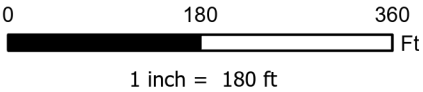


Legend

● Spill Origin    ● Soil Sample Location    — Spill Path



Project No: 018-065	Fee 64 Spill Chevron USA, Inc. Rio Blanco County, Colorado SE/4 NE/4 Sec 19 T2S R102W	 330 Grand Avenue, Unit C Grand Junction, CO 81501 970-549-1015	Figure
Map By: NDB			1
Date: 3/12/2020			



Table 1  
FEE 64  
Soil Data Summary

SAMPLE SUMMARY	
Location Description	FEE 64 Spill
Sample Type	Soil

LABORATORY DATA SUMMARY													
Sample ID	FEE 64-SS1	F64-SS1	FEE 64-SS2	F64-SS2	FEE 64-SS3	F64-SS3	FEE 64-SS4	F64-SS4	FEE 64-BG1	F64-BG1	FEE 64-BG2	COGCC TABLE 910-1 CONCENTRATION LEVELS	UNITS
Depth	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"		
Sample Date	6/7/2016	7/12/2018	6/7/2016	7/12/2018	6/7/2016	7/12/2018	6/7/2016	7/12/2018	6/7/2016	7/12/2018	6/7/2016		
Analytical Parameters													
TPH													
TPH Gasoline Range Organics	<3.2	NT	<3.3	NT	<3.8	NT	<4.3	NT	NT	NT	NT	500	mg/kg
TPH Diesel Range Organics	38	NT	140	NT	88	NT	140	NT	NT	NT	NT		
BTEX													
Benzene	<0.039	NT	<0.040	NT	<0.046	NT	<0.051	NT	NT	NT	NT	0.17	mg/kg
Toluene	<0.039	NT	<0.040	NT	<0.046	NT	<0.051	NT	NT	NT	NT	85	mg/kg
Ethylbenzene	<0.039	NT	<0.040	NT	<0.046	NT	<0.051	NT	NT	NT	NT	100	mg/kg
Total Xylene	<0.12	NT	<0.12	NT	<0.14	NT	<0.15	NT	NT	NT	NT	175	mg/kg
Metals													
Arsenic	8.7	NT	11	NT	11	NT	10	NT	9.8	6.7	9.3	0.39	mg/kg
Barium	150	NT	350	NT	240	NT	250	NT	140	190	NT	15,000	mg/kg
Cadmium	<0.42	NT	<0.44	NT	<0.46	NT	<0.52	NT	<0.41	0.12 J	NT	70	mg/kg
Chromium	13	NT	13	NT	13	NT	17	NT	17	13	NT	NA	mg/kg
Copper	19	NT	19	NT	18	NT	20	NT	20	19	NT	3,100	mg/kg
Lead	18	NT	25	NT	20	NT	21	NT	19	14	NT	400	mg/kg
Mercury	0.044	NT	0.025	NT	0.027	NT	0.034	NT	0.026	0.024	NT	23	mg/kg
Nickel	23	NT	24	NT	22	NT	27	NT	25	16	NT	1,600	mg/kg
Selenium	1.3	NT	1.6	NT	1.5	NT	1.7	NT	1.6	1.0	NT	390	mg/kg
Silver	<0.42	NT	0.44	NT	<0.46	NT	<0.52	NT	<0.41	<0.044	NT	390	mg/kg
Zinc	110	NT	130	NT	120	NT	130	NT	110	77	NT	23,000	mg/kg
SAR Metals Analysis													
Calcium	960	140	490	140	330	120	470	180	930	64	NT	NA	mg/L
Magnesium	130	19	120	12	76	27	200	11	300	7.7	NT	NA	mg/L
Sodium	4300	46	6800	81	5300	240	2500	180	4800	56	NT	NA	mg/L
Sodium Adsorption Ratio	34	0.97	72	1.8	69	5.0	24	3.5	35	1.8	NT	<12	ratio
Polynuclear Aromatic Hydrocarbons													
Acenaphthene	<0.0076	NT	<0.015	NT	<0.017	NT	<0.018	NT	NT	NT	NT	1,000	mg/kg
Anthracene	<0.0076	NT	<0.015	NT	<0.017	NT	<0.018	NT	NT	NT	NT	1,000	mg/kg
Benzo(a)anthracene	<0.0076	NT	<0.015	NT	<0.017	NT	<0.018	NT	NT	NT	NT	0.22	mg/kg
Benzo(a)pyrene	<0.0076	NT	<0.015	NT	<0.017	NT	<0.018	NT	NT	NT	NT	0.022	mg/kg
Benzo(b)fluoranthene	<0.0076	NT	<0.015	NT	<0.017	NT	<0.018	NT	NT	NT	NT	0.22	mg/kg
Benzo(k)fluoranthene	<0.0076	NT	<0.015	NT	<0.017	NT	<0.018	NT	NT	NT	NT	2.2	mg/kg
Chrysene	<0.0076	NT	<0.015	NT	<0.017	NT	<0.018	NT	NT	NT	NT	22	mg/kg
Dibenzo(a,h)anthracene	<0.0076	NT	<0.015	NT	<0.017	NT	<0.018	NT	NT	NT	NT	0.022	mg/kg
Fluoranthene	<0.0076	NT	<0.015	NT	<0.017	NT	<0.018	NT	NT	NT	NT	1,000	mg/kg
Fluorene	<0.0076	NT	<0.015	NT	<0.017	NT	<0.018	NT	NT	NT	NT	1,000	mg/kg
Indeno(1,2,3-cd)pyrene	<0.0076	NT	<0.015	NT	<0.017	NT	<0.018	NT	NT	NT	NT	0.22	mg/kg
Napthalene	<0.0076	NT	0.083	NT	<0.017	NT	<0.018	NT	NT	NT	NT	23	mg/kg
Pyrene	<0.0076	NT	<0.015	NT	<0.017	NT	<0.018	NT	NT	NT	NT	1,000	mg/kg
General Chemistry													
Chromium, Hexavalent	<1.1	NT	<1.1	NT	<1.2	NT	<1.3	NT	<1.0	<0.32	NT	23	mg/kg
Chromium, Trivalent	13	NT	13	NT	13	NT	16	NT	17	13	NT	120,000	mg/kg
Specific Conductivity	28	1.2	38	1.4	29	2.2	18	2.1	25	0.64	NT	<4 or 2 x the background	mmhos/cm
pH	8.0	NT	8.0	NT	8.6	NT	7.6	NT	8.4	7.86	NT	6-9	su

mg/kg - milligrams per kilogram  
mg/L - milligrams per liter  
J - indicates an estimated value  
mmhos/cm - millimhos per centimeter  
mv - millivolts  
su - standard units  
NA - not applicable  
NT - parameter was not tested

Over COGCC Table 910-1 concentration levels but under BACKGROUND level.

Over COGCC Table 910-1 concentration levels and not within BACKGROUND level.

Over COGCC Table 910-1 concentration levels



20-Jun-2016

Tim Dobransky  
Olsson Associates  
760 Horizon Drive  
Suite 102  
Grand Junction, CO 81506

Re: **FEE 64 Spill**

Work Order: **1606630**

Dear Tim,

ALS Environmental received 6 samples on 10-Jun-2016 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 36.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Chad Whelton".

Electronically approved by: Chad Whelton

Chad Whelton  
Project Manager



Certificate No: MN 998501

### Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

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RIGHT SOLUTIONS RIGHT PARTNER

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**Client:** Olsson Associates  
**Project:** FEE 64 Spill  
**Work Order:** 1606630

**Work Order Sample Summary**

---

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1606630-01	F64-SS1	Soil		6/7/2016 13:15	6/10/2016 10:00	<input type="checkbox"/>
1606630-02	F64-BG1	Soil		6/7/2016 13:20	6/10/2016 10:00	<input type="checkbox"/>
1606630-03	F64-SS2	Soil		6/7/2016 13:30	6/10/2016 10:00	<input type="checkbox"/>
1606630-04	F64-SS3	Soil		6/7/2016 13:40	6/10/2016 10:00	<input type="checkbox"/>
1606630-05	F64-SS4	Soil		6/7/2016 13:45	6/10/2016 10:00	<input type="checkbox"/>
1606630-06	F64-BG2	Soil		6/7/2016 13:55	6/10/2016 10:00	<input type="checkbox"/>

---

**Client:** Olsson Associates**Project:** FEE 64 Spill**Work Order:** 1606630**Case Narrative**

---

Batch 87273, Method DRO\_8015\_S, Samples 1606630-03A and -04A: The DRO concentration in the Method Blank was greater than the quantitation limit. The sample results were greater than 5x the concentration in the Method Blank; therefore, no qualification is required.

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

<b><u>Acronym</u></b>	<b><u>Description</u></b>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% of sample	Percent of Sample
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
mmhos/cm @25°C	Millimhos-Centimeter at 25 Degrees Celcius
none	
s.u.	Standard Units

# ALS Group USA, Corp

Date: 20-Jun-16

**Client:** Olsson Associates  
**Project:** FEE 64 Spill  
**Sample ID:** F64-SS1  
**Collection Date:** 6/7/2016 01:15 PM

**Work Order:** 1606630  
**Lab ID:** 1606630-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep: SW3546 / 6/15/16	Analyst: <b>IT</b>
<b>DRO (C10-C28)</b>	<b>38</b>		<b>9.4</b>	<b>mg/Kg-dry</b>	1	6/16/2016 12:18 PM
Surr: 4-Terphenyl-d14	52.2		39-133	%REC	1	6/16/2016 12:18 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015D</b>		Prep: SW5035 / 6/13/16	Analyst: <b>IT</b>
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>3.2</b>	<b>mg/Kg-dry</b>	1	6/14/2016 04:12 AM
Surr: Toluene-d8	108		50-150	%REC	1	6/14/2016 04:12 AM
<b>MERCURY BY CVAA</b>						
			<b>SW7471B</b>		Prep: SW7471 / 6/14/16	Analyst: <b>LR</b>
<b>Mercury</b>	<b>0.044</b>		<b>0.015</b>	<b>mg/Kg-dry</b>	1	6/14/2016 07:03 PM
<b>METALS ANALYSIS BY ICP</b>						
			<b>SW846 6010C</b>		Prep: SW3050B / 6/14/16	Analyst: <b>JEC</b>
<b>Arsenic</b>	<b>8.7</b>		<b>0.42</b>	<b>mg/Kg-dry</b>	1	6/14/2016 11:39 PM
<b>Barium</b>	<b>150</b>		<b>0.42</b>	<b>mg/Kg-dry</b>	1	6/17/2016 05:40 PM
Cadmium	ND		0.42	mg/Kg-dry	1	6/14/2016 11:39 PM
<b>Chromium</b>	<b>13</b>		<b>0.42</b>	<b>mg/Kg-dry</b>	1	6/14/2016 11:39 PM
<b>Copper</b>	<b>19</b>		<b>0.42</b>	<b>mg/Kg-dry</b>	1	6/14/2016 11:39 PM
<b>Lead</b>	<b>18</b>		<b>0.42</b>	<b>mg/Kg-dry</b>	1	6/17/2016 05:40 PM
<b>Nickel</b>	<b>23</b>		<b>0.42</b>	<b>mg/Kg-dry</b>	1	6/16/2016 02:25 AM
<b>Selenium</b>	<b>1.3</b>		<b>0.85</b>	<b>mg/Kg-dry</b>	1	6/14/2016 11:39 PM
Silver	ND		0.42	mg/Kg-dry	1	6/14/2016 11:39 PM
<b>Zinc</b>	<b>110</b>		<b>0.85</b>	<b>mg/Kg-dry</b>	1	6/14/2016 11:39 PM
<b>SOLUBLE CATIONS FOR SAR</b>						
			<b>SW846 6010C</b>		Prep: USDA Method 20B / 6/14/16	Analyst: <b>JEC</b>
<b>Calcium</b>	<b>960</b>		<b>5.0</b>	<b>mg/L</b>	10	6/14/2016 06:34 PM
<b>Magnesium</b>	<b>130</b>		<b>2.0</b>	<b>mg/L</b>	10	6/14/2016 06:34 PM
<b>Sodium</b>	<b>4,300</b>		<b>20</b>	<b>mg/L</b>	100	6/15/2016 11:54 AM
<b>SODIUM ADSORPTION RATIO</b>						
			<b>USDA H60 METHO</b>		Prep: USDA Method 20B / 6/14/16	Analyst: <b>JEC</b>
<b>Sodium Adsorption Ratio</b>	<b>34</b>		<b>0.010</b>	<b>none</b>	1	6/15/2016
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW846 8270D</b>		Prep: SW3541 / 6/14/16	Analyst: <b>RS</b>
Acenaphthene	ND		0.0076	mg/Kg-dry	1	6/14/2016 10:35 PM
Anthracene	ND		0.0076	mg/Kg-dry	1	6/14/2016 10:35 PM
Benzo(a)anthracene	ND		0.0076	mg/Kg-dry	1	6/14/2016 10:35 PM
Benzo(a)pyrene	ND		0.0076	mg/Kg-dry	1	6/14/2016 10:35 PM
Benzo(b)fluoranthene	ND		0.0076	mg/Kg-dry	1	6/14/2016 10:35 PM
Benzo(k)fluoranthene	ND		0.0076	mg/Kg-dry	1	6/14/2016 10:35 PM
Chrysene	ND		0.0076	mg/Kg-dry	1	6/14/2016 10:35 PM
Dibenzo(a,h)anthracene	ND		0.0076	mg/Kg-dry	1	6/14/2016 10:35 PM
Fluoranthene	ND		0.0076	mg/Kg-dry	1	6/14/2016 10:35 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 20-Jun-16

**Client:** Olsson Associates  
**Project:** FEE 64 Spill  
**Sample ID:** F64-SS1  
**Collection Date:** 6/7/2016 01:15 PM

**Work Order:** 1606630  
**Lab ID:** 1606630-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		0.0076	mg/Kg-dry	1	6/14/2016 10:35 PM
Indeno(1,2,3-cd)pyrene	ND		0.0076	mg/Kg-dry	1	6/14/2016 10:35 PM
Naphthalene	ND		0.0076	mg/Kg-dry	1	6/14/2016 10:35 PM
Pyrene	ND		0.0076	mg/Kg-dry	1	6/14/2016 10:35 PM
Surr: 2-Fluorobiphenyl	73.9		12-100	%REC	1	6/14/2016 10:35 PM
Surr: 4-Terphenyl-d14	84.3		25-137	%REC	1	6/14/2016 10:35 PM
Surr: Nitrobenzene-d5	67.6		37-107	%REC	1	6/14/2016 10:35 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260B</b>	Prep: SW5035 / 6/13/16		Analyst: <b>LSY</b>
Benzene	ND		0.039	mg/Kg-dry	1	6/14/2016 05:59 AM
Ethylbenzene	ND		0.039	mg/Kg-dry	1	6/14/2016 05:59 AM
m,p-Xylene	ND		0.078	mg/Kg-dry	1	6/14/2016 05:59 AM
o-Xylene	ND		0.039	mg/Kg-dry	1	6/14/2016 05:59 AM
Toluene	ND		0.039	mg/Kg-dry	1	6/14/2016 05:59 AM
Xylenes, Total	ND		0.12	mg/Kg-dry	1	6/14/2016 05:59 AM
Surr: 1,2-Dichloroethane-d4	95.8		70-130	%REC	1	6/14/2016 05:59 AM
Surr: 4-Bromofluorobenzene	99.0		70-130	%REC	1	6/14/2016 05:59 AM
Surr: Dibromofluoromethane	87.5		70-130	%REC	1	6/14/2016 05:59 AM
Surr: Toluene-d8	98.2		70-130	%REC	1	6/14/2016 05:59 AM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHO</b>	Prep: USDA Method 20B / 6/14/16		Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	28		0.050	mmhos/cm @2	10	6/15/2016 11:20 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>JJG</b>
Chromium, Trivalent	13		0.57	mg/Kg-dry	1	6/20/2016 08:01 AM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>	Prep: SW3060A / 6/15/16		Analyst: <b>MB</b>
Chromium, Hexavalent	ND		1.1	mg/Kg-dry	1	6/16/2016 04:00 PM
<b>MOISTURE</b>			<b>SW3550C</b>			Analyst: <b>EDL</b>
Moisture	13		0.050	% of sample	1	6/13/2016 04:49 PM
<b>PH</b>			<b>SW9045D</b>	Prep: EXTRACT / 6/10/16		Analyst: <b>EDL</b>
pH	8.0			s.u.	1	6/10/2016 05:36 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group USA, Corp

Date: 20-Jun-16

Client: Olsson Associates  
Project: FEE 64 Spill  
Sample ID: F64-BG1  
Collection Date: 6/7/2016 01:20 PM

Work Order: 1606630  
Lab ID: 1606630-02  
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>MERCURY BY CVAA</b>						
Mercury	0.026		SW7471B 0.015	mg/Kg-dry	Prep: SW7471 / 6/14/16 1	Analyst: LR 6/14/2016 07:05 PM
<b>METALS ANALYSIS BY ICP</b>						
Arsenic	9.8		SW846 6010C 0.41	mg/Kg-dry	Prep: SW3050B / 6/14/16 1	Analyst: JEC 6/14/2016 11:45 PM
Barium	140		0.41	mg/Kg-dry	1	6/17/2016 05:46 PM
Cadmium	ND		0.41	mg/Kg-dry	1	6/14/2016 11:45 PM
Chromium	17		0.41	mg/Kg-dry	1	6/14/2016 11:45 PM
Copper	20		0.41	mg/Kg-dry	1	6/14/2016 11:45 PM
Lead	19		0.41	mg/Kg-dry	1	6/17/2016 05:46 PM
Nickel	25		0.41	mg/Kg-dry	1	6/16/2016 02:30 AM
Selenium	1.6		0.81	mg/Kg-dry	1	6/14/2016 11:45 PM
Silver	ND		0.41	mg/Kg-dry	1	6/14/2016 11:45 PM
Zinc	110		0.81	mg/Kg-dry	1	6/14/2016 11:45 PM
<b>SOLUBLE CATIONS FOR SAR</b>						
Calcium	930		SW846 6010C 5.0	mg/L	Prep: USDA Method 20B / 6/14/16 10	Analyst: JEC 6/14/2016 06:57 PM
Magnesium	300		2.0	mg/L	10	6/14/2016 06:57 PM
Sodium	4,800		20	mg/L	100	6/15/2016 12:00 PM
<b>SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	35		USDA H60 METHO 0.010	none	Prep: USDA Method 20B / 6/14/16 1	Analyst: JEC 6/15/2016
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>						
Electrical Conductivity @ Saturation	25		USDA H60 METHO 0.050	mmhos/cm @2	Prep: USDA Method 20B / 6/14/16 10	Analyst: JB 6/15/2016 11:20 AM
<b>CHROMIUM, TRIVALENT</b>						
Chromium, Trivalent	17		CALCULATION 0.53	mg/Kg-dry	1	Analyst: JJG 6/20/2016 08:01 AM
<b>CHROMIUM, HEXAVALENT</b>						
Chromium, Hexavalent	ND		SW7196A 1.0	mg/Kg-dry	Prep: SW3060A / 6/15/16 1	Analyst: MB 6/16/2016 04:00 PM
<b>MOISTURE</b>						
Moisture	6.2		SW3550C 0.050	% of sample	1	Analyst: EDL 6/13/2016 04:49 PM
<b>PH</b>						
pH	8.4		SW9045D	s.u.	Prep: EXTRACT / 6/10/16 1	Analyst: EDL 6/10/2016 05:36 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 20-Jun-16

**Client:** Olsson Associates  
**Project:** FEE 64 Spill  
**Sample ID:** F64-SS2  
**Collection Date:** 6/7/2016 01:30 PM

**Work Order:** 1606630  
**Lab ID:** 1606630-03  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>140</b>	B	<b>SW8015M</b>		Prep: SW3541 / 6/14/16	Analyst: <b>IT</b>
			<b>24</b>	<b>mg/Kg-dry</b>	5	6/15/2016 01:42 AM
<i>Surr: 4-Terphenyl-d14</i>	62.2		39-133	%REC	5	6/15/2016 01:42 AM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	ND		<b>SW8015D</b>		Prep: SW5035 / 6/13/16	Analyst: <b>IT</b>
			3.3	mg/Kg-dry	1	6/13/2016 08:46 PM
<i>Surr: Toluene-d8</i>	109		50-150	%REC	1	6/13/2016 08:46 PM
<b>MERCURY BY CVAA</b>						
<b>Mercury</b>	<b>0.025</b>		<b>SW7471B</b>		Prep: SW7471 / 6/14/16	Analyst: <b>LR</b>
			<b>0.015</b>	<b>mg/Kg-dry</b>	1	6/14/2016 07:07 PM
<b>METALS ANALYSIS BY ICP</b>						
			<b>SW846 6010C</b>		Prep: SW3050B / 6/14/16	Analyst: <b>JEC</b>
<b>Arsenic</b>	<b>11</b>		<b>0.44</b>	<b>mg/Kg-dry</b>	1	6/14/2016 11:50 PM
<b>Barium</b>	<b>350</b>		<b>0.44</b>	<b>mg/Kg-dry</b>	1	6/17/2016 05:51 PM
Cadmium	ND		0.44	mg/Kg-dry	1	6/14/2016 11:50 PM
<b>Chromium</b>	<b>13</b>		<b>0.44</b>	<b>mg/Kg-dry</b>	1	6/14/2016 11:50 PM
<b>Copper</b>	<b>19</b>		<b>0.44</b>	<b>mg/Kg-dry</b>	1	6/14/2016 11:50 PM
<b>Lead</b>	<b>25</b>		<b>0.44</b>	<b>mg/Kg-dry</b>	1	6/17/2016 05:51 PM
<b>Nickel</b>	<b>24</b>		<b>0.44</b>	<b>mg/Kg-dry</b>	1	6/16/2016 02:36 AM
<b>Selenium</b>	<b>1.6</b>		<b>0.89</b>	<b>mg/Kg-dry</b>	1	6/14/2016 11:50 PM
Silver	ND		0.44	mg/Kg-dry	1	6/14/2016 11:50 PM
<b>Zinc</b>	<b>130</b>		<b>0.89</b>	<b>mg/Kg-dry</b>	1	6/14/2016 11:50 PM
<b>SOLUBLE CATIONS FOR SAR</b>						
			<b>SW846 6010C</b>		Prep: USDA Method 20B / 6/14/16	Analyst: <b>JEC</b>
<b>Calcium</b>	<b>490</b>		<b>5.0</b>	<b>mg/L</b>	10	6/14/2016 07:03 PM
<b>Magnesium</b>	<b>120</b>		<b>2.0</b>	<b>mg/L</b>	10	6/14/2016 07:03 PM
<b>Sodium</b>	<b>6,800</b>		<b>20</b>	<b>mg/L</b>	100	6/15/2016 12:06 PM
<b>SODIUM ADSORPTION RATIO</b>						
			<b>USDA H60 METHO</b>		Prep: USDA Method 20B / 6/14/16	Analyst: <b>JEC</b>
<b>Sodium Adsorption Ratio</b>	<b>72</b>		<b>0.010</b>	<b>none</b>	1	6/15/2016
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW846 8270D</b>		Prep: SW3546 / 6/15/16	Analyst: <b>JF</b>
Acenaphthene	ND		0.015	mg/Kg-dry	1	6/15/2016 10:53 PM
Anthracene	ND		0.015	mg/Kg-dry	1	6/15/2016 10:53 PM
Benzo(a)anthracene	ND		0.015	mg/Kg-dry	1	6/15/2016 10:53 PM
Benzo(a)pyrene	ND		0.015	mg/Kg-dry	1	6/15/2016 10:53 PM
Benzo(b)fluoranthene	ND		0.015	mg/Kg-dry	1	6/15/2016 10:53 PM
Benzo(k)fluoranthene	ND		0.015	mg/Kg-dry	1	6/15/2016 10:53 PM
Chrysene	ND		0.015	mg/Kg-dry	1	6/15/2016 10:53 PM
Dibenzo(a,h)anthracene	ND		0.015	mg/Kg-dry	1	6/15/2016 10:53 PM
Fluoranthene	ND		0.015	mg/Kg-dry	1	6/15/2016 10:53 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 20-Jun-16

**Client:** Olsson Associates  
**Project:** FEE 64 Spill  
**Sample ID:** F64-SS2  
**Collection Date:** 6/7/2016 01:30 PM

**Work Order:** 1606630  
**Lab ID:** 1606630-03  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		0.015	mg/Kg-dry	1	6/15/2016 10:53 PM
Indeno(1,2,3-cd)pyrene	ND		0.015	mg/Kg-dry	1	6/15/2016 10:53 PM
<b>Naphthalene</b>	<b>0.083</b>		<b>0.015</b>	<b>mg/Kg-dry</b>	1	6/15/2016 10:53 PM
Pyrene	ND		0.015	mg/Kg-dry	1	6/15/2016 10:53 PM
Surr: 2-Fluorobiphenyl	69.8		12-100	%REC	1	6/15/2016 10:53 PM
Surr: 4-Terphenyl-d14	68.8		25-137	%REC	1	6/15/2016 10:53 PM
Surr: Nitrobenzene-d5	57.8		37-107	%REC	1	6/15/2016 10:53 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260B</b>	Prep: SW5035 / 6/13/16	Analyst: <b>LSY</b>	
Benzene	ND		0.040	mg/Kg-dry	1	6/14/2016 06:24 AM
Ethylbenzene	ND		0.040	mg/Kg-dry	1	6/14/2016 06:24 AM
m,p-Xylene	ND		0.080	mg/Kg-dry	1	6/14/2016 06:24 AM
o-Xylene	ND		0.040	mg/Kg-dry	1	6/14/2016 06:24 AM
Toluene	ND		0.040	mg/Kg-dry	1	6/14/2016 06:24 AM
Xylenes, Total	ND		0.12	mg/Kg-dry	1	6/14/2016 06:24 AM
Surr: 1,2-Dichloroethane-d4	95.0		70-130	%REC	1	6/14/2016 06:24 AM
Surr: 4-Bromofluorobenzene	100		70-130	%REC	1	6/14/2016 06:24 AM
Surr: Dibromofluoromethane	84.7		70-130	%REC	1	6/14/2016 06:24 AM
Surr: Toluene-d8	99.8		70-130	%REC	1	6/14/2016 06:24 AM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHO</b>	Prep: USDA Method 20B / 6/14/16	Analyst: <b>JB</b>	
Electrical Conductivity @ Saturation	38		0.050	mmhos/cm @2	10	6/15/2016 11:20 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>	Analyst: <b>JJG</b>		
Chromium, Trivalent	13		0.58	mg/Kg-dry	1	6/20/2016 08:01 AM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>	Prep: SW3060A / 6/15/16	Analyst: <b>MB</b>	
Chromium, Hexavalent	ND		1.1	mg/Kg-dry	1	6/16/2016 04:00 PM
<b>MOISTURE</b>			<b>SW3550C</b>	Analyst: <b>EDL</b>		
Moisture	14		0.050	% of sample	1	6/13/2016 04:49 PM
<b>PH</b>			<b>SW9045D</b>	Prep: EXTRACT / 6/10/16	Analyst: <b>EDL</b>	
pH	8.0			s.u.	1	6/10/2016 05:36 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 20-Jun-16

**Client:** Olsson Associates  
**Project:** FEE 64 Spill  
**Sample ID:** F64-SS3  
**Collection Date:** 6/7/2016 01:40 PM

**Work Order:** 1606630  
**Lab ID:** 1606630-04  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>88</b>	B	<b>26</b>	<b>mg/Kg-dry</b>	5	6/15/2016 02:12 AM
<i>Surr: 4-Terphenyl-d14</i>	65.7		39-133	%REC	5	6/15/2016 02:12 AM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	ND		3.8	mg/Kg-dry	1	6/14/2016 05:01 AM
<i>Surr: Toluene-d8</i>	111		50-150	%REC	1	6/14/2016 05:01 AM
<b>MERCURY BY CVAA</b>						
<b>Mercury</b>	<b>0.027</b>		<b>0.017</b>	<b>mg/Kg-dry</b>	1	6/14/2016 07:09 PM
<b>METALS ANALYSIS BY ICP</b>						
<b>Arsenic</b>	<b>11</b>		<b>0.46</b>	<b>mg/Kg-dry</b>	1	6/14/2016 11:55 PM
<b>Barium</b>	<b>240</b>		<b>0.46</b>	<b>mg/Kg-dry</b>	1	6/17/2016 05:57 PM
Cadmium	ND		0.46	mg/Kg-dry	1	6/14/2016 11:55 PM
<b>Chromium</b>	<b>13</b>		<b>0.46</b>	<b>mg/Kg-dry</b>	1	6/14/2016 11:55 PM
<b>Copper</b>	<b>18</b>		<b>0.46</b>	<b>mg/Kg-dry</b>	1	6/14/2016 11:55 PM
<b>Lead</b>	<b>20</b>		<b>0.46</b>	<b>mg/Kg-dry</b>	1	6/17/2016 05:57 PM
<b>Nickel</b>	<b>22</b>		<b>0.46</b>	<b>mg/Kg-dry</b>	1	6/16/2016 02:41 AM
<b>Selenium</b>	<b>1.5</b>		<b>0.92</b>	<b>mg/Kg-dry</b>	1	6/14/2016 11:55 PM
Silver	ND		0.46	mg/Kg-dry	1	6/14/2016 11:55 PM
<b>Zinc</b>	<b>120</b>		<b>0.92</b>	<b>mg/Kg-dry</b>	1	6/14/2016 11:55 PM
<b>SOLUBLE CATIONS FOR SAR</b>						
			<b>SW846 6010C</b>		Prep: USDA Method 20B / 6/14/16	Analyst: JEC
<b>Calcium</b>	<b>330</b>		<b>5.0</b>	<b>mg/L</b>	10	6/14/2016 07:08 PM
<b>Magnesium</b>	<b>76</b>		<b>2.0</b>	<b>mg/L</b>	10	6/14/2016 07:08 PM
<b>Sodium</b>	<b>5,300</b>		<b>20</b>	<b>mg/L</b>	100	6/15/2016 12:11 PM
<b>SODIUM ADSORPTION RATIO</b>						
			<b>USDA H60 METHO</b>		Prep: USDA Method 20B / 6/14/16	Analyst: JEC
<b>Sodium Adsorption Ratio</b>	<b>69</b>		<b>0.010</b>	<b>none</b>	1	6/15/2016
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW846 8270D</b>		Prep: SW3546 / 6/15/16	Analyst: JF
Acenaphthene	ND		0.017	mg/Kg-dry	1	6/15/2016 11:17 PM
Anthracene	ND		0.017	mg/Kg-dry	1	6/15/2016 11:17 PM
Benzo(a)anthracene	ND		0.017	mg/Kg-dry	1	6/15/2016 11:17 PM
Benzo(a)pyrene	ND		0.017	mg/Kg-dry	1	6/15/2016 11:17 PM
Benzo(b)fluoranthene	ND		0.017	mg/Kg-dry	1	6/15/2016 11:17 PM
Benzo(k)fluoranthene	ND		0.017	mg/Kg-dry	1	6/15/2016 11:17 PM
Chrysene	ND		0.017	mg/Kg-dry	1	6/15/2016 11:17 PM
Dibenzo(a,h)anthracene	ND		0.017	mg/Kg-dry	1	6/15/2016 11:17 PM
Fluoranthene	ND		0.017	mg/Kg-dry	1	6/15/2016 11:17 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 20-Jun-16

**Client:** Olsson Associates  
**Project:** FEE 64 Spill  
**Sample ID:** F64-SS3  
**Collection Date:** 6/7/2016 01:40 PM

**Work Order:** 1606630  
**Lab ID:** 1606630-04  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		0.017	mg/Kg-dry	1	6/15/2016 11:17 PM
Indeno(1,2,3-cd)pyrene	ND		0.017	mg/Kg-dry	1	6/15/2016 11:17 PM
Naphthalene	ND		0.017	mg/Kg-dry	1	6/15/2016 11:17 PM
Pyrene	ND		0.017	mg/Kg-dry	1	6/15/2016 11:17 PM
Surr: 2-Fluorobiphenyl	76.3		12-100	%REC	1	6/15/2016 11:17 PM
Surr: 4-Terphenyl-d14	78.7		25-137	%REC	1	6/15/2016 11:17 PM
Surr: Nitrobenzene-d5	63.6		37-107	%REC	1	6/15/2016 11:17 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260B</b>	Prep: SW5035 / 6/13/16		Analyst: <b>LSY</b>
Benzene	ND		0.046	mg/Kg-dry	1	6/14/2016 06:49 AM
Ethylbenzene	ND		0.046	mg/Kg-dry	1	6/14/2016 06:49 AM
m,p-Xylene	ND		0.092	mg/Kg-dry	1	6/14/2016 06:49 AM
o-Xylene	ND		0.046	mg/Kg-dry	1	6/14/2016 06:49 AM
Toluene	ND		0.046	mg/Kg-dry	1	6/14/2016 06:49 AM
Xylenes, Total	ND		0.14	mg/Kg-dry	1	6/14/2016 06:49 AM
Surr: 1,2-Dichloroethane-d4	95.4		70-130	%REC	1	6/14/2016 06:49 AM
Surr: 4-Bromofluorobenzene	98.2		70-130	%REC	1	6/14/2016 06:49 AM
Surr: Dibromofluoromethane	87.8		70-130	%REC	1	6/14/2016 06:49 AM
Surr: Toluene-d8	99.9		70-130	%REC	1	6/14/2016 06:49 AM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHO</b>	Prep: USDA Method 20B / 6/14/16		Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	29		0.050	mmhos/cm @2	10	6/15/2016 11:20 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>JJG</b>
Chromium, Trivalent	13		0.63	mg/Kg-dry	1	6/20/2016 08:01 AM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>	Prep: SW3060A / 6/15/16		Analyst: <b>MB</b>
Chromium, Hexavalent	ND		1.2	mg/Kg-dry	1	6/16/2016 04:00 PM
<b>MOISTURE</b>			<b>SW3550C</b>			Analyst: <b>EDL</b>
Moisture	21		0.050	% of sample	1	6/13/2016 04:49 PM
<b>PH</b>			<b>SW9045D</b>	Prep: EXTRACT / 6/10/16		Analyst: <b>EDL</b>
pH	8.6			s.u.	1	6/10/2016 05:36 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 20-Jun-16

**Client:** Olsson Associates  
**Project:** FEE 64 Spill  
**Sample ID:** F64-SS4  
**Collection Date:** 6/7/2016 01:45 PM

**Work Order:** 1606630  
**Lab ID:** 1606630-05  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep: SW3546 / 6/15/16	Analyst: <b>IT</b>
<b>DRO (C10-C28)</b>	<b>140</b>		<b>15</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/16/2016 12:48 PM
Surr: 4-Terphenyl-d14	46.6		39-133	%REC	1	6/16/2016 12:48 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015D</b>		Prep: SW5035 / 6/13/16	Analyst: <b>IT</b>
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>4.3</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/14/2016 05:26 AM
Surr: Toluene-d8	110		50-150	%REC	1	6/14/2016 05:26 AM
<b>MERCURY BY CVAA</b>						
			<b>SW7471B</b>		Prep: SW7471 / 6/14/16	Analyst: <b>LR</b>
<b>Mercury</b>	<b>0.034</b>		<b>0.017</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/14/2016 07:12 PM
<b>METALS ANALYSIS BY ICP</b>						
			<b>SW846 6010C</b>		Prep: SW3050B / 6/14/16	Analyst: <b>JEC</b>
<b>Arsenic</b>	<b>10</b>		<b>0.52</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/15/2016 12:01 AM
<b>Barium</b>	<b>250</b>		<b>0.52</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/17/2016 06:03 PM
Cadmium	ND		0.52	mg/Kg-dry	1	6/15/2016 12:01 AM
<b>Chromium</b>	<b>17</b>		<b>0.52</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/15/2016 12:01 AM
<b>Copper</b>	<b>20</b>		<b>0.52</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/15/2016 12:01 AM
<b>Lead</b>	<b>21</b>		<b>0.52</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/17/2016 06:03 PM
<b>Nickel</b>	<b>27</b>		<b>0.52</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/16/2016 02:46 AM
<b>Selenium</b>	<b>1.7</b>		<b>1.0</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/15/2016 12:01 AM
Silver	ND		0.52	mg/Kg-dry	1	6/15/2016 12:01 AM
<b>Zinc</b>	<b>130</b>		<b>1.0</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/15/2016 12:01 AM
<b>SOLUBLE CATIONS FOR SAR</b>						
			<b>SW846 6010C</b>		Prep: USDA Method 20B / 6/14/16	Analyst: <b>JEC</b>
<b>Calcium</b>	<b>470</b>		<b>5.0</b>	<b>mg/L</b>	<b>10</b>	6/14/2016 07:14 PM
<b>Magnesium</b>	<b>200</b>		<b>2.0</b>	<b>mg/L</b>	<b>10</b>	6/14/2016 07:14 PM
<b>Sodium</b>	<b>2,500</b>		<b>2.0</b>	<b>mg/L</b>	<b>10</b>	6/14/2016 07:14 PM
<b>SODIUM ADSORPTION RATIO</b>						
			<b>USDA H60 METHO</b>		Prep: USDA Method 20B / 6/14/16	Analyst: <b>JEC</b>
<b>Sodium Adsorption Ratio</b>	<b>24</b>		<b>0.010</b>	<b>none</b>	<b>1</b>	6/15/2016
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW846 8270D</b>		Prep: SW3546 / 6/15/16	Analyst: <b>JF</b>
Acenaphthene	ND		0.018	mg/Kg-dry	1	6/15/2016 11:40 PM
Anthracene	ND		0.018	mg/Kg-dry	1	6/15/2016 11:40 PM
Benzo(a)anthracene	ND		0.018	mg/Kg-dry	1	6/15/2016 11:40 PM
Benzo(a)pyrene	ND		0.018	mg/Kg-dry	1	6/15/2016 11:40 PM
Benzo(b)fluoranthene	ND		0.018	mg/Kg-dry	1	6/15/2016 11:40 PM
Benzo(k)fluoranthene	ND		0.018	mg/Kg-dry	1	6/15/2016 11:40 PM
Chrysene	ND		0.018	mg/Kg-dry	1	6/15/2016 11:40 PM
Dibenzo(a,h)anthracene	ND		0.018	mg/Kg-dry	1	6/15/2016 11:40 PM
Fluoranthene	ND		0.018	mg/Kg-dry	1	6/15/2016 11:40 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group USA, Corp

Date: 20-Jun-16

**Client:** Olsson Associates  
**Project:** FEE 64 Spill  
**Sample ID:** F64-SS4  
**Collection Date:** 6/7/2016 01:45 PM

**Work Order:** 1606630  
**Lab ID:** 1606630-05  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		0.018	mg/Kg-dry	1	6/15/2016 11:40 PM
Indeno(1,2,3-cd)pyrene	ND		0.018	mg/Kg-dry	1	6/15/2016 11:40 PM
Naphthalene	ND		0.018	mg/Kg-dry	1	6/15/2016 11:40 PM
Pyrene	ND		0.018	mg/Kg-dry	1	6/15/2016 11:40 PM
Surr: 2-Fluorobiphenyl	69.8		12-100	%REC	1	6/15/2016 11:40 PM
Surr: 4-Terphenyl-d14	69.9		25-137	%REC	1	6/15/2016 11:40 PM
Surr: Nitrobenzene-d5	60.6		37-107	%REC	1	6/15/2016 11:40 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260B</b>	Prep: SW5035 / 6/13/16		Analyst: <b>LSY</b>
Benzene	ND		0.051	mg/Kg-dry	1	6/14/2016 07:13 AM
Ethylbenzene	ND		0.051	mg/Kg-dry	1	6/14/2016 07:13 AM
m,p-Xylene	ND		0.10	mg/Kg-dry	1	6/14/2016 07:13 AM
o-Xylene	ND		0.051	mg/Kg-dry	1	6/14/2016 07:13 AM
Toluene	ND		0.051	mg/Kg-dry	1	6/14/2016 07:13 AM
Xylenes, Total	ND		0.15	mg/Kg-dry	1	6/14/2016 07:13 AM
Surr: 1,2-Dichloroethane-d4	96.5		70-130	%REC	1	6/14/2016 07:13 AM
Surr: 4-Bromofluorobenzene	98.7		70-130	%REC	1	6/14/2016 07:13 AM
Surr: Dibromofluoromethane	86.0		70-130	%REC	1	6/14/2016 07:13 AM
Surr: Toluene-d8	99.4		70-130	%REC	1	6/14/2016 07:13 AM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHO</b>	Prep: USDA Method 20B / 6/14/16		Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	18		0.12	mmhos/cm @2	25	6/15/2016 11:20 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>JJG</b>
Chromium, Trivalent	16		0.67	mg/Kg-dry	1	6/20/2016 08:01 AM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>	Prep: SW3060A / 6/15/16		Analyst: <b>MB</b>
Chromium, Hexavalent	ND		1.3	mg/Kg-dry	1	6/16/2016 04:00 PM
<b>MOISTURE</b>			<b>SW3550C</b>			Analyst: <b>EDL</b>
Moisture	26		0.050	% of sample	1	6/13/2016 04:49 PM
<b>PH</b>			<b>SW9045D</b>	Prep: EXTRACT / 6/10/16		Analyst: <b>EDL</b>
pH	7.6			s.u.	1	6/10/2016 05:36 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group USA, Corp****Date:** 20-Jun-16**Client:** Olsson Associates**Project:** FEE 64 Spill**Work Order:** 1606630**Sample ID:** F64-BG2**Lab ID:** 1606630-06**Collection Date:** 6/7/2016 01:55 PM**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>METALS ANALYSIS BY ICP</b>			<b>SW846 6010C</b>		Prep: SW3050B / 6/14/16	Analyst: <b>JEC</b>
Arsenic	9.3		0.35	mg/Kg-dry	1	6/15/2016 12:06 AM
<b>MOISTURE</b>			<b>SW3550C</b>			Analyst: <b>EDL</b>
Moisture	4.3		0.050	% of sample	1	6/13/2016 06:49 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 20-Jun-16

**Client:** Olsson Associates  
**Work Order:** 1606630  
**Project:** FEE 64 Spill

## QC BATCH REPORT

Batch ID: **87273** Instrument ID **GC8** Method: **SW8015M**

<b>MBLK</b>		Sample ID: <b>DBLKS1-87273-87273</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2016 05:12 PM</b>		
Client ID:		Run ID: <b>GC8_160614A</b>				SeqNo: <b>3875101</b>		Prep Date: <b>6/14/2016</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	13.25	5.0								
Surr: 4-Terphenyl-d14	1.218	0	2	0	60.9	39-133	0			

<b>LCS</b>		Sample ID: <b>DLCSS1-87273-87273</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2016 05:42 PM</b>		
Client ID:		Run ID: <b>GC8_160614A</b>				SeqNo: <b>3875102</b>		Prep Date: <b>6/14/2016</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	208.7	5.0	200	0	104	61-109	0			B
Surr: 4-Terphenyl-d14	1.276	0	2	0	63.8	39-133	0			

<b>MS</b>		Sample ID: <b>1606630-01A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2016 06:12 PM</b>		
Client ID: <b>F64-SS1</b>		Run ID: <b>GC8_160614A</b>				SeqNo: <b>3875103</b>		Prep Date: <b>6/14/2016</b>		DF: <b>5</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	186.9	21	166.5	30.56	93.9	48-110	0			B
Surr: 4-Terphenyl-d14	0.9807	0	1.665	0	58.9	39-133	0			

<b>MSD</b>		Sample ID: <b>1606630-01A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2016 06:42 PM</b>		
Client ID: <b>F64-SS1</b>		Run ID: <b>GC8_160614A</b>				SeqNo: <b>3875104</b>		Prep Date: <b>6/14/2016</b>		DF: <b>5</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	165.4	21	165.8	30.56	81.4	48-110	186.9	12.2	30	B
Surr: 4-Terphenyl-d14	0.9167	0	1.658	0	55.3	39-133	0.9807	6.75	30	

<b>The following samples were analyzed in this batch:</b>		1606630-01A	1606630-03A	1606630-04A
		1606630-05A		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates  
 Work Order: 1606630  
 Project: FEE 64 Spill

# QC BATCH REPORT

Batch ID: **87342** Instrument ID **GC8** Method: **SW8015M**

<b>MBLK</b>		Sample ID: <b>DBLKS1-87342-87342</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/15/2016 06:47 PM</b>		
Client ID:		Run ID: <b>GC8_160615A</b>				SeqNo: <b>3877574</b>		Prep Date: <b>6/15/2016</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	8.3								
Surr: 4-Terphenyl-d14	2.311	0	3.333	0	69.3	39-133	0			

<b>LCS</b>		Sample ID: <b>DLCSS1-87342-87342</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/15/2016 07:17 PM</b>		
Client ID:		Run ID: <b>GC8_160615A</b>				SeqNo: <b>3877575</b>		Prep Date: <b>6/15/2016</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	329.6	8.3	333.3	0	98.9	61-109	0			
Surr: 4-Terphenyl-d14	1.91	0	3.333	0	57.3	39-133	0			

<b>MS</b>		Sample ID: <b>1606628-01A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/15/2016 07:47 PM</b>		
Client ID:		Run ID: <b>GC8_160615A</b>				SeqNo: <b>3877576</b>		Prep Date: <b>6/15/2016</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	290.4	8.1	324.8	31.76	79.6	48-110	0			
Surr: 4-Terphenyl-d14	1.531	0	3.248	0	47.1	39-133	0			

<b>MSD</b>		Sample ID: <b>1606628-01A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/15/2016 08:17 PM</b>		
Client ID:		Run ID: <b>GC8_160615A</b>				SeqNo: <b>3877577</b>		Prep Date: <b>6/15/2016</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	301.2	8.1	324.1	31.76	83.1	48-110	290.4	3.63	30	
Surr: 4-Terphenyl-d14	1.608	0	3.241	0	49.6	39-133	1.531	4.94	30	

The following samples were analyzed in this batch:

1606630-01A	1606630-05A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates  
 Work Order: 1606630  
 Project: FEE 64 Spill

# QC BATCH REPORT

Batch ID: **87239** Instrument ID **GC9** Method: **SW8015D**

<b>MBLK</b>		Sample ID: <b>MBLK-87239-87239</b>				Units: <b>µg/Kg-dry</b>		Analysis Date: <b>6/13/2016 08:22 PM</b>		
Client ID:		Run ID: <b>GC9_160613B</b>				SeqNo: <b>3873445</b>		Prep Date: <b>6/13/2016</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
Surr: Toluene-d8	4707	0	5000	0	94.1	50-150	0			

<b>LCS</b>		Sample ID: <b>LCS-87239-87239</b>				Units: <b>µg/Kg-dry</b>		Analysis Date: <b>6/13/2016 07:57 PM</b>		
Client ID:		Run ID: <b>GC9_160613B</b>				SeqNo: <b>3873444</b>		Prep Date: <b>6/13/2016</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	488300	2,500	500000	0	97.7	70-130	0			
Surr: Toluene-d8	5274	0	5000	0	105	50-150	0			

<b>MS</b>		Sample ID: <b>1606630-03A MS</b>				Units: <b>µg/Kg-dry</b>		Analysis Date: <b>6/13/2016 11:15 PM</b>		
Client ID: <b>F64-SS2</b>		Run ID: <b>GC9_160613B</b>				SeqNo: <b>3873454</b>		Prep Date: <b>6/13/2016</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	709800	3,300	662800	0	107	70-130	0			
Surr: Toluene-d8	7247	0	6628	0	109	50-150	0			

<b>MSD</b>		Sample ID: <b>1606630-03A MSD</b>				Units: <b>µg/Kg-dry</b>		Analysis Date: <b>6/13/2016 11:40 PM</b>		
Client ID: <b>F64-SS2</b>		Run ID: <b>GC9_160613B</b>				SeqNo: <b>3873455</b>		Prep Date: <b>6/13/2016</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	716500	3,300	662800	0	108	70-130	709800	0.937	30	
Surr: Toluene-d8	7057	0	6628	0	106	50-150	7247	2.66	30	

The following samples were analyzed in this batch:

1606630-01A	1606630-03A	1606630-04A
1606630-05A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates  
 Work Order: 1606630  
 Project: FEE 64 Spill

# QC BATCH REPORT

Batch ID: **87289** Instrument ID **HG1** Method: **SW7471B**

MBLK		Sample ID: MBLK-87289-87289					Units: mg/Kg		Analysis Date: 6/14/2016 06:43 PM		
Client ID:			Run ID: HG1_160614A				SeqNo: 3874958		Prep Date: 6/14/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury ND 0.020

LCS		Sample ID: LCS-87289-87289					Units: mg/Kg		Analysis Date: 6/14/2016 06:45 PM		
Client ID:			Run ID: HG1_160614A			SeqNo: 3874959		Prep Date: 6/14/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury 0.1842 0.020 0.1665 0 111 80-120 0

MS		Sample ID: 1606764-01DMS					Units: mg/Kg		Analysis Date: 6/14/2016 07:49 PM		
Client ID:			Run ID: HG1_160614A			SeqNo: 3874988		Prep Date: 6/14/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury 0.1368 0.013 0.1064 0.0237 106 75-125 0

MSD		Sample ID: 1606764-01DMSD				Units: mg/Kg		Analysis Date: 6/14/2016 07:52 PM		
Client ID:		Run ID: HG1_160614A				SeqNo: 3874989		Prep Date: 6/14/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1371 0.013 0.1066 0.0237 106 75-125 0.1368 0.213 35

The following samples were analyzed in this batch:

1606630-01A	1606630-02A	1606630-03A
1606630-04A	1606630-05A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** Olsson Associates  
**Work Order:** 1606630  
**Project:** FEE 64 Spill

## QC BATCH REPORT

Batch ID: **87184** Instrument ID **ICP2** Method: **SW846 6010C**

<b>DUP</b>		Sample ID: <b>1606579-01BDUP</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/14/2016 05:54 PM</b>		
Client ID:		Run ID: <b>ICP2_160614B</b>				SeqNo: <b>3874732</b>		Prep Date: <b>6/14/2016</b>		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	41.14	5.0	0	0	0	0-0	31.04	28		
Magnesium	2.297	2.0	0	0	0	0-0	1.713	29.2		
Sodium	563.6	2.0	0	0	0	0-0	457.3	20.8		

<b>DUP</b>		Sample ID: <b>1606579-01BDUP</b>				Units: <b>none</b>		Analysis Date: <b>6/15/2016</b>		
Client ID:		Run ID: <b>SAR_160615A</b>				SeqNo: <b>3876239</b>		Prep Date: <b>6/14/2016</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	23.15	0.010	0	0	0		21.64	6.76	50	

The following samples were analyzed in this batch:

1606630-01B	1606630-02B	1606630-03B
1606630-04B	1606630-05B	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates  
 Work Order: 1606630  
 Project: FEE 64 Spill

# QC BATCH REPORT

Batch ID: **87286** Instrument ID **ICP2** Method: **SW846 6010C**

<b>MBLK</b>		Sample ID: <b>MBLK-87286-87286</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2016 10:28 PM</b>		
Client ID:		Run ID: <b>ICP2_160614B</b>				SeqNo: <b>3874781</b>		Prep Date: <b>6/14/2016</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Cadmium	ND	0.50								
Chromium	0.0229	0.25								J
Copper	ND	0.50								
Selenium	ND	0.50								
Zinc	0.09736	0.50								J

<b>MBLK</b>		Sample ID: <b>MBLK-87286-87286</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/16/2016 01:15 AM</b>		
Client ID:		Run ID: <b>ICP2_160615C</b>				SeqNo: <b>3877273</b>		Prep Date: <b>6/14/2016</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	ND	0.25								
Nickel	ND	0.25								

<b>MBLK</b>		Sample ID: <b>MBLK-87286-87286</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/17/2016 04:38 PM</b>		
Client ID:		Run ID: <b>ICP2_160617A</b>				SeqNo: <b>3881159</b>		Prep Date: <b>6/14/2016</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	ND	0.25								

<b>LCS</b>		Sample ID: <b>LCS-87286-87286</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2016 10:33 PM</b>		
Client ID:		Run ID: <b>ICP2_160614B</b>				SeqNo: <b>3874782</b>		Prep Date: <b>6/14/2016</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	5.402	0.25	5	0	108	80-120	0			
Cadmium	5.394	0.50	5	0	108	80-120	0			
Chromium	5.755	0.25	5	0	115	80-120	0			
Copper	5.839	0.50	5	0	117	80-120	0			
Selenium	5.463	0.50	5	0	109	80-120	0			
Zinc	5.813	0.50	5	0	116	80-120	0			

<b>LCS</b>		Sample ID: <b>LCS-87286-87286</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/16/2016 01:21 AM</b>		
Client ID:		Run ID: <b>ICP2_160615C</b>				SeqNo: <b>3877274</b>		Prep Date: <b>6/14/2016</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	5.841	0.25	5	0	117	80-120	0			
Nickel	5.802	0.25	5	0	116	80-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates  
 Work Order: 1606630  
 Project: FEE 64 Spill

# QC BATCH REPORT

Batch ID: 87286 Instrument ID ICP2 Method: SW846 6010C

<b>LCS</b>		Sample ID: <b>LCS-87286-87286</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/17/2016 04:44 PM</b>		
Client ID:		Run ID: <b>ICP2_160617A</b>				SeqNo: <b>3881160</b>		Prep Date: <b>6/14/2016</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Barium 5.223 0.25 5 0 104 80-120 0

<b>MS</b>		Sample ID: <b>1606739-04AMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/17/2016 06:25 PM</b>		
Client ID:		Run ID: <b>ICP2_160617A</b>				SeqNo: <b>3881178</b>		Prep Date: <b>6/14/2016</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Arsenic	11.88	0.38	7.657	6.087	75.6	75-125	0			
Barium	49.94	0.38	7.657	46.83	40.7	75-125	0			SO
Cadmium	7.47	0.77	7.657	-0.08939	98.7	75-125	0			
Chromium	18.37	0.38	7.657	10.46	103	75-125	0			
Copper	14.68	0.77	7.657	7.783	90.1	75-125	0			
Lead	14.42	0.38	7.657	8.421	78.4	75-125	0			
Selenium	8.028	0.77	7.657	0.3086	101	75-125	0			
Silver	5.809	0.38	7.657	-2.271	106	75-125	0			

<b>MSD</b>		Sample ID: <b>1606739-04AMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/17/2016 06:30 PM</b>		
Client ID:		Run ID: <b>ICP2_160617A</b>				SeqNo: <b>3881179</b>		Prep Date: <b>6/14/2016</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Arsenic	13.08	0.38	7.68	6.087	91.1	75-125	11.88	9.67	20	
Barium	55.48	0.38	7.68	46.83	113	75-125	49.94	10.5	20	O
Cadmium	7.697	0.77	7.68	-0.08939	101	75-125	7.47	2.99	20	
Chromium	19.43	0.38	7.68	10.46	117	75-125	18.37	5.63	20	
Copper	15.76	0.77	7.68	7.783	104	75-125	14.68	7.13	20	
Lead	15.42	0.38	7.68	8.421	91.1	75-125	14.42	6.69	20	
Selenium	8.435	0.77	7.68	0.3086	106	75-125	8.028	4.94	20	
Silver	5.676	0.38	7.68	-2.271	103	75-125	5.809	2.32	20	

The following samples were analyzed in this batch:

1606630-01A	1606630-02A	1606630-03A
1606630-04A	1606630-05A	1606630-06A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates  
 Work Order: 1606630  
 Project: FEE 64 Spill

## QC BATCH REPORT

Batch ID: **87272** Instrument ID **SVMS5** Method: **SW846 8270D**

MBLK				Sample ID: <b>SBLKS1-87272-87272</b>				Units: <b>µg/Kg</b>			Analysis Date: <b>6/14/2016 04:56 PM</b>		
Client ID:			Run ID: <b>SVMS5_160614A</b>				SeqNo: <b>3876096</b>		Prep Date: <b>6/14/2016</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Acenaphthene	ND	6.7											
Anthracene	ND	6.7											
Benzo(a)anthracene	ND	6.7											
Benzo(a)pyrene	ND	6.7											
Benzo(b)fluoranthene	ND	6.7											
Benzo(k)fluoranthene	ND	6.7											
Chrysene	ND	6.7											
Dibenzo(a,h)anthracene	ND	6.7											
Fluoranthene	ND	6.7											
Fluorene	ND	6.7											
Indeno(1,2,3-cd)pyrene	ND	6.7											
Naphthalene	ND	6.7											
Pyrene	ND	6.7											
<i>Surr: 2-Fluorobiphenyl</i>	<i>1195</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>71.7</i>	<i>12-100</i>	<i>0</i>						
<i>Surr: 4-Terphenyl-d14</i>	<i>1432</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>85.9</i>	<i>25-137</i>	<i>0</i>						
<i>Surr: Nitrobenzene-d5</i>	<i>967</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>58</i>	<i>37-107</i>	<i>0</i>						

LCS				Sample ID: <b>SLCSS1-87272-87272</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/14/2016 05:19 PM</b>	
Client ID:			Run ID: <b>SVMS5_160614A</b>			SeqNo: <b>3876097</b>		Prep Date: <b>6/14/2016</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	508.7	6.7	666.7	0	76.3	45-110	0				
Anthracene	628	6.7	666.7	0	94.2	55-105	0				
Benzo(a)anthracene	633.3	6.7	666.7	0	95	50-110	0				
Benzo(a)pyrene	593	6.7	666.7	0	88.9	50-110	0				
Benzo(b)fluoranthene	628	6.7	666.7	0	94.2	45-115	0				
Benzo(k)fluoranthene	637.3	6.7	666.7	0	95.6	45-115	0				
Chrysene	620.7	6.7	666.7	0	93.1	55-110	0				
Dibenzo(a,h)anthracene	662.3	6.7	666.7	0	99.3	40-125	0				
Fluoranthene	605	6.7	666.7	0	90.7	55-115	0				
Fluorene	570.7	6.7	666.7	0	85.6	50-110	0				
Indeno(1,2,3-cd)pyrene	619	6.7	666.7	0	92.8	40-120	0				
Naphthalene	580.7	6.7	666.7	0	87.1	40-105	0				
Pyrene	722	6.7	666.7	0	108	45-125	0				
Surr: 2-Fluorobiphenyl	1438	0	1667	0	86.3	12-100	0				
Surr: 4-Terphenyl-d14	1566	0	1667	0	94	25-137	0				
Surr: Nitrobenzene-d5	1220	0	1667	0	73.2	37-107	0				

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates  
 Work Order: 1606630  
 Project: FEE 64 Spill

## QC BATCH REPORT

Batch ID: **87272** Instrument ID **SVMS5** Method: **SW846 8270D**

MS				Sample ID: 1606628-01A MS				Units: µg/Kg		Analysis Date: 6/14/2016 08:40 PM	
Client ID:			Run ID: SVMS5_160614A			SeqNo: 3876098		Prep Date: 6/14/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	452.1	6.7	665.4	0	67.9	45-110	0				
Anthracene	587.5	6.7	665.4	0	88.3	55-105	0				
Benzo(a)anthracene	598.1	6.7	665.4	0	89.9	50-110	0				
Benzo(a)pyrene	567.5	6.7	665.4	0	85.3	50-110	0				
Benzo(b)fluoranthene	599.5	6.7	665.4	0	90.1	45-115	0				
Benzo(k)fluoranthene	572.9	6.7	665.4	0	86.1	45-115	0				
Chrysene	581.5	6.7	665.4	0	87.4	55-110	0				
Dibenzo(a,h)anthracene	674.3	6.7	665.4	0	101	40-125	0				
Fluoranthene	596.8	6.7	665.4	10.26	88.2	55-115	0				
Fluorene	509.6	6.7	665.4	0	76.6	50-110	0				
Indeno(1,2,3-cd)pyrene	642.7	6.7	665.4	0	96.6	40-120	0				
Naphthalene	462.4	6.7	665.4	0	69.5	40-105	0				
Pyrene	606.8	6.7	665.4	0	91.2	45-125	0				
Surr: 2-Fluorobiphenyl	1189	0	1663	0	71.5	12-100	0				
Surr: 4-Terphenyl-d14	1224	0	1663	0	73.6	25-137	0				
Surr: Nitrobenzene-d5	964.4	0	1663	0	58	37-107	0				

MSD				Sample ID: 1606628-01A MSD				Units: µg/Kg		Analysis Date: 6/14/2016 09:04 PM	
Client ID:			Run ID: SVMS5_160614A			SeqNo: 3876099		Prep Date: 6/14/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	456.9	6.6	656.5	0	69.6	45-110	452.1	1.06	30		
Anthracene	554.4	6.6	656.5	0	84.4	55-105	587.5	5.79	30		
Benzo(a)anthracene	564.9	6.6	656.5	0	86	50-110	598.1	5.71	30		
Benzo(a)pyrene	527.2	6.6	656.5	0	80.3	50-110	567.5	7.38	30		
Benzo(b)fluoranthene	555.1	6.6	656.5	0	84.5	45-115	599.5	7.69	30		
Benzo(k)fluoranthene	533.7	6.6	656.5	0	81.3	45-115	572.9	7.07	30		
Chrysene	549.2	6.6	656.5	0	83.6	55-110	581.5	5.72	30		
Dibenzo(a,h)anthracene	628.9	6.6	656.5	0	95.8	40-125	674.3	6.97	30		
Fluoranthene	578.4	6.6	656.5	10.26	86.5	55-115	596.8	3.14	30		
Fluorene	515	6.6	656.5	0	78.4	50-110	509.6	1.05	30		
Indeno(1,2,3-cd)pyrene	649.6	6.6	656.5	0	98.9	40-120	642.7	1.07	30		
Naphthalene	449	6.6	656.5	0	68.4	40-105	462.4	2.93	30		
Pyrene	564.3	6.6	656.5	0	85.9	45-125	606.8	7.26	30		
Surr: 2-Fluorobiphenyl	1225	0	1641	0	74.6	12-100	1189	2.93	40		
Surr: 4-Terphenyl-d14	1136	0	1641	0	69.2	25-137	1224	7.44	40		
Surr: Nitrobenzene-d5	969.6	0	1641	0	59.1	37-107	964.4	0.541	40		

The following samples were analyzed in this batch:

1606630-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates  
 Work Order: 1606630  
 Project: FEE 64 Spill

# QC BATCH REPORT

Batch ID: 87346 Instrument ID SVMS5 Method: SW846 8270D

MBLK				Sample ID: SBLKS1-87346-87346			Units: µg/Kg		Analysis Date: 6/15/2016 06:44 PM		
Client ID:			Run ID: SVMS5_160615A			SeqNo: 3878269		Prep Date: 6/15/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	ND	13									
Anthracene	ND	13									
Benzo(a)anthracene	ND	13									
Benzo(a)pyrene	ND	13									
Benzo(b)fluoranthene	ND	13									
Benzo(k)fluoranthene	ND	13									
Chrysene	ND	13									
Dibenzo(a,h)anthracene	ND	13									
Fluoranthene	ND	13									
Fluorene	ND	13									
Indeno(1,2,3-cd)pyrene	ND	13									
Naphthalene	ND	13									
Pyrene	ND	13									
Surr: 2-Fluorobiphenyl	2740	0	3333	0	82.2	12-100		0			
Surr: 4-Terphenyl-d14	2935	0	3333	0	88.1	25-137		0			
Surr: Nitrobenzene-d5	2267	0	3333	0	68	37-107		0			

LCS				Sample ID: SLCSS1-87346-87346			Units: µg/Kg		Analysis Date: 6/15/2016 07:08 PM		
Client ID:			Run ID: SVMS5_160615A			SeqNo: 3878270		Prep Date: 6/15/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	976	13	1333	0	73.2	45-110	0				
Anthracene	1219	13	1333	0	91.4	55-105	0				
Benzo(a)anthracene	1269	13	1333	0	95.1	50-110	0				
Benzo(a)pyrene	1207	13	1333	0	90.5	50-110	0				
Benzo(b)fluoranthene	1284	13	1333	0	96.3	45-115	0				
Benzo(k)fluoranthene	1267	13	1333	0	95	45-115	0				
Chrysene	1227	13	1333	0	92	55-110	0				
Dibenzo(a,h)anthracene	1357	13	1333	0	102	40-125	0				
Fluoranthene	1259	13	1333	0	94.4	55-115	0				
Fluorene	1131	13	1333	0	84.8	50-110	0				
Indeno(1,2,3-cd)pyrene	1243	13	1333	0	93.2	40-120	0				
Naphthalene	1132	13	1333	0	84.9	40-105	0				
Pyrene	1361	13	1333	0	102	45-125	0				
Surr: 2-Fluorobiphenyl	2863	0	3333	0	85.9	12-100	0				
Surr: 4-Terphenyl-d14	2916	0	3333	0	87.5	25-137	0				
Surr: Nitrobenzene-d5	2467	0	3333	0	74	37-107	0				

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



Client: Olsson Associates  
 Work Order: 1606630  
 Project: FEE 64 Spill

## QC BATCH REPORT

Batch ID: 87346 Instrument ID SVMS5 Method: SW846 8270D

MS				Sample ID: 1606555-07B MS				Units: µg/Kg		Analysis Date: 6/15/2016 08:07 PM	
Client ID:			Run ID: SVMS5_160615A			SeqNo: 3878271		Prep Date: 6/15/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	782.8	13	1309	0	59.8	45-110	0				
Anthracene	1014	13	1309	0	77.4	55-105	0				
Benzo(a)anthracene	1036	13	1309	0	79.1	50-110	0				
Benzo(a)pyrene	1008	13	1309	0	77	50-110	0				
Benzo(b)fluoranthene	1048	13	1309	0	80	45-115	0				
Benzo(k)fluoranthene	1045	13	1309	0	79.8	45-115	0				
Chrysene	992.9	13	1309	0	75.8	55-110	0				
Dibenzo(a,h)anthracene	1109	13	1309	0	84.7	40-125	0				
Fluoranthene	1051	13	1309	0	80.2	55-115	0				
Fluorene	926.8	13	1309	0	70.8	50-110	0				
Indeno(1,2,3-cd)pyrene	1039	13	1309	0	79.3	40-120	0				
Naphthalene	860.1	13	1309	0	65.7	40-105	0				
Pyrene	1107	13	1309	4.479	84.3	45-125	0				
Surr: 2-Fluorobiphenyl	2063	0	3273	0	63	12-100	0				
Surr: 4-Terphenyl-d14	2299	0	3273	0	70.3	25-137	0				
Surr: Nitrobenzene-d5	1855	0	3273	0	56.7	37-107	0				

MSD				Sample ID: 1606555-07B MSD				Units: µg/Kg		Analysis Date: 6/15/2016 08:31 PM	
Client ID:			Run ID: SVMS5_160615A			SeqNo: 3878272		Prep Date: 6/15/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	861.5	13	1257	0	68.5	45-110	782.8	9.57	30		
Anthracene	1042	13	1257	0	82.9	55-105	1014	2.72	30		
Benzo(a)anthracene	1045	13	1257	0	83.1	50-110	1036	0.852	30		
Benzo(a)pyrene	1032	13	1257	0	82.1	50-110	1008	2.33	30		
Benzo(b)fluoranthene	1035	13	1257	0	82.3	45-115	1048	1.25	30		
Benzo(k)fluoranthene	1068	13	1257	0	85	45-115	1045	2.23	30		
Chrysene	1018	13	1257	0	81	55-110	992.9	2.49	30		
Dibenzo(a,h)anthracene	1120	13	1257	0	89.1	40-125	1109	0.983	30		
Fluoranthene	1066	13	1257	0	84.8	55-115	1051	1.44	30		
Fluorene	984.7	13	1257	0	78.3	50-110	926.8	6.05	30		
Indeno(1,2,3-cd)pyrene	1063	13	1257	0	84.6	40-120	1039	2.33	30		
Naphthalene	965.8	13	1257	0	76.8	40-105	860.1	11.6	30		
Pyrene	1147	13	1257	4.479	90.9	45-125	1107	3.49	30		
Surr: 2-Fluorobiphenyl	2458	0	3142	0	78.2	12-100	2063	17.5	40		
Surr: 4-Terphenyl-d14	2470	0	3142	0	78.6	25-137	2299	7.16	40		
Surr: Nitrobenzene-d5	2166	0	3142	0	68.9	37-107	1855	15.5	40		

The following samples were analyzed in this batch:

1606630-03A 1606630-04A 1606630-05A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Olsson Associates  
**Work Order:** 1606630  
**Project:** FEE 64 Spill

## QC BATCH REPORT

Batch ID: **87238**      Instrument ID **VMS9**      Method: **SW8260B**

MBLK				Sample ID: MBLK-87238-87238				Units: µg/Kg-dry			Analysis Date: 6/14/2016 12:38 PM			
Client ID:				Run ID: VMS9_160613A				SeqNo: 3874000			Prep Date: 6/13/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Benzene	ND	30	0	0	0	0-0	0							
Ethylbenzene	ND	30	0	0	0	0-0	0							
m,p-Xylene	ND	60	0	0	0	0-0	0							
o-Xylene	ND	30	0	0	0	0-0	0							
Toluene	ND	30	0	0	0	0-0	0							
Xylenes, Total	ND	90	0	0	0	0-0	0							
Surr: 1,2-Dichloroethane-d4	1024	0	1000	0	102	70-130	0							
Surr: 4-Bromofluorobenzene	981.5	0	1000	0	98.2	70-130	0							
Surr: Dibromofluoromethane	967.5	0	1000	0	96.8	70-130	0							
Surr: Toluene-d8	983	0	1000	0	98.3	70-130	0							

LCS				Sample ID: LCS-87238-87238			Units: µg/Kg-dry		Analysis Date: 6/13/2016 11:00 PM		
Client ID:			Run ID: VMS9_160613A			SeqNo: 3873970		Prep Date: 6/13/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1076	30	1000	0	108	75-125	0				
Ethylbenzene	1117	30	1000	0	112	75-125	0				
m,p-Xylene	2252	60	2000	0	113	80-125	0				
o-Xylene	1096	30	1000	0	110	75-125	0				
Toluene	1083	30	1000	0	108	70-125	0				
Xylenes, Total	3348	90	3000	0	112	75-125	0				
Surr: 1,2-Dichloroethane-d4	1000	0	1000	0	100	70-130	0				
Surr: 4-Bromofluorobenzene	1014	0	1000	0	101	70-130	0				
Surr: Dibromofluoromethane	1010	0	1000	0	101	70-130	0				
Surr: Toluene-d8	1010	0	1000	0	101	70-130	0				

MS				Sample ID: 1606630-03A MS		Units: µg/Kg-dry		Analysis Date: 6/14/2016 08:28 AM		
Client ID: F64-SS2			Run ID: VMS9_160613A		SeqNo: 3873998		Prep Date: 6/13/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1376	40	1326	0	104	75-125	0			
Ethylbenzene	1436	40	1326	0	108	75-125	0			
m,p-Xylene	2892	80	2651	0	109	80-125	0			
o-Xylene	1434	40	1326	0	108	75-125	0			
Toluene	1393	40	1326	0	105	70-125	0			
Xylenes, Total	4326	120	3977	0	109	75-125	0			
Surr: 1,2-Dichloroethane-d4	1296	0	1326	0	97.8	70-130	0			
Surr: 4-Bromofluorobenzene	1372	0	1326	0	104	70-130	0			
Surr: Dibromofluoromethane	1256	0	1326	0	94.8	70-130	0			
Surr: Toluene-d8	1318	0	1326	0	99.4	70-130	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates  
 Work Order: 1606630  
 Project: FEE 64 Spill

# QC BATCH REPORT

Batch ID: **87238** Instrument ID **VMS9** Method: **SW8260B**

MSD				Sample ID: 1606630-03A MSD			Units: µg/Kg-dry		Analysis Date: 6/14/2016 08:52 AM	
Client ID: F64-SS2			Run ID: VMS9_160613A			SeqNo: 3873999		Prep Date: 6/13/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1404	40	1326	0	106	75-125	1376	2	30	
Ethylbenzene	1455	40	1326	0	110	75-125	1436	1.28	30	
m,p-Xylene	2927	80	2651	0	110	80-125	2892	1.18	30	
o-Xylene	1461	40	1326	0	110	75-125	1434	1.88	30	
Toluene	1408	40	1326	0	106	70-125	1393	1.14	30	
Xylenes, Total	4388	120	3977	0	110	75-125	4326	1.41	30	
Surr: 1,2-Dichloroethane-d4	1284	0	1326	0	96.8	70-130	1296	0.976	30	
Surr: 4-Bromofluorobenzene	1383	0	1326	0	104	70-130	1372	0.818	30	
Surr: Dibromofluoromethane	1236	0	1326	0	93.2	70-130	1256	1.6	30	
Surr: Toluene-d8	1310	0	1326	0	98.8	70-130	1318	0.656	30	

The following samples were analyzed in this batch:

1606630-01A	1606630-03A	1606630-04A
1606630-05A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Olsson Associates  
**Work Order:** 1606630  
**Project:** FEE 64 Spill

## QC BATCH REPORT

Batch ID: **87184** Instrument ID **WETCHEM** Method: **USDA H60 Metho**

<b>DUP</b>		Sample ID: <b>1606579-01B DUP</b>				Units: <b>mmhos/cm @25°</b>		Analysis Date: <b>6/15/2016 11:20 AM</b>		
Client ID:		Run ID: <b>WETCHEM_160615A</b>				SeqNo: <b>3875783</b>		Prep Date: <b>6/14/2016</b>		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	2.83	0.050	0	0	0		2.39	16.9	50	

The following samples were analyzed in this batch:

1606630-01B	1606630-02B	1606630-03B
1606630-04B	1606630-05B	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Olsson Associates  
**Work Order:** 1606630  
**Project:** FEE 64 Spill

## QC BATCH REPORT

Batch ID: **87201** Instrument ID **WETCHEM** Method: **SW9045D**

LCS				Sample ID: LCS-87201-87201				Units: s.u.			Analysis Date: 6/10/2016 05:36 PM			
Client ID:				Run ID: WETCHEM_160610I				SeqNo: 3870717			Prep Date: 6/10/2016		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
pH		3.98	0	4	0	99.5	90-110	0						

DUP				Sample ID: 1606628-07A DUP				Units: s.u.			Analysis Date: 6/10/2016 05:36 PM			
Client ID:				Run ID: WETCHEM_160610I				SeqNo: 3870720			Prep Date: 6/10/2016		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
pH		8.26	0	0	0	0	0-0	7.81	5.6	20				

The following samples were analyzed in this batch:

1606630-01A	1606630-02A	1606630-03A
1606630-04A	1606630-05A	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates  
 Work Order: 1606630  
 Project: FEE 64 Spill

## QC BATCH REPORT

Batch ID: **87367** Instrument ID **WETCHEM** Method: **SW7196A**

<b>MBLK</b>		Sample ID: <b>MBLK-87367-87367</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/16/2016 04:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_160616M</b>				SeqNo: <b>3879066</b>		Prep Date: <b>6/15/2016</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 1.0

<b>LCS</b>		Sample ID: <b>LCS-87367-87367</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/16/2016 04:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_160616M</b>				SeqNo: <b>3879065</b>		Prep Date: <b>6/15/2016</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.39 1.0 5 0 87.8 80-120 0

<b>MS</b>		Sample ID: <b>1606628-01A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/16/2016 04:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_160616M</b>				SeqNo: <b>3879051</b>		Prep Date: <b>6/15/2016</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 3.861 0.99 4.95 0.3558 70.8 75-125 0 S

<b>MS</b>		Sample ID: <b>1606628-01A MSI</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/16/2016 04:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_160616M</b>				SeqNo: <b>3879053</b>		Prep Date: <b>6/15/2016</b>		DF: <b>100</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1554 98 1767 0.3558 87.9 75-125 0

<b>MSD</b>		Sample ID: <b>1606628-01A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/16/2016 04:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_160616M</b>				SeqNo: <b>3879052</b>		Prep Date: <b>6/15/2016</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 3.951 0.98 4.902 0.3558 73.3 75-125 3.861 2.29 20 S

The following samples were analyzed in this batch:

1606630-01A	1606630-02A	1606630-03A
1606630-04A	1606630-05A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



Client: Olsson Associates  
 Work Order: 1606630  
 Project: FEE 64 Spill

## QC BATCH REPORT

Batch ID: **R189487** Instrument ID **MOIST** Method: **SW3550C**

<b>MBLK</b>		Sample ID: <b>WBLKS-R189487</b>				Units: % of sample			Analysis Date: <b>6/13/2016 04:49 PM</b>		
Client ID:		Run ID: <b>MOIST_160613B</b>				SeqNo: <b>3873824</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture ND 0.050

<b>LCS</b>		Sample ID: <b>LCS-R189487</b>				Units: % of sample			Analysis Date: <b>6/13/2016 04:49 PM</b>		
Client ID:		Run ID: <b>MOIST_160613B</b>				SeqNo: <b>3873823</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 100 0.050 100 0 100 99.5-100.5 0

<b>DUP</b>		Sample ID: <b>1606667-01B DUP</b>				Units: % of sample			Analysis Date: <b>6/13/2016 04:49 PM</b>		
Client ID:		Run ID: <b>MOIST_160613B</b>				SeqNo: <b>3873813</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 18.16 0.050 0 0 0 17.59 3.19 20

<b>DUP</b>		Sample ID: <b>1606672-02B DUP</b>				Units: % of sample			Analysis Date: <b>6/13/2016 04:49 PM</b>		
Client ID:		Run ID: <b>MOIST_160613B</b>				SeqNo: <b>3873816</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 14.52 0.050 0 0 0 15.3 5.23 20

The following samples were analyzed in this batch:

1606630-01A	1606630-02A	1606630-03A
1606630-04A	1606630-05A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Olsson Associates  
**Work Order:** 1606630  
**Project:** FEE 64 Spill

## QC BATCH REPORT

Batch ID: **R189488** Instrument ID **MOIST** Method: **SW3550C**

MBLK		Sample ID: WBLKS-R189488				Units: % of sample		Analysis Date: 6/13/2016 06:49 PM		
Client ID:		Run ID: MOIST_160613C				SeqNo: 3873848		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture ND 0.050

LCS		Sample ID: LCS-R189488				Units: % of sample		Analysis Date: 6/13/2016 06:49 PM		
Client ID:		Run ID: MOIST_160613C				SeqNo: 3873847		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 100 0.050 100 0 100 99.5-100.5 0

DUP				Sample ID: 1606736-04B DUP				Units: % of sample			Analysis Date: 6/13/2016 06:49 PM			
Client ID:				Run ID: MOIST_160613C				SeqNo: 3873838			Prep Date:		DF: 1	
Analyte				Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 17.4 0.050 0 0 0 18.2 4.49 20

<b>DUP</b>				Sample ID: <b>1606736-07B DUP</b>				Units: % of sample			Analysis Date: <b>6/13/2016 06:49 PM</b>			
Client ID:				Run ID: <b>MOIST_160613C</b>				SeqNo: <b>3873842</b>			Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			

Moisture 21.93 0.050 0 0 0 20.1 8.71 20

The following samples were analyzed in this batch:

1606630-06A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



# Chain of Custody Form

Page 1 of 1

COC ID: 123456

☐ Cincinnati, OH  
+1 513 733 5336

☐ Everett, WA  
+1 425 356 2600

☐ Fort Collins, CO  
+1 970 490 1511

☒ Holland, MI  
+1 616 399 6070

☐ Houston, TX  
+1 281 530 5656

☐ Middletown, PA  
+1 717 944 5541

☐ Salt Lake City, UT  
+1 801 266 7700

☐ Spring City, PA  
+1 610 948 4903

☐ York, PA  
+1 717 505 5280

Customer Information		Project Information		Parameter/Method Request for Analysis															
Purchase Order		Project Name	FEE 64 Spill	A TPH (GRO & DRO)															
Work Order		Project Number	013.3287.100.100004	B BTEX															
Company Name	Olson Associates	Bill To Company	Olson Associates	C PAH (See Attached List) CO Table 810															
Send Report To	Tim Dobransky	Invoice Attn	Tim Dobransky	D Electrical Conductivity															
Address	760 Horizon Drive, Ste. 102	Address	760 Horizon Drive, Ste. 102	E Sodium Adsorption Ratio															
City/State/Zip	Grand Junction, CO 81506	City/State/Zip	Grand Junction, CO 81506	F pH															
Phone	970.263.7800	Phone	970.263.7800	G Metals (See Attached List) CO Table 810															
Fax	970.263.7456	Fax	970.263.7456	H Arsenic Only															
e-Mail Address	tdobransky@olsonconsulting.com	e-Mail Address		I															
				J															
No.	Sample Description	Date	Time	Matrix	Pres.	# Batches	A	B	C	D	E	F	G	H	I	J	Hold		
1	F64-SS1	06/07/16	1315	Soil	8	2	X	X	X	X	X	X	X						
2	F64-BG1	06/07/16	1320	Soil	8	2				X	X	X	X						
3	F64-SS2	06/07/16	1330	Soil	8	2	X	X	X	X	X	X	X						
4	F64-SS3	06/07/16	1340	Soil	8	2	X	X	X	X	X	X	X						
5	F64-SS4	06/07/16	1345	Soil	8	2	X	X	X	X	X	X	X						
6	F64-BG2	06/07/16	1355	Soil	8	1								X					
7																			
8																			
9																			
10																			
11																			
12																			
13																			

Sampler(s): Please Print & Sign		Shipment Method:		Required Turnaround Time:				Residue Due Date:	
Jason McLarty		FedEx		<input checked="" type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour					
Relinquished by:		Date:	Time:	Received by:		Notes:			
		6/9/16				Chevron Pricing Applies - Per Bruce Schwitter			
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler Temp.			
		6-9-16	1706			70°			
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):		QC Package: (Check Box Below)			
Ker		6/10/16	1220			<input checked="" type="checkbox"/> Level II: Standard QC <input type="checkbox"/> Level III: Std QC + Raw Data <input type="checkbox"/> Level IV: SW846 CLP-Like Other:			
Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035									

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

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ORIGIN D: RILA (816) 298-1033  
 NICK MARTINEZ  
 ALS ENVIRONMENTAL PARACHUTE  
 PARACHUTE SERVICE CENTER  
 127 EAST 1ST ST  
 PARACHUTE, CO 81635  
 UNITED STATES US

SHIP DATE: 09 JUN 16  
 ACTWGT: 57.00 LB  
 CAD: 2264840/NET3730  
 DIMS: 24x15x15 IN

BILL SENDER

TO **SAMPLE RECEIVING**  
**ALS ENVIRONMENTAL HOLLAND LAB**  
**3352 128TH AVE**

**HOLLAND MI 49424**

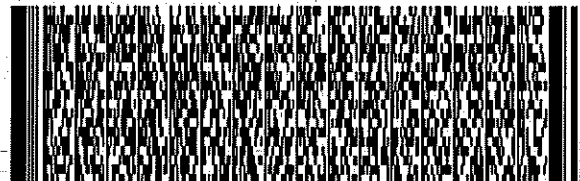
(816) 399-6070

REF: 060916-1

INV

PO PARACHUTE

DEPT.



**FedEx**  
Express



REL#  
3785346

2 of 2

FRI - 10 JUN 10:30A

PRIORITY OVERNIGHT

MPS#

0283

**7764 8892 3958**

Mstr# 7764 8892 4050

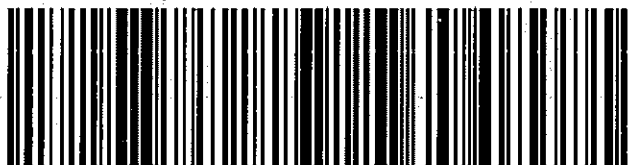
0201

**XX HLMA**

**49424**

MI-US

**GRR**



540.023080/727F

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2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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ORIGIN ID: RILA (816) 298-1033  
 NICK MARTINEZ  
 ALS ENVIRONMENTAL PARACHUTE  
 PARACHUTE SERVICE CENTER  
 127 EAST 1ST ST  
 PARACHUTE, CO 81635  
 UNITED STATES US

SHP DATE: 08 JUN 16  
 ACTWGT: 58.00 LB  
 CAD: 2264840 NET 3730  
 DIMS: 24x15x15 IN  
 BILL SENDER

TO **SAMPLE RECEIVING**  
**ALS ENVIRONMENTAL HOLLAND LAB**  
**3352 128TH AVE**

**HOLLAND MI 49424**

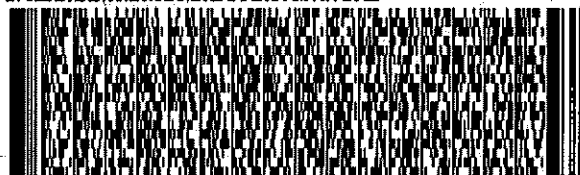
(816) 399-6070

REF: 060916-1

INV:

PG: PARACHUTE

DEPT:



**FedEx**  
 Express



REL#  
 3785346

1 of 2

TRK#

0201

**7764 8892 4050**

## MASTER ##

**FRI - 10 JUN 10:30A**  
**PRIORITY OVERNIGHT**

**XX HLMA**

**49424**  
**GRR**  
 MI-US



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Sample Receipt Checklist

Client Name: **OLSSON**

Date/Time Received: **10-Jun-16 10:00**

Work Order: **1606630**

Received by: **KRW**

Checklist completed by Keith Wurenga  
eSignature

10-Jun-16  
Date

Reviewed by: Lee Drndol  
eSignature

10-Jun-16  
Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.0/3.0 C</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>6/10/2016 12:40:45 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

-----

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



31-Jul-2018

Tim Dobransky  
Olsson Associates  
760 Horizon Drive  
Suite 102  
Grand Junction, CO 81506

Re: **FEE 64 Spill Resampling**

Work Order: **1807957**

Dear Tim,

ALS Environmental received 5 samples on 17-Jul-2018 09:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 20.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA  
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

A handwritten signature in black ink, appearing to read "Chad Whelton".

Electronically approved by: Chad Whelton

Chad Whelton  
Project Manager

## Report of Laboratory Analysis

Certificate No: MN 998501

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

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**Client:** Olsson Associates  
**Project:** FEE 64 Spill Resampling  
**Work Order:** 1807957

---

**Work Order Sample Summary**

---

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1807957-01	F64-SS1	Soil		7/12/2018 13:00	7/17/2018 09:00	<input type="checkbox"/>
1807957-02	F64-SS2	Soil		7/12/2018 13:10	7/17/2018 09:00	<input type="checkbox"/>
1807957-03	F64-SS3	Soil		7/12/2018 13:15	7/17/2018 09:00	<input type="checkbox"/>
1807957-04	F64-SS4	Soil		7/12/2018 13:20	7/17/2018 09:00	<input type="checkbox"/>
1807957-05	F64-BG1	Soil		7/12/2018 13:25	7/17/2018 09:00	<input type="checkbox"/>

---



---

**Client:** Olsson Associates  
**Project:** FEE 64 Spill Resampling  
**Work Order:** 1807957

---

**Case Narrative**

Batch 121789, Method ICP\_6010\_S, Sample 1807957-05B MS/MSD: The MS/MSD recoveries were outside of the control limits for Barium and Zinc; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required.

Batch 121789, Method ICP\_6010\_S, Sample 1807957-05B MS/MSD: The MS/MSD recovery was above the upper control limit for Chromium. The corresponding result in the parent sample may be biased high.

Batch 122008, Method CR6\_7196\_S, Sample 1807957-05B MSD: The MSD recovery was outside of the control limit for Hexavalent Chromium. However, the MS recovery and the RPD between the MS and MSD was in control. No qualification is required.

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

<b><u>Acronym</u></b>	<b><u>Description</u></b>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% of sample	Percent of Sample
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
mmhos/cm @25°C	Millimhos-Centimeter at 25 Degrees Celcius
none	
s.u.	Standard Units

**ALS Group, USA**

Date: 31-Jul-18

**Client:** Olsson Associates  
**Project:** FEE 64 Spill Resampling  
**Sample ID:** F64-SS1  
**Collection Date:** 7/12/2018 01:00 PM

**Work Order:** 1807957  
**Lab ID:** 1807957-01  
**Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>							
<b>SOLUBLE CATIONS FOR SAR</b>			Method: <b>SW6020A</b>		Prep: USDA Method 20B / 7/20/18		Analyst: <b>STP</b>
Calcium	140		0.86	5.0	mg/L	10	7/21/2018 01:45
Magnesium	19		0.068	2.0	mg/L	10	7/21/2018 01:45
Sodium	46		0.34	2.0	mg/L	10	7/21/2018 01:45
<b>SODIUM ADSORPTION RATIO</b>			Method: <b>USDA H60 METHOD 2</b>		Prep: USDA Method 20B / 7/20/18		Analyst: <b>STP</b>
Sodium Adsorption Ratio	0.97		0.010	0.010	none	1	7/20/2018
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			Method: <b>USDA H60 METHOD 2</b>		Prep: USDA Method 20B / 7/20/18		Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	1.2		0.014	0.12	mmhos/cm @25°	25	7/22/2018 12:30

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA**

Date: 31-Jul-18

**Client:** Olsson Associates  
**Project:** FEE 64 Spill Resampling  
**Sample ID:** F64-SS2  
**Collection Date:** 7/12/2018 01:10 PM

**Work Order:** 1807957  
**Lab ID:** 1807957-02  
**Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>							
<b>SOLUBLE CATIONS FOR SAR</b>			Method: <b>SW6020A</b>		Prep: USDA Method 20B / 7/20/18		Analyst: <b>STP</b>
Calcium	140		0.86	5.0	mg/L	10	7/21/2018 01:48
Magnesium	12		0.068	2.0	mg/L	10	7/21/2018 01:48
Sodium	81		0.34	2.0	mg/L	10	7/21/2018 01:48
<b>SODIUM ADSORPTION RATIO</b>			Method: <b>USDA H60 METHOD 2</b>		Prep: USDA Method 20B / 7/20/18		Analyst: <b>STP</b>
Sodium Adsorption Ratio	1.8		0.010	0.010	none	1	7/20/2018
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			Method: <b>USDA H60 METHOD 2</b>		Prep: USDA Method 20B / 7/20/18		Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	1.4		0.014	0.12	mmhos/cm @25°	25	7/22/2018 12:30

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA**

Date: 31-Jul-18

**Client:** Olsson Associates  
**Project:** FEE 64 Spill Resampling  
**Sample ID:** F64-SS3  
**Collection Date:** 7/12/2018 01:15 PM

**Work Order:** 1807957  
**Lab ID:** 1807957-03  
**Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>							
<b>SOLUBLE CATIONS FOR SAR</b>			Method: <b>SW6020A</b>		Prep: USDA Method 20B / 7/20/18		Analyst: <b>STP</b>
Calcium	120		0.86	5.0	mg/L	10	7/21/2018 01:50
Magnesium	27		0.068	2.0	mg/L	10	7/21/2018 01:50
Sodium	240		0.34	2.0	mg/L	10	7/21/2018 01:50
<b>SODIUM ADSORPTION RATIO</b>			Method: <b>USDA H60 METHOD 2</b>		Prep: USDA Method 20B / 7/20/18		Analyst: <b>STP</b>
Sodium Adsorption Ratio	5.0		0.010	0.010	none	1	7/20/2018
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			Method: <b>USDA H60 METHOD 2</b>		Prep: USDA Method 20B / 7/20/18		Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	2.2		0.014	0.12	mmhos/cm @25°	25	7/22/2018 12:30

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA**

Date: 31-Jul-18

**Client:** Olsson Associates  
**Project:** FEE 64 Spill Resampling  
**Sample ID:** F64-SS4  
**Collection Date:** 7/12/2018 01:20 PM

**Work Order:** 1807957  
**Lab ID:** 1807957-04  
**Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>							
<b>SOLUBLE CATIONS FOR SAR</b>			Method: <b>SW6020A</b>		Prep: USDA Method 20B / 7/20/18		Analyst: <b>STP</b>
Calcium	180		0.86	5.0	mg/L	10	7/21/2018 01:52
Magnesium	11		0.068	2.0	mg/L	10	7/21/2018 01:52
Sodium	180		0.34	2.0	mg/L	10	7/21/2018 01:52
<b>SODIUM ADSORPTION RATIO</b>			Method: <b>USDA H60 METHOD 2</b>		Prep: USDA Method 20B / 7/20/18		Analyst: <b>STP</b>
Sodium Adsorption Ratio	3.5		0.010	0.010	none	1	7/20/2018
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			Method: <b>USDA H60 METHOD 2</b>		Prep: USDA Method 20B / 7/20/18		Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	2.1		0.014	0.12	mmhos/cm @25°	25	7/22/2018 12:30

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Jul-18

Client: Olsson Associates  
Project: FEE 64 Spill Resampling  
Sample ID: F64-BG1  
Collection Date: 7/12/2018 01:25 PM

Work Order: 1807957  
Lab ID: 1807957-05  
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>MERCURY BY CVA</b>							
Mercury	0.024		0.0016	0.016	mg/Kg-dry	1	7/27/2018 13:43
<b>METALS ANALYSIS BY ICP</b>							
Arsenic	6.7		0.091	0.35	mg/Kg-dry	1	7/25/2018 05:03
Barium	190		0.14	0.35	mg/Kg-dry	1	7/25/2018 05:03
Cadmium	0.12	J	0.034	0.70	mg/Kg-dry	1	7/25/2018 05:03
Chromium	13		0.020	0.35	mg/Kg-dry	1	7/25/2018 05:03
Copper	19		0.15	0.70	mg/Kg-dry	1	7/25/2018 05:03
Lead	14		0.074	0.35	mg/Kg-dry	1	7/25/2018 05:03
Nickel	16		0.14	0.35	mg/Kg-dry	1	7/25/2018 05:03
Selenium	0.97		0.20	0.70	mg/Kg-dry	1	7/25/2018 05:03
Silver	U		0.044	0.35	mg/Kg-dry	1	7/25/2018 05:03
Zinc	77		0.056	0.70	mg/Kg-dry	1	7/25/2018 05:03
<b>SOLUBLE CATIONS FOR SAR</b>							
Calcium	64		0.86	5.0	mg/L	10	7/21/2018 01:53
Magnesium	7.7		0.068	2.0	mg/L	10	7/21/2018 01:53
Sodium	56		0.34	2.0	mg/L	10	7/21/2018 01:53
<b>SODIUM ADSORPTION RATIO</b>							
Sodium Adsorption Ratio	1.8		0.010	0.010	none	1	7/20/2018
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>							
Electrical Conductivity @ Saturation	0.64		0.014	0.12	mmhos/cm @25°	25	7/22/2018 12:30
<b>CHROMIUM, TRIVALENT</b>							
Chromium, Trivalent	13		0.31	1.0	mg/Kg-dry	1	7/29/2018 09:00
<b>CHROMIUM, HEXAVALENT</b>							
Chromium, Hexavalent	U		0.32	1.0	mg/Kg-dry	1	7/27/2018 16:30
<b>MOISTURE</b>							
Moisture	1.6		0.025	0.050	% of sample	1	7/25/2018 21:00
<b>PH</b>							
pH	7.86		0.10	0.100	s.u.	1	7/19/2018 15:30

Note: See Qualifiers page for a list of qualifiers and their definitions.

**Client:** Olsson Associates  
**Work Order:** 1807957  
**Project:** FEE 64 Spill Resampling

# QC BATCH REPORT

Batch ID: **121930** Instrument ID **HG1** Method: **SW7471B**

<b>MBLK</b>		Sample ID: <b>MBLK-121930-121930</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/27/2018 12:56 PM</b>		
Client ID:		Run ID: <b>HG1_180727A</b>				SeqNo: <b>5172310</b>		Prep Date: <b>7/26/2018</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.007083 0.020 J

<b>LCS</b>		Sample ID: <b>LCS-121930-121930</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/27/2018 12:58 PM</b>		
Client ID:		Run ID: <b>HG1_180727A</b>				SeqNo: <b>5172311</b>		Prep Date: <b>7/26/2018</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1817 0.020 0.1665 0 109 80-120 0

<b>MS</b>		Sample ID: <b>18071363-04BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/27/2018 01:20 PM</b>		
Client ID:		Run ID: <b>HG1_180727A</b>				SeqNo: <b>5172320</b>		Prep Date: <b>7/26/2018</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1418 0.015 0.1265 0.01577 99.6 75-125 0

<b>MSD</b>		Sample ID: <b>18071363-04BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/27/2018 01:22 PM</b>		
Client ID:		Run ID: <b>HG1_180727A</b>				SeqNo: <b>5172321</b>		Prep Date: <b>7/26/2018</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1444 0.015 0.1249 0.01577 103 75-125 0.1418 1.82 35

The following samples were analyzed in this batch:

1807957-05B



**Client:** Olsson Associates  
**Work Order:** 1807957  
**Project:** FEE 64 Spill Resampling

## QC BATCH REPORT

Batch ID: **121789**      Instrument ID **ICP2**      Method: **SW846 6010C**

Sample ID: MBLK-121789-121789				Units: mg/Kg			Analysis Date: 7/25/2018 02:34 AM			
Client ID:		Run ID: ICP2_180724A			SeqNo: 5165598		Prep Date: 7/24/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.25								
Barium	U	0.25								
Cadmium	U	0.50								
Chromium	0.0297	0.25								J
Copper	U	0.50								
Lead	U	0.25								
Nickel	U	0.25								
Selenium	U	0.50								
Silver	0.04825	0.25								J
Zinc	0.0885	0.50								J

LCS				Sample ID: LCS-121789-121789				Units: mg/Kg			Analysis Date: 7/25/2018 02:59 AM		
Client ID:			Run ID: ICP2_180724A				SeqNo: 5165602			Prep Date: 7/24/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Arsenic	4.768	0.25	5	0	95.4	80-120	0						
Barium	5.051	0.25	5	0	101	80-120	0						
Cadmium	4.98	0.50	5	0	99.6	80-120	0						
Chromium	5.169	0.25	5	0	103	80-120	0						
Copper	5.185	0.50	5	0	104	80-120	0						
Lead	5.017	0.25	5	0	100	80-120	0						
Nickel	5.13	0.25	5	0	103	80-120	0						
Selenium	4.705	0.50	5	0	94.1	80-120	0						
Silver	4.915	0.25	5	0	98.3	80-120	0						
Zinc	5.051	0.50	5	0	101	80-120	0						

MS				Sample ID: 1807957-05BMS			Units: mg/Kg		Analysis Date: 7/25/2018 05:09 AM		
Client ID: F64-BG1			Run ID: ICP2_180724A			SeqNo: 5165623		Prep Date: 7/24/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	12.61	0.34	6.878	6.575	87.7	75-125	0				
Barium	202.7	0.34	6.878	189.1	197	75-125	0			SO	
Cadmium	6.286	0.69	6.878	0.1146	89.7	75-125	0				
Chromium	23.07	0.34	6.878	12.77	150	75-125	0			S	
Copper	25.21	0.69	6.878	18.33	100	75-125	0				
Lead	19.27	0.34	6.878	14.05	75.9	75-125	0				
Nickel	21	0.34	6.878	15.67	77.6	75-125	0				
Selenium	6.924	0.69	6.878	0.953	86.8	75-125	0				
Silver	6.96	0.34	6.878	-0.1008	103	75-125	0				
Zinc	82.11	0.69	6.878	75.3	99	75-125	0			O	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Olsson Associates  
**Work Order:** 1807957  
**Project:** FEE 64 Spill Resampling

## QC BATCH REPORT

Batch ID: **121789** Instrument ID **ICP2** Method: **SW846 6010C**

MSD		Sample ID: <b>1807957-05BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/25/2018 05:14 AM</b>		
Client ID: <b>F64-BG1</b>		Run ID: <b>ICP2_180724A</b>				SeqNo: <b>5165624</b>		Prep Date: <b>7/24/2018</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.75	0.34	6.887	6.575	89.7	75-125	12.61	1.13	20	
Barium	209.5	0.34	6.887	189.1	297	75-125	202.7	3.34	20	SO
Cadmium	6.329	0.69	6.887	0.1146	90.2	75-125	6.286	0.683	20	
Chromium	23.24	0.34	6.887	12.77	152	75-125	23.07	0.743	20	S
Copper	25.63	0.69	6.887	18.33	106	75-125	25.21	1.66	20	
Lead	19.43	0.34	6.887	14.05	78.1	75-125	19.27	0.837	20	
Nickel	21.26	0.34	6.887	15.67	81.2	75-125	21	1.22	20	
Selenium	6.975	0.69	6.887	0.953	87.4	75-125	6.924	0.732	20	
Silver	7.051	0.34	6.887	-0.1008	104	75-125	6.96	1.31	20	
Zinc	83.95	0.69	6.887	75.3	126	75-125	82.11	2.22	20	SO

The following samples were analyzed in this batch: 1807957-05B

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Olsson Associates  
**Work Order:** 1807957  
**Project:** FEE 64 Spill Resampling

## QC BATCH REPORT

Batch ID: **121640** Instrument ID **ICPMS3** Method: **SW6020A**

<b>DUP</b>		Sample ID: <b>1807957-01ADUP</b>				Units: <b>mg/L</b>		Analysis Date: <b>7/21/2018 01:47 AM</b>		
Client ID: <b>F64-SS1</b>		Run ID: <b>ICPMS3_180720C</b>				SeqNo: <b>5159313</b>		Prep Date: <b>7/20/2018</b>		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	155.3	5.0	0	0	0	0-0	143.7	7.77		
Magnesium	20.34	2.0	0	0	0	0-0	18.53	9.28		
Sodium	49.76	2.0	0	0	0	0-0	46.36	7.06		

The following samples were analyzed in this batch:

1807957-01A	1807957-02A	1807957-03A
1807957-04A	1807957-05A	

Batch ID: **121640** Instrument ID **SAR** Method: **USDA H60 Metho**

<b>DUP</b>		Sample ID: <b>1807957-01ADUP</b>				Units: <b>none</b>		Analysis Date: <b>7/20/2018</b>		
Client ID: <b>F64-SS1</b>		Run ID: <b>SAR_180720A</b>				SeqNo: <b>5160050</b>		Prep Date: <b>7/20/2018</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	0.9971	0.010	0	0	0		0.9672	3.04	50	

The following samples were analyzed in this batch:

1807957-01A	1807957-02A	1807957-03A
1807957-04A	1807957-05A	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Olsson Associates  
**Work Order:** 1807957  
**Project:** FEE 64 Spill Resampling

## QC BATCH REPORT

Batch ID: **121533** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-121533-121533					Units: s.u.		Analysis Date: 7/19/2018 03:30 PM		
Client ID:		Run ID: WETCHEM_1807190			SeqNo: 5156654		Prep Date: 7/18/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH	3.96	0.10	4	0	99	90-110	0			
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DUP		Sample ID: 18071000-04A DUP					Units: s.u.		Analysis Date: 7/19/2018 03:30 PM		
Client ID:		Run ID: WETCHEM_1807190			SeqNo: 5156659		Prep Date: 7/18/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH	8.92	0.10	0	0	0	0-0	8.93	0.112	20	
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DUP				Sample ID: 1807957-05B DUP				Units: s.u.			Analysis Date: 7/19/2018 03:30 PM			
Client ID: F64-BG1				Run ID: WETCHEM_1807190				SeqNo: 5156674			Prep Date: 7/18/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				

pH	8.05	0.10	0	0	0	0-0	7.86	2.39	20	
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The following samples were analyzed in this batch:

1807957-05B

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Olsson Associates  
**Work Order:** 1807957  
**Project:** FEE 64 Spill Resampling

## QC BATCH REPORT

Batch ID: **121640** Instrument ID **WETCHEM** Method: **USDA H60 Metho**

<b>DUP</b>		Sample ID: <b>1807957-01A DUP</b>				Units: <b>mmhos/cm @25°</b>		Analysis Date: <b>7/22/2018 12:30 PM</b>		
Client ID: <b>F64-SS1</b>		Run ID: <b>WETCHEM_180722C</b>				SeqNo: <b>5159849</b>		Prep Date: <b>7/20/2018</b>		DF: <b>25</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	1.205	0.12	0	0	0		1.2	0.416	50	

The following samples were analyzed in this batch:

1807957-01A	1807957-02A	1807957-03A
1807957-04A	1807957-05A	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates  
 Work Order: 1807957  
 Project: FEE 64 Spill Resampling

## QC BATCH REPORT

Batch ID: 122008 Instrument ID WETCHEM Method: SW7196A

<b>MBLK</b>		Sample ID: <b>MBLK-122008-122008</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/27/2018 04:30 PM</b>		
Client ID:		Run ID: <b>WETCHEM_180727L</b>		SeqNo: <b>5172813</b>		Prep Date: <b>7/26/2018</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent U 1.0

<b>LCS</b>		Sample ID: <b>LCS-122008-122008</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/27/2018 04:30 PM</b>		
Client ID:		Run ID: <b>WETCHEM_180727L</b>		SeqNo: <b>5172812</b>		Prep Date: <b>7/26/2018</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.61 1.0 5 0 92.2 80-120 0

<b>MS</b>		Sample ID: <b>18071363-04B MSI</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/27/2018 04:30 PM</b>		
Client ID:		Run ID: <b>WETCHEM_180727L</b>		SeqNo: <b>5172796</b>		Prep Date: <b>7/26/2018</b>		DF: <b>100</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1430 100 1723 -0.03922 83 75-125 0

<b>MS</b>		Sample ID: <b>18071363-04BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/27/2018 04:30 PM</b>		
Client ID:		Run ID: <b>WETCHEM_180727L</b>		SeqNo: <b>5172798</b>		Prep Date: <b>7/26/2018</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent U 0.99 4.95 -0.03922 0.792 75-125 0 S

<b>MS</b>		Sample ID: <b>1807957-05B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/27/2018 04:30 PM</b>		
Client ID: <b>F64-BG1</b>		Run ID: <b>WETCHEM_180727L</b>		SeqNo: <b>5172808</b>		Prep Date: <b>7/26/2018</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.01 0.98 4.902 0.2222 77.3 75-125 0

<b>MS</b>		Sample ID: <b>1807957-05B MSI</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/27/2018 04:30 PM</b>		
Client ID: <b>F64-BG1</b>		Run ID: <b>WETCHEM_180727L</b>		SeqNo: <b>5172810</b>		Prep Date: <b>7/26/2018</b>		DF: <b>100</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1757 100 1788 0.2222 98.2 75-125 0

<b>MSD</b>		Sample ID: <b>18071363-04BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/27/2018 04:30 PM</b>		
Client ID:		Run ID: <b>WETCHEM_180727L</b>		SeqNo: <b>5172799</b>		Prep Date: <b>7/26/2018</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent U 0.95 4.762 -0.03922 0.824 75-125 -0.297 0 20 S

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Olsson Associates  
**Work Order:** 1807957  
**Project:** FEE 64 Spill Resampling

## QC BATCH REPORT

Batch ID: **122008** Instrument ID **WETCHEM** Method: **SW7196A**

MSD				Sample ID: 1807957-05B MSD				Units: mg/Kg			Analysis Date: 7/27/2018 04:30 PM			
Client ID: F64-BG1				Run ID: WETCHEM_180727L				SeqNo: 5172809			Prep Date: 7/26/2018		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Chromium, Hexavalent		3.96	1.0	5	0.2222	74.8	75-125	4.01	1.25	20	S			

The following samples were analyzed in this batch:

1807957-05B

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates  
 Work Order: 1807957  
 Project: FEE 64 Spill Resampling

## QC BATCH REPORT

Batch ID: **R240950** Instrument ID **MOIST** Method: **SW3550C**

<b>MBLK</b>		Sample ID: <b>WBLKS-R240950</b>				Units: % of sample		Analysis Date: <b>7/25/2018 09:00 PM</b>		
Client ID:		Run ID: <b>MOIST_180725E</b>				SeqNo: <b>5169121</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture U 0.050

<b>LCS</b>		Sample ID: <b>LCS-R240950</b>				Units: % of sample		Analysis Date: <b>7/25/2018 09:00 PM</b>		
Client ID:		Run ID: <b>MOIST_180725E</b>				SeqNo: <b>5169119</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 100 0.050 100 0 100 99.5-100.5 0

<b>DUP</b>		Sample ID: <b>18071036-03A DUP</b>				Units: % of sample		Analysis Date: <b>7/25/2018 09:00 PM</b>		
Client ID:		Run ID: <b>MOIST_180725E</b>				SeqNo: <b>5169100</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 3.93 0.050 0 0 0 0-0 3.84 2.32 10

<b>DUP</b>		Sample ID: <b>18071036-07A DUP</b>				Units: % of sample		Analysis Date: <b>7/25/2018 09:00 PM</b>		
Client ID:		Run ID: <b>MOIST_180725E</b>				SeqNo: <b>5169105</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 2.99 0.050 0 0 0 0-0 2.98 0.335 10

The following samples were analyzed in this batch:

1807957-05B

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.





# Chain of Custody Form

Page 1 of 1

COC ID: 123456

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Cincinnati, OH<br>+1 513 733 5336   | <input checked="" type="checkbox"/> Holland, MI<br>+1 616 399 6070 | <input type="checkbox"/> Salt Lake City, UT<br>+1 801 266 7700 |
| <input type="checkbox"/> Everett, WA<br>+1 425 356 2600      | <input type="checkbox"/> Houston, TX<br>+1 281 530 5656            | <input type="checkbox"/> Spring City, PA<br>+1 610 948 4903    |
| <input type="checkbox"/> Fort Collins, CO<br>+1 970 490 1511 | <input type="checkbox"/> Middletown, PA<br>+1 717 944 5541         | <input type="checkbox"/> York, PA<br>+1 717 505 5280           |

ALS Project Manager:		Work Order #: <u>1807957</u>															
<b>Customer Information</b>		<b>Project Information</b>															
Purchase Order		Project Name	FEE 64 Spill <i>Resampling</i>														
Work Order		Project Number	013.3287.100.100004														
Company Name	Olsson Associates	Bill To Company	Olsson Associates														
Send Report To	Tim Dobransky	Invoice Attn.	Dana Mack														
Address		Address	760 Horizon Drive, Ste. 102														
City/State/Zip		City/State/Zip	Grand Junction, CO 81506														
Phone		Phone	970.263.7800														
Fax		Fax	970.263.7458														
e-Mail Address	tdobransky@entradainc.com	e-Mail Address	dmack@olssonassociates.com														
		<b>Parameter/Method Request for Analysis</b>															
		A TPH (GRO & DRO)															
		B BTEX															
		C PAH (See Attached List) CO Table 910															
		D Electrical Conductivity															
		E Sodium Adsorption Ratio															
		F pH															
		G Metals (See Attached List) CO Table 910															
		H Arsenic Only															
		I															
		J															
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	F64-SS1	07/12/18	1300	Soil	8	1				X	X						
2	F64-SS2	07/12/18	1310	Soil	8	1				X	X						
3	F64-SS3	07/12/18	1315	Soil	8	1				X	X						
4	F64-SS4	07/12/18	1320	Soil	8	1				X	X						
5	F64-BG1	07/12/18	1325	Soil	8	2				X	X	X	X				
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	

Sampler(s): Please Print & Sign <i>Tim Dobransky</i>		Shipment Method: FedEx		Required Turnaround Time: <input checked="" type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour		Results Due Date:	
Relinquished by: <i>[Signature]</i>		Received by: <i>[Signature]</i>		Notes: Chevron Pricing Applies - Per Bruce Schlatter			
Relinquished by: <i>[Signature]</i>		Received by (Laboratory): <i>[Signature]</i>		Cooler Temp. <i>4.2°</i>			
Logged by (Laboratory): <i>[Signature]</i>		Checked by (Laboratory): <i>[Signature]</i>		QC Package: (Check Box Below)			
				<input checked="" type="checkbox"/> Level II: Standard QC <input type="checkbox"/> Level III: Std QC + Raw Data <input type="checkbox"/> Level IV: SW846 CLP-Like <input type="checkbox"/> Other:			
Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035							

Sample Receipt Checklist

Client Name: **OLSSON**

Date/Time Received: **17-Jul-18 09:00**

Work Order: **1807957**

Received by: **KRW**

Checklist completed by Keith Wurenga  
eSignature

17-Jul-18  
Date

Reviewed by: Chad Whelton  
eSignature

18-Jul-18  
Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.2/4.2 C</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>7/17/2018 3:54:50 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

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Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction: