PBS | Engineering + Environmental

November 22, 2016

Jeremy Miller
Maintenance Manager
Department of Administrative Services
Enterprise Asset Management Division
1225 Ferry Street SE
Salem, Oregon 97301

Via email: Jeremy.W.MILLER@oregon.gov

Regarding: Drinking Water Sampling for Lead
Labor & Industries Building
350 Winter Street NE
Salem, Oregon 97301
PBS Project # 25103.003 Phase 0016

Dear Mr. Miller:

On October 13 and 15, 2016, PBS Engineering and Environmental Inc. (PBS) performed drinking water sampling at the Labor & Industries building located at 350 Winter Street NE in Salem, Oregon. The testing was requested by State of Oregon Department of Administrative Services in an effort to ensure that concentrations of lead in drinking water remain below the EPA action level.

Sampling methodology and the interpretation of laboratory results were based on the EPA Lead and Copper Rule (LCR). Following LCR sampling guidelines, PBS collected the first 1000 milliliters (mL) of water from each test location (first draw) early in the morning following an overnight stagnation period. The LCR's stagnation period, and sampling protocol specifying the first 1000 mL samples, is designed to maximize the likelihood that the highest concentrations of lead are identified in water used for consumption. At each sample location, immediately following first draw sampling, a flush sample was collected after the water had been allowed to run for 30 seconds.

The water sampling process was supervised by a certified industrial hygienist (CIH) who is also an Oregon Health Authority certified lead risk assessor.

The action level set by the EPA for lead is 15 parts per billion (ppb). If the action level is exceeded in more than 10 percent of taps sampled, then action must be taken to control plumbing-material corrosion.

Thirty first draw and flush drinking water samples were collected and delivered under chain of custody to BSK Laboratories in Vancouver, Washington for lead analysis. Initially, only first draw samples were analyzed. Any first draw sample that exceeded the EPA action level for lead had its associated flush sample analyzed.

Concentrations of lead in the first draw samples ranged from none detected to 3 ppb. Laboratory analysis indicates that all of these drinking water samples contained lead at concentrations below the EPA action level of 15 ppb.

The following table presents all first draw sample locations and lead concentrations in ppb.

4412 SW Corbett Avenue, Portland, OR 97239
503.248.1939 Main
866.727.0140 Fax
888.248.1939 Toll-Free
www.pbsenv.com

Bend | Boise | Coos Bay | Eugene I Issaquah | Portland | Seattle | Tri-Cities | Vancouver | Walla Walla

First Draw Drinking Water Sample Locations and Lead Concentrations

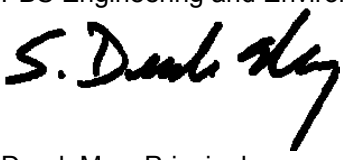
Sample Number	Sample Location	Lead Concentration (ppb)
SK-LAB-001-FD	Room 410 kitchenette fourth floor across from conference room 4B, sink	1.5
SK-LAB-003-FD	Room 440 kitchenette fourth floor across from 4-N-134 cubicle, sink	ND
SK-LAB-005-FD	Break room fourth floor commons kitchen sink	ND
SK-LAB-007-FD	Room 300 kitchenette third floor across from 3-N-200 cubicle, sink	ND
SK-LAB-009-FD	Room 330 kitchenette third floor across from conference room 3B kitchen sink break room	1.2
SK-LAB-011-FD	Break room third floor commons, kitchen sink	ND
SK-LAB-013-FD	Break room second floor commons, kitchen sink	ND
WF-LAB-015-FD	Water fountain first floor main lobby upper east near room 160	1.6
WF-LAB-017-FD	Water fountain first floor main lobby lower east near room 160	1.5
WF-LAB-019-FD	Water fountain first floor main lobby upper west near room 150	3.0
WF-LAB-021-FD	Water fountain first floor main lobby lower east near room 150	2.5
SK-LAB-023-FD	Break room first floor treasury department kitchen sink	ND
SK-LAB-025-FD	Room 1 custodial break room basement kitchen sink	2.6
SK-LAB-027-FD	Cafe kitchen sink bake station	ND
SK-LAB-029-FD	Cafe kitchen sink food prep 1	2.3

ND: None Detected

Please refer to the attached Chain of Custody form and laboratory data for greater details. It should be noted that quality control (QC) sample results are included at the end of laboratory information. The QC samples are both laboratory blanks and spiked samples used internally by the laboratory to assess accuracy.

Please feel free to contact me at 503.417.7602 or derek.may@pbsenv.com with any questions or comments.

Sincerely,
PBS Engineering and Environmental Inc.



Derek May, Principal

Attachments: Laboratory Results
Chain of Custody Form

DM::bmp

BSK Associates Fresno
1414 Stanislaus St
Fresno, CA 93706
559-497-2888 (Main)
559-485-6935 (FAX)

A6J2006
10/25/2016

Derek May
PBS Environmental
4412 SW Corbett Ave
Portland, OR 97239

RE: Report for A6J2006 Oregon DAS - Lead

Dear Derek May,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 10/17/2016. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2009 TNI Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

If additional clarification of any information is required, please contact your Project Manager, Debra Karlsson , at 559-497-2888.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

Debra Karlsson, Project Coordinator

Accredited in Accordance with NELAP
ORELAP #4021

BSK ASSOCIATES

Case Narrative

Project and Report Details		Invoice Details	
Client:	PBS Environmental	**Invoice To:**	PBS Environmental
Report To:	Derek May	**Invoice Attn:**	Accounts Payable
Project #:	Labor & Industries #25103.003 PH 16	**Project PO#:**	-
Received:	10/17/2016 - 16:30		
Report Due:	10/31/2016		

Sample Receipt Conditions

Cooler: Default Cooler
Temperature on Receipt ºC: 20.5

Containers Intact
COC/Labels Agree
Received with no thermal preservation.
Sample(s) split after receipt at the laboratory.
Initial receipt at BSK-VAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

None applied

Report Distribution

Recipient(s)	Report Format	CC:
Derek May	FINAL.RPT	

Certificate of Analysis

Sample ID: A6J2006-01
Sampled By: Client
Sample Description: SK-LAB-001-FD // Room 410 Kitchenette 4th Floor across from conference room 4B, kitchen sink

Sample Date - Time: 10/13/16 - 00:00
Matrix: Drinking Water
Sample Type: First Draw

BSK Associates Fresno

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Lead	EPA 200.8	**0.0015**	0.0010	mg/L	1	A614462	10/20/16	10/20/16	

Certificate of Analysis

Sample ID: A6J2006-03
Sampled By: Client
Sample Description: SK-LAB-003-FD // Room 440 Kitchenette 4th Floor across from 4-N-134 cubicle, kitchen sink

Sample Date - Time: 10/13/16 - 00:00
Matrix: Drinking Water
Sample Type: First Draw

BSK Associates Fresno

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Lead	EPA 200.8	ND	0.0010	mg/L	1	A614462	10/20/16	10/20/16	

Certificate of Analysis

Sample ID: A6J2006-05
Sampled By: Client
Sample Description: SK-LAB-005-FD // Breakroom 4th Floor commons kitchen sink

Sample Date - Time: 10/13/16 - 00:00
Matrix: Drinking Water
Sample Type: First Draw

BSK Associates Fresno

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Lead	EPA 200.8	ND	0.0010	mg/L	1	A614462	10/20/16	10/20/16	

Certificate of Analysis

Sample ID: A6J2006-07
Sampled By: Client
Sample Description: SK-LAB-007-FD // Room 300 Kitchenette 3rd Floor across from 3-N-200 cubicle, kitchen sink

Sample Date - Time: 10/13/16 - 00:00
Matrix: Drinking Water
Sample Type: First Draw

BSK Associates Fresno

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Lead	EPA 200.8	ND	0.0010	mg/L	1	A614462	10/20/16	10/20/16	

Certificate of Analysis

Sample ID: A6J2006-09
Sampled By: Client
Sample Description: SK-LAB-009-FD // Room 330 Kitchenette 3rd Floor across from conference room 3B kitchen sink breakroom

Sample Date - Time: 10/13/16 - 00:00
Matrix: Drinking Water
Sample Type: First Draw

BSK Associates Fresno

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Lead	EPA 200.8	**0.0012**	0.0010	mg/L	1	A614462	10/20/16	10/20/16	

Certificate of Analysis

Sample ID: A6J2006-11
Sampled By: Client
Sample Description: SK-LAB-011-FD // Breakroom 3rd Floor commons, kitchen sink

Sample Date - Time: 10/13/16 - 00:00
Matrix: Drinking Water
Sample Type: First Draw

BSK Associates Fresno

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Lead	EPA 200.8	ND	0.0010	mg/L	1	A614462	10/20/16	10/20/16	

Certificate of Analysis

Sample ID: A6J2006-13
Sampled By: Client
Sample Description: SK-LAB-013-FD // Breakroom 2nd Floor commons, kitchen sink

Sample Date - Time: 10/13/16 - 00:00
Matrix: Drinking Water
Sample Type: First Draw

BSK Associates Fresno

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Lead	EPA 200.8	ND	0.0010	mg/L	1	A614462	10/20/16	10/20/16	

Certificate of Analysis

Sample ID: A6J2006-15
Sampled By: Client
Sample Description: WF-LAB-015-FD // Water fountain 1st Floor main lobby upper East near Rm 160

Sample Date - Time: 10/13/16 - 00:00
Matrix: Drinking Water
Sample Type: First Draw

BSK Associates Fresno

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Lead	EPA 200.8	**0.0016**	0.0010	mg/L	1	A614462	10/20/16	10/20/16	

Certificate of Analysis

Sample ID: A6J2006-17
Sampled By: Client
Sample Description: WF-LAB-017-FD // Water fountain 1st Floor main lobby lower East near Rm 160

Sample Date - Time: 10/13/16 - 00:00
Matrix: Drinking Water
Sample Type: First Draw

BSK Associates Fresno

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Lead	EPA 200.8	**0.0015**	0.0010	mg/L	1	A614462	10/20/16	10/20/16	

Certificate of Analysis

Sample ID: A6J2006-19
Sampled By: Client
Sample Description: WF-LAB-019-FD // Water fountain 1stFloor main lobby upper West near Rm 150

Sample Date - Time: 10/13/16 - 00:00
Matrix: Drinking Water
Sample Type: First Draw

BSK Associates Fresno

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Lead	EPA 200.8	**0.0030**	0.0010	mg/L	1	A614462	10/20/16	10/20/16	

Certificate of Analysis

Sample ID: A6J2006-21
Sampled By: Client
Sample Description: WF-LAB-021-FD // Water fountain 1st Floor main lobby lower East near Rm 150

Sample Date - Time: 10/13/16 - 00:00
Matrix: Drinking Water
Sample Type: First Draw

BSK Associates Fresno

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Lead	EPA 200.8	**0.0025**	0.0010	mg/L	1	A614462	10/20/16	10/20/16	

Certificate of Analysis

Sample ID: A6J2006-23
Sampled By: Client
Sample Description: SK-LAB-023-FD // Breakroom 1st Floor treasury department kitchen sink

Sample Date - Time: 10/13/16 - 00:00
Matrix: Drinking Water
Sample Type: First Draw

BSK Associates Fresno

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Lead	EPA 200.8	ND	0.0010	mg/L	1	A614462	10/20/16	10/20/16	

Certificate of Analysis

Sample ID: A6J2006-25
Sampled By: Client
Sample Description: SK-LAB-025-FD // Room 1 Custodial breakroom basement kitchen sink

Sample Date - Time: 10/13/16 - 00:00
Matrix: Drinking Water
Sample Type: First Draw

BSK Associates Fresno

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Lead	EPA 200.8	**0.0026**	0.0010	mg/L	1	A614462	10/20/16	10/20/16	

BSK Associates Fresno

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 200.8 - Quality Control											
Batch: A614462										Prepared: 10/20/2016	
Prep Method: EPA 200.2 - Pb/Cu Rule										Analyst: GNG	
Blank (A614462-BLK1)											
Lead	ND	0.0010	mg/L							10/20/16	
Blank Spike (A614462-BS1)											
Lead	0.10	0.0010	mg/L	0.10		104	85-115			10/20/16	
Blank Spike Dup (A614462-BSD1)											
Lead	0.10	0.0010	mg/L	0.10		104	85-115	1	20	10/20/16	
Matrix Spike (A614462-MS1), Source: A6J1309-06											
Lead	0.21	0.0020	mg/L	0.20	ND	105	70-130			10/20/16	
Matrix Spike (A614462-MS2), Source: A6J2006-13											
Lead	0.20	0.0020	mg/L	0.20	ND	102	70-130			10/20/16	
Matrix Spike Dup (A614462-MSD1), Source: A6J1309-06											
Lead	0.21	0.0020	mg/L	0.20	ND	106	70-130	1	20	10/20/16	
Matrix Spike Dup (A614462-MSD2), Source: A6J2006-13											
Lead	0.20	0.0020	mg/L	0.20	ND	101	70-130	1	20	10/20/16	

Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method , all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.
- The MCLs provided in this report (if applicable) represent the primary MCLs for that analyte.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable	MCL:	Maximum Contaminant Limit		

Please see the individual Subcontract Lab's report for applicable certifications.

BSK is not accredited under the NELAP program for the following parameters: **NA**

Certifications: **Please refer to our website for a copy of our Accredited Fields of Testing under each certification.**

Fresno			
State of California - ELAP	1180	State of Hawaii	4021
State of Nevada	CA000792016-1	State of Oregon - NELAP	4021
EPA - UCMR3	CA00079	State of Washington	C997-16
Sacramento			
State of California - ELAP	2435		
San Bernardino			
State of California - ELAP	2993	State of Oregon - NELAP	4119-001
Vancouver			
State of Oregon - NELAP	WA100008-008	State of Washington	C824-16

PBS | Engineering + Environmental

A6J2006
PBSEN1939

10/17/2016
10

OREGON DAS [redacted]
LEAD IN DRINKING WATER TESTING PROGRAM

25103.003

FACILITY NAME: LABOR & INDUSTRIES

PROJECT #: [redacted] PH 16

ANALYSIS REQUESTED:

☑ LEAD (PB) IN DRINKING WATER
☐ COPPER (CU) IN DRINKING WATER

DATE: 10/13/16

RELINQ'D BY/SIGNATURE: Mike Golden / [signature]

DATE/TIME: 10/13/16 1400

20.5 RECEIVED BY/SIGNATURE: Jenna Rangell

DATE/TIME: 10/17/16 1030

EMAIL RESULTS TO: derek.may@pbsenv.com

TURN AROUND TIME: 7-10 days

SAMPLE DATA FORM

LAB	SAMPLE #	BUILDING	ROOM	LOCATION IN ROOM
1	SK-LAB-001-FD		410	Kitchenette, 4th Floor, Across
2	SK-LAB-002-FL		↓	from conference room 4B, Kitchen Sink
3	SK-LAB-003-FD		440	Kitchenette, 4th Floor, Across
4	SK-LAB-004-FL		↓	from 4-N-134 (cubicle), Kitchen Sink
5	SK-LAB-005-FD			Breakroom (4th Floor Commons) 4th
6	SK-LAB-006-FL			Floor, Kitchen Sink
7	SK-LAB-007-FD		300	Kitchenette, 3rd Floor, Across
8	SK-LAB-008-FL		↓	from 3-N-200 (cubicle), Kitchen Sink
9	SK-LAB-009-FD		330	Kitchenette, 3rd Floor, Across
10	SK-LAB-010-FL		↓	from Conference Room 3B, Kitchen Sink
11	SK-LAB-011-FD			Break room (3rd Floor Commons)
12	SK-LAB-012-FL		3rd	[redacted] Floor, Kitchen Sink
13	SK-LAB-013-FD			Breakroom (2nd Floor Commons)
14	SK-LAB-014-FL			2nd Floor, Kitchen Sink
15	WF-LAB-015-FD			Water Fountain, 1st Floor, Main
16	WF-LAB-016-FL			Lobby (Upper) East (near Rm 160)
17	WF-LAB-017-FD			Water Fountain, 1st Floor, Main
18	WF-LAB-018-FL			Lobby (Lower) East (near Rm 160)
19	WF-LAB-019-FD			Water Fountain 1st Floor, Main
20	WF-LAB-020-FL			Lobby (Upper) West (near Rm 150)
21	WF-LAB-021-FD			Water Fountain 1st Floor, Main
22	WF-LAB-022-FL			Lobby (Lower) East (near Rm 150)
23	SK-LAB-023-FD			Breakroom, 1st Floor, Treasury
24	SK-LAB-024-FL			Department, Kitchen Sink
25	SK-LAB-025-FD		1	Custodial Breakroom, Basement
26	SK-LAB-026-FL		↓	Kitchen Sink

PAGE 1 OF 1

BSK Associates SR-FL-0002-16

A6J2006
PBSEN1939

10/17/2016
10

Sample Integrity

BSK Bottles: (Yes) No Page 1 of 1

COC Info

Was temperature within range? Chemistry ≤ 6°C Micro < 10°C	Yes No (NA)	Were correct containers and preservatives received for the tests requested?	(Yes) No NA
If samples were taken today, is there evidence that chilling has begun?	Yes No (NA)	Were there bubbles in the VOA vials? (Volatiles Only)	Yes No (NA)
Did all bottles arrive unbroken and intact?	(Yes) No	Was a sufficient amount of sample received?	(Yes) No
Did all bottle labels agree with COC?	(Yes) No	Do samples have a hold time <72 hours?	Yes (No)
Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?	Yes No (NA)	Was PM notified of discrepancies? PM: By/Time:	Yes No (NA)

Bottles Received

"-" means preservation/chlorine checks are either N/A or are performed in the lab

250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?	−26				
Bacti $Na_2S_2O_3$	—	—					
None (P) White Cap	—	—					
Cr6 (P) Lt. Green Label/Blue Cap $NH_4OH(NH_4)_2SO_4$ DW	Cl, pH > 8	Y N					
Cr6 (P) Pink Label/Blue Cap $NH_4OH(NH_4)_2SO_4$ WW	pH 9.3-9.7	Y N					
Cr6 (P) Black Label/Blue Cap $NH_4OH(NH_4)_2SO_4$ 7199 ***24 HOUR HOLD TIME***	pH 9.0-9.5	Y N					
HNO_3 (P) Red Cap or HCl (P) Purple Cap/Lt. Blue Label	—	—	1C				
H_2SO_4 (P) or (AG) Yellow Cap/Label	pH < 2	Y N					
NaOH (P) Green Cap	Cl, pH >10	Y N					
NaOH + ZnAc (P)	pH > 9	Y N					
Dissolved Oxygen 300ml (g)	—	—					
None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	—	—					
HCl (AG) Lt. Blue Label O&G, Diesel	—	—					
Ascorbic, EDTA, KH_2Ct (AG) Pink Label 525	—	—					
Na_2O_3S 250mL (AG) Neon Green Label 515	—	—					
$Na_2S_2O_3$ 1 Liter (Brown P) 549	—	—					
$Na_2S_2O_3$ (AG) Blue Label 548, THM, 524	—	—					
$Na_2S_2O_3$ (CG) Blue Label 504, 505, 547	—	—					
$Na_2S_2O_3$ + MCAA (CG) Orange Label 531	pH < 3	Y N					
NH_4Cl (AG) Purple Label 552	—	—					
EDA (AG) Brown Label DBPs	—	—					
HCL (CG) 524.2,BTEX,Gas, MTBE, 8260/624	—	—					
Buffer pH 4 (CG)	—	—					
H_3PO_4 (CG) Salmon Label	—	—					
Other:							
Asbestos 1Liter Plastic w/ Foil	—	—					
Low Level Hg / Metals Double Baggie	—	—					
Bottled Water	—	—					
Clear Glass 250mL / 500mL / 1 Liter	—	—					
Soil Tube Brass / Steel / Plastic	—	—					
Tedlar Bag / Plastic Bag	—	—					

Split

	Container	Preservative	Date/Time/Initials		Container	Preservative	Date/Time/Initials
(S) P	250*			S P			
S P				S P			

Comments

* Odd numbers only. RLR

Labeled by: _____ @ _____ Labels checked by: _____ @ _____ RUSH Paged by: _____

BSK Associates Fresno
1414 Stanislaus St
Fresno, CA 93706
559-497-2888 (Main)
559-485-6935 (FAX)

A6J3318
11/09/2016

Derek May
PBS Environmental
4412 SW Corbett Ave
Portland, OR 97239

RE: Report for A6J3318 Oregon DAS - Lead

Dear Derek May,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 10/26/2016. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2009 TNI Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

If additional clarification of any information is required, please contact your Project Manager, Debra Karlsson , at 559-497-2888.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

Debra Karlsson, Project Coordinator

Accredited in Accordance with NELAP
ORELAP #4021

BSK ASSOCIATES

Case Narrative

Project and Report Details		Invoice Details	
Client:	PBS Environmental	**Invoice To:**	PBS Environmental
Report To:	Derek May	**Invoice Attn:**	Accounts Payable
Project #:	Labor & Industries #25103.003 PH 16	**Project PO#:**	-
Received:	10/26/2016 - 17:15		
Report Due:	11/10/2016		

Sample Receipt Conditions

Cooler: Default Cooler
Temperature on Receipt ºC: 20.4

Containers Intact
COC/Labels Agree
Received with no thermal preservation.
Sample(s) split after receipt at the laboratory.
Initial receipt at BSK-VAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

None applied

Report Distribution

Recipient(s)	Report Format	CC:
Derek May	FINAL.RPT	beth.powers@pbsenv.com

Certificate of Analysis

Sample ID: A6J3318-01
Sampled By: Client
Sample Description: SK-LAB-027-FD // Cafe kitchen sink bake station

Sample Date - Time: 10/15/16 - 00:00
Matrix: Drinking Water
Sample Type: First Draw

BSK Associates Fresno

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Lead	EPA 200.8	ND	0.0010	mg/L	1	A615129	11/02/16	11/02/16	

Certificate of Analysis

Sample ID: A6J3318-03
Sampled By: Client
Sample Description: SK-LAB-029-FD // Cafe kitchen sink food prep 1

Sample Date - Time: 10/15/16 - 00:00
Matrix: Drinking Water
Sample Type: First Draw

BSK Associates Fresno

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Lead	EPA 200.8	**0.0023**	0.0010	mg/L	1	A615129	11/02/16	11/02/16	

BSK Associates Fresno

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 200.8 - Quality Control											
Batch: A615129										Prepared: 11/2/2016	
Prep Method: EPA 200.2										Analyst: GNG	
Blank (A615129-BLK1)											
Lead	ND	0.0010	mg/L							11/02/16	
Blank Spike (A615129-BS1)											
Lead	0.098	0.0010	mg/L	0.10		98	85-115			11/02/16	
Blank Spike Dup (A615129-BSD1)											
Lead	0.098	0.0010	mg/L	0.10		98	85-115	0	20	11/02/16	
Matrix Spike (A615129-MS1), Source: A6J3315-03											
Lead	0.19	0.0020	mg/L	0.20	ND	97	70-130			11/02/16	
Matrix Spike Dup (A615129-MSD1), Source: A6J3315-03											
Lead	0.19	0.0020	mg/L	0.20	ND	95	70-130	3	20	11/02/16	

Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method , all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.
- The MCLs provided in this report (if applicable) represent the primary MCLs for that analyte.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable	MCL:	Maximum Contaminant Limit		

Please see the individual Subcontract Lab's report for applicable certifications.

BSK is not accredited under the NELAP program for the following parameters: **NA**

Certifications: **Please refer to our website for a copy of our Accredited Fields of Testing under each certification.**

Fresno			
State of California - ELAP	1180	State of Hawaii	4021
State of Nevada	CA000792016-1	State of Oregon - NELAP	4021
EPA - UCMR3	CA00079	State of Washington	C997-16
Sacramento			
State of California - ELAP	2435		
San Bernardino			
State of California - ELAP	2993	State of Oregon - NELAP	4119-001
Vancouver			
State of Oregon - NELAP	WA100008-008	State of Washington	C824-16

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PBS | Engineering + Environmental

OREGON DAS [redacted]
LEAD IN DRINKING WATER TESTING PROGRAM

FACILITY NAME: LABOR & INDUSTRIES

PROJECT #: 25103.003 [redacted] PH16

ANALYSIS REQUESTED:
- ☑ LEAD (PB) IN DRINKING WATER
- ☐ COPPER (CU) IN DRINKING WATER

DATE: 10/15/2016

RELINQ'D BY/SIGNATURE: Mike Golden / [signature]

DATE/TIME: 10/21/2016 1500

RECEIVED BY/SIGNATURE: [signature]

DATE/TIME: 10/26/16 5:15 PM

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EMAIL RESULTS TO: derek.may@pbsenv.com

TURN AROUND TIME: 7-10 days

SAMPLE DATA FORM

LAB	SAMPLE #	BUILDING	ROOM	LOCATION IN ROOM
1	SK-LAB-027-FD		CAFE	Kitchen Sink - Bake Station
2	SK-LAB-028-FL			
3	SK-LAB-029-FD			Kitchen Sink - Food Prep #1
4	SK-LAB-030-FL			

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Sample Integrity

BSK Bottles: (Yes) No Page 1 of 1

COC Info

Was temperature within range? Chemistry ≤ 6°C Micro < 10°C	Yes No (NA)	Were correct containers and preservatives received for the tests requested?	(Yes) No NA
If samples were taken today, is there evidence that chilling has begun?	Yes No (NA)	Were there bubbles in the VOA vials? (Volatiles Only)	Yes No (NA)
Did all bottles arrive unbroken and intact?	(Yes) No	Was a sufficient amount of sample received?	(Yes) No
Did all bottle labels agree with COC?	(Yes) No	Do samples have a hold time <72 hours?	Yes (No)
Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?	Yes No (NA)	Was PM notified of discrepancies? PM: By/Time:	Yes No (NA)

Bottles Received

"_" means preservation/chlorine checks are either N/A or are performed in the lab

250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?	1-4				
Bacti $Na_2S_2O_3$	—	—					
None (P) White Cap	—	—					
Cr6 (P) Lt. Green Label/Blue Cap $NH_4OH(NH_4)_2SO_4$ **DW**	Cl, pH > 8	Y N					
Cr6 (P) Pink Label/Blue Cap $NH_4OH(NH_4)_2SO_4$ **WW**	pH 9.3-9.7	Y N					
Cr6 (P) Black Label/Blue Cap $NH_4OH(NH_4)_2SO_4$ **7199** ***24 HOUR HOLD TIME***	pH 9.0-9.5	Y N					
HNO_3 (P) Red Cap (Brown) or HCl (P) Purple Cap/Lt. Blue Label	—	—	1C				
H_2SO_4 (P) or (AG) Yellow Cap/Label	pH < 2	Y N					
NaOH (P) Green Cap	Cl, pH >10	Y N					
NaOH + ZnAc (P)	pH > 9	Y N					
Dissolved Oxygen 300ml (g)	—	—					
None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	—	—					
HCl (AG) Lt. Blue Label O&G, Diesel	—	—					
Ascorbic, EDTA, KH_2Ct (AG) Pink Label 525	—	—					
Na_2O_3S 250mL (AG) Neon Green Label 515	—	—					
$Na_2S_2O_3$ 1 Liter (Brown P) 549	—	—					
$Na_2S_2O_3$ (AG) Blue Label 548, THM, 524	—	—					
$Na_2S_2O_3$ (CG) Blue Label 504, 505, 547	—	—					
$Na_2S_2O_3$ + MCAA (CG) Orange Label 531	pH < 3	Y N					
NH_4Cl (AG) Purple Label 552	—	—					
EDA (AG) Brown Label DBPs	—	—					
HCL (CG) 524.2,BTEX,Gas, MTBE, 8260/624	—	—					
Buffer pH 4 (CG)	—	—					
H_3PO_4 (CG) Salmon Label	—	—					
Other:							
Asbestos 1Liter Plastic w/ Foil	—	—					
Low Level Hg / Metals Double Baggie	—	—					
Bottled Water	—	—					
Clear Glass 250mL / 500mL / 1 Liter	—	—					
Soil Tube Brass / Steel / Plastic	—	—					
Tedlar Bag / Plastic Bag	—	—					

Split

	Container	Preservative	Date/Time/Initials		Container	Preservative	Date/Time/Initials
(S) P	250*			S P			
S P				S P			

Comments

* Odd numbers only. RER

Labeled by: _____ @ _____ Labels checked by: _____ @ _____ RUSH Paged by: _____

Sample Integrity

BSK Bottles: (Yes) No Page 1 of 1

COC Info

Was temperature within range? Chemistry ≤ 6°C Micro < 10°C	Yes No (NA)	Were correct containers and preservatives received for the tests requested?	(Yes) No NA
If samples were taken today, is there evidence that chilling has begun?	Yes No (NA)	Were there bubbles in the VOA vials? (Volatiles Only)	Yes (No) NA
Did all bottles arrive unbroken and intact?	(Yes) No	Was a sufficient amount of sample received?	(Yes) No
Did all bottle labels agree with COC?	(Yes) No	Do samples have a hold time <72 hours?	Yes (No)
Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?	Yes No (NA)	Was PM notified of discrepancies? PM: By/Time:	Yes No (NA)

Bottles Received ("–" means preservation/chlorine checks are either N/A or are performed in the lab)

250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?	1–4				
Bacti $Na_2S_2O_3$	—	—					
None (P) White Cap	—	—					
Cr6 (P) Lt. Green Label/Blue Cap $NH_4OH(NH_4)_2SO_4$ DW	Cl, pH > 8	Y N					
Cr6 (P) Pink Label/Blue Cap $NH_4OH(NH_4)_2SO_4$ WW	pH 9.3-9.7	Y N					
Cr6 (P) Black Label/Blue Cap $NH_4OH(NH_4)_2SO_4$ 7199 ***24 HOUR HOLD TIME***	pH 9.0-9.5	Y N					
HNO_3 (P) Red Cap Brown or HCl (P) Purple Cap/Lt. Blue Label	—	—	1C				
H_2SO_4 (P) or (AG) Yellow Cap/Label	pH < 2	Y N					
NaOH (P) Green Cap	Cl, pH >10	Y N					
NaOH + ZnAc (P)	pH > 9	Y N					
Dissolved Oxygen 300ml (g)	—	—					
None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	—	—					
HCl (AG) Lt. Blue Label O&G, Diesel	—	—					
Ascorbic, EDTA, KH_2Ct (AG) Pink Label 525	—	—					
Na_2O_3S 250mL (AG) Neon Green Label 515	—	—					
$Na_2S_2O_3$ 1 Liter (Brown P) 549	—	—					
$Na_2S_2O_3$ (AG) Blue Label 548, THM, 524	—	—					
$Na_2S_2O_3$ (CG) Blue Label 504, 505, 547	—	—					
$Na_2S_2O_3$ + MCAA (CG) Orange Label 531	pH < 3	Y N					
NH_4Cl (AG) Purple Label 552	—	—					
EDA (AG) Brown Label DBPs	—	—					
HCL (CG) 524.2,BTEX,Gas, MTBE, 8260/624	—	—					
Buffer pH 4 (CG)	—	—					
H_3PO_4 (CG) Salmon Label	—	—					
Other:							
Asbestos 1Liter Plastic w/ Foil	—	—					
Low Level Hg / Metals Double Baggie	—	—					
Bottled Water	—	—					
Clear Glass 250mL / 500mL / 1 Liter	—	—					
Soil Tube Brass / Steel / Plastic	—	—					
Tedlar Bag / Plastic Bag	—	—					

Split

	Container	Preservative	Date/Time/Initials		Container	Preservative	Date/Time/Initials
(S) P	250*			S P			
S P				S P			

Comments

* Odd numbers only. RER

All containers received intact RER 11-1

Labeled by: _____ @ _____ Labels checked by: _____ @ _____ RUSH Paged by: _____ @ _____