

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

Executive Building 155 Cottage Street NE Salem, Oregon 97301

PBS Project #: 25103.003 Phase 0006

Dear Mr. Miller:

On October 11, 2016, PBS Engineering and Environmental Inc. (PBS) performed drinking water sampling at the Executive building located at 155 Cottage 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.

Twenty six 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 11 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.

#### First Draw Drinking Water Sample Locations and Lead Concentrations

| Sample Number | Sample Location                              | Lead<br>Concentration<br>(ppb) |
|---------------|--|--------------------------------|
| SK-EXB-001-FD | Kitchenette sink fifth floor (north)         | ND                             |
| WF-EXB-003-FD | Upper water fountain in fifth floor hallway  | 11                             |
| WF-EXB-005-FD | Lower water fountain in fifth floor hallway  | 5.6                            |
| SK-EXB-007-FD | Kitchen sink in fourth floor employee lounge | ND                             |
| SK-EXB-009-FD | Third floor kitchenette sink                 | 1.1                            |
| WF-EXB-011-FD | Upper water fountain, third floor            | 1.7                            |
| WF-EXB-013-FD | Lower water fountain, third floor            | 3.2                            |
| SK-EXB-015-FD | Second floor kitchenette sink                | ND                             |
| WF-EXB-017-FD | Upper water fountain hallway, second floor   | 2.8                            |
| WF-EXB-019-FD | Lower water fountain hallway, second floor   | 3.0                            |
| SK-EXB-021-FD | First floor kitchenette sink                 | ND                             |
| WF-EXB-023-FD | Upper water fountain hallway, first floor    | ND                             |
| WF-EXB-025-FD | Lower water fountain hallway, first floor    | 1.4                            |

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

The information contained in this document is proprietary and shall not be duplicated, used, or disclosed in whole or in part to other parties without the permission of PBS.



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

RE: Report for A6J1791 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 10/13/2016. 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





#### **Case Narrative**

Project and Report Details Invoice Details

Client: PBS Environmental Invoice To: PBS Environmental Report To: Derek May Invoice Attn: Accounts Payable

Project #: Executive Building #25103.003 PH 6 Project PO#: -

**Received:** 10/13/2016 - 09:00

**Report Due:** 10/27/2016

**Sample Receipt Conditions** 

Cooler:Default CoolerContainers IntactTemperature on Receipt °C: 20.2COC/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





Executive Building #25103.003 PH 6

## **Certificate of Analysis**

Sample ID: A6J1791-01 **Sample Date - Time:** 10/11/16 - 00:00 Sampled By: Client

Matrix: Drinking Water

Sample Description: SK-EXB-001-FD // Kitchenette kitchen sink 5th Floor (North)

Sample Type: First Draw

| Analyte | Method    | Result | RL     | Units | RL<br>Mult | Batch   | Prepared | Analyzed | Qual |
|---------|-----------|--------|--------|-------|------------|---------|----------|----------|------|
| Lead    | EPA 200.8 | ND     | 0.0010 | mg/L  | 1          | A614371 | 10/19/16 | 10/19/16 |      |





Oregon DAS - Lead

Executive Building #25103.003 PH 6

## **Certificate of Analysis**

**Sample ID:** A6J1791-03 **Sample Date - Time:** 10/11/16 - 00:00

Matrix: Drinking Water

Sample Description: WF-EXB-003-FD // Upper water fountain in 5th Floor hallway

# Sample Type: First Draw

| Analyte | Method    | Result | RL     | Units | RL<br>Mult | Batch   | Prepared | Analyzed Qual |
|---------|-----------|--------|--------|-------|------------|---------|----------|---------------|
| Lead    | EPA 200.8 | 0.011  | 0.0010 | mg/L  | 1          | A614371 | 10/19/16 | 10/19/16      |





Oregon DAS - Lead

Executive Building #25103.003 PH 6

## **Certificate of Analysis**

**Sample ID:** A6J1791-05 **Sample Date - Time:** 10/11/16 - 00:00

Matrix: Drinking Water Sample Type: First Draw

Sample Description: WF-EXB-005-FD // Lower water fountain in 5th Floor hallway

| Analyte | Method    | Result | RL     | Units | RL<br>Mult | Batch   | Prepared | Analyzed | Qual |
|---------|-----------|--------|--------|-------|------------|---------|----------|----------|------|
| Lead    | EPA 200.8 | 0.0056 | 0.0010 | mg/L  | 1          | A614371 | 10/19/16 | 10/19/16 |      |





Oregon DAS - Lead

Executive Building #25103.003 PH 6

## **Certificate of Analysis**

**Sample ID:** A6J1791-07 **Sample Date - Time:** 10/11/16 - 00:00

Matrix: Drinking Water

Sample Description: SK-EXB-007-FD // Kitchen sink in 4th Floor employee lounge

Sample Type: First Draw

| Analyte | Method    | Result | RL     | Units | RL<br>Mult | Batch   | Prepared | Analyzed Qual |
|---------|-----------|--------|--------|-------|------------|---------|----------|---------------|
| Lead    | EPA 200.8 | ND     | 0.0010 | mg/L  | 1          | A614371 | 10/19/16 | 10/19/16      |





Executive Building #25103.003 PH 6

## **Certificate of Analysis**

Sample ID: A6J1791-09
Sampled By: Client
Sampled By: Drinking Water

Matrix: Drinking Water Sample Type: First Draw

Sample Description: SK-EXB-009-FD // Kitchenette 3rd Floor kitchen sink

# BSK Associates Fresno

| Metals |
|--------|
|--------|

| Analyte | Method    | Result | RL     | Units | RL<br>Mult | Batch   | Prepared | Analyzed Qual |
|---------|-----------|--------|--------|-------|------------|---------|----------|---------------|
| Lead    | EPA 200.8 | 0.0011 | 0.0010 | mg/L  | 1          | A614371 | 10/19/16 | 10/19/16      |





Executive Building #25103.003 PH 6

## **Certificate of Analysis**

Sample ID: A6J1791-11 **Sample Date - Time:** 10/11/16 - 00:00 Sampled By: Client

Matrix: Drinking Water

Sample Type: First Draw Sample Description: WF-EXB-011-FD // Upper water fountain 3rd Floor

|   | Analyte | Method    | Result | RL     | Units | RL<br>Mult | Batch   | Prepared | Analyzed | Qual |
|---|---------|-----------|--------|--------|-------|------------|---------|----------|----------|------|
| • | Lead    | EPA 200.8 | 0.0017 | 0.0010 | mg/L  | 1          | A614371 | 10/19/16 | 10/19/16 |      |





Oregon DAS - Lead

Executive Building #25103.003 PH 6

## **Certificate of Analysis**

**Sample ID:** A6J1791-13 **Sample Date - Time:** 10/11/16 - 00:00

Matrix: Drinking Water

Sample Description: WF-EXB-013-FD // Lower water fountain 3rd Floor Sample Type: First Draw

| Analy | e Method  | Result | RL     | Units | RL<br>Mult | Batch   | Prepared | Analyzed | Qual |
|-------|-----------|--------|--------|-------|------------|---------|----------|----------|------|
| Lead  | EPA 200.8 | 0.0032 | 0.0010 | mg/L  | 1          | A614371 | 10/19/16 | 10/19/16 |      |





Executive Building #25103.003 PH 6

## **Certificate of Analysis**

Sample ID: A6J1791-15 **Sample Date - Time:** 10/11/16 - 00:00 Sampled By: Client

Matrix: Drinking Water

Sample Description: SK-EXB-015-FD // Kitchenette 2nd Floor kitchen sink

Sample Type: First Draw

| Analyte | Method    | Result | RL     | Units | RL<br>Mult | Batch   | Prepared | Analyzed Qual |
|---------|-----------|--------|--------|-------|------------|---------|----------|---------------|
| Lead    | EPA 200.8 | ND     | 0.0010 | mg/L  | 1          | A614371 | 10/19/16 | 10/19/16      |





Oregon DAS - Lead

Executive Building #25103.003 PH 6

## **Certificate of Analysis**

**Sample ID:** A6J1791-17 **Sample Date - Time:** 10/11/16 - 00:00

Matrix: Drinking Water

Sample Description: WF-EXB-017-FD // Upper water fountain hallway 2nd Floor Sam

Sample Type: First Draw

| Analyte | Method    | Result | RL     | Units | RL<br>Mult | Batch   | Prepared | Analyzed Qual |
|---------|-----------|--------|--------|-------|------------|---------|----------|---------------|
| Lead    | EPA 200.8 | 0.0028 | 0.0010 | mg/L  | 1          | A614371 | 10/19/16 | 10/19/16      |





Executive Building #25103.003 PH 6

## **Certificate of Analysis**

Sample ID: A6J1791-19
Sampled By: Client
Sampled By: Drinking Water

Matrix: Drinking Water
Sample Type: First Draw

Sample Description: WF-EXB-019-FD // Lower water fountain hallway 2nd Floor

# BSK Associates Fresno

|   | Analyte | Method    | Result | RL     | Units | RL<br>Mult | Batch   | Prepared | Analyzed | Qual |
|---|---------|-----------|--------|--------|-------|------------|---------|----------|----------|------|
| ī | Lead    | EPA 200.8 | 0.0030 | 0.0010 | mg/L  | 1          | A614371 | 10/19/16 | 10/19/16 |      |

Metals





Executive Building #25103.003 PH 6

## **Certificate of Analysis**

Sample ID: A6J1791-21 **Sample Date - Time:** 10/11/16 - 00:00 Sampled By: Client

Matrix: Drinking Water

Sample Type: First Draw Sample Description: SK-EXB-021-FD // Kitchenette 1st Floor kitchen sink

| Analyte | Method    | Result | RL     | Units | RL<br>Mult | Batch   | Prepared | Analyzed | Qual |
|---------|-----------|--------|--------|-------|------------|---------|----------|----------|------|
| Lead    | EPA 200.8 | ND     | 0.0010 | mg/L  | 1          | A614371 | 10/19/16 | 10/19/16 |      |





Executive Building #25103.003 PH 6

## **Certificate of Analysis**

Sample ID: A6J1791-23 **Sample Date - Time:** 10/11/16 - 00:00 Sampled By: Client

Matrix: Drinking Water

Sample Type: First Draw Sample Description: WF-EXB-023-FD // Upper water fountain hallway 1st Floor

| Analyte | Method    | Result | RL     | Units | RL<br>Mult | Batch   | Prepared | Analyzed | Qual |
|---------|-----------|--------|--------|-------|------------|---------|----------|----------|------|
| Lead    | EPA 200.8 | ND     | 0.0010 | mg/L  | 1          | A614371 | 10/19/16 | 10/19/16 |      |





Executive Building #25103.003 PH 6

## **Certificate of Analysis**

Sample ID: A6J1791-25 **Sample Date - Time:** 10/11/16 - 00:00 Sampled By: Client

Matrix: Drinking Water

Sample Description: WF-EXB-025-FD // Lower water fountain hallway 1st Floor

Sample Type: First Draw

| Analyte | Method    | Result | RL     | Units | RL<br>Mult | Batch   | Prepared | Analyzed Qual |
|---------|-----------|--------|--------|-------|------------|---------|----------|---------------|
| Lead    | EPA 200.8 | 0.0014 | 0.0010 | mg/L  | 1          | A614371 | 10/19/16 | 10/19/16      |



## BSK Associates Fresno Metals Quality Control Report

| metals Quality Control Report      |                    |        |          |                |                  |      |                |     |              |   |            |
|------------------------------------|--------------------|--------|----------|----------------|------------------|------|----------------|-----|--------------|---|------------|
| Analyte                            | Result             | RL     | Units    | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Date<br>Analyzed                        | Qual       |
|                                    |                    |        |          | uality Co      |                  |      |                |     |              | , |            |
| Batch: A614371                     |                    | LFA 2  | 00.0 - Q | uanty Co       | iitioi           |      |                |     |              | Prenared:                               | 10/19/2016 |
| Prep Method: EPA 200.2 - Pb/Cu Ru  | ile                |        |          |                |                  |      |                |     |              | •                                       | alyst: GNG |
| ·                                  |                    |        |          |                |                  |      |                |     |              |   | , ,        |
| Blank (A614371-BLK1)               |                    |        |          |                |                  |      |                |     |              |   |            |
| Lead                               | ND                 | 0.0010 | mg/L     |                |                  |      |                |     |              | 10/19/16                                |            |
| Blank Spike (A614371-BS1)          |                    |        |          |                |                  |      |                |     |              |   |            |
| Lead                               | 0.11               | 0.0010 | mg/L     | 0.10           |                  | 108  | 85-115         |     |              | 10/19/16                                |            |
| Blank Spike Dup (A614371-BSD1)     |                    |        |          |                |                  |      |                |     |              |   |            |
| Lead                               | 0.11               | 0.0010 | mg/L     | 0.10           |                  | 107  | 85-115         | 1   | 20           | 10/19/16                                |            |
| Matrix Spike (A614371-MS1), Source | e: A6J1791-01      |        |          |                |                  |      |                |     |              |   |            |
| Lead                               | 0.21               | 0.0020 | mg/L     | 0.20           | ND               | 104  | 70-130         |     |              | 10/19/16                                |            |
| Matrix Spike (A614371-MS2), Source | e: A6J1791-21      |        |          |                |                  |      |                |     |              |   |            |
| Lead                               | 0.20               | 0.0020 | mg/L     | 0.20           | ND               | 102  | 70-130         |     |              | 10/19/16                                |            |
| Matrix Spike Dup (A614371-MSD1),   | Source: A6J1791-01 |        |          |                |                  |      |                |     |              |   |            |
| Lead                               | 0.20               | 0.0020 | mg/L     | 0.20           | ND               | 102  | 70-130         | 2   | 20           | 10/19/16                                |            |
| Matrix Spike Dup (A614371-MSD2),   | Source: A6J1791-21 |        |          |                |                  |      |                |     |              |   |            |
| Lead                               | 0.20               | 0.0020 | mg/L     | 0.20           | ND               | 102  | 70-130         | 0   | 20           | 10/19/16                                |            |
|                                    |                    |        |          |                |                  |      |                |     |              |   |            |



#### **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.

WA100008-008

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

State of Washington

C824-16



# Engineering + Environmental

A6J1791 PBSEN1939 10/13/2016 10



25103.003

| FACILITY NAME: EXECUTIVE BUILDING   | PROJECT#: PH                |
|---|-----------------------------|
| ANALYSIS REQUESTED:  LEAD (PB) IN DRINKING WATER  COPPER (CU) IN DRINKING WATER | DATE: 10 11 2016            |
| RELINQ'D BY/SIGNATURE: Mike Golden / Will                                       | DATE/TIME: 10 12/16 1700    |
| PRECEIVED BY/SIGNATURE TOUR HUMAN   | DATE/TIME: 10 13 16 0900    |
| EMAIL RESULTS TO: derek may Epbsen com  | TURN AROUND TIME: 7-10 days |

|     |                   | SAMPLE                                  | DATA FO | DRM                               |
|-----|-------------------|---|---------|-----------------------------------|
| LAB | SAMPLE#           | BUILDING                                | ROOM    | LOCATION IN ROOM                  |
|     | SK-EXB-001-FD     | 400000000000000000000000000000000000000 |         | Kitchenette, 5th Floor, Kitchen   |
| 2   | SK-EXB-002-FL     |   |         | Sink (North)                      |
| 3   | WF-EXB-003-FD     |   |         | water Foundain (tolipper) hallway |
| 4   | WF - EXB. 004-FC  |   |         | Eth Place                         |
| 5   | WF-EXB-005-FD     |   |         | worker bountain (lower) hallway   |
| 6   | WF - BX8-006-FL   |   |         | 5+n Floor                         |
| 7   | SK-EYB-007-FD     |   |         | Employee Louise LAM FLOOR         |
| 8   | SK-BKB-008FL      |   |         | Kitchen Dink                      |
| 9   | SK-EXB- 009-FD    |   |         | Kitchenette, 3rd Floor, Kitchen   |
| 10  | SK-BKB-010. FL    |   |         | Sink                              |
| 1/_ | WF-EXB-011-FO     |   |         | Water Fountain 3rd Floor (uppor)  |
| 12  | WF-EX8-012-FU     |   |         | 4                                 |
| 13  | WF-BX8-013-FU     |   |         | Water Fountain 3rd Floor (lower)  |
| 14  | WF-BXB-014-FL     |   |         | 4                                 |
| 15  | DK- EX8- OIS-FD   |   |         | Kitchenotte, and Floor, Kitchen   |
| 16  | SK-EXB-016-FL     |   |         | SINK &                            |
| 17  | WF-EKB-017-FD     |   |         | Worder Fountain (upper) hallway   |
| 18  | WF-EXB-018-FL     |   |         | and Proof                         |
| 19  | WF-EXB-1019-FU    |   |         | Wooder Foundain (Lower) hallway   |
| 20  | WF-8K8-020-FC     |   |         | and Floor                         |
| 21  | SK-EXG. OAI-FO    |   |         | KHEMMOHE 1ST Floor, Kith          |
| 22  | 5K-EXB-032-PL     | 900 N                                   |         | Sink                              |
| 23  | WF-EXB-623-FO     | 24 2 40                                 |         | Water Fountain Copper) hally      |
| 24  | WF - EXB - 024-F4 |   |         | Floor                             |
| 25  | WF - 5x3-025-FO   |   |         | Waster Formain (Louis) howard     |
| 26  | WF - EXB - 026-PU |   |         | 194 Place                         |

A6J1791 PBSEN1939 10/13/2016

Sample Integrity BSK Bottles: Yes Page of Was temperature within range? Were correct containers and preservatives Yes No NA Yes No NA Chemistry ≤ 6°C Micro < 10°C received for the tests requested? Info If samples were taken today, is there evidence Were there bubbles in the VOA vials? Yes No (NA No (NA that chilling has begun? (Volatiles Only) Did all bottles arrive unbroken and intact? Yes No Was a sufficient amount of sample received? Did all bottle labels agree with COC? Do samples have a hold time <72 hours? Yes No Was sodium thiosulfate added to CN sample(s) Was PM notified of discrepancies? Yes No NA Yes No (NA until chlorine was no longer present? By/Time: 250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V) Checks Passed? Bacti Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> None (P)White Cap Cr6 (P) Lt. Green Label/Blue Cap NH4OH(NH4)2SO4 DW Cl, pH > 8Cr6 (P) Pink Label/Blue Cap NH40H(NH4)2SO4 WW pH 9.3-9.7 Y Cr6 (P) Black Label/Blue Cap NH40H(NH4)2SO4 7199 pH 9.0-9.5 Y N \*\*\*24 HOUR HOLD TIME\*\*\* HNO<sub>3</sub> (P) Red Copy or HCI (P) Purple Cap/Lt. Blue Label H<sub>2</sub>SO<sub>4</sub> (P) or (AG) pH < 2 NaOH (P) Green Cap CI, pH >10 Y NaOH + ZnAc (P) pH > 9 Y N preservation/chlorine checks are either N/A or are Dissolved Oxygen 300ml (g) None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270 **Bottles Received** HCI (AG)Lt. Blue Label O&G, Diesel Ascorbic, EDTA, KH2Ct (AG)Pink Label 525 Na<sub>2</sub>O<sub>3</sub>S 250mL (AG)<sup>Neon Green Label</sup> 515 Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> 1 Liter (Brown P) 549 Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> (AG)<sup>Blue Label</sup> 548, THM, 524 Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> (CG) Blue Label 504, 505, 547 Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> + MCAA (CG)<sup>Orange Label</sup> 531 pH < 3 YN NH<sub>4</sub>CI (AG)<sup>Purple Label</sup> 552 EDA (AG)Brown Label DBPs HCL (CG) 524.2,BTEX,Gas, MTBE, 8260/624 Buffer pH 4 (CG) H<sub>3</sub>PO<sub>4</sub> (CG)<sup>Salmon Label</sup> 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 Plastic Bag Tedlar Bag / Container Preservative Date/Time/Initials Container Preservative Date/Time/Initials s)P 250% SP SP & Odd numbers only. RLA Comments

| Labeled | by: | ( | <u>a</u> |  |
|---------|-----|---|----------|--|
|---------|-----|---|----------|--|







10142016

PBSEN1939

Turnaround: Standard

Due Date: 10/27/2016



PBS Environmental





A6J1791 10/13/20 PBSEN1939 10

| Sa                 | Sample Integrity   |               |            |  |            |             |                        |                           |               |            |                            |
|--------------------|--|---------------|------------|--|------------|-------------|------------------------|---------------------------|---------------|------------|----------------------------|
| BS                 | SK Bottles:(Yes) No Page   | e ( of        |            |  |            |             | 114 HB18 B1848 B       | SI listi ierer serer men. | HE CONTROL OF |            |                            |
|                    | Was temperature within range? Chemistry ≤ 6°C Micro < 10°C                             | Yes No(1      | NA)        | We   | re correc  | t contai    | ners and p             | reservative:              | s (           | Yes        | No NA                      |
| COC Info           | If samples were taken today, is there evidence that chilling has begun?                | Yes No (      | Na         | received for the tests requested?  Were there bubbles in the VOA vials? (Volatiles Only) |            |             |                        |                           |               | Yes No (NA |                            |
| ည                  | Did all bottles arrive unbroken and intact?  |               | <b>1</b> 0 | Wa   | s a suffic | cient am    |                        | nple receive              | ed?           | Yes        | J 100                      |
| ర                  | Did all bottle labels agree with COC?  | Yes N         |            |  |            |             | hold time <            |                           |               | Yes        |                            |
|                    | Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?     | Yes No (1     | NA)        | PM:  |            | titied of ( | discrepanc<br>By/Time: | ies?                      | -             | Yes        | No (NA                     |
|                    | 250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)  | Checks        | Pas        |  |            | -20         | Dyr time.              |                           | T             |            |                            |
|                    | Bacti Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>                                    | -             | -          |  |            | ~¥          |                        |                           | 1             | 4.         |                            |
|                    | None (P)White Cap  | _             | _          |  |            |             |                        |                           |               |            |                            |
|                    | Cr6 (P) Lt. Green Label/Blue Cap NH4OH(NH4)2SO4 DW                                     | Cl, pH > 8    | Y          | N  |            |             |                        |                           | 1             |            |                            |
|                    | Cr6 (P) Pink Label/Blue Cap NH4OH(NH4)2SO4 WW  | pH 9.3-9.7    | Y          | N  |            |             |                        |                           | <del> </del>  |            |                            |
| <u>)</u><br>2<br>2 | Cr6 (P) Black Label/Blue Cap NH40H(NH4)2S04 7199                                       | pH 9.0-9.5    | Y          | N  |            |             |                        |                           |               |            |                            |
| 2                  | HNO <sub>3</sub> (P) Ren Carry or HCl (P) Purple Cap/Lt. Blue Label                    |               | _          | _  | 10         |             |                        |                           | 1.000         | التكنينة   | 33 - 1 - 1 - 2 - 2 - 2 - 2 |
| rom of             | H <sub>2</sub> SO <sub>4</sub> (P) or (AG) Yellow Cap/Label                            | pH<2          | Y          | N  |            | )           |                        |                           | 1             |            |                            |
| r Cyr              | NaOH (P) Green Cap   | Cl, pH >10    | Y          | N  |            |             |                        |                           |               |            |                            |
| 0                  | NaOH + ZnAc (P)  | 9 < Hq        | Y          | N  |            |             | 2.5                    |                           |               |            |                            |
| 5                  | Dissolved Oxygen 300ml (g)   |               | _          |  |            |             | <u> </u>               |                           | +             |            |                            |
| 70 2               | None (AG) 608/8081/8082, 625, 632/6321, 8151, 8270                                     |               | _          |  |            |             |                        |                           |               |            | 1 A-1 - 1                  |
| ed<br>Fed          |  |               |            |  |            |             |                        |                           |               |            |                            |
| Bottles Received   | Ascorbic, EDTA, KH <sub>2</sub> Ct (AG) <sup>Pink Label</sup> 525                      |               |            |  | ,          |             |                        |                           | -             |            |                            |
| Sec.               | Na <sub>2</sub> O <sub>3</sub> S 250mL (AG) <sup>Neon Green Label</sup> 515            |               |            |  |            |             |                        |                           |               | 1/2/       |                            |
| <b>S</b> 5         | Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> 1 Liter (Brown P) 549                    |               |            |  |            |             |                        |                           |               |            |                            |
| it e               | Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (AG) <sup>Blue Label</sup> 548, THM, 524 | <del>-</del>  |            |  |            | - 14        | <del></del>            |                           |               | - /        |                            |
| Bo<br>Porine       | Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (CG) <sup>Blue</sup> Label 504, 505, 547 |               | -          |  |            |             |                        | 11-1-1                    |               |            |                            |
| 5                  |  |               | 731.       | -  |            |             |                        |                           |               | 1 70-0     |                            |
| ation/ch!          | Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> + MCAA (CG) <sup>Orange Label</sup> 531  | pH < 3        | Υ          | N  |            |             | . No. 4                |                           |               |            | - K                        |
| , tr               | NH <sub>4</sub> CI (AG) <sup>Purple Label</sup> 552                                    |               |            | -  |            |             |                        |                           |               |            |                            |
| zas.               | EDA (AG) <sup>Brown Labe)</sup> DBPs   |               |            | -  |            |             |                        |                           | 1.5%          |            | -                          |
| 0.0                | HCL (CG) 524.2,BTEX,Gas, MTBE, 8260/624  |               | _          | -  |            |             |                        |                           |               |            |                            |
| means              | Buffer pH 4 (CG)   |               | -          | -  |            | 1           |                        |                           |               |            |                            |
| Ĕ                  | H <sub>3</sub> PO <sub>4</sub> (CG)Salmon Label  |               |            |  |            |             |                        |                           |               | $\dashv$   |                            |
| -                  | 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  |               |            | .  |            |             |                        |                           | <del></del>   |            |                            |
|                    | Tedlar Bag / Plastic Bag   |               |            |  |            |             |                        |                           |               |            |                            |
| <u>.</u> =         |  | Time/Initials |            |  | Con        | tainer      | Prese                  | rvative                   | Date          | Time       | e/Initials                 |
| Split              | (s)P 250/2   |               | S          | Р  |            |             |                        |                           |               |            | ,                          |
|                    | SP   |               | S          | Р  |            |             |                        |                           |               |            |                            |
| Comments           | # Odd nun  | rbens o       | ml         | y<br>1e  | RM<br>CHU  | rell        | 10/13/                 | i<br>i                    |               |            |                            |

BSK Associates SR-FL-0002-16

Labeled by: \_\_\_\_\_\_ @ \_\_\_\_ Labels checked by: \_\_\_\_\_ @ \_\_\_\_ RUSH Paged by:\_\_\_\_\_ @