# **Tables**



Table 1
Summary of Groundwater Analytical Results - Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonic Acid (PFOS)
Limited Groundwater Assessment Park Drive Disposal Area
Spokane International Airport

|         |                    |                   | EPA-PFC/537M   |                |  |  |  |  |
|---------|--------------------|-------------------|----------------|----------------|--|--|--|--|
| Well ID | Sample Date        | Depth to<br>Water | PFOA<br>(ng/L) | PFOS<br>(ng/L) |  |  |  |  |
|         |                    | · · ·             | (1167 - 7      | (1167-7        |  |  |  |  |
| MW-1A   | 2/28/2019          | 14.35             | 10             | 5.9            |  |  |  |  |
| MW-1B   | 2/28/2019          | 13.23             | 27             | 12             |  |  |  |  |
| Groundw | ater Screening Lev | el (ng/L) 1       | 70             | 70             |  |  |  |  |

### Notes:

<sup>1</sup> Groundwater screening levels were obtained from EPA's "Fact Sheet, PFOA & PFOS Drinking Water Health Advisories," dated November 2016.

Values in **bold** font indicate that the result reported meets or exceeds the groundwater screening level.

Depth to water measured from top of casing.

ng/L - nanogram per liter

PFOA - perfluorooctanoic acid

PFOS - perfluorooctane sulfonic acid

Samples analyzed by ALS Global Laboratories, Kelso, Washington.



Table 2 Summary of Groundwater Analytical Results - Conventional Chemistry Limited Groundwater Assessment Park Drive Disposal Area Spokane International Airport

|  | EPA-8260C NWT |                   |              |              |                   |                    |          |          |          | EPA-6020B    |
|--|---------------|-------------------|--------------|--------------|-------------------|--------------------|----------|----------|----------|--------------|
| Sample ID                                | Date Sampled  | Depth to<br>Water | Benzene ug/L | Toluene ug/L | Ethylbenzene ug/L | Total Xylenes ug/L | TCE ug/L | DRO mg/L | RRO mg/L | Arsenic mg/L |
| MW-1A                                    | 2/28/2019     | 14.35             | <0.40        | <1.0         | <1.0              | <3.0               | <1.0     | <0.23    | <0.39    | <0.0050      |
| MW-1B                                    | 2/28/2019     | 13.23             | <0.4         | <1.0         | <1.0              | <3.0               | <1.0     | <0.23    | <0.38    | <0.0050      |
| MTCA Method A Cleanup Level <sup>a</sup> |               |                   | 5            | 1000         | 700               | 1000               | 5        | 0.5      | 0.5      | 0.005        |

### Notes:

a: MTCA = Model Toxics Control Act Method A cleanup level for unrestricted use. Method B value used where Method A value not established.

DRO = Diesel-Range Organics.

 ${\sf RRO = Residual\text{-}Range\ Organics}.$ 

 ${\tt BTEX = benzene, toluene, ethylbenzene, (total) \ xylenes}.$ 

 $\mathsf{TCE} = \mathsf{Trichloroethylene}$ 

ND = Analyte not detected at a concentration exceeding Method Reporting Limit (MRL). MRL is less than MTCA Method A Cleanup Criteria.

**BOLD** = Exceedance of cleanup level.

Samples Analyzed by TestAmerica, Spokane, WA



# Attachment – A

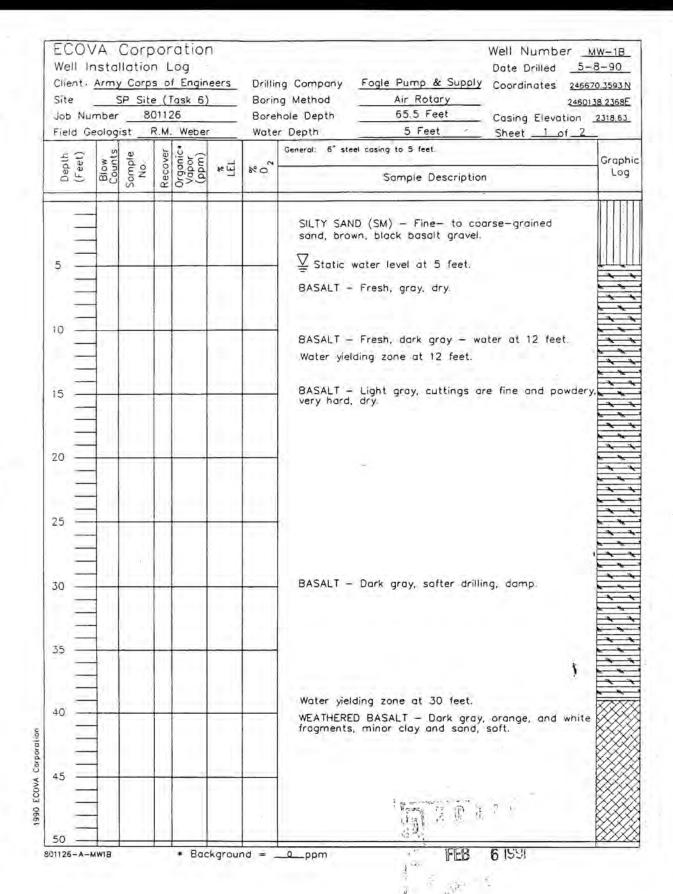
**Boring Logs** 

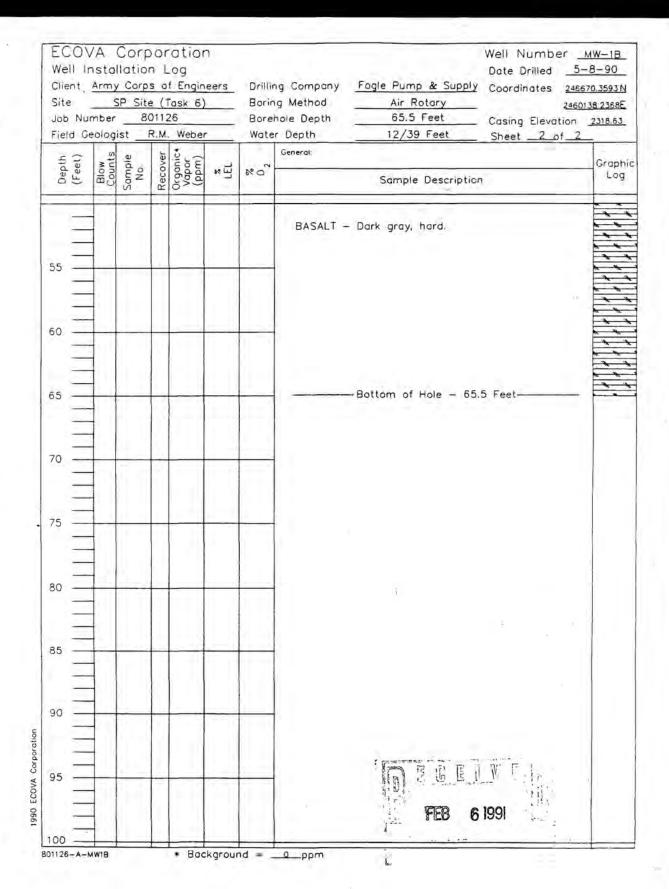


| ECON<br>Well In<br>Client -<br>Site<br>Job Nur<br>Field Ge | Army<br>Army<br>S                                   | Corp<br>SP Site | s o<br>e (1 | .og<br>f Engin<br>(ask 6)<br>26 | eers | Borin<br>Bore | ng Company Fagle Pump & Supply Coordinates 246670  | 0-90<br>0.5625 N<br>28.4101E          |
|--|---|-----------------|-------------|---------------------------------|------|---------------|--|---------------------------------------|
| Depth<br>(Feet)  | Blow  |                 |             | 2                               | स्य  | 0%            | General: 50 feet 6" steel casing, pressure graut.  | Graphi                                |
| De<br>(F.  | Feet) Blow Counts Sample No. Recover Organic (Appm) |                 |             |                                 |      | 80            | Sample Description   | Log                                   |
| 5  |   |                 |             |                                 |      |               | SILTY SAND (SM) — Fine— to coarse—grained sond, brown, with black basalt cuttings, damp.                     |                                       |
| Ξ  |   |                 |             |                                 |      |               | BASALT - Fresh, light gray, dry,   | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| 10 =   |   |                 |             |                                 |      |               | Basalt — Fresh, dark gray, dry.<br>Hard drilling.  |                                       |
| 15 =   |   |                 |             |                                 |      |               | BASALT — Alternating light and dark gray, dry.   |                                       |
| 20 =   |   |                 |             |                                 |      |               |  |                                       |
| 25   |   |                 |             |                                 |      |               | Dry, hard drilling.  | 1 1<br>1 1<br>1 1<br>1 1              |
| 30 —   |   |                 |             |                                 |      |               | BASALT — Gray, with white and orange fragments,  | XXXX                                  |
|  |   |                 |             |                                 |      |               | easier drilling, damp.   |                                       |
| 35 —   |   |                 |             |                                 |      |               | WEATHERED BASALT — Same as above with minor clay, sand, and gravel.  |                                       |
| 40 =   |   |                 |             |                                 |      |               | Water yielding zone at 40 feet.  |                                       |
| 45 —   |   |                 |             |                                 |      |               | BASALT — Fractured, weathered, orange and white fragments, some clays, sand and gravel.  BASALT — Dark gray. |                                       |
| Ē  |   |                 |             |                                 |      |               |  |                                       |
| 50 —   | WIA   |                 | 1           | 3                               | 6.35 |               | 0 ppm  |                                       |

| Depth (Feet) | Recover Organic (Appm) | 200 | Sample Description  BASALT — Black, no water, good seal on conductor casing.          | Graph<br>Log |
|--------------|------------------------|-----|---|--------------|
| 55           | £ 6,70                 |     | BASALT — Black, no water, good seal on conductor                                      | * * *        |
|              |                        |     | ecoamy.   | -            |
|              |                        |     |   |              |
| 60           |                        |     | BASALT — Black, with dark gray clay, domp.  |              |
| 65           |                        |     | SILT AND CLAY WITH GRAVEL (GM/GC) — Black, damp.  Color change to dark brown.         | 000000       |
|              |                        |     | Color change to brown with increase in white and orange fragments, predominatly clay. | 000000       |
| 70           |                        |     | WEATHERED BASALT — Black—gray, with orange and white clasts, soft drilling, damp.     |              |
| 75           |                        |     | Water yielding zone at 75 feet.  WEATHERED BASALT — Black-gray, with abundant         |              |
| 80           |                        |     | orange and white fragments, soft drilling.  BASALT — Dark gray, hard.                 |              |
| 35           |                        |     | Bottom of Hole - 83 Feet  |              |
| 90.          |                        |     |   |              |
|              |                        |     |   |              |
| 95           |                        |     | FEE 6 1991  |              |

|  | DRILLING TIMES:  START 0800 - 5/10/90 FINISH 1100 - 5/11/90  STANDBY OF DOWN TIME:  |
|--|---|
| D  | METHOD OF DECON, PRIOR TO DRILLING:   |
|  | DEVELOPMENT   |
|  | METHOD OF DEVELOPMENT: DISPLACEMENT PUMPING @ 70 CYCLES/SEC   |
|  | PUMP TIME 0305 TO 0500 DATE 5/1   |
|  | Table 19 and 19 |
| BORING DEPTH   | DEVELOPMENT: SL TURBID TURBID  ODOR IN WATER ?  WATER GROUND SURFACE STORAGE TABLE TO STORAGE TO S            |
| BORING DEPTH   | ODOR IN WATER ?  WATER GROUND SURFACE STORAGE TANK TRUCK TO:  |
| BORING DEPTH 83 FT. BORING DIAMETER 6 IN. WELL DEPTH 79.3 FT. WELL STICKUP 1 FT. BLANK INTERVAL 66 FT. BLANK DIAMETER 2 IN. SCREEN INTERVAL 65-75 FT. SCREEN DIAMETER 2 IN.  | ODOR IN WATER ?  WATER GROUND SURFACE STORAGE TANK TRUCK DISCHARGED STORM SEWERS TANK TRUCK   |
| E SCREEN INTERVAL 65-75' FT. SCREEN DIAMETER IN. TYPE/SLOT SIZE O.01  F SEDIMENT TRAP 5 FT. G ANNULAR SEAL 54 FT. MATERIAL GROUT  H. BENTONITE SEAL 6 FT.  | WATER GROUND SURFACE STORAGE TO STORAGE TO STORM SEWERS TANK TRUCK TO: 3 DRUMS COUNTY OF WATER AFTER DEVELOPMENT: 61 SACKS OF 20/40 SAND SACKS OF   |
| BORING DEPTH 83 FT. BORING DIAMETER 6 IN. WELL DEPTH 79.3 FT. WELL STICKUP 1 FT. BLANK INTERVAL 66 FT. BLANK DIAMETER 2 IN. SCREEN INTERVAL 65-75 FT. SCREEN DIAMETER 2 IN. TYPE/SLOT SIZE 0.01 SEDIMENT TRAP 5 FT. ANNULAR SEAL 54 FT. MATERIAL GROUT BENTONITE SEAL 6 FT. SANDPACK 18 FT. TYPE/SIZE: 20/40 BOTOM SEAL/PACK 2 FT. | WATER GROUND SURFACE STORAGE TO STORM SEWERS TANK TRUCK TO: DRUMS STORM SEWERS TANK TRUCK TO: DRUMS STORM SEWERS TANK TRUCK TO: STORAGE TO SACKS OF PREMIX CONCRETE GROUT COMPOSITION 46 BENTONITE SACKS OF BENTONITE PELLETS   |
| BORING DEPTH 83 FT. BORING DIAMETER 6 IN. WELL DEPTH 79.3 FT. WELL STICKUP 1 FT. BLANK INTERVAL 66 FT. BLANK DIAMETER 2 IN. SCREEN INTERVAL 65-75' FT. SCREEN DIAMETER 2 IN. TYPE/SLOT SIZE 0.01 SEDIMENT TRAP 5 FT. MATERIAL GROUT BENTONITE SEAL 6 FT. SANDPACK 18 FT.   | WATER GROUND SURFACE STORAGE TANK TRUCK  DISCHARGED STORM SEWERS TANK TRUCK  TO: DRUMS  DEPTH OF WATER AFTER DEVELOPMENT: 6'  MATERIALS USED  4 1/2 SACKS of 20/40 SAND  SACKS of PORTLAND CEMENT SACKS of PREMIX CONCRETE GALLONS OF GROUT USED GROUT COMPOSITION #6 BENTONITE BUCKETS OF BENTONITE PELLETS YARDS CEMENT - SAND USED   |



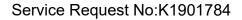


|   | -1               |
|---|------------------|
| METHOD OF DECON. PRIOR TO DRILLING:   |                  |
| DEVELOPMENT   |                  |
| METHOD OF DEVELOPMENT: DISPLACEMENT PUMPING 60  | A AVAILES (SEA   |
| METHOD OF DEVELOPMENT, DISPLACEMENT FORMING SE  | T CTCLES/SEC     |
| START TIME 0820 TO 0120   | DATE 5/17/90     |
| TOP OF CASING ELEVATION 2318-63 FT.  A BORING DEPTH 65.5 FT. ODOR IN WATER ? NONE  BORING DIAMETER 6 IN.  B WELL DEPTH 50.0 FT. WATER GROUND SURFACE        | STORAGE TANK     |
| TO: X DRUMS   | TANK TRUCK       |
| D BLANK INTERVAL 65 FT.  BLANK DIAMETER 2  2.5-32.5' IN. DEPTH OF WATER AFTER DEVELOPMENT: 6 FEET   |                  |
| E SCREEN INTERVAL 35-45 FT. SCREEN DIAMETER 2 IN. MATERIALS USED  |                  |
| TYPE/SLOT SIZE  | CALID            |
| F SEDIMENT TRAP 5 FT. 4.5 SACKS OF PORTLAND CEMENT  G ANNULAR SEAL FT. SACKS OF PREMIX CONCRETE  MATERIAL: GROUT GROUT USED  GROUT COMPOSITION #6 BENTONITE | SAND             |
| H. BENTONITE SEAL FT SACKS OF BENTONITE PELLETS BUCKETS OF BENTONITE PELLETS  |                  |
| SANDPACK  | 800              |
| J BOTOM SEAL/PACK 2 FT. MATERIAL: SAND  | egs egs          |
| K WELL COVER FT. WELL COVER USED: Above Grade At Grade  |                  |
|   |                  |
| L STICKUP FT: Other   |                  |
| M CONDUCTOR CASING FT.  | -<br>-<br>-<br>- |

# Attachment – B

# **Analytical Results**







Gary Panther Spokane Environmental Solutions, LLC 3810 E. Boone Avenue, Ste 101 Spokane, WA 99202

Laboratory Results for: Borrow Pit

Dear Gary,

Enclosed are the results of the sample(s) submitted to our laboratory March 01, 2019 For your reference, these analyses have been assigned our service request number **K1901784**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3275. You may also contact me via email at Chris.Leaf@ALSGlobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Chris Leaf
Project Manager



# **Narrative Documents**



Client: Spokane Environmental Solutions, LLC Service Request: K1901784

Project: Borrow Pit Date Received: 03/01/2019

Sample Matrix: Water

### **CASE NARRATIVE**

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Laboratory Duplicate (DUP), Matrix Spike (MS), Matrix/Duplicate Matrix Spike (MS/DMS), Laboratory Control Sample (LCS), and Laboratory/Duplicate Laboratory Control Sample (LCS).

### Sample Receipt:

Two water samples were received for analysis at ALS Environmental on 03/01/2019. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

### **Organic LC:**

Method PFC/537M, 03/08/2019: Insufficient sample volume was received to perform a Matrix Spike/Matrix Spike Duplicate (MS/MSD). A Laboratory Control Sample/Duplicate Laboratory Control Sample (LCS/DLCS) was analyzed and reported in lieu of the MS/MSD for these samples.

| Approved by |      | Date _ | 03/20/2019 |
|-------------|------|--------|------------|
|             | // ) |        |            |



## **SAMPLE DETECTION SUMMARY**

| CLIENT ID: MW-1A                     |         |      |     |     |       |          |
|--------------------------------------|---------|------|-----|-----|-------|----------|
| Analyte                              | Results | Flag | MDL | MRL | Units | Method   |
| Perfluorooctane sulfonic acid (PFOS) | 10      |      |     | 4.2 | ng/L  | PFC/537M |
| Perfluorooctanoic acid (PFOA)        | 5.9     |      |     | 1.7 | ng/L  | PFC/537M |

| CLIENT ID: MW-1B                     |         | Lab ID: K1901784-002 |     |     |       |          |  |  |  |  |
|--------------------------------------|---------|----------------------|-----|-----|-------|----------|--|--|--|--|
| Analyte                              | Results | Flag                 | MDL | MRL | Units | Method   |  |  |  |  |
| Perfluorooctane sulfonic acid (PFOS) | 27      |                      |     | 4.2 | ng/L  | PFC/537M |  |  |  |  |
| Perfluorooctanoic acid (PFOA)        | 12      |                      |     | 1.7 | ng/L  | PFC/537M |  |  |  |  |



# **Sample Receipt Information**

Spokane Environmental Solutions, LLC Service Request:K1901784

**Project:** Borrow Pit/0270-003

Client:

## **SAMPLE CROSS-REFERENCE**

| SAMPLE #     | CLIENT SAMPLE ID | <u>DATE</u> | <u>IIME</u> |
|--------------|------------------|-------------|-------------|
| K1901784-001 | MW-1A            | 2/28/2019   | 1300        |
| K1901784-002 | MW-1B            | 2/28/2019   | 1400        |

| A   |  |   |                   |                   |                 |       | Celso 1 | Ú     | 5  | 97 | 379<br>(360) 577-7222 / 800 695-1   | 7222 / FAX (360) 63 | 5-1068  | COC Set of COC#     | 3         |
|---|--|---|-------------------|-------------------|-----------------|-------|---------|-------|----|----|-------------------------------------|---------------------|---|---------------------|-----------|
| Project Name Bollow Pit-<br>Project Manager GARY D. F<br>Company Spakas Carvirons   | Project N<br>OZ                                      | 70-003<br>V   |                   | ERS               | 140             |       | 1       | I     |    |    | risglobal.com                       |                     |   |                     | Page 1 of |
| Address 3810 E. Boone A. Phone 9 954-5090 Sampler Signature   | email<br>FATY (<br>Sampler                           | OI. Spokate, was<br>Sakane Environ me<br>Printed Name<br>D. Panomed | 99202<br>mal. com | NUMBER OF CONTAIN | SFC/537M / PFOA |       |         |       |    |    | Remarks                             |                     |   |                     |           |
| CLIENT SAMPLE ID  | LABID  | SAMPLING<br>Date Time   | Matrix            | 1                 |                 |       |         |       |    |    |                                     |                     |   |                     |           |
| 1. MW - \ A   | LADID  | 2.28-19 1300  | w                 | 2                 | 4               |       |         | 7     |    |    |                                     |                     |   |                     |           |
| 2. MW - 1 b   |  | 2-28-19 1500  | W                 | 2                 | ×               |       |         |       |    |    |                                     |                     |   |                     |           |
| 3.  |  |   | 1                 |                   |                 |       |         |       |    |    |                                     |                     |   |                     |           |
| 4.  |  |   |                   |                   | 77              |       |         |       |    |    |                                     |                     |   |                     |           |
| 5.  |  |   |                   |                   |                 |       |         | _     |    |    |                                     |                     |   |                     |           |
| 6.  |  |   |                   |                   |                 |       |         |       |    |    |                                     |                     |   |                     |           |
| 7.  |  |   |                   |                   |                 |       |         |       |    |    |                                     |                     |   |                     |           |
| 3.  |  |   |                   |                   |                 |       |         | 1     |    |    |                                     |                     |   |                     |           |
| 9.  |  |   | 1-                |                   |                 |       |         | T     |    |    |                                     |                     |   |                     |           |
| 10.   |  |   |                   | 1                 |                 |       |         | 7     |    |    |                                     |                     |   |                     |           |
| Report Requirements  I. Routine Report: Method Blank, Surrogale, as required  II. Report Dup., MS, MSD as required  III. CLP Like Summary (no raw data)  IV. Data Validation Report | P.O.# o<br>Bill To:<br>Salvaion<br>A TIM:<br>Turnaro | Com Pourt G<br>Dound Requireme<br>I.M48 hr.<br>Day<br>andard        | 20/               | pecial            | Di              | solve | ed Me   | tals: | AI | As | n Ba Be B Ca Col<br>Sb Ba Be B Ca C | Cd Co Cr Cu         | ereto be analyzed Po Mg Mn Mo Ni K Ag Fe Pb Mg Mn Mo Ni K carbon Procedure: AK CA | Ag Na Se Sr TI Sn V | 2.2       |
| Relinquished By:  | F  | Received By   |                   | Rel               | inqu            | ish   | ed B    | y:    | -  | 1  | Received B                          | By:                 | Relinquished By:  | Receiv              | ed By:    |

CHAIN OF CUSTODY

Signature

Date/Time

Printed Name

Signature

Date/Time

Printed Name

Signature

Date/Time

Printed Name

Signature

Firm Date/Time

Printed Name

Printed Name

Gray D. Janahor

Firm

SES LLC

Date/Time 2-19-19-16-00



**Cooler Receipt and Preservation Form** 

| Client   |  | ve Er             | Vidames                                |                 | Some         | nows.        |                 | " A     | Request <i>K1</i> |                 | 784  |                 | 1 -1                                  |         |
|--|--|-------------------|--|-----------------|--------------|--------------|-----------------|---------|-------------------|-----------------|--|-----------------|---------------------------------------|---------|
| Received:_   | 3-1-1  | (                 | Opened:                                | <u> </u>        | 19_          | _ By:        | <u> </u>        | 5/3     | Unloade           | d: <u>گ</u>     | <u>/-/9                                   </u> | Ву: <u> _ Є</u> | 75P                                   |         |
| . Samples  | s were rece  | ived via?         | USPS                                   | Fed Ex          | UP.          | S            | DHL             | PI      | X Couri           | er Han          | d Delivered                                    |                 |                                       |         |
| 2. Sample:   | mples were received in: (circle) Cooler Box Envelope Other |                   |  |                 |              |              |                 |         |                   | <i>f</i>        |  | NA              |                                       |         |
|  |  | s on coolers      |  | NA (Y           | -            |              |                 |         | many and wh       |                 | [ 70A  | I L             | <u>e~7</u>                            | *****   |
| If prese   | nt, were cu  | stody seals       | intact?                                | (A              | N            |              |                 |         | it, were they s   |                 |  |                 | <u> </u>                              | N       |
| Raw<br>Cooler Temp   | Corrected.<br>Cooler Temp                                  | Raw<br>Temp Blank | Corrected<br>Temp Blank                | Corr.<br>Factor |              | nomete<br>ID | neter C         | ooler/0 | OC ID<br>NA       |                 | Tracking No                                    | umber           | N/                                    | A Filed |
| 0.0  | -0,(   | 5.8               | 5.7                                    | -Oc(            | 3            | 71           | 7               | 73      | 79                | 4808            | 3227   | 9050            | י כי                                  |         |
|  | <u> </u>   |                   |  |                 | <u> </u>     |              |                 |         |                   |                 | · · · · · · · · · · · · · · · · · · ·          |                 |                                       |         |
|  |  |                   |  | <u> </u>        | <u> </u>     | ·····        |                 |         | <del></del>       |                 |  |                 |                                       | +       |
|  |  |                   |  |                 |              |              |                 |         |                   |                 |  |                 |                                       | 1       |
| 4. Packin  | g material:  | Inserts (         | Baggies                                | Bubble W        | rap G        | Gel Pac      | ks (W           | et Ice  | Dry Ice           | Sleeves         |  |                 |                                       |         |
| 5. Were  | custody par  | ers properl       | y filled out                           | (ink, signe     | d, etc.)     | ?            |                 |         |                   |                 |  | NA              | Ŷ                                     | N       |
| 6. Were  | samples rec  | •                 |  | ` •             |              |              | *               |         | in the table b    |                 |  | NA              | <b>(</b>                              | N       |
| 7. Were a  | ıll sample l   | _                 | plicable, ti<br>lete (i.e.ana          | -               |              |              | ed:             | Froze   | n Partially       | Thawed          | Thawed   | NA              | $(\hat{\mathbf{v}})$                  | N       |
| 7. Were all sample labels complete (i.e analysis, preservation, etc.)?  NA (Y) N  N Did all sample labels and tags agree with custody papers? Indicate major discrepancies in the table on page 2.  NA (Y) N |  |                   |  |                 |              |              |                 |         |                   |                 |  |                 |                                       |         |
|  | _  | e bottles/co      | -                                      | · -             | -            |              | -               |         | -                 |                 | 7 64 1   | NA              | (Ŷ)                                   | N       |
| 10. Were   | the pH-pre   | eserved bott      | tles (see SM                           | O GEN SOF       | ) receiv     | ed at the    | he appr         | opriat  | e pH? Indica      | te in the tal   | ble below                                      | (NA)            | Y                                     | N       |
| 11. Were   | VOA vial   | s received v      | vithout head                           | dspace? In      | dicate i     | n the to     | ıble be         | low.    |                   |                 |  | NA              | Y                                     | N       |
| 12. Was  | C12/Res no   | egative?          |  |                 |              |              |                 |         |                   |                 |  | (NA)            | Y                                     | N       |
|  |  |                   |  |                 |              |              |                 |         |                   |                 |  |                 |                                       |         |
| \  | Sample ID  | on Bottle         | <u></u>                                | <del>-  </del>  | Sampi        | le ID on     | COC             |         |                   | <u> </u>        | Identified by                                  | <u>r</u>        | <del></del>                           |         |
|  |  |                   |  |                 |              |              |                 |         |                   |                 |  |                 | · · · · · · · · · · · · · · · · · · · |         |
|  |  |                   |  |                 |              |              |                 |         |                   |                 |  |                 |                                       |         |
|  | Sample   | ID :              |  | tle Count       | Out of       | Head-        | Broke           | На      | Reagent           | Volume<br>added | Reagent  <br>Numbe                             |                 | nitials                               | Time    |
|  |  |                   |  |                 |              |              |                 |         |                   |                 |  |                 |                                       |         |
|  |  |                   |  |                 |              |              |                 |         |                   |                 |  |                 |                                       |         |
| -  |  |                   |  | ·               | <b>}</b>     | <b>_</b>     |                 | <b></b> |                   |                 |  |                 |                                       |         |
|  | <del> </del>   |                   |  | <del></del>     | <del> </del> |              |                 |         |                   |                 | <del> </del>                                   |                 |                                       |         |
|  |  |                   |  | <del></del>     | <del> </del> |              | <b></b>         |         | <del> </del>      |                 | <del> </del>                                   |                 |                                       |         |
|  | · · · · · · · · · · · · · · · · · · ·                      |                   |  | <del> </del>    | <u> </u>     | <u> </u>     | L               |         | <u> </u>          |                 |  |                 |                                       |         |
| Notes,   | Discrepan  | cies, & Re        | esolutions:                            | ·<br>           | <del></del>  |              |                 |         |                   |                 |  |                 |                                       |         |
|  |  |                   |  |                 |              |              | <del></del>     |         |                   |                 |  |                 | ·                                     |         |
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| 7/25   | 5/16   |                   |  |                 |              |              |                 |         |                   |                 |  | Page _          | of                                    |         |



# **Miscellaneous Forms**

#### **Inorganic Data Qualifiers**

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. DOD-QSM 4.2 definition: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

#### **Metals Data Qualifiers**

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. DOD-QSM 4.2 definition: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

### **Organic Data Qualifiers**

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.

  \*DOD-QSM 4.2 definition\*: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

### **Additional Petroleum Hydrocarbon Specific Qualifiers**

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

# ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso State Certifications, Accreditations, and Licenses

| Agency                   | Web Site   | Number      |
|--------------------------|--|-------------|
| Alaska DEH               | http://dec.alaska.gov/eh/lab/cs/csapproval.htm   | UST-040     |
| Arizona DHS              | http://www.azdhs.gov/lab/license/env.htm   | AZ0339      |
| Arkansas - DEQ           | http://www.adeq.state.ar.us/techsvs/labcert.htm  | 88-0637     |
| California DHS (ELAP)    | http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx  | 2795        |
| DOD ELAP                 | http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm   | L16-58-R4   |
| Florida DOH              | http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm  | E87412      |
| Hawaii DOH               | http://health.hawaii.gov/  | -           |
| ISO 17025                | http://www.pjlabs.com/   | L16-57      |
| Louisiana DEQ            | http://www.deq.louisiana.gov/page/la-lab-accreditation   | 03016       |
| Maine DHS                | http://www.maine.gov/dhhs/   | WA01276     |
| Minnesota DOH            | http://www.health.state.mn.us/accreditation  | 053-999-457 |
| Nevada DEP               | http://ndep.nv.gov/bsdw/labservice.htm   | WA01276     |
| New Jersey DEP           | http://www.nj.gov/dep/enforcement/oqa.html   | WA005       |
| New York - DOH           | https://www.wadsworth.org/regulatory/elap  | 12060       |
| North Carolina DEQ       | https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification | 605         |
| Oklahoma DEQ             | http://www.deq.state.ok.us/CSDnew/labcert.htm  | 9801        |
| Oregon – DEQ (NELAP)     | http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx   | WA100010    |
| South Carolina DHEC      | http://www.scdhec.gov/environment/EnvironmentalLabCertification/   | 61002       |
| Texas CEQ                | http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html  | T104704427  |
| Washington DOE           | http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html   | C544        |
| Wyoming (EPA Region 8)   | https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water   | -           |
| Kelso Laboratory Website | www.alsglobal.com  | NA          |

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

## Acronyms

ASTM American Society for Testing and Materials

A2LA American Association for Laboratory Accreditation

CARB California Air Resources Board

CAS Number Chemical Abstract Service registry Number

CFC Chlorofluorocarbon
CFU Colony-Forming Unit

DEC Department of Environmental Conservation

DEQ Department of Environmental Quality

DHS Department of Health Services

DOE Department of Ecology
DOH Department of Health

EPA U. S. Environmental Protection Agency

ELAP Environmental Laboratory Accreditation Program

GC Gas Chromatography

GC/MS Gas Chromatography/Mass Spectrometry

LOD Limit of Detection

LOQ Limit of Quantitation

LUFT Leaking Underground Fuel Tank

M Modified

MCL Maximum Contaminant Level is the highest permissible concentration of a substance

allowed in drinking water as established by the USEPA.

MDL Method Detection Limit
MPN Most Probable Number
MRL Method Reporting Limit

NA Not Applicable
NC Not Calculated

NCASI National Council of the Paper Industry for Air and Stream Improvement

ND Not Detected

NIOSH National Institute for Occupational Safety and Health

PQL Practical Quantitation Limit

RCRA Resource Conservation and Recovery Act

SIM Selected Ion Monitoring

TPH Total Petroleum Hydrocarbons

tr Trace level is the concentration of an analyte that is less than the PQL but greater than or

equal to the MDL.

# ALS Group USA, Corp. dba ALS Environmental

Analyst Summary report

Client: Spokane Environmental Solutions, LLC

**Project:** Borrow Pit/0270-003

Sample Name: MW-1A Date Collected: 02/28/19

**Lab Code:** K1901784-001 **Date Received:** 03/1/19

Sample Matrix: Water

Analysis Method Extracted/Digested By Analyzed By

PFC/537M NHILLIKER LDOMREIS

Sample Name: MW-1B Date Collected: 02/28/19

**Lab Code:** K1901784-002 **Date Received:** 03/1/19

Sample Matrix: Water

Analysis Method Extracted/Digested By Analyzed By

PFC/537M NHILLIKER LDOMREIS

Service Request: K1901784



# Sample Results