sampling event.