



30-Nov-2018

Tim Dobransky
Entrada Consulting Group
240 Mesa Ave.
Grand Junction, CO 81501

Re: **UP 69-27 Spill**

Work Order: **1811788**

Dear Tim,

ALS Environmental received 3 samples on 10-Nov-2018 10:00 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 29.

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", is written over a faint, illegible printed name.

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager

Report of Laboratory Analysis

Certificate No: MN 998501

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RIGHT SOLUTIONS RIGHT PARTNER

Client: Entrada Consulting Group
Project: UP 69-27 Spill
Work Order: 1811788

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>
1811788-01	UP6927-SS1	Soil		11/8/2018 11:20	11/10/2018 10:00	<input type="checkbox"/>
1811788-02	UP6927-SS2	Soil		11/8/2018 11:30	11/10/2018 10:00	<input type="checkbox"/>
1811788-03	UP6927-BG1	Soil		11/8/2018 11:35	11/10/2018 10:00	<input type="checkbox"/>

Client: Entrada Consulting Group

Project: UP 69-27 Spill

Work Order: 1811788

Case Narrative

Batch 128657, Method CR6_7196_S, Sample 1811788-01A MSD: The RPD between the MS and MSD was outside the control limit for Hexavalent Chromium. The corresponding result in the parent sample should be considered estimated.

<u>Qualifier</u>	<u>Description</u>
*	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.

<u>Acronym</u>	<u>Description</u>
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

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
mg/Kg	Milligrams per Kilogram
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: 30-Nov-18

Client: Entrada Consulting Group
Project: UP 69-27 Spill
Sample ID: UP6927-SS1
Collection Date: 11/8/2018 11:20 AM

Work Order: 1811788
Lab ID: 1811788-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015M		Prep: SW3546 / 11/16/18		Analyst: RP
DRO (C10-C28)	U		3.0	5.3	mg/Kg-dry	1	11/17/2018 02:50
Surr: 4-Terphenyl-d14	78.3			33-111	%REC	1	11/17/2018 02:50
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035 / 11/14/18		Analyst: RP
GRO (C6-C10)	U		2.4	5.7	mg/Kg	1	11/16/2018 15:32
Surr: Toluene-d8	89.1			71-123	%REC	1	11/16/2018 15:32
MERCURY BY CVAA							
			Method: SW7471B		Prep: SW7471 / 11/13/18		Analyst: RSH
Mercury	0.026		0.0019	0.019	mg/Kg-dry	1	11/13/2018 18:12
METALS ANALYSIS BY ICP							
			Method: SW846 6010C		Prep: SW3050B / 11/15/18		Analyst: ABL
Arsenic	5.3		0.090	0.35	mg/Kg-dry	1	11/16/2018 01:14
Barium	190		0.14	0.35	mg/Kg-dry	1	11/16/2018 01:14
Cadmium	0.18	J	0.033	0.69	mg/Kg-dry	1	11/16/2018 01:14
Chromium	13		0.019	0.35	mg/Kg-dry	1	11/16/2018 01:14
Copper	18		0.15	0.69	mg/Kg-dry	1	11/16/2018 01:14
Lead	13		0.073	0.35	mg/Kg-dry	1	11/16/2018 01:14
Nickel	14		0.14	0.35	mg/Kg-dry	1	11/16/2018 01:14
Selenium	0.75		0.19	0.69	mg/Kg-dry	1	11/16/2018 01:14
Silver	U		0.043	0.35	mg/Kg-dry	1	11/16/2018 01:14
Zinc	75		0.069	0.87	mg/Kg-dry	1	11/27/2018 08:53
SOLUBLE CATIONS FOR SAR							
			Method: SW6020A		Prep: USDA Method 20B / 11/20/18		Analyst: STP
Calcium	530		1.7	10	mg/L	20	11/20/2018 14:32
Magnesium	45		0.14	4.0	mg/L	20	11/20/2018 14:32
Sodium	1,800		0.68	4.0	mg/L	20	11/20/2018 14:32
SODIUM ADSORPTION RATIO							
			Method: USDA H60 METHOD 2		Prep: USDA Method 20B / 11/20/18		Analyst: STP
Sodium Adsorption Ratio	20		0.010	0.010	none	1	11/20/2018
SEMI-VOLATILE ORGANIC COMPOUNDS							
			Method: SW846 8270D		Prep: SW3546 / 11/16/18		Analyst: KAW
Acenaphthene	U		0.0051	0.0071	mg/Kg-dry	1	11/20/2018 03:37
Anthracene	U		0.0050	0.0071	mg/Kg-dry	1	11/20/2018 03:37
Benzo(a)anthracene	U		0.0061	0.0071	mg/Kg-dry	1	11/20/2018 03:37
Benzo(a)pyrene	U		0.0043	0.0071	mg/Kg-dry	1	11/20/2018 03:37
Benzo(b)fluoranthene	U		0.0053	0.0071	mg/Kg-dry	1	11/20/2018 03:37
Benzo(k)fluoranthene	U		0.0054	0.0071	mg/Kg-dry	1	11/20/2018 03:37
Chrysene	U		0.0057	0.0071	mg/Kg-dry	1	11/20/2018 03:37
Dibenzo(a,h)anthracene	U		0.0038	0.0071	mg/Kg-dry	1	11/20/2018 03:37
Fluoranthene	U		0.0034	0.0071	mg/Kg-dry	1	11/20/2018 03:37

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

ALS Group, USA

Date: 30-Nov-18

Client: Entrada Consulting Group
Project: UP 69-27 Spill
Sample ID: UP6927-SS1
Collection Date: 11/8/2018 11:20 AM

Work Order: 1811788
Lab ID: 1811788-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene		U	0.0051	0.0071	mg/Kg-dry	1	11/20/2018 03:37
Indeno(1,2,3-cd)pyrene		U	0.0049	0.0071	mg/Kg-dry	1	11/20/2018 03:37
Naphthalene		U	0.0045	0.0071	mg/Kg-dry	1	11/20/2018 03:37
Pyrene		U	0.0013	0.0071	mg/Kg-dry	1	11/20/2018 03:37
Surr: 2-Fluorobiphenyl	74.3			44-107	%REC	1	11/20/2018 03:37
Surr: 4-Terphenyl-d14	76.9			52-123	%REC	1	11/20/2018 03:37
Surr: Nitrobenzene-d5	60.8			41-94	%REC	1	11/20/2018 03:37
VOLATILE ORGANIC COMPOUNDS			Method: SW8260C		Prep: SW5035 / 11/14/18		Analyst: AK
Benzene		U	0.0058	0.034	mg/Kg	1	11/17/2018 09:17
Ethylbenzene		U	0.0072	0.034	mg/Kg	1	11/17/2018 09:17
m,p-Xylene		U	0.016	0.068	mg/Kg	1	11/17/2018 09:17
o-Xylene		U	0.013	0.034	mg/Kg	1	11/17/2018 09:17
Toluene		U	0.0093	0.034	mg/Kg	1	11/17/2018 09:17
Xylenes, Total		U	0.029	0.10	mg/Kg	1	11/17/2018 09:17
Surr: 1,2-Dichloroethane-d4	105			70-130	%REC	1	11/17/2018 09:17
Surr: 4-Bromofluorobenzene	93.0			70-130	%REC	1	11/17/2018 09:17
Surr: Dibromofluoromethane	83.1			70-130	%REC	1	11/17/2018 09:17
Surr: Toluene-d8	96.8			70-130	%REC	1	11/17/2018 09:17
ELECTRICAL CONDUCTIVITY (SAR)			Method: USDA H60 METHOD 2		Prep: USDA Method 20B / 11/20/18		Analyst: JB
Electrical Conductivity @ Saturation	11		0.011	0.10	mmhos/cm @25°	20	11/21/2018 00:45
CHROMIUM, TRIVALENT			Method: CALCULATION				Analyst: JB
Chromium, Trivalent	13		0.33	1.1	mg/Kg-dry	1	11/29/2018 12:45
CHROMIUM, HEXAVALENT			Method: SW7196A		Prep: SW3060A / 11/28/18		Analyst: JSH
Chromium, Hexavalent		U	0.32	1.0	mg/Kg-dry	1	11/29/2018 16:00
MOISTURE			Method: SW3550C				Analyst: JEB
Moisture	6.5	B	0.025	0.050	% of sample	1	11/21/2018 08:28
PH			Method: SW9045D		Prep: EXTRACT / 11/13/18		Analyst: JEB
pH	8.43		0.10	0.100	s.u.	1	11/13/2018 16:40

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

Client: Entrada Consulting Group
 Project: UP 69-27 Spill
 Sample ID: UP6927-SS2
 Collection Date: 11/8/2018 11:30 AM

Work Order: 1811788
 Lab ID: 1811788-02
 Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015M		Prep: SW3546 / 11/16/18		Analyst: RP
DRO (C10-C28)	U		3.0	5.3	mg/Kg-dry	1	11/17/2018 02:21
Surr: 4-Terphenyl-d14	62.9			33-111	%REC	1	11/17/2018 02:21
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035 / 11/14/18		Analyst: RP
GRO (C6-C10)	U		2.5	6.0	mg/Kg	1	11/16/2018 16:01
Surr: Toluene-d8	88.9			71-123	%REC	1	11/16/2018 16:01
MERCURY BY CVAA							
			Method: SW7471B		Prep: SW7471 / 11/13/18		Analyst: RSH
Mercury	0.036		0.0020	0.020	mg/Kg-dry	1	11/13/2018 18:15
METALS ANALYSIS BY ICP							
			Method: SW846 6010C		Prep: SW3050B / 11/15/18		Analyst: ABL
Arsenic	5.1		0.11	0.43	mg/Kg-dry	1	11/16/2018 01:20
Barium	140		0.17	0.43	mg/Kg-dry	1	11/16/2018 01:20
Cadmium	0.19	J	0.041	0.86	mg/Kg-dry	1	11/16/2018 01:20
Chromium	13		0.024	0.43	mg/Kg-dry	1	11/16/2018 01:20
Copper	16		0.19	0.86	mg/Kg-dry	1	11/16/2018 01:20
Lead	14		0.092	0.43	mg/Kg-dry	1	11/16/2018 01:20
Nickel	15		0.17	0.43	mg/Kg-dry	1	11/16/2018 01:20
Selenium	0.78	J	0.24	0.86	mg/Kg-dry	1	11/16/2018 01:20
Silver	U		0.054	0.43	mg/Kg-dry	1	11/16/2018 01:20
Zinc	71		0.060	0.75	mg/Kg-dry	1	11/27/2018 08:59
SOLUBLE CATIONS FOR SAR							
			Method: SW6020A		Prep: USDA Method 20B / 11/20/18		Analyst: STP
Calcium	1,300		1.7	10	mg/L	20	11/20/2018 14:34
Magnesium	78		0.14	4.0	mg/L	20	11/20/2018 14:34
Sodium	2,200		0.68	4.0	mg/L	20	11/20/2018 14:34
SODIUM ADSORPTION RATIO							
			Method: USDA H60 METHOD 2		Prep: USDA Method 20B / 11/20/18		Analyst: STP
Sodium Adsorption Ratio	16		0.010	0.010	none	1	11/20/2018
SEMI-VOLATILE ORGANIC COMPOUNDS							
			Method: SW846 8270D		Prep: SW3546 / 11/16/18		Analyst: KAW
Acenaphthene	U		0.0051	0.0070	mg/Kg-dry	1	11/20/2018 04:00
Anthracene	U		0.0049	0.0070	mg/Kg-dry	1	11/20/2018 04:00
Benzo(a)anthracene	U		0.0061	0.0070	mg/Kg-dry	1	11/20/2018 04:00
Benzo(a)pyrene	U		0.0043	0.0070	mg/Kg-dry	1	11/20/2018 04:00
Benzo(b)fluoranthene	U		0.0052	0.0070	mg/Kg-dry	1	11/20/2018 04:00
Benzo(k)fluoranthene	U		0.0053	0.0070	mg/Kg-dry	1	11/20/2018 04:00
Chrysene	U		0.0057	0.0070	mg/Kg-dry	1	11/20/2018 04:00
Dibenzo(a,h)anthracene	U		0.0038	0.0070	mg/Kg-dry	1	11/20/2018 04:00
Fluoranthene	U		0.0034	0.0070	mg/Kg-dry	1	11/20/2018 04:00

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

ALS Group, USA

Date: 30-Nov-18

Client: Entrada Consulting Group
Project: UP 69-27 Spill
Sample ID: UP6927-SS2
Collection Date: 11/8/2018 11:30 AM

Work Order: 1811788
Lab ID: 1811788-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene		U	0.0051	0.0070	mg/Kg-dry	1	11/20/2018 04:00
Indeno(1,2,3-cd)pyrene		U	0.0049	0.0070	mg/Kg-dry	1	11/20/2018 04:00
Naphthalene		U	0.0045	0.0070	mg/Kg-dry	1	11/20/2018 04:00
Pyrene		U	0.0013	0.0070	mg/Kg-dry	1	11/20/2018 04:00
Surr: 2-Fluorobiphenyl	50.7			44-107	%REC	1	11/20/2018 04:00
Surr: 4-Terphenyl-d14	54.0			52-123	%REC	1	11/20/2018 04:00
Surr: Nitrobenzene-d5	42.8			41-94	%REC	1	11/20/2018 04:00
VOLATILE ORGANIC COMPOUNDS			Method: SW8260C		Prep: SW5035 / 11/14/18		Analyst: LSY
Benzene		U	0.0061	0.036	mg/Kg	1	11/20/2018 05:47
Ethylbenzene		U	0.0076	0.036	mg/Kg	1	11/20/2018 05:47
m,p-Xylene		U	0.017	0.072	mg/Kg	1	11/20/2018 05:47
o-Xylene		U	0.014	0.036	mg/Kg	1	11/20/2018 05:47
Toluene		U	0.0098	0.036	mg/Kg	1	11/20/2018 05:47
Xylenes, Total		U	0.031	0.11	mg/Kg	1	11/20/2018 05:47
Surr: 1,2-Dichloroethane-d4	109			70-130	%REC	1	11/20/2018 05:47
Surr: 4-Bromofluorobenzene	96.2			70-130	%REC	1	11/20/2018 05:47
Surr: Dibromofluoromethane	87.8			70-130	%REC	1	11/20/2018 05:47
Surr: Toluene-d8	96.2			70-130	%REC	1	11/20/2018 05:47
ELECTRICAL CONDUCTIVITY (SAR)			Method: USDA H60 METHOD 2		Prep: USDA Method 20B / 11/20/18		Analyst: JB
Electrical Conductivity @ Saturation	18		0.011	0.10	mmhos/cm @25°	20	11/21/2018 00:45
CHROMIUM, TRIVALENT			Method: CALCULATION				Analyst: JB
Chromium, Trivalent	12		0.34	1.1	mg/Kg-dry	1	11/29/2018 12:45
CHROMIUM, HEXAVALENT			Method: SW7196A		Prep: SW3060A / 11/28/18		Analyst: JSH
Chromium, Hexavalent	0.36	J	0.33	1.1	mg/Kg-dry	1	11/29/2018 16:00
MOISTURE			Method: SW3550C				Analyst: RBS
Moisture	9.0		0.025	0.050	% of sample	1	11/21/2018 10:28
PH			Method: SW9045D		Prep: EXTRACT / 11/13/18		Analyst: JEB
pH	8.24		0.10	0.100	s.u.	1	11/13/2018 16:40

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

ALS Group, USA

Date: 30-Nov-18

Client: Entrada Consulting Group
 Project: UP 69-27 Spill
 Sample ID: UP6927-BG1
 Collection Date: 11/8/2018 11:35 AM

Work Order: 1811788
 Lab ID: 1811788-03
 Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA							
Mercury	0.045		0.0021	0.021	mg/Kg-dry	1	11/13/2018 18:24
		Method: SW7471B		Prep: SW7471 / 11/13/18		Analyst: RSH	
METALS ANALYSIS BY ICP							
Arsenic	5.0		0.11	0.41	mg/Kg-dry	1	11/16/2018 01:26
Barium	120		0.16	0.41	mg/Kg-dry	1	11/16/2018 01:26
Cadmium	0.17	J	0.039	0.82	mg/Kg-dry	1	11/16/2018 01:26
Chromium	11		0.023	0.41	mg/Kg-dry	1	11/16/2018 01:26
Copper	15		0.18	0.82	mg/Kg-dry	1	11/16/2018 01:26
Lead	12		0.087	0.41	mg/Kg-dry	1	11/16/2018 01:26
Nickel	15		0.16	0.41	mg/Kg-dry	1	11/16/2018 01:26
Selenium	0.94		0.23	0.82	mg/Kg-dry	1	11/16/2018 01:26
Silver	U		0.051	0.41	mg/Kg-dry	1	11/16/2018 01:26
Zinc	75		0.064	0.80	mg/Kg-dry	1	11/27/2018 09:05
		Method: SW846 6010C		Prep: SW3050B / 11/15/18		Analyst: ABL	
SOLUBLE CATIONS FOR SAR							
Calcium	510		1.7	10	mg/L	20	11/20/2018 14:35
Magnesium	32		0.14	4.0	mg/L	20	11/20/2018 14:35
Sodium	1,400		0.68	4.0	mg/L	20	11/20/2018 14:35
		Method: SW6020A		Prep: USDA Method 20B / 11/20/18		Analyst: STP	
SODIUM ADSORPTION RATIO							
Sodium Adsorption Ratio	16		0.010	0.010	none	1	11/20/2018
		Method: USDA H60 METHOD 2		Prep: USDA Method 20B / 11/20/18		Analyst: STP	
ELECTRICAL CONDUCTIVITY (SAR)							
Electrical Conductivity @ Saturation	9.8		0.011	0.10	mmhos/cm @25°	20	11/21/2018 00:45
		Method: USDA H60 METHOD 2		Prep: USDA Method 20B / 11/20/18		Analyst: JB	
CHROMIUM, TRIVALENT							
Chromium, Trivalent	11		0.34	1.1	mg/Kg-dry	1	11/29/2018 12:45
		Method: CALCULATION		Prep: SW3060A / 11/28/18		Analyst: JSH	
CHROMIUM, HEXAVALENT							
Chromium, Hexavalent	U		0.34	1.1	mg/Kg-dry	1	11/29/2018 16:00
		Method: SW7196A		Prep: SW3060A / 11/28/18		Analyst: JSH	
MOISTURE							
Moisture	9.9		0.025	0.050	% of sample	1	11/21/2018 10:28
		Method: SW3550C		Prep: EXTRACT / 11/13/18		Analyst: RBS	
PH							
pH	8.35		0.10	0.100	s.u.	1	11/13/2018 16:40
		Method: SW9045D		Prep: EXTRACT / 11/13/18		Analyst: JEB	

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

Client: Entrada Consulting Group
Work Order: 1811788
Project: UP 69-27 Spill

QC BATCH REPORT

Batch ID: **128034** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-128034-128034				Units: mg/Kg		Analysis Date: 11/16/2018 09:30 PM		
Client ID:		Run ID: GC8_181116A		SeqNo: 5393368		Prep Date: 11/16/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	U	5.0								
<i>Surr: 4-Terphenyl-d14</i>	3.221	0	3.33	0	96.7	33-111	0			

LCS		Sample ID: DLCSS1-128034-128034				Units: mg/Kg		Analysis Date: 11/16/2018 10:28 PM		
Client ID:		Run ID: GC8_181116A		SeqNo: 5393369		Prep Date: 11/16/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	230.3	5.0	333	0	69.2	58-111	0			
<i>Surr: 4-Terphenyl-d14</i>	2.919	0	3.33	0	87.6	33-111	0			

MS		Sample ID: 1811784-02A MS				Units: mg/Kg		Analysis Date: 11/16/2018 10:57 PM		
Client ID:		Run ID: GC8_181116A		SeqNo: 5393370		Prep Date: 11/16/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	209.6	4.7	312.2	0	67.1	58-111	0			
<i>Surr: 4-Terphenyl-d14</i>	2.663	0	3.122	0	85.3	33-111	0			

MSD		Sample ID: 1811784-02A MSD				Units: mg/Kg		Analysis Date: 11/16/2018 11:26 PM		
Client ID:		Run ID: GC8_181116A		SeqNo: 5393371		Prep Date: 11/16/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	218	4.8	319.1	0	68.3	58-111	209.6	3.94	30	
<i>Surr: 4-Terphenyl-d14</i>	2.583	0	3.191	0	81	33-111	2.663	3.05	30	

The following samples were analyzed in this batch:

1811788-01A	1811788-02A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Entrada Consulting Group
 Work Order: 1811788
 Project: UP 69-27 Spill

QC BATCH REPORT

Batch ID: 127949 Instrument ID GC9 Method: SW8015D

MBLK		Sample ID: MBLK-127949-127949				Units: µg/Kg-dry		Analysis Date: 11/15/2018 08:11 PM		
Client ID:		Run ID: GC9_181115A		SeqNo: 5389781		Prep Date: 11/14/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	U	5,000								
<i>Surr: Toluene-d8</i>	4382	0	5000	0	87.6	71-123	0			

LCS		Sample ID: LCS-127949-127949				Units: µg/Kg-dry		Analysis Date: 11/15/2018 05:16 PM		
Client ID:		Run ID: GC9_181115A		SeqNo: 5389775		Prep Date: 11/14/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	482200	5,000	500000	0	96.4	71-123	0			
<i>Surr: Toluene-d8</i>	5575	0	5000	0	112	71-123	0			

MS		Sample ID: 1811788-01A MS				Units: µg/Kg-dry		Analysis Date: 11/17/2018 03:07 A		
Client ID: UP6927-SS1		Run ID: GC9_181115A		SeqNo: 5393609		Prep Date: 11/14/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	594200	5,700	569500	0	104	71-123	0			
<i>Surr: Toluene-d8</i>	5679	0	5695	0	99.7	71-123	0			

MSD		Sample ID: 1811788-01A MSD				Units: µg/Kg-dry		Analysis Date: 11/17/2018 03:36 A		
Client ID: UP6927-SS1		Run ID: GC9_181115A		SeqNo: 5393611		Prep Date: 11/14/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	591900	5,700	569500	0	104	71-123	594200	0.38	30	
<i>Surr: Toluene-d8</i>	5942	0	5695	0	104	71-123	5679	4.54	30	

The following samples were analyzed in this batch: 1811788-01A 1811788-02A

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

Client: Entrada Consulting Group
 Work Order: 1811788
 Project: UP 69-27 Spill

QC BATCH REPORT

Batch ID: **127858** Instrument ID **HG4** Method: **SW7471B**

MBLK		Sample ID: MBLK-127858-127858				Units: mg/Kg		Analysis Date: 11/13/2018 05:40 PM		
Client ID:		Run ID: HG4_181113A		SeqNo: 5384323		Prep Date: 11/13/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.008083	0.020								J

LCS		Sample ID: LCS-127858-127858				Units: mg/Kg		Analysis Date: 11/13/2018 05:43 PM		
Client ID:		Run ID: HG4_181113A		SeqNo: 5384324		Prep Date: 11/13/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1932	0.020	0.1665		0	116	80-120	0		

MS		Sample ID: 1811791-03B MS				Units: mg/Kg		Analysis Date: 11/13/2018 06:34 PM		
Client ID:		Run ID: HG4_181113A		SeqNo: 5384345		Prep Date: 11/13/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1674	0.016	0.1323	0.06596	76.7	75-125		0		

MSD		Sample ID: 1811791-03B MSD				Units: mg/Kg		Analysis Date: 11/13/2018 06:37 PM		
Client ID:		Run ID: HG4_181113A		SeqNo: 5384346		Prep Date: 11/13/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1631	0.016	0.1325	0.06596	73.3	75-125	0.1674	2.63	35	S

The following samples were analyzed in this batch: 1811788-01A 1811788-02A 1811788-03A

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

Client: Entrada Consulting Group
 Work Order: 1811788
 Project: UP 69-27 Spill

QC BATCH REPORT

Batch ID: 128067 Instrument ID ICP2 Method: SW846 6010C

MBLK		Sample ID: MBLK-128067-128067				Units: mg/Kg		Analysis Date: 11/15/2018 11:47 PM		
Client ID:		Run ID: ICP2_181115A			SeqNo: 5388375		Prep Date: 11/15/2018		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	0.03678	0.25								J
Copper	U	0.50								
Lead	U	0.25								
Nickel	U	0.25								
Selenium	U	0.50								
Silver	U	0.25								
Zinc	0.1502	0.50								J

LCS		Sample ID: LCS-128067-128067				Units: mg/Kg		Analysis Date: 11/16/2018 01:57 PM		
Client ID:		Run ID: ICP2_181116A			SeqNo: 5391889		Prep Date: 11/15/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.378	0.24	4.822	0	90.8	80-120	0			
Barium	4.431	0.24	4.822	0	91.9	80-120	0			
Cadmium	4.711	0.48	4.822	0	97.7	80-120	0			
Chromium	5.3	0.24	4.822	0	110	80-120	0			
Copper	4.824	0.48	4.822	0	100	80-120	0			
Lead	4.706	0.24	4.822	0	97.6	80-120	0			
Nickel	4.802	0.24	4.822	0	99.6	80-120	0			
Selenium	4.378	0.48	4.822	0	90.8	80-120	0			
Silver	4.807	0.24	4.822	0	99.7	80-120	0			

MS		Sample ID: 1811977-01AMS				Units: mg/Kg		Analysis Date: 11/16/2018 06:17 PM		
Client ID:		Run ID: ICP2_181116A			SeqNo: 5391981		Prep Date: 11/15/2018		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	17.37	3.7	7.418	10.83	88.1	75-125	0			
Barium	8.457	3.7	7.418	1.635	92	75-125	0			
Cadmium	7.04	7.4	7.418	-0.2872	98.8	75-125	0			J
Copper	8.754	7.4	7.418	3.667	68.6	75-125	0			S
Lead	U	3.7	7.418	-21.54	290	75-125	0			S
Nickel	14.99	3.7	7.418	9.027	80.3	75-125	0			
Selenium	25	7.4	7.418	16.41	116	75-125	0			
Silver	35.61	3.7	7.418	28.97	89.4	75-125	0			

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

Client: Entrada Consulting Group
 Work Order: 1811788
 Project: UP 69-27 Spill

QC BATCH REPORT

Batch ID: 128067 Instrument ID ICP2 Method: SW846 6010C

MS		Sample ID: 1811977-01AMS				Units: mg/Kg		Analysis Date: 11/21/2018 03:38 PM		
Client ID:		Run ID: ICP2_181121A			SeqNo: 5401298		Prep Date: 11/15/2018		DF: 100	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	4965	37	7.418	4909	755	75-125	0			SO

MSD		Sample ID: 1811977-01AMSD				Units: mg/Kg		Analysis Date: 11/16/2018 06:23 PM		
Client ID:		Run ID: ICP2_181116A			SeqNo: 5391982		Prep Date: 11/15/2018		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	17.19	3.9	7.776	10.83	81.7	75-125	17.37	1.08	20	
Barium	7.667	3.9	7.776	1.635	77.6	75-125	8.457	9.8	20	
Cadmium	7.076	7.8	7.776	-0.2872	94.7	75-125	7.04	0	20	J
Copper	8.701	7.8	7.776	3.667	64.7	75-125	8.754	0.608	20	S
Lead	U	3.9	7.776	-21.54	277	75-125	-16.02	0	20	S
Nickel	14.46	3.9	7.776	9.027	69.9	75-125	14.99	3.54	20	S
Selenium	24.65	7.8	7.776	16.41	106	75-125	25	1.41	20	
Silver	34.84	3.9	7.776	28.97	75.4	75-125	35.61	2.19	20	

MSD		Sample ID: 1811977-01AMSD				Units: mg/Kg		Analysis Date: 11/21/2018 03:44 PM		
Client ID:		Run ID: ICP2_181121A			SeqNo: 5401300		Prep Date: 11/15/2018		DF: 100	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	4919	39	7.776	4909	133	75-125	4965	0.924	20	SO

The following samples were analyzed in this batch: 1811788-01A 1811788-02A 1811788-03A

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

Client: Entrada Consulting Group
 Work Order: 1811788
 Project: UP 69-27 Spill

QC BATCH REPORT

Batch ID: 128419 Instrument ID ICP2 Method: SW846 6010C

MBLK		Sample ID: MBLK-128419-128419				Units: mg/Kg		Analysis Date: 11/27/2018 06:20 A		
Client ID:		Run ID: ICP2_181126A			SeqNo: 5404153		Prep Date: 11/26/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Zinc	0.097	0.50								J

LCS		Sample ID: LCS-128419-128419				Units: mg/Kg		Analysis Date: 11/27/2018 06:26 A		
Client ID:		Run ID: ICP2_181126A			SeqNo: 5404154		Prep Date: 11/26/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Zinc	4.8	0.50	5	0	96	80-120	0			

MS		Sample ID: 18111420-01AMS				Units: mg/Kg		Analysis Date: 11/27/2018 07:17 A		
Client ID:		Run ID: ICP2_181126A			SeqNo: 5404171		Prep Date: 11/26/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Zinc	3548	0.77	7.669	3631	-1080	75-125	0			SEO

MSD		Sample ID: 18111420-01AMSD				Units: mg/Kg		Analysis Date: 11/27/2018 07:24 A		
Client ID:		Run ID: ICP2_181126A			SeqNo: 5404172		Prep Date: 11/26/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Zinc	3690	0.76	7.634	3631	778	75-125	3548	3.94	20	SEO

The following samples were analyzed in this batch: 1811788-01A 1811788-02A 1811788-03A

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

Client: Entrada Consulting Group
 Work Order: 1811788
 Project: UP 69-27 Spill

QC BATCH REPORT

Batch ID: 128282 Instrument ID ICPMS3 Method: SW6020A

DUP		Sample ID: 1811786-01BDUP				Units: mg/L		Analysis Date: 11/20/2018 02:27 PM			
Client ID:		Run ID: ICPMS3_181120A				SeqNo: 5396482		Prep Date: 11/20/2018		DF: 20	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Calcium	795	10	0	0	0	0-0	742.6	6.82			
Magnesium	1173	4.0	0	0	0	0-0	974.1	18.5			

DUP		Sample ID: 1811786-01BDUP				Units: mg/L		Analysis Date: 11/20/2018 06:37 PM			
Client ID:		Run ID: ICPMS3_181120A				SeqNo: 5397802		Prep Date: 11/20/2018		DF: 200	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Sodium	14010	40	0	0	0	0-0	12280	13.2			

The following samples were analyzed in this batch: 1811788-01B 1811788-02B 1811788-03B

Batch ID: 128282 Instrument ID SAR Method: USDA H60 Metho

DUP		Sample ID: 1811786-01BDUP				Units: none		Analysis Date: 11/20/2018			
Client ID:		Run ID: SAR_181120A				SeqNo: 5395498		Prep Date: 11/20/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Sodium Adsorption Ratio	73.87	0.010	0	0	0		69.79	5.68	50		

The following samples were analyzed in this batch: 1811788-01B 1811788-02B 1811788-03B

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

Client: Entrada Consulting Group
 Work Order: 1811788
 Project: UP 69-27 Spill

QC BATCH REPORT

Batch ID: 128033 Instrument ID SVMS5 Method: SW846 8270D

MBLK		Sample ID: SBLKS1-128033-128033				Units: µg/Kg		Analysis Date: 11/16/2018 06:56 PM		
Client ID:		Run ID: SVMS5_181116A		SeqNo: 5392839		Prep Date: 11/16/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	U	6.7								
Anthracene	U	6.7								
Benzo(a)anthracene	U	6.7								
Benzo(a)pyrene	U	6.7								
Benzo(b)fluoranthene	U	6.7								
Benzo(k)fluoranthene	U	6.7								
Chrysene	U	6.7								
Dibenzo(a,h)anthracene	U	6.7								
Fluoranthene	U	6.7								
Fluorene	U	6.7								
Indeno(1,2,3-cd)pyrene	U	6.7								
Naphthalene	U	6.7								
Pyrene	U	6.7								
Surr: 2-Fluorobiphenyl	2679	0	3333	0	80.4	44-107		0		
Surr: 4-Terphenyl-d14	2527	0	3333	0	75.8	52-123		0		
Surr: Nitrobenzene-d5	2234	0	3333	0	67	41-94		0		

LCS		Sample ID: SLCSS1-128033-128033				Units: µg/Kg		Analysis Date: 11/16/2018 07:19 PM		
Client ID:		Run ID: SVMS5_181116A		SeqNo: 5392849		Prep Date: 11/16/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1079	6.7	1333	0	81	55-101		0		
Anthracene	1051	6.7	1333	0	78.8	67-105		0		
Benzo(a)anthracene	1111	6.7	1333	0	83.4	68-105		0		
Benzo(a)pyrene	1052	6.7	1333	0	78.9	68-110		0		
Benzo(b)fluoranthene	1120	6.7	1333	0	84	65-110		0		
Benzo(k)fluoranthene	1124	6.7	1333	0	84.3	66-113		0		
Chrysene	1087	6.7	1333	0	81.6	68-108		0		
Dibenzo(a,h)anthracene	1104	6.7	1333	0	82.8	62-119		0		
Fluoranthene	1061	6.7	1333	0	79.6	67-106		0		
Fluorene	1124	6.7	1333	0	84.3	59-107		0		
Indeno(1,2,3-cd)pyrene	1024	6.7	1333	0	76.8	56-120		0		
Naphthalene	870	6.7	1333	0	65.3	46-98		0		
Pyrene	1173	6.7	1333	0	88	60-119		0		
Surr: 2-Fluorobiphenyl	2576	0	3333	0	77.3	44-107		0		
Surr: 4-Terphenyl-d14	2799	0	3333	0	84	52-123		0		
Surr: Nitrobenzene-d5	2069	0	3333	0	62.1	41-94		0		

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

Client: Entrada Consulting Group
 Work Order: 1811788
 Project: UP 69-27 Spill

QC BATCH REPORT

Batch ID: 128033 Instrument ID SVMS5 Method: SW846 8270D

MS				Sample ID: 1811784-02A MS			Units: µg/Kg		Analysis Date: 11/16/2018 08:30 PM		
Client ID:		Run ID: SVMS5_181116A		SeqNo: 5392850		Prep Date: 11/16/2018		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1055	6.5	1303	0	81	55-101	0				
Anthracene	1002	6.5	1303	0	76.9	67-105	0				
Benzo(a)anthracene	1068	6.5	1303	0	82	68-105	0				
Benzo(a)pyrene	1034	6.5	1303	0	79.4	68-110	0				
Benzo(b)fluoranthene	1125	6.5	1303	0	86.4	65-110	0				
Benzo(k)fluoranthene	1111	6.5	1303	0	85.3	66-113	0				
Chrysene	1001	6.5	1303	0	76.9	68-108	0				
Dibenzo(a,h)anthracene	997.5	6.5	1303	0	76.6	62-119	0				
Fluoranthene	935.6	6.5	1303	0	71.8	67-106	0				
Fluorene	1093	6.5	1303	0	83.9	59-107	0				
Indeno(1,2,3-cd)pyrene	1055	6.5	1303	0	81	56-120	0				
Naphthalene	880.8	6.5	1303	0	67.6	46-98	0				
Pyrene	1056	6.5	1303	0	81.1	60-119	0				
Surr: 2-Fluorobiphenyl	2259	0	3257	0	69.3	44-107	0				
Surr: 4-Terphenyl-d14	2532	0	3257	0	77.7	52-123	0				
Surr: Nitrobenzene-d5	2615	0	3257	0	80.3	41-94	0				

MSD				Sample ID: 1811784-02A MSD			Units: µg/Kg		Analysis Date: 11/16/2018 08:54 PM		
Client ID:		Run ID: SVMS5_181116A		SeqNo: 5392851		Prep Date: 11/16/2018		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	953.8	6.5	1293	0	73.8	55-101	1055	10.1	30		
Anthracene	996.4	6.5	1293	0	77.1	67-105	1002	0.558	30		
Benzo(a)anthracene	1075	6.5	1293	0	83.2	68-105	1068	0.64	30		
Benzo(a)pyrene	1010	6.5	1293	0	78.1	68-110	1034	2.34	30		
Benzo(b)fluoranthene	1117	6.5	1293	0	86.4	65-110	1125	0.695	30		
Benzo(k)fluoranthene	1101	6.5	1293	0	85.2	66-113	1111	0.87	30		
Chrysene	992.6	6.5	1293	0	76.8	68-108	1001	0.883	30		
Dibenzo(a,h)anthracene	1099	6.5	1293	0	85	62-119	997.5	9.71	30		
Fluoranthene	1028	6.5	1293	0	79.5	67-106	935.6	9.43	30		
Fluorene	1031	6.5	1293	0	79.7	59-107	1093	5.83	30		
Indeno(1,2,3-cd)pyrene	1173	6.5	1293	0	90.7	56-120	1055	10.5	30		
Naphthalene	830.9	6.5	1293	0	64.3	46-98	880.8	5.83	30		
Pyrene	1173	6.5	1293	0	90.7	60-119	1056	10.5	30		
Surr: 2-Fluorobiphenyl	2376	0	3233	0	73.5	44-107	2259	5.05	40		
Surr: 4-Terphenyl-d14	2689	0	3233	0	83.2	52-123	2532	6.01	40		
Surr: Nitrobenzene-d5	2339	0	3233	0	72.4	41-94	2615	11.1	40		

The following samples were analyzed in this batch: 1811788-01A 1811788-02A

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

Client: Entrada Consulting Group
 Work Order: 1811788
 Project: UP 69-27 Spill

QC BATCH REPORT

Batch ID: **127948** Instrument ID **VMS11** Method: **SW8260C**

MBLK		Sample ID: MBLK-127948-127948			Units: µg/Kg-dry			Analysis Date: 11/15/2018 03:16 A		
Client ID:		Run ID: VMS11_181114B			SeqNo: 5390657		Prep Date: 11/14/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	30								
Ethylbenzene	U	30								
m,p-Xylene	U	60								
o-Xylene	U	30								
Toluene	U	30								
Xylenes, Total	U	90								
<i>Surr: 1,2-Dichloroethane-d4</i>	905	0	1000	0	90.5	70-130	0			
<i>Surr: 4-Bromofluorobenzene</i>	978	0	1000	0	97.8	70-130	0			
<i>Surr: Dibromofluoromethane</i>	821.5	0	1000	0	82.2	70-130	0			
<i>Surr: Toluene-d8</i>	971.5	0	1000	0	97.2	70-130	0			

MBLK		Sample ID: MBLK-127948-127948			Units: µg/Kg-dry			Analysis Date: 11/17/2018 05:02 A		
Client ID:		Run ID: VMS9_181116C			SeqNo: 5391843		Prep Date: 11/14/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	30	0	0	0	0-0	0			
Ethylbenzene	U	30	0	0	0	0-0	0			
m,p-Xylene	U	60	0	0	0	0-0	0			
o-Xylene	U	30	0	0	0	0-0	0			
Toluene	U	30	0	0	0	0-0	0			
Xylenes, Total	U	90	0	0	0	0-0	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	1048	0	1000	0	105	70-130	0			
<i>Surr: 4-Bromofluorobenzene</i>	974.5	0	1000	0	97.4	70-130	0			
<i>Surr: Dibromofluoromethane</i>	903	0	1000	0	90.3	70-130	0			
<i>Surr: Toluene-d8</i>	980	0	1000	0	98	70-130	0			

LCS		Sample ID: LCS-127948-127948			Units: µg/Kg-dry			Analysis Date: 11/15/2018 02:10 A		
Client ID:		Run ID: VMS11_181114B			SeqNo: 5390656		Prep Date: 11/14/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1122	30	1000	0	112	75-125	0			
Ethylbenzene	1112	30	1000	0	111	75-125	0			
m,p-Xylene	2189	60	2000	0	109	80-125	0			
o-Xylene	1094	30	1000	0	109	75-125	0			
Toluene	1080	30	1000	0	108	70-125	0			
Xylenes, Total	3282	90	3000	0	109	75-125	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	997	0	1000	0	99.7	70-130	0			
<i>Surr: 4-Bromofluorobenzene</i>	972	0	1000	0	97.2	70-130	0			
<i>Surr: Dibromofluoromethane</i>	1064	0	1000	0	106	70-130	0			
<i>Surr: Toluene-d8</i>	957	0	1000	0	95.7	70-130	0			

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

Client: Entrada Consulting Group
 Work Order: 1811788
 Project: UP 69-27 Spill

QC BATCH REPORT

Batch ID: 127948 Instrument ID VMS11 Method: SW8260C

LCS		Sample ID: LCS-127948-127948				Units: µg/Kg-dry		Analysis Date: 11/17/2018 04:17 A		
Client ID:		Run ID: VMS9_181116C				SeqNo: 5391842		Prep Date: 11/14/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1072	30	1000	0	107	75-125	0			
Ethylbenzene	986.5	30	1000	0	98.6	75-125	0			
m,p-Xylene	1960	60	2000	0	98	80-125	0			
o-Xylene	1026	30	1000	0	103	75-125	0			
Toluene	998.5	30	1000	0	99.8	70-125	0			
Xylenes, Total	2986	90	3000	0	99.5	75-125	0			
Surr: 1,2-Dichloroethane-d4	1020	0	1000	0	102	70-130	0			
Surr: 4-Bromofluorobenzene	1043	0	1000	0	104	70-130	0			
Surr: Dibromofluoromethane	1012	0	1000	0	101	70-130	0			
Surr: Toluene-d8	989.5	0	1000	0	99	70-130	0			

MS		Sample ID: 1811788-01A MS				Units: µg/Kg-dry		Analysis Date: 11/17/2018 10:17 A		
Client ID: UP6927-SS1		Run ID: VMS9_181116C				SeqNo: 5391864		Prep Date: 11/14/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1170	34	1139	0	103	75-125	0			
Ethylbenzene	1011	34	1139	0	88.8	75-125	0			
m,p-Xylene	2067	68	2278	0	90.8	80-125	0			
o-Xylene	1037	34	1139	0	91	75-125	0			
Toluene	1022	34	1139	0	89.7	70-125	0			
Xylenes, Total	3104	100	3417	0	90.8	75-125	0			
Surr: 1,2-Dichloroethane-d4	1207	0	1139	0	106	70-130	0			
Surr: 4-Bromofluorobenzene	1117	0	1139	0	98.1	70-130	0			
Surr: Dibromofluoromethane	1035	0	1139	0	90.8	70-130	0			
Surr: Toluene-d8	1109	0	1139	0	97.4	70-130	0			

MSD		Sample ID: 1811788-01A MSD				Units: µg/Kg-dry		Analysis Date: 11/17/2018 10:32 A		
Client ID: UP6927-SS1		Run ID: VMS9_181116C				SeqNo: 5391865		Prep Date: 11/14/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1138	34	1139	0	99.9	75-125	1170	2.81	30	
Ethylbenzene	1026	34	1139	0	90	75-125	1011	1.4	30	
m,p-Xylene	2082	68	2278	0	91.4	80-125	2067	0.686	30	
o-Xylene	1040	34	1139	0	91.3	75-125	1037	0.329	30	
Toluene	1037	34	1139	0	91	70-125	1022	1.49	30	
Xylenes, Total	3122	100	3417	0	91.4	75-125	3104	0.567	30	
Surr: 1,2-Dichloroethane-d4	1186	0	1139	0	104	70-130	1207	1.81	30	
Surr: 4-Bromofluorobenzene	1130	0	1139	0	99.2	70-130	1117	1.12	30	
Surr: Dibromofluoromethane	1082	0	1139	0	95	70-130	1035	4.41	30	
Surr: Toluene-d8	1100	0	1139	0	96.6	70-130	1109	0.825	30	

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

Client: Entrada Consulting Group
Work Order: 1811788
Project: UP 69-27 Spill

QC BATCH REPORT

Batch ID: **127948** Instrument ID **VMS11** Method: **SW8260C**

The following samples were analyzed in this batch:

1811788-01A	1811788-02A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Entrada Consulting Group
Work Order: 1811788
Project: UP 69-27 Spill

QC BATCH REPORT

Batch ID: **127909** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-127909-127909				Units: s.u.		Analysis Date: 11/13/2018 04:40 PM			
Client ID:		Run ID: WETCHEM_181113K		SeqNo: 5383402		Prep Date: 11/13/2018		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH	3.94	0.10	4	0	98.5	90-110	0				

DUP		Sample ID: 1811459-05A DUP				Units: s.u.		Analysis Date: 11/13/2018 04:40 PM			
Client ID:		Run ID: WETCHEM_181113K		SeqNo: 5383404		Prep Date: 11/13/2018		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH	8.55	0.10	0	0	0	0-0	8.51	0.469	20	H	

DUP		Sample ID: 1811786-03A DUP				Units: s.u.		Analysis Date: 11/13/2018 04:40 PM			
Client ID:		Run ID: WETCHEM_181113K		SeqNo: 5383417		Prep Date: 11/13/2018		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH	8.57	0.10	0	0	0	0-0	8.59	0.233	20		

The following samples were analyzed in this batch:

 1811788-01A 1811788-02A 1811788-03A

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

Client: Entrada Consulting Group

Work Order: 1811788

Project: UP 69-27 Spill

QC BATCH REPORT

Batch ID: **128282**

Instrument ID **WETCHEM**

Method: **USDA H60 Metho**

DUP	Sample ID: 1811786-01BDUP		Units: mmhos/cm @25°		Analysis Date: 11/21/2018 12:45 A					
Client ID:	Run ID: WETCHEM_181121G		SeqNo: 5398488		Prep Date: 11/20/2018		DF: 20			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	61.4	0.10	0	0	0		61	0.654	50	

The following samples were analyzed in this batch:

1811788-01B	1811788-02B	1811788-03B
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Entrada Consulting Group
 Work Order: 1811788
 Project: UP 69-27 Spill

QC BATCH REPORT

Batch ID: 128657 Instrument ID WETCHEM Method: SW7196A

MBLK		Sample ID: MBLK-128657-128657				Units: mg/Kg		Analysis Date: 11/29/2018 04:00 PM		
Client ID:		Run ID: WETCHEM_181129P		SeqNo: 5409947		Prep Date: 11/28/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent U 1.0

LCS		Sample ID: LCS-128657-128657				Units: mg/Kg		Analysis Date: 11/29/2018 04:00 PM		
Client ID:		Run ID: WETCHEM_181129P		SeqNo: 5409948		Prep Date: 11/28/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.36 1.0 5 0 87.2 80-120 0

MS		Sample ID: 1811788-01A MS				Units: mg/Kg		Analysis Date: 11/29/2018 04:00 PM		
Client ID: UP6927-SS1		Run ID: WETCHEM_181129P		SeqNo: 5409951		Prep Date: 11/28/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent U 1.0 5 0.1942 -3.88 75-125 0 S

MS		Sample ID: 1811788-01A MSI				Units: mg/Kg		Analysis Date: 11/29/2018 04:00 PM		
Client ID: UP6927-SS1		Run ID: WETCHEM_181129P		SeqNo: 5409953		Prep Date: 11/28/2018		DF: 100		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 2324 100 2414 0.1942 96.3 75-125 0

MS		Sample ID: 1811792-01A MS				Units: mg/Kg		Analysis Date: 11/29/2018 04:00 PM		
Client ID:		Run ID: WETCHEM_181129P		SeqNo: 5409958		Prep Date: 11/28/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.85 1.0 5 0.202 13 75-125 0 JS

MS		Sample ID: 1811792-01A MSI				Units: mg/Kg		Analysis Date: 11/29/2018 04:00 PM		
Client ID:		Run ID: WETCHEM_181129P		SeqNo: 5409960		Prep Date: 11/28/2018		DF: 100		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1677 100 1902 0.202 88.2 75-125 0

MSD		Sample ID: 1811788-01A MSD				Units: mg/Kg		Analysis Date: 11/29/2018 04:00 PM		
Client ID: UP6927-SS1		Run ID: WETCHEM_181129P		SeqNo: 5409952		Prep Date: 11/28/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 2.745 0.98 4.902 0.1942 52 75-125 0.2 173 20 SR

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

Client: Entrada Consulting Group
Work Order: 1811788
Project: UP 69-27 Spill

QC BATCH REPORT

Batch ID: **128657** Instrument ID **WETCHEM** Method: **SW7196A**

MSD		Sample ID: 1811792-01A MSD				Units: mg/Kg		Analysis Date: 11/29/2018 04:00 PM			
Client ID:		Run ID: WETCHEM_181129P		SeqNo: 5409959		Prep Date: 11/28/2018		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chromium, Hexavalent	1.63	1.0	5	0.202	28.6	75-125	0.85	62.9	20	SR	

The following samples were analyzed in this batch:

1811788-01A	1811788-02A	1811788-03A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Entrada Consulting Group
 Work Order: 1811788
 Project: UP 69-27 Spill

QC BATCH REPORT

Batch ID: **R249828** Instrument ID **MOIST** Method: **SW3550C**

MBLK	Sample ID: WBLKS-R249828				Units: % of sample			Analysis Date: 11/21/2018 08:28 A		
Client ID:	Run ID: MOIST_181121B			SeqNo: 5399411		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 0.1 0.050

LCS	Sample ID: LCS-R249828				Units: % of sample			Analysis Date: 11/21/2018 08:28 A		
Client ID:	Run ID: MOIST_181121B			SeqNo: 5399406		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 B

DUP	Sample ID: 1811592-06A DUP				Units: % of sample			Analysis Date: 11/21/2018 08:28 A		
Client ID:	Run ID: MOIST_181121B			SeqNo: 5399367		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 12.68 0.050 0 0 0 0-0 11.63 8.64 10 B

DUP	Sample ID: 1811592-24A DUP				Units: % of sample			Analysis Date: 11/21/2018 08:28 A		
Client ID:	Run ID: MOIST_181121B			SeqNo: 5399389		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 19.22 0.050 0 0 0 0-0 18.93 1.52 10 B

The following samples were analyzed in this batch: 1811788-01A

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



ALS Environmental

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

ALS Project Manager: _____ Work Order #: 1811788

Customer Information		Project Information				Parameter/Method Request for Analysis											
Purchase Order		Project Name	UP 69-27 Spill			A	TPH (GRO & DRO)										
Work Order		Project Number				B	BTEX										
Company Name	Entrada Consulting Group	Bill To Company	Entrada Consulting Group			C	PAH (See Attached List) CO Table 910										
Send Report To	Tim Dobransky	Invoice Attn.	Tim Dobransky			D	Electrical Conductivity										
Address	330 Grand Ave Unit C	Address	330 Grand Ave Unit C			E	Sodium Adsorption Ratio										
						F	pH										
City/State/Zip	Grand Junction, CO 81501	City/State/Zip	Grand Junction, CO 81501			G	Metals (See Attached List) CO Table 910										
Phone	970.270.2986	Phone	970.270.2986			H	Arsenic Only										
Fax		Fax				I											
e-Mail Address	tdobransky@entradainc.com	e-Mail Address	tdobransky@entradainc.com			J											

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	UP6927-SS1	11/08/18	1120	Soil	8	2	X	X	X	X	X	X	X				
2	UP6927-SS2	11/08/18	1130	Soil	8	2	X	X	X	X	X	X	X				
3	UP6927-BG1	11/08/18	1135	Soil	8	2				X	X	X	X				
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s): Please Print & Sign Dobransky		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:		Date: 11/9/18	Time:	Received by:		Notes: Chevron Pricing Applies - Per Bruce Schlatter					
Relinquished by:		Date: 11-9-18	Time: 1830	Received by (Laboratory):		Cooler Temp. x					
Logged by (Laboratory):		Date: 11/21/18	Time: 1045	Checked by (Laboratory):		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 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. Copyright 2011 by ALS Group

Sample Receipt Checklist

Client Name: **ENTRADA**

Date/Time Received: **10-Nov-18 10:00**

Work Order: **1811788**

Received by: **KRW**

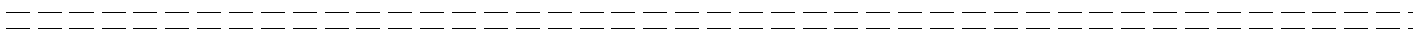
Checklist completed by Keith Wierenga 12-Nov-18
eSignature Date

Reviewed by: Chad Whelton 12-Nov-18
eSignature 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>4.8/4.8 C</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>11/12/2018 10:47:19 AM</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: