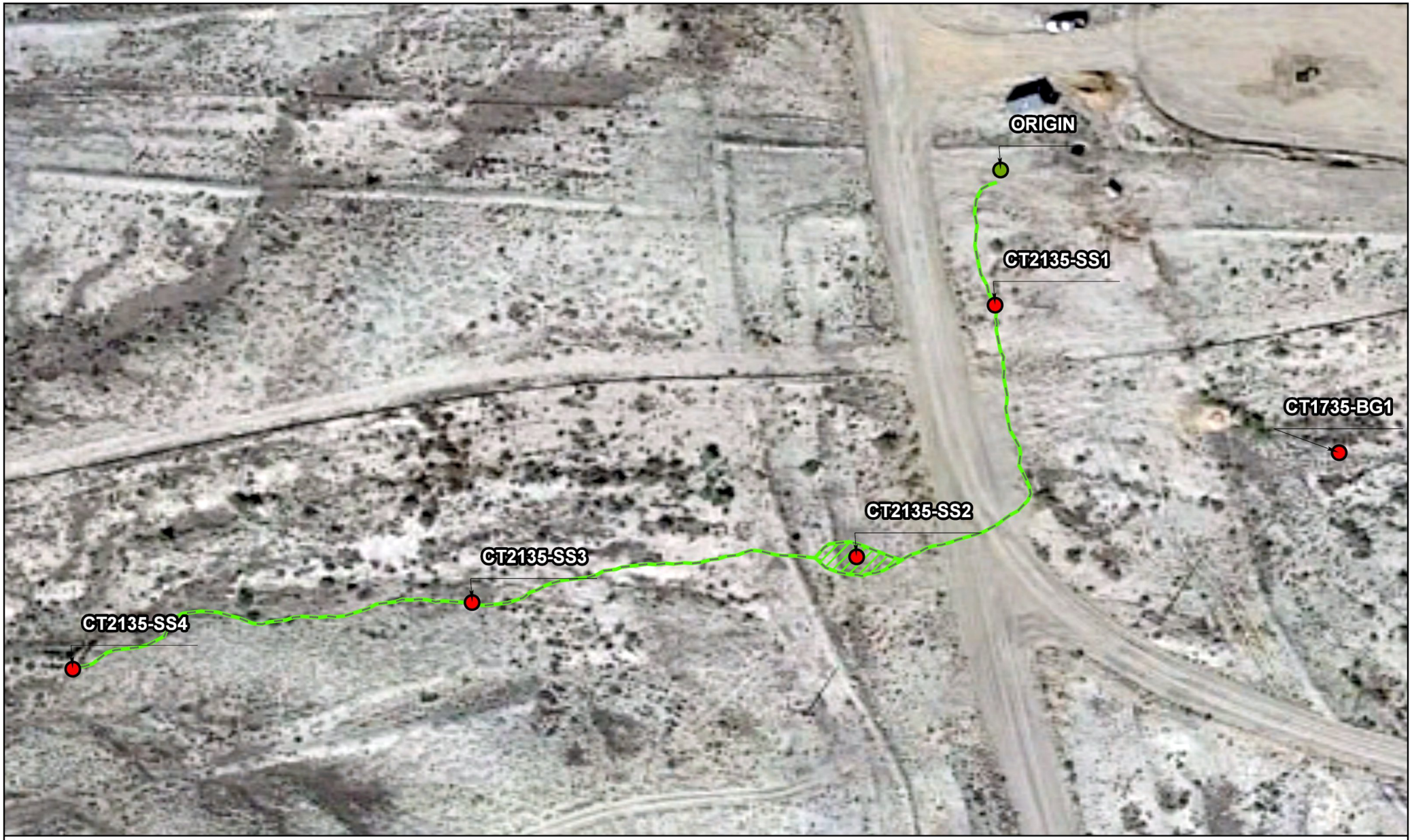

Legend

Origin | Soil Sample Location | Spill Path | Spill Areas

0 75 150 Ft

1 inch = 75 ft

N W E S

Project No: 018-065 Map By: NDB Date: 3-5-2018	Carney 21-35 Spill Chevron USA, Inc. Rio Blanco County, Colorado SW/4 NW/4 Sec 35 T2S R102W	ENTRADA CONSULTING GROUP 330 Grand Avenue, Unit C Grand Junction, CO 81501 970-549-1015	Figure 1

Table 1
CT Carney 21-35 Spill
Soil Data Summary

SAMPLE SUMMARY	
Location Description	CT Carney 21-35 Spill
Sample Type	Soil

LABORATORY DATA SUMMARY											
Sample ID	CT2135-SS1	CT2135-SS2	CT2135-SS3	CT2135-SS4	CT 17-35-BG1	CT 17-35-BG2	CT 17-35-BG3	CT 17-35-BG4	CT 17-35-BG5		
Depth	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"		
Sample Date	5/16/2018	5/16/2018	5/16/2018	5/16/2018	5/9/2013	5/9/2013	5/9/2013	5/9/2013	5/9/2013	**COGCC TABLE 910-1 CONCENTRATION LEVELS**	**UNITS**
Analytical Parameters											
TPH											
TPH Gasoline Range Organics	8.4	<2.6	<3.1	<3.6	NT	NT	NT	NT	NT	500	mg/kg
TPH Diesel Range Organics	110	64	1700	80	NT	NT	NT	NT	NT		
BTEX											
Benzene	<0.0051	<0.0063	<0.0077	<0.0087	NT	NT	NT	NT	NT	0.17	mg/kg
Toluene	<0.0082	0.018 J	<0.012	0.024 J	NT	NT	NT	NT	NT	85	mg/kg
Ethylbenzene	<0.0063	<0.0077	<0.0095	0.015 J	NT	NT	NT	NT	NT	100	mg/kg
Total Xylene	<0.026	<0.032	<0.039	0.047 J	NT	NT	NT	NT	NT	175	mg/kg
Metals											
Arsenic	4.6	4.6	5.3	7.3	4.8	3.97	6.58	5.63	6.43	0.39	mg/kg
Barium	490	660	1400	230	140	NT	NT	NT	NT	15,000	mg/kg
Cadmium	<0.38	<0.040	<0.042	<0.46	0.217 J	NT	NT	NT	NT	70	mg/kg
Chromium	9	11	19	15	9.04	NT	NT	NT	NT	NA	mg/kg
Copper	18	18	16	25	12.8	NT	NT	NT	NT	3,100	mg/kg
Lead	15	14	13	22	15.1	NT	NT	NT	NT	400	mg/kg
Mercury	0.029	0.051	0.023 J	0.033	0.164	NT	NT	NT	NT	23	mg/kg
Nickel	12	13	11	19	14.1	NT	NT	NT	NT	1,600	mg/kg
Selenium	3.1	3.2	3.1	19	1.11	NT	NT	NT	NT	390	mg/kg
Silver	<0.050	<0.052	<0.055	<0.060	0.0744 J	NT	NT	NT	NT	390	mg/kg
Zinc	62	62	59	110	61.7	NT	NT	NT	NT	23,000	mg/kg
SAR Metals Analysis											
Calcium	2900	990	97	1500	157	NT	NT	NT	NT	NA	mg/L
Magnesium	180	79	10	160	8.56	NT	NT	NT	NT	NA	mg/L
Sodium	7800	1200	1200	820	43.1	NT	NT	NT	NT	NA	mg/L
Sodium Adsorption Ratio	38	10	31	5.4	0.910	NT	NT	NT	NT	<12	ratio
Polynuclear Aromatic Hyrdrocarbons											
Acenaphthene	<0.0035	<0.0032	<0.0037	<0.0039	NT	NT	NT	NT	NT	1,000	mg/kg
Anthracene	<0.0018	<0.0017	<0.0019	<0.0020	NT	NT	NT	NT	NT	1,000	mg/kg
Benzo(a)anthracene	<0.0030	<0.0028	<0.0032	<0.0034	NT	NT	NT	NT	NT	0.22	mg/kg
Benzo(a)pyrene	<0.0012	<0.0011	<0.0013	<0.0014	NT	NT	NT	NT	NT	0.022	mg/kg
Benzo(b)fluoranthene	<0.0019	<0.0017	<0.0020	<0.0021	NT	NT	NT	NT	NT	0.22	mg/kg
Benzo(k)fluoranthene	<0.0025	<0.0024	<0.0027	<0.0028	NT	NT	NT	NT	NT	2.2	mg/kg
Chrysene	<0.0019	<0.0017	<0.0020	<0.0021	NT	NT	NT	NT	NT	22	mg/kg
Dibenzo(a,h)anthracene	<0.0016	<0.0015	<0.0017	<0.0018	NT	NT	NT	NT	NT	0.022	mg/kg
Fluoranthene	<0.0014	<0.0013	<0.0015	<0.0016	NT	NT	NT	NT	NT	1,000	mg/kg
Fluorene	<0.0016	<0.0015	<0.0017	<0.0018	NT	NT	NT	NT	NT	1,000	mg/kg
Indeno(1,2,3-cd)pyrene	<0.0015	<0.0014	<0.0016	<0.0017	NT	NT	NT	NT	NT	0.22	mg/kg
Napthalene	0.059	<0.0085	<0.0098	<0.010	NT	NT	NT	NT	NT	23	mg/kg
Pyrene	<0.0018	<0.0017	<0.0019	<0.0020	NT	NT	NT	NT	NT	1,000	mg/kg
General Chemistry											
Chromium, Hexavalent	<0.37	0.37 J	0.44 J	<0.41	NT	NT	NT	NT	NT	23	mg/kg
Chromium, Trivalent	9.4	10	18	15	NT	NT	NT	NT	NT	120,000	mg/kg
Specific Conductivity	49	13	6.8	13	2.01	NT	NT	NT	NT	<4 or 2 x the background	mmhos/cm
pH	7.45	7.63	8.80	7.71	8.38	NT	NT	NT	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

29-May-2018

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

Re: **Carney 21-35 Spill** Work Order: **18051330**

Dear Tim,

ALS Environmental received 4 samples on 18-May-2018 09:30 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 34.

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,

Electronically approved by: Bill Carey

Chad Whelton
Project Manager

Report of Laboratory Analysis

ALS Group, USA

Date: 29-May-18

Client: Olsson Associates
Project: Carney 21-35 Spill
Work Order: **18051330**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
18051330-01	CT2135-SS1	Soil		5/16/2018 13:10	5/18/2018 09:30	☐
18051330-02	CT2135-SS2	Soil		5/16/2018 13:25	5/18/2018 09:30	☐
18051330-03	CT2135-SS3	Soil		5/16/2018 13:35	5/18/2018 09:30	☐
18051330-04	CT2135-SS4	Soil		5/16/2018 13:45	5/18/2018 09:30	☐

Client: Olsson Associates
Project: Carney 21-35 Spill
WorkOrder: **18051330**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	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
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.

Acronym	Description
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

Units Reported	Description
% 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

Client: Olsson Associates
Project: Carney 21-35 Spill
Work Order: 18051330

Case Narrative

Samples for the above noted Work Order were received on 5/18/2018. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting. A copy of the laboratory's scope of accreditation is available upon request.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:
No other deviations or anomalies were noted.

Extractable Organics:
Batch 118817, Method DRLVI_8015_S, Sample 18051330-02A: Low surrogate recovery due to sample matrix effects confirmed by re-extraction.

Batch 118880, Method PNLVI_8270_S, Sample 18051330-01A: Low surrogate recovery due to sample matrix effects confirmed by re-extraction.

Metals:
No other deviations or anomalies were noted.

Wet Chemistry:
Batch 118672, Method ICP_6010_S, Sample 18051330-04A: The reporting limits are elevated due to internal standard failure in the undiluted run for these analytes.

Batch 118812, Method CR6_7196_S, Sample 18051330-01A MS: The MS recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte.

Batch 118812, Method CR6_7196_S, Sample 18051330-01A MSD: The MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte.

Case Narrative

Batch 118812, Method CR6_7196_S, Sample 18051454-02A MS: The MS recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte.

Batch 118812, Method CR6_7196_S, Sample 18051454-02A MSD: The MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte.

ALS Group, USA

Date: *29-May-18*

Client: Olsson Associates
Project: Carney 21-35 Spill
Sample ID: CT2135-SS1
Collection Date: 5/16/2018 01:10 PM

Work Order: 18051330
Lab ID: 18051330-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID		Method: **SW8015C**			Prep: SW3546 / 5/24/18		Analyst: **MEB**
DRO (C10-C28)	**110**		**3.4**	**5.9**	**mg/Kg-dry**	1	5/24/2018 22:23
Surr: 4-Terphenyl-d14	*45.0*			*34-130*	*%REC*	1	5/24/2018 22:23
GASOLINE RANGE ORGANICS BY GC-FID		Method: **SW8015D**			Prep: SW5035 / 5/22/18		Analyst: **MEB**
GRO (C6-C10)	**8.4**		**2.9**	**6.9**	**mg/Kg-dry**	1	5/23/2018 19:54
Surr: Toluene-d8	*106*			*71-123*	*%REC*	1	5/23/2018 19:54
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 5/24/18		Analyst: **RSH**
Mercury	**0.029**		**0.0020**	**0.020**	**mg/Kg-dry**	1	5/24/2018 12:08
METALS ANALYSIS BY ICP		Method: **SW846 6010C**			Prep: SW3050B / 5/22/18		Analyst: **RH**
Arsenic	**4.6**		**0.10**	**0.40**	**mg/Kg-dry**	1	5/23/2018 08:53
Barium	**490**		**0.16**	**0.40**	**mg/Kg-dry**	1	5/23/2018 08:53
Cadmium	U		0.038	0.80	mg/Kg-dry	1	5/23/2018 08:53
Chromium	**9.4**		**0.022**	**0.40**	**mg/Kg-dry**	1	5/23/2018 08:53
Copper	**18**		**0.18**	**0.80**	**mg/Kg-dry**	1	5/23/2018 08:53
Lead	**15**		**0.085**	**0.40**	**mg/Kg-dry**	1	5/23/2018 08:53
Nickel	**12**		**0.16**	**0.40**	**mg/Kg-dry**	1	5/23/2018 08:53
Selenium	**3.1**		**0.22**	**0.80**	**mg/Kg-dry**	1	5/23/2018 08:53
Silver	U		0.050	0.40	mg/Kg-dry	1	5/23/2018 08:53
Zinc	**62**		**0.064**	**0.80**	**mg/Kg-dry**	1	5/23/2018 08:53
SOLUBLE CATIONS FOR SAR		Method: **SW6020A**			Prep: USDA Method 20B / 5/24/18		Analyst: **JF**
Calcium	**2,900**		**8.6**	**50**	**mg/L**	100	5/24/2018 15:29
Magnesium	**180**		**0.068**	**2.0**	**mg/L**	10	5/24/2018 14:50
Sodium	**7,800**		**3.4**	**20**	**mg/L**	100	5/24/2018 15:29
SODIUM ADSORPTION RATIO		Method: **USDA H60 METHOD 2**			Prep: USDA Method 20B / 5/24/18		Analyst: **RH**
Sodium Adsorption Ratio	**38**		**0.010**	**0.010**	**none**	1	5/24/2018
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3546 / 5/25/18		Analyst: **RM**
Acenaphthene	U		0.0035	0.049	mg/Kg-dry	1	5/26/2018 01:35
Anthracene	U		0.0018	0.049	mg/Kg-dry	1	5/26/2018 01:35
Benzo(a)anthracene	U		0.0030	0.049	mg/Kg-dry	1	5/26/2018 01:35
Benzo(a)pyrene	U		0.0012	0.049	mg/Kg-dry	1	5/26/2018 01:35
Benzo(b)fluoranthene	U		0.0019	0.049	mg/Kg-dry	1	5/26/2018 01:35
Benzo(k)fluoranthene	U		0.0025	0.049	mg/Kg-dry	1	5/26/2018 01:35
Chrysene	U		0.0019	0.049	mg/Kg-dry	1	5/26/2018 01:35
Dibenzo(a,h)anthracene	U		0.0016	0.049	mg/Kg-dry	1	5/26/2018 01:35
Fluoranthene	U		0.0014	0.049	mg/Kg-dry	1	5/26/2018 01:35

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

ALS Group, USA

Date: *29-May-18*

Client: Olsson Associates
Project: Carney 21-35 Spill
Sample ID: CT2135-SS1
Collection Date: 5/16/2018 01:10 PM

Work Order: 18051330
Lab ID: 18051330-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	U		0.0016	0.049	mg/Kg-dry	1	5/26/2018 01:35
Indeno(1,2,3-cd)pyrene	U		0.0015	0.049	mg/Kg-dry	1	5/26/2018 01:35
Naphthalene	**0.059**		**0.0092**	**0.049**	**mg/Kg-dry**	1	5/26/2018 01:35
Pyrene	U		0.0018	0.049	mg/Kg-dry	1	5/26/2018 01:35
Surr: 2-Fluorobiphenyl	*63.5*			*20-140*	*%REC*	1	5/26/2018 01:35
Surr: 4-Terphenyl-d14	*20.0*	S		*22-172*	*%REC*	1	5/26/2018 01:35
Surr: Nitrobenzene-d5	*19.1*	S		*28-140*	*%REC*	1	5/26/2018 01:35
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260C**		Prep: SW5035 / 5/22/18		Analyst: **WH**
Benzene	U		0.0051	0.030	mg/Kg-dry	1	5/22/2018 16:21
Ethylbenzene	U		0.0063	0.030	mg/Kg-dry	1	5/22/2018 16:21
m,p-Xylene	U		0.014	0.060	mg/Kg-dry	1	5/22/2018 16:21
o-Xylene	U		0.012	0.030	mg/Kg-dry	1	5/22/2018 16:21
Toluene	U		0.0082	0.030	mg/Kg-dry	1	5/22/2018 16:21
Xylenes, Total	U		0.026	0.090	mg/Kg-dry	1	5/22/2018 16:21
Surr: 1,2-Dichloroethane-d4	*99.0*			*70-130*	*%REC*	1	5/22/2018 16:21
Surr: 4-Bromofluorobenzene	*95.0*			*70-130*	*%REC*	1	5/22/2018 16:21
Surr: Dibromofluoromethane	*89.6*			*70-130*	*%REC*	1	5/22/2018 16:21
Surr: Toluene-d8	*100*			*70-130*	*%REC*	1	5/22/2018 16:21
ELECTRICAL CONDUCTIVITY (SAR)		Method:	**USDA H60 METHOD 2**		Prep: USDA Method 20B / 5/24/18		Analyst: **ED**
Electrical Conductivity @ Saturation	**49**		**0.011**	**0.10**	**mmhos/cm @25°**	20	5/24/2018 17:10
CHROMIUM, TRIVALENT		Method:	**CALCULATION**				Analyst: **JB**
Chromium, Trivalent	**9.4**		**0.37**	**1.2**	**mg/Kg-dry**	1	5/24/2018 18:40
CHROMIUM, HEXAVALENT		Method:	**SW7196A**		Prep: SW3060A / 5/23/18		Analyst: **MB**
Chromium, Hexavalent	U		0.37	1.2	mg/Kg-dry	1	5/24/2018 16:10
MOISTURE		Method:	**SW3550C**				Analyst: **NW**
Moisture	**16**		**0.025**	**0.050**	**% of sample**	1	5/23/2018 17:15
PH		Method:	**SW9045D**		Prep: EXTRACT / 5/23/18		Analyst: **RZM**
pH	**7.45**		**0.10**	**0.100**	**s.u.**	1	5/24/2018 16:15

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

ALS Group, USA

Date: *29-May-18*

Client: Olsson Associates
Project: Carney 21-35 Spill
Sample ID: CT2135-SS2
Collection Date: 5/16/2018 01:25 PM

Work Order: 18051330
Lab ID: 18051330-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID		Method: **SW8015C**			Prep: SW3546 / 5/24/18		Analyst: **MEB**
DRO (C10-C28)	**64**		**3.2**	**5.5**	**mg/Kg-dry**	1	5/24/2018 22:53
Surr: 4-Terphenyl-d14	*12.5*	S		*34-130*	*%REC*	1	5/24/2018 22:53
GASOLINE RANGE ORGANICS BY GC-FID		Method: **SW8015D**			Prep: SW5035 / 5/22/18		Analyst: **MEB**
GRO (C6-C10)	U		2.6	6.1	mg/Kg-dry	1	5/23/2018 20:25
Surr: Toluene-d8	*105*			*71-123*	*%REC*	1	5/23/2018 20:25
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 5/24/18		Analyst: **RSH**
Mercury	**0.051**		**0.0017**	**0.017**	**mg/Kg-dry**	1	5/24/2018 12:11
METALS ANALYSIS BY ICP		Method: **SW846 6010C**			Prep: SW3050B / 5/22/18		Analyst: **RH**
Arsenic	**4.6**		**0.11**	**0.42**	**mg/Kg-dry**	1	5/23/2018 09:00
Barium	**660**		**0.17**	**0.42**	**mg/Kg-dry**	1	5/23/2018 09:00
Cadmium	U		0.040	0.84	mg/Kg-dry	1	5/23/2018 09:00
Chromium	**11**		**0.023**	**0.42**	**mg/Kg-dry**	1	5/23/2018 09:00
Copper	**18**		**0.18**	**0.84**	**mg/Kg-dry**	1	5/23/2018 09:00
Lead	**14**		**0.089**	**0.42**	**mg/Kg-dry**	1	5/23/2018 09:00
Nickel	**13**		**0.17**	**0.42**	**mg/Kg-dry**	1	5/23/2018 09:00
Selenium	**3.2**		**0.23**	**0.84**	**mg/Kg-dry**	1	5/23/2018 09:00
Silver	U		0.052	0.42	mg/Kg-dry	1	5/23/2018 09:00
Zinc	**62**		**0.067**	**0.84**	**mg/Kg-dry**	1	5/23/2018 09:00
SOLUBLE CATIONS FOR SAR		Method: **SW6020A**			Prep: USDA Method 20B / 5/24/18		Analyst: **JF**
Calcium	**990**		**0.86**	**5.0**	**mg/L**	10	5/24/2018 14:59
Magnesium	**79**		**0.068**	**2.0**	**mg/L**	10	5/24/2018 14:59
Sodium	**1,200**		**0.34**	**2.0**	**mg/L**	10	5/24/2018 14:59
SODIUM ADSORPTION RATIO		Method: **USDA H60 METHOD 2**			Prep: USDA Method 20B / 5/24/18		Analyst: **RH**
Sodium Adsorption Ratio	**10**		**0.010**	**0.010**	**none**	1	5/24/2018
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3546 / 5/22/18		Analyst: **RM**
Acenaphthene	U		0.0032	0.045	mg/Kg-dry	1	5/22/2018 20:14
Anthracene	U		0.0017	0.045	mg/Kg-dry	1	5/22/2018 20:14
Benzo(a)anthracene	U		0.0028	0.045	mg/Kg-dry	1	5/22/2018 20:14
Benzo(a)pyrene	U		0.0011	0.045	mg/Kg-dry	1	5/22/2018 20:14
Benzo(b)fluoranthene	U		0.0017	0.045	mg/Kg-dry	1	5/22/2018 20:14
Benzo(k)fluoranthene	U		0.0024	0.045	mg/Kg-dry	1	5/22/2018 20:14
Chrysene	U		0.0017	0.045	mg/Kg-dry	1	5/22/2018 20:14
Dibenzo(a,h)anthracene	U		0.0015	0.045	mg/Kg-dry	1	5/22/2018 20:14
Fluoranthene	U		0.0013	0.045	mg/Kg-dry	1	5/22/2018 20:14

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

ALS Group, USA

Date: *29-May-18*

Client: Olsson Associates
Project: Carney 21-35 Spill
Sample ID: CT2135-SS2
Collection Date: 5/16/2018 01:25 PM

Work Order: 18051330
Lab ID: 18051330-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	U		0.0015	0.045	mg/Kg-dry	1	5/22/2018 20:14
Indeno(1,2,3-cd)pyrene	U		0.0014	0.045	mg/Kg-dry	1	5/22/2018 20:14
Naphthalene	U		0.0085	0.045	mg/Kg-dry	1	5/22/2018 20:14
Pyrene	U		0.0017	0.045	mg/Kg-dry	1	5/22/2018 20:14
Surr: 2-Fluorobiphenyl	*53.8*			*20-140*	*%REC*	1	5/22/2018 20:14
Surr: 4-Terphenyl-d14	*43.0*			*22-172*	*%REC*	1	5/22/2018 20:14
Surr: Nitrobenzene-d5	*36.2*			*28-140*	*%REC*	1	5/22/2018 20:14
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260C**		Prep: SW5035 / 5/22/18		Analyst: **LSY**
Benzene	U		0.0063	0.037	mg/Kg-dry	1	5/23/2018 14:44
Ethylbenzene	U		0.0077	0.037	mg/Kg-dry	1	5/23/2018 14:44
m,p-Xylene	**0.028**	J	**0.017**	**0.073**	**mg/Kg-dry**	1	5/23/2018 14:44
o-Xylene	U		0.014	0.037	mg/Kg-dry	1	5/23/2018 14:44
Toluene	**0.018**	J	**0.010**	**0.037**	**mg/Kg-dry**	1	5/23/2018 14:44
Xylenes, Total	U		0.032	0.11	mg/Kg-dry	1	5/23/2018 14:44
Surr: 1,2-Dichloroethane-d4	*97.2*			*70-130*	*%REC*	1	5/23/2018 14:44
Surr: 4-Bromofluorobenzene	*100*			*70-130*	*%REC*	1	5/23/2018 14:44
Surr: Dibromofluoromethane	*91.6*			*70-130*	*%REC*	1	5/23/2018 14:44
Surr: Toluene-d8	*95.0*			*70-130*	*%REC*	1	5/23/2018 14:44
ELECTRICAL CONDUCTIVITY (SAR)		Method:	**USDA H60 METHOD 2**		Prep: USDA Method 20B / 5/24/18		Analyst: **ED**
Electrical Conductivity @ Saturation	**13**		**0.011**	**0.10**	**mmhos/cm @25°**	20	5/24/2018 17:10
CHROMIUM, TRIVALENT		Method:	**CALCULATION**				Analyst: **JB**
Chromium, Trivalent	**10**		**0.34**	**1.1**	**mg/Kg-dry**	1	5/24/2018 18:40
CHROMIUM, HEXAVALENT		Method:	**SW7196A**		Prep: SW3060A / 5/23/18		Analyst: **MB**
Chromium, Hexavalent	**0.37**	J	**0.33**	**1.1**	**mg/Kg-dry**	1	5/24/2018 16:10
MOISTURE		Method:	**SW3550C**				Analyst: **NW**
Moisture	**10**		**0.025**	**0.050**	**% of sample**	1	5/23/2018 17:15
PH		Method:	**SW9045D**		Prep: EXTRACT / 5/23/18		Analyst: **RZM**
pH	**7.63**		**0.10**	**0.100**	**s.u.**	1	5/24/2018 16:15

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

ALS Group, USA

Date: *29-May-18*

Client: Olsson Associates
Project: Carney 21-35 Spill
Sample ID: CT2135-SS3
Collection Date: 5/16/2018 01:35 PM

Work Order: 18051330
Lab ID: 18051330-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID		Method: **SW8015C**			Prep: SW3546 / 5/22/18		Analyst: **MEB**
DRO (C10-C28)	**1,700**		**36**	**62**	**mg/Kg-dry**	10	5/23/2018 22:11
Surr: 4-Terphenyl-d14	*90.1*			*34-130*	*%REC*	10	5/23/2018 22:11
GASOLINE RANGE ORGANICS BY GC-FID		Method: **SW8015D**			Prep: SW5035 / 5/22/18		Analyst: **MEB**
GRO (C6-C10)	U		3.1	7.5	mg/Kg-dry	1	5/23/2018 20:55
Surr: Toluene-d8	*105*			*71-123*	*%REC*	1	5/23/2018 20:55
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 5/24/18		Analyst: **RSH**
Mercury	**0.023**	J	**0.0023**	**0.023**	**mg/Kg-dry**	1	5/24/2018 12:13
METALS ANALYSIS BY ICP		Method: **SW846 6010C**			Prep: SW3050B / 5/22/18		Analyst: **RH**
Arsenic	**5.3**		**0.11**	**0.44**	**mg/Kg-dry**	1	5/23/2018 09:37
Barium	**1,400**		**0.18**	**0.44**	**mg/Kg-dry**	1	5/23/2018 09:37
Cadmium	U		0.042	0.88	mg/Kg-dry	1	5/23/2018 09:37
Chromium	**19**		**0.025**	**0.44**	**mg/Kg-dry**	1	5/23/2018 09:37
Copper	**16**		**0.19**	**0.88**	**mg/Kg-dry**	1	5/23/2018 09:37
Lead	**13**		**0.093**	**0.44**	**mg/Kg-dry**	1	5/23/2018 09:37
Nickel	**11**		**0.18**	**0.44**	**mg/Kg-dry**	1	5/23/2018 09:37
Selenium	**3.1**		**0.25**	**0.88**	**mg/Kg-dry**	1	5/23/2018 09:37
Silver	U		0.055	0.44	mg/Kg-dry	1	5/23/2018 09:37
Zinc	**59**		**0.070**	**0.88**	**mg/Kg-dry**	1	5/23/2018 09:37
SOLUBLE CATIONS FOR SAR		Method: **SW6020A**			Prep: USDA Method 20B / 5/24/18		Analyst: **JF**
Calcium	**97**		**0.86**	**5.0**	**mg/L**	10	5/24/2018 15:00
Magnesium	**10**		**0.068**	**2.0**	**mg/L**	10	5/24/2018 15:00
Sodium	**1,200**		**0.34**	**2.0**	**mg/L**	10	5/24/2018 15:00
SODIUM ADSORPTION RATIO		Method: **USDA H60 METHOD 2**			Prep: USDA Method 20B / 5/24/18		Analyst: **RH**
Sodium Adsorption Ratio	**31**		**0.010**	**0.010**	**none**	1	5/24/2018
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3546 / 5/22/18		Analyst: **RM**
Acenaphthene	U		0.0037	0.052	mg/Kg-dry	1	5/22/2018 20:29
Anthracene	U		0.0019	0.052	mg/Kg-dry	1	5/22/2018 20:29
Benzo(a)anthracene	U		0.0032	0.052	mg/Kg-dry	1	5/22/2018 20:29
Benzo(a)pyrene	U		0.0013	0.052	mg/Kg-dry	1	5/22/2018 20:29
Benzo(b)fluoranthene	U		0.0020	0.052	mg/Kg-dry	1	5/22/2018 20:29
Benzo(k)fluoranthene	U		0.0027	0.052	mg/Kg-dry	1	5/22/2018 20:29
Chrysene	U		0.0020	0.052	mg/Kg-dry	1	5/22/2018 20:29
Dibenzo(a,h)anthracene	U		0.0017	0.052	mg/Kg-dry	1	5/22/2018 20:29
Fluoranthene	U		0.0015	0.052	mg/Kg-dry	1	5/22/2018 20:29

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

ALS Group, USA

Date: *29-May-18*

Client: Olsson Associates
Project: Carney 21-35 Spill
Sample ID: CT2135-SS3
Collection Date: 5/16/2018 01:35 PM

Work Order: 18051330
Lab ID: 18051330-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	U		0.0017	0.052	mg/Kg-dry	1	5/22/2018 20:29
Indeno(1,2,3-cd)pyrene	U		0.0016	0.052	mg/Kg-dry	1	5/22/2018 20:29
Naphthalene	U		0.0098	0.052	mg/Kg-dry	1	5/22/2018 20:29
Pyrene	U		0.0019	0.052	mg/Kg-dry	1	5/22/2018 20:29
Surr: 2-Fluorobiphenyl	*57.4*			*20-140*	*%REC*	1	5/22/2018 20:29
Surr: 4-Terphenyl-d14	*116*			*22-172*	*%REC*	1	5/22/2018 20:29
Surr: Nitrobenzene-d5	*72.0*			*28-140*	*%REC*	1	5/22/2018 20:29
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260C**		Prep: SW5035 / 5/22/18		Analyst: **LSY**
Benzene	U		0.0077	0.045	mg/Kg-dry	1	5/23/2018 15:00
Ethylbenzene	U		0.0095	0.045	mg/Kg-dry	1	5/23/2018 15:00
m,p-Xylene	**0.032**	J	**0.021**	**0.090**	**mg/Kg-dry**	1	5/23/2018 15:00
o-Xylene	U		0.017	0.045	mg/Kg-dry	1	5/23/2018 15:00
Toluene	U		0.012	0.045	mg/Kg-dry	1	5/23/2018 15:00
Xylenes, Total	U		0.039	0.14	mg/Kg-dry	1	5/23/2018 15:00
Surr: 1,2-Dichloroethane-d4	*101*			*70-130*	*%REC*	1	5/23/2018 15:00
Surr: 4-Bromofluorobenzene	*104*			*70-130*	*%REC*	1	5/23/2018 15:00
Surr: Dibromofluoromethane	*91.0*			*70-130*	*%REC*	1	5/23/2018 15:00
Surr: Toluene-d8	*96.1*			*70-130*	*%REC*	1	5/23/2018 15:00
ELECTRICAL CONDUCTIVITY (SAR)		Method:	**USDA H60 METHOD 2**		Prep: USDA Method 20B / 5/24/18		Analyst: **ED**
Electrical Conductivity @ Saturation	**6.8**		**0.011**	**0.10**	**mmhos/cm @25°**	20	5/24/2018 17:10
CHROMIUM, TRIVALENT		Method:	**CALCULATION**				Analyst: **JB**
Chromium, Trivalent	**18**		**0.39**	**1.3**	**mg/Kg-dry**	1	5/24/2018 18:40
CHROMIUM, HEXAVALENT		Method:	**SW7196A**		Prep: SW3060A / 5/23/18		Analyst: **MB**
Chromium, Hexavalent	**0.44**	J	**0.38**	**1.2**	**mg/Kg-dry**	1	5/24/2018 16:10
MOISTURE		Method:	**SW3550C**				Analyst: **NW**
Moisture	**20**		**0.025**	**0.050**	**% of sample**	1	5/23/2018 17:15
PH		Method:	**SW9045D**		Prep: EXTRACT / 5/23/18		Analyst: **RZM**
pH	**8.80**		**0.10**	**0.100**	**s.u.**	1	5/24/2018 16:15

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

ALS Group, USA

Date: *29-May-18*

Client: Olsson Associates
Project: Carney 21-35 Spill
Sample ID: CT2135-SS4
Collection Date: 5/16/2018 01:45 PM

Work Order: 18051330
Lab ID: 18051330-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID		Method: **SW8015C**			Prep: SW3546 / 5/22/18		Analyst: **MEB**
DRO (C10-C28)	**80**		**3.8**	**6.6**	**mg/Kg-dry**	1	5/23/2018 22:40
Surr: 4-Terphenyl-d14	*42.0*			*34-130*	*%REC*	1	5/23/2018 22:40
GASOLINE RANGE ORGANICS BY GC-FID		Method: **SW8015D**			Prep: SW5035 / 5/22/18		Analyst: **MEB**
GRO (C6-C10)	U		3.6	8.5	mg/Kg-dry	1	5/23/2018 21:26
Surr: Toluene-d8	*102*			*71-123*	*%REC*	1	5/23/2018 21:26
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 5/24/18		Analyst: **RSH**
Mercury	**0.033**		**0.0023**	**0.023**	**mg/Kg-dry**	1	5/24/2018 13:19
METALS ANALYSIS BY ICP		Method: **SW846 6010C**			Prep: SW3050B / 5/22/18		Analyst: **RH**
Arsenic	**7.3**		**1.3**	**4.8**	**mg/Kg-dry**	10	5/23/2018 11:04
Barium	**230**		**0.19**	**0.48**	**mg/Kg-dry**	1	5/23/2018 09:43
Cadmium	U		0.46	9.7	mg/Kg-dry	10	5/23/2018 11:04
Chromium	**15**		**0.27**	**4.8**	**mg/Kg-dry**	10	5/23/2018 11:04
Copper	**25**		**0.21**	**0.97**	**mg/Kg-dry**	1	5/23/2018 09:43
Lead	**22**		**1.0**	**4.8**	**mg/Kg-dry**	10	5/23/2018 11:04
Nickel	**19**		**0.19**	**0.48**	**mg/Kg-dry**	1	5/23/2018 09:43
Selenium	**19**		**2.7**	**9.7**	**mg/Kg-dry**	10	5/23/2018 11:04
Silver	U		0.060	0.48	mg/Kg-dry	1	5/23/2018 09:43
Zinc	**110**		**0.77**	**9.7**	**mg/Kg-dry**	10	5/23/2018 11:04
SOLUBLE CATIONS FOR SAR		Method: **SW6020A**			Prep: USDA Method 20B / 5/24/18		Analyst: **JF**
Calcium	**1,500**		**0.86**	**5.0**	**mg/L**	10	5/24/2018 15:02
Magnesium	**160**		**0.068**	**2.0**	**mg/L**	10	5/24/2018 15:02
Sodium	**820**		**0.34**	**2.0**	**mg/L**	10	5/24/2018 15:02
SODIUM ADSORPTION RATIO		Method: **USDA H60 METHOD 2**			Prep: USDA Method 20B / 5/24/18		Analyst: **RH**
Sodium Adsorption Ratio	**5.4**		**0.010**	**0.010**	**none**	1	5/24/2018
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW846 8270D**			Prep: SW3546 / 5/22/18		Analyst: **RM**
Acenaphthene	U		0.0039	0.055	mg/Kg-dry	1	5/23/2018 19:02
Anthracene	U		0.0020	0.055	mg/Kg-dry	1	5/23/2018 19:02
Benzo(a)anthracene	U		0.0034	0.055	mg/Kg-dry	1	5/23/2018 19:02
Benzo(a)pyrene	U		0.0014	0.055	mg/Kg-dry	1	5/23/2018 19:02
Benzo(b)fluoranthene	U		0.0021	0.055	mg/Kg-dry	1	5/23/2018 19:02
Benzo(k)fluoranthene	U		0.0028	0.055	mg/Kg-dry	1	5/23/2018 19:02
Chrysene	U		0.0021	0.055	mg/Kg-dry	1	5/23/2018 19:02
Dibenzo(a,h)anthracene	U		0.0018	0.055	mg/Kg-dry	1	5/23/2018 19:02
Fluoranthene	U		0.0016	0.055	mg/Kg-dry	1	5/23/2018 19:02

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

ALS Group, USA

Date: *29-May-18*

Client: Olsson Associates
Project: Carney 21-35 Spill
Sample ID: CT2135-SS4
Collection Date: 5/16/2018 01:45 PM

Work Order: 18051330
Lab ID: 18051330-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	U		0.0018	0.055	mg/Kg-dry	1	5/23/2018 19:02
Indeno(1,2,3-cd)pyrene	U		0.0017	0.055	mg/Kg-dry	1	5/23/2018 19:02
Naphthalene	U		0.010	0.055	mg/Kg-dry	1	5/23/2018 19:02
Pyrene	U		0.0020	0.055	mg/Kg-dry	1	5/23/2018 19:02
Surr: 2-Fluorobiphenyl	*34.0*			*20-140*	*%REC*	1	5/23/2018 19:02
Surr: 4-Terphenyl-d14	*40.7*			*22-172*	*%REC*	1	5/23/2018 19:02
Surr: Nitrobenzene-d5	*32.3*			*28-140*	*%REC*	1	5/23/2018 19:02
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260C**		Prep: SW5035 / 5/22/18		Analyst: **LSY**
Benzene	U		0.0087	0.051	mg/Kg-dry	1	5/23/2018 15:15
Ethylbenzene	**0.015**	J	**0.011**	**0.051**	**mg/Kg-dry**	1	5/23/2018 15:15
m,p-Xylene	**0.047**	J	**0.024**	**0.10**	**mg/Kg-dry**	1	5/23/2018 15:15
o-Xylene	U		0.020	0.051	mg/Kg-dry	1	5/23/2018 15:15
Toluene	**0.024**	J	**0.014**	**0.051**	**mg/Kg-dry**	1	5/23/2018 15:15
Xylenes, Total	**0.047**	J	**0.044**	**0.15**	**mg/Kg-dry**	1	5/23/2018 15:15
Surr: 1,2-Dichloroethane-d4	*98.8*			*70-130*	*%REC*	1	5/23/2018 15:15
Surr: 4-Bromofluorobenzene	*104*			*70-130*	*%REC*	1	5/23/2018 15:15
Surr: Dibromofluoromethane	*89.0*			*70-130*	*%REC*	1	5/23/2018 15:15
Surr: Toluene-d8	*94.9*			*70-130*	*%REC*	1	5/23/2018 15:15
ELECTRICAL CONDUCTIVITY (SAR)		Method:	**USDA H60 METHOD 2**		Prep: USDA Method 20B / 5/24/18		Analyst: **ED**
Electrical Conductivity @ Saturation	**13**		**0.011**	**0.10**	**mmhos/cm @25°**	20	5/24/2018 17:10
CHROMIUM, TRIVALENT		Method:	**CALCULATION**				Analyst: **JB**
Chromium, Trivalent	**15**		**0.42**	**1.4**	**mg/Kg-dry**	1	5/24/2018 18:40
CHROMIUM, HEXAVALENT		Method:	**SW7196A**		Prep: SW3060A / 5/23/18		Analyst: **MB**
Chromium, Hexavalent	U		0.41	1.3	mg/Kg-dry	1	5/24/2018 16:10
MOISTURE		Method:	**SW3550C**				Analyst: **NW**
Moisture	**26**		**0.025**	**0.050**	**% of sample**	1	5/23/2018 17:15
PH		Method:	**SW9045D**		Prep: EXTRACT / 5/23/18		Analyst: **RZM**
pH	**7.71**		**0.10**	**0.100**	**s.u.**	1	5/24/2018 16:15

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

ALS Group, USA

Date: 29-May-18

Client: Olsson Associates
Work Order: 18051330
Project: Carney 21-35 Spill

QC BATCH REPORT

Batch ID: **118655** Instrument ID **GC8** Method: **SW8015C**

MBLK Sample ID: **DBLKS1-118655-118655** Units: **mg/Kg** Analysis Date: **5/23/2018 11:29 AM**
Client ID: Run ID: **GC8_180523A** SeqNo: **5048853** Prep Date: **5/22/2018** 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								
Surr: 4-Terphenyl-d14	*2.117*	0	*3.33*	0	*63.6*	*34-130*	0			

LCS Sample ID: **DLCSS1-118655-118655** Units: **mg/Kg** Analysis Date: **5/23/2018 11:58 AM**
Client ID: Run ID: **GC8_180523A** SeqNo: **5048854** Prep Date: **5/22/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	281.2	5.0	333	0	84.5	65-122	0			
Surr: 4-Terphenyl-d14	*2.233*	0	*3.33*	0	*67.1*	*34-130*	0			

MS Sample ID: **18051406-01A MS** Units: **mg/Kg** Analysis Date: **5/23/2018 03:51 PM**
Client ID: Run ID: **GC8_180523A** SeqNo: **5050781** Prep Date: **5/22/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	317.9	5.0	331.8	32.28	86.1	65-122	0			
Surr: 4-Terphenyl-d14	*2.142*	0	*3.318*	0	*64.6*	*34-130*	0			

MSD Sample ID: **18051406-01A MSD** Units: **mg/Kg** Analysis Date: **5/23/2018 04:49 PM**
Client ID: Run ID: **GC8_180523A** SeqNo: **5050782** Prep Date: **5/22/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	310	5.0	329.9	32.28	84.2	65-122	317.9	2.52	30	
Surr: 4-Terphenyl-d14	*2.262*	0	*3.299*	0	*68.6*	*34-130*	2.142	*5.44*	*30*	

The following samples were analyzed in this batch:

18051330-01A	18051330-02A	18051330-03A
18051330-04A		

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

Client: Olsson Associates
Work Order: 18051330
Project: Carney 21-35 Spill

QC BATCH REPORT

Batch ID: **118817** Instrument ID **GC8** Method: **SW8015C**

MBLK Sample ID: **DBLKS1-118817-118817** Units: **mg/Kg** Analysis Date: **5/24/2018 08:56 PM**
Client ID: Run ID: **GC8_180524B** SeqNo: **5054980** Prep Date: **5/24/2018** 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								
Surr: 4-Terphenyl-d14	*2.7*	0	*3.33*	0	*81.1*	*34-130*	0			

LCS Sample ID: **DLCSS1-118817-118817** Units: **mg/Kg** Analysis Date: **5/24/2018 09:25 PM**
Client ID: Run ID: **GC8_180524B** SeqNo: **5054981** Prep Date: **5/24/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	376.3	5.0	333	0	113	65-122	0			
Surr: 4-Terphenyl-d14	*2.667*	0	*3.33*	0	*80.1*	*34-130*	0			

LCSD Sample ID: **DLCSDS1-118817-118817** Units: **mg/Kg** Analysis Date: **5/24/2018 09:54 PM**
Client ID: Run ID: **GC8_180524B** SeqNo: **5054982** Prep Date: **5/24/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	366	5.0	333	0	110	65-122	376.3	2.79	30	
Surr: 4-Terphenyl-d14	*2.683*	0	*3.33*	0	*80.6*	*34-130*	2.667	*0.623*	*30*	

The following samples were analyzed in this batch: 18051330-01A 18051330-02A

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

Client: Olsson Associates
Work Order: 18051330
Project: Carney 21-35 Spill

QC BATCH REPORT

Batch ID: **118658** Instrument ID **GC9** Method: **SW8015D**

MBLK Sample ID: **MBLK-118658-118658** Units: **µg/Kg-dry** Analysis Date: **5/24/2018 01:30 AM**
Client ID: Run ID: **GC9_180523A** SeqNo: **5050058** Prep Date: **5/22/2018** 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	0	0	0		0			
Surr: Toluene-d8	*5337*	0	*5000*	0	*107*	*71-123*	0			

LCS Sample ID: **LCS-118658-118658** Units: **µg/Kg-dry** Analysis Date: **5/24/2018 12:30 PM**
Client ID: Run ID: **GC9_180523A** SeqNo: **5050067** Prep Date: **5/22/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	479700	5,000	500000	0	95.9	71-123	0			
Surr: Toluene-d8	*5342*	0	*5000*	0	*107*	*71-123*	0			

MS Sample ID: **18051330-01A MS** Units: **µg/Kg-dry** Analysis Date: **5/24/2018 04:30 AM**
Client ID: **CT2135-SS1** Run ID: **GC9_180523A** SeqNo: **5050064** Prep Date: **5/22/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	757400	6,900	690500	8418	108	71-123	0			
Surr: Toluene-d8	*6992*	0	*6905*	0	*101*	*71-123*	0			

MSD Sample ID: **18051330-01A MSD** Units: **µg/Kg-dry** Analysis Date: **5/24/2018 05:00 AM**
Client ID: **CT2135-SS1** Run ID: **GC9_180523A** SeqNo: **5050065** Prep Date: **5/22/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	677900	6,900	690500	8418	97	71-123	757400	11.1	30	
Surr: Toluene-d8	*7212*	0	*6905*	0	*104*	*71-123*	6992	*3.1*	*30*	

The following samples were analyzed in this batch:

18051330-01A	18051330-02A	18051330-03A
18051330-04A		

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

Client: Olsson Associates
Work Order: 18051330
Project: Carney 21-35 Spill

QC BATCH REPORT

Batch ID: **118805** Instrument ID **HG1** Method: **SW7471B**

MBLK Sample ID: **MBLK-118805-118805** Units: **mg/Kg** Analysis Date: **5/24/2018 11:51 AM**
Client ID: Run ID: **HG1_180524A** SeqNo: **5053426** Prep Date: **5/24/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.020								

LCS Sample ID: **LCS-118805-118805** Units: **mg/Kg** Analysis Date: **5/24/2018 11:53 AM**
Client ID: Run ID: **HG1_180524A** SeqNo: **5053427** Prep Date: **5/24/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1608	0.020	0.1665	0	96.6	80-120	0			

MS Sample ID: **18051589-02AMS** Units: **mg/Kg** Analysis Date: **5/24/2018 12:01 PM**
Client ID: Run ID: **HG1_180524A** SeqNo: **5053430** Prep Date: **5/24/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.2306	0.018	0.1463	0.1082	83.7	75-125	0			

MSD Sample ID: **18051589-02AMSD** Units: **mg/Kg** Analysis Date: **5/24/2018 12:03 PM**
Client ID: Run ID: **HG1_180524A** SeqNo: **5053431** Prep Date: **5/24/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.2234	0.018	0.1478	0.1082	77.9	75-125	0.2262	1.26	35	

The following samples were analyzed in this batch:

18051330-01A	18051330-02A	18051330-03A
18051330-04A		

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

Client: Olsson Associates
Work Order: 18051330
Project: Carney 21-35 Spill

QC BATCH REPORT

Batch ID: **118672** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK Sample ID: **MBLK-118672-118672** Units: **mg/Kg** Analysis Date: **5/23/2018 07:00 AM**
Client ID: Run ID: **ICP2_180522A** SeqNo: **5047089** Prep Date: **5/22/2018** 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	0.01895	0.25								J
Copper	U	0.50								
Lead	U	0.25								
Nickel	U	0.25								
Selenium	U	0.50								
Silver	U	0.25								
Zinc	U	0.50								

LCS Sample ID: **LCS-118672-118672** Units: **mg/Kg** Analysis Date: **5/23/2018 07:07 AM**
Client ID: Run ID: **ICP2_180522A** SeqNo: **5047091** Prep Date: **5/22/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.795	0.25	5	0	95.9	80-120	0			
Barium	5.173	0.25	5	0	103	80-120	0			
Cadmium	5.012	0.50	5	0	100	80-120	0			
Chromium	5.289	0.25	5	0	106	80-120	0			
Copper	5.015	0.50	5	0	100	80-120	0			
Lead	5.13	0.25	5	0	103	80-120	0			
Nickel	5.193	0.25	5	0	104	80-120	0			
Selenium	4.58	0.50	5	0	91.6	80-120	0			
Silver	4.88	0.25	5	0	97.6	80-120	0			
Zinc	4.96	0.50	5	0	99.2	80-120	0			

MS Sample ID: **18051288-08BMS** Units: **mg/Kg** Analysis Date: **5/23/2018 07:38 AM**
Client ID: Run ID: **ICP2_180522A** SeqNo: **5047102** Prep Date: **5/22/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	8.339	0.41	8.13	0.9481	90.9	75-125	0			
Barium	20.27	0.41	8.13	12.5	95.6	75-125	0			
Cadmium	7.759	0.81	8.13	0	95.4	75-125	0			
Chromium	10.78	0.41	8.13	2.569	101	75-125	0			
Copper	10.42	0.81	8.13	2.229	101	75-125	0			
Lead	14.47	0.41	8.13	6.912	93	75-125	0			
Nickel	9.796	0.41	8.13	1.84	97.9	75-125	0			
Selenium	9.6	0.81	8.13	2.269	90.2	75-125	0			
Silver	7.951	0.41	8.13	-0.05057	98.4	75-125	0			
Zinc	24.13	0.81	8.13	14.96	113	75-125	0			

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

Client: Olsson Associates
Work Order: 18051330
Project: Carney 21-35 Spill

QC BATCH REPORT

Batch ID: **118672** Instrument ID **ICP2** Method: **SW846 6010C**

MSD Sample ID: **18051288-08BMSD** Units: **mg/Kg** Analysis Date: **5/23/2018 07:44 AM**
Client ID: Run ID: **ICP2_180522A** SeqNo: **5047104** Prep Date: **5/22/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	8.193	0.40	8.091	0.9481	89.5	75-125	8.339	1.77	20	
Barium	19.51	0.40	8.091	12.5	86.6	75-125	20.27	3.84	20	
Cadmium	7.589	0.81	8.091	0	93.8	75-125	7.759	2.22	20	
Chromium	10.95	0.40	8.091	2.569	104	75-125	10.78	1.6	20	
Copper	10.2	0.81	8.091	2.229	98.5	75-125	10.42	2.13	20	
Lead	13.52	0.40	8.091	6.912	81.7	75-125	14.47	6.81	20	
Nickel	9.643	0.40	8.091	1.84	96.4	75-125	9.796	1.58	20	
Selenium	9.423	0.81	8.091	2.269	88.4	75-125	9.6	1.86	20	
Silver	7.783	0.40	8.091	-0.05057	96.8	75-125	7.951	2.14	20	
Zinc	21.81	0.81	8.091	14.96	84.7	75-125	24.13	10.1	20	

The following samples were analyzed in this batch:

18051330-01A	18051330-02A	18051330-03A
18051330-04A		

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

Client: Olsson Associates
Work Order: 18051330
Project: Carney 21-35 Spill

QC BATCH REPORT

Batch ID: **118813** Instrument ID **ICPMS3** Method: **SW6020A**

DUP Sample ID: **18051330-01ADUP** Units: **mg/L** Analysis Date: **5/24/2018 02:52 PM**
Client ID: **CT2135-SS1** Run ID: **ICPMS3_180524A** SeqNo: **5053478** Prep Date: **5/24/2018** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Magnesium	207.3	2.0	0	0	0	0-0	208.9	0.763		

DUP Sample ID: **18051330-01ADUP** Units: **mg/L** Analysis Date: **5/24/2018 03:31 PM**
Client ID: **CT2135-SS1** Run ID: **ICPMS3_180524A** SeqNo: **5053501** Prep Date: **5/24/2018** DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	3083	50	0	0	0	0-0	2876	6.95		
Sodium	8491	20	0	0	0	0-0	7808	8.39		

The following samples were analyzed in this batch:

18051330-01A	18051330-02A	18051330-03A
18051330-04A		

Batch ID: **118813** Instrument ID **SAR** Method: **USDA H60 Metho**

DUP Sample ID: **18051330-01ADUP** Units: **none** Analysis Date: **5/24/2018**
Client ID: **CT2135-SS1** Run ID: **SAR_180524A** SeqNo: **5055434** Prep Date: **5/24/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	39.95	0.010	0	0	0		38.18	4.55	50	

The following samples were analyzed in this batch:

18051330-01A	18051330-02A	18051330-03A
18051330-04A		

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

Client: Olsson Associates
Work Order: 18051330
Project: Carney 21-35 Spill

QC BATCH REPORT

Batch ID: **118653** Instrument ID **SVMS6** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-118653-118653** Units: **µg/Kg** Analysis Date: **5/22/2018 06:05 PM**
Client ID: Run ID: **SVMS6_180522A** SeqNo: **5049050** Prep Date: **5/22/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	U	42								
Anthracene	U	42								
Benzo(a)anthracene	U	42								
Benzo(a)pyrene	U	42								
Benzo(b)fluoranthene	U	42								
Benzo(k)fluoranthene	U	42								
Chrysene	U	42								
Dibenzo(a,h)anthracene	U	42								
Fluoranthene	U	42								
Fluorene	U	42								
Indeno(1,2,3-cd)pyrene	U	42								
Naphthalene	U	42								
Pyrene	U	42								
Surr: 2-Fluorobiphenyl	*2459*	0	*3333*	0	*73.8*	*20-140*	0			
Surr: 4-Terphenyl-d14	*3362*	0	*3333*	0	*101*	*22-172*	0			
Surr: Nitrobenzene-d5	*2873*	0	*3333*	0	*86.2*	*28-140*	0			

LCS Sample ID: **SLCSS1-118653-118653** Units: **µg/Kg** Analysis Date: **5/22/2018 06:19 PM**
Client ID: Run ID: **SVMS6_180522A** SeqNo: **5049051** Prep Date: **5/22/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	962.6	42	1333	0	72.2	40-140	0			
Anthracene	1056	42	1333	0	79.2	40-140	0			
Benzo(a)anthracene	1025	42	1333	0	76.9	40-140	0			
Benzo(a)pyrene	1119	42	1333	0	84	40-140	0			
Benzo(b)fluoranthene	991.7	42	1333	0	74.4	40-140	0			
Benzo(k)fluoranthene	1136	42	1333	0	85.2	40-140	0			
Chrysene	1130	42	1333	0	84.7	40-140	0			
Dibenzo(a,h)anthracene	1172	42	1333	0	87.9	40-140	0			
Fluoranthene	1066	42	1333	0	80	40-140	0			
Fluorene	992.4	42	1333	0	74.4	40-140	0			
Indeno(1,2,3-cd)pyrene	1190	42	1333	0	89.3	40-140	0			
Naphthalene	1026	42	1333	0	77	40-140	0			
Pyrene	1226	42	1333	0	92	40-140	0			
Surr: 2-Fluorobiphenyl	*2400*	0	*3333*	0	*72*	*20-140*	0			
Surr: 4-Terphenyl-d14	*3271*	0	*3333*	0	*98.1*	*22-172*	0			
Surr: Nitrobenzene-d5	*3134*	0	*3333*	0	*94*	*28-140*	0			

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

Client: Olsson Associates
Work Order: 18051330
Project: Carney 21-35 Spill

QC BATCH REPORT

Batch ID: **118653** Instrument ID **SVMS6** Method: **SW846 8270D**

MS Sample ID: **18051372-01A MS** Units: **µg/Kg** Analysis Date: **5/22/2018 06:34 PM**
Client ID: Run ID: **SVMS6_180522A** SeqNo: **5049052** Prep Date: **5/22/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	706.3	41	1313	0	53.8	40-140	0			
Anthracene	784.9	41	1313	0	59.8	40-140	0			
Benzo(a)anthracene	683.6	41	1313	0	52.1	40-140	0			
Benzo(a)pyrene	774.8	41	1313	0	59	40-140	0			
Benzo(b)fluoranthene	711.2	41	1313	0	54.2	40-140	0			
Benzo(k)fluoranthene	882.4	41	1313	0	67.2	40-140	0			
Chrysene	870.3	41	1313	0	66.3	40-140	0			
Dibenzo(a,h)anthracene	944.5	41	1313	0	72	40-140	0			
Fluoranthene	717.4	41	1313	0	54.7	40-140	0			
Fluorene	733.7	41	1313	0	55.9	40-140	0			
Indeno(1,2,3-cd)pyrene	970.9	41	1313	0	74	40-140	0			
Naphthalene	841.2	41	1313	0	64.1	40-140	0			
Pyrene	912.2	41	1313	0	69.5	40-140	0			
Surr: 2-Fluorobiphenyl	*1823*	0	*3282*	0	*55.5*	*20-140*	0			
Surr: 4-Terphenyl-d14	*2377*	0	*3282*	0	*72.4*	*22-172*	0			
Surr: Nitrobenzene-d5	*2506*	0	*3282*	0	*76.4*	*28-140*	0			

MSD Sample ID: **18051372-01A MSD** Units: **µg/Kg** Analysis Date: **5/22/2018 06:48 PM**
Client ID: Run ID: **SVMS6_180522A** SeqNo: **5049053** Prep Date: **5/22/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	539.8	42	1329	0	40.6	40-140	706.3	26.7	30	
Anthracene	591	42	1329	0	44.5	40-140	784.9	28.2	30	
Benzo(a)anthracene	571.2	42	1329	0	43	40-140	683.6	17.9	30	
Benzo(a)pyrene	611.2	42	1329	0	46	40-140	774.8	23.6	30	
Benzo(b)fluoranthene	588.6	42	1329	0	44.3	40-140	711.2	18.9	30	
Benzo(k)fluoranthene	702.6	42	1329	0	52.9	40-140	882.4	22.7	30	
Chrysene	657.6	42	1329	0	49.5	40-140	870.3	27.8	30	
Dibenzo(a,h)anthracene	1011	42	1329	0	76.1	40-140	944.5	6.79	30	
Fluoranthene	580.7	42	1329	0	43.7	40-140	717.4	21.1	30	
Fluorene	566.3	42	1329	0	42.6	40-140	733.7	25.8	30	
Indeno(1,2,3-cd)pyrene	962	42	1329	0	72.4	40-140	970.9	0.919	30	
Naphthalene	658.3	42	1329	0	49.5	40-140	841.2	24.4	30	
Pyrene	694.3	42	1329	0	52.3	40-140	912.2	27.1	30	
Surr: 2-Fluorobiphenyl	*1310*	0	*3322*	0	*39.4*	*20-140*	1823	*32.8*	*0*	
Surr: 4-Terphenyl-d14	*1740*	0	*3322*	0	*52.4*	*22-172*	2377	*31*	*0*	
Surr: Nitrobenzene-d5	*2117*	0	*3322*	0	*63.7*	*28-140*	2506	*16.8*	*0*	

The following samples were analyzed in this batch:

18051330-02A	18051330-03A	18051330-04A

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

Client: Olsson Associates
Work Order: 18051330
Project: Carney 21-35 Spill

QC BATCH REPORT

Batch ID: **118880** Instrument ID **SVMS6** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-118880-118880** Units: **µg/Kg** Analysis Date: **5/25/2018 09:19 PM**
Client ID: Run ID: **SVMS6_180525A** SeqNo: **5058610** Prep Date: **5/25/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	U	42								
Anthracene	U	42								
Benzo(a)anthracene	U	42								
Benzo(a)pyrene	U	42								
Benzo(b)fluoranthene	U	42								
Benzo(k)fluoranthene	U	42								
Chrysene	U	42								
Dibenzo(a,h)anthracene	U	42								
Fluoranthene	U	42								
Fluorene	U	42								
Indeno(1,2,3-cd)pyrene	U	42								
Naphthalene	U	42								
Pyrene	U	42								
Surr: 2-Fluorobiphenyl	*2384*	0	*3333*	0	*71.5*	*20-140*	0			
Surr: 4-Terphenyl-d14	*3007*	0	*3333*	0	*90.2*	*22-172*	0			
Surr: Nitrobenzene-d5	*3323*	0	*3333*	0	*99.7*	*28-140*	0			

LCS Sample ID: **SLCSS1-118880-118880** Units: **µg/Kg** Analysis Date: **5/25/2018 09:33 PM**
Client ID: Run ID: **SVMS6_180525A** SeqNo: **5058611** Prep Date: **5/25/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	955.4	42	1333	0	71.7	40-140	0			
Anthracene	1105	42	1333	0	82.9	40-140	0			
Benzo(a)anthracene	942.2	42	1333	0	70.7	40-140	0			
Benzo(a)pyrene	1030	42	1333	0	77.2	40-140	0			
Benzo(b)fluoranthene	881.8	42	1333	0	66.1	40-140	0			
Benzo(k)fluoranthene	1089	42	1333	0	81.7	40-140	0			
Chrysene	1115	42	1333	0	83.7	40-140	0			
Dibenzo(a,h)anthracene	858.4	42	1333	0	64.4	40-140	0			
Fluoranthene	958.6	42	1333	0	71.9	40-140	0			
Fluorene	1026	42	1333	0	76.9	40-140	0			
Indeno(1,2,3-cd)pyrene	1134	42	1333	0	85	40-140	0			
Naphthalene	1110	42	1333	0	83.3	40-140	0			
Pyrene	1062	42	1333	0	79.7	40-140	0			
Surr: 2-Fluorobiphenyl	*2124*	0	*3333*	0	*63.7*	*20-140*	0			
Surr: 4-Terphenyl-d14	*2826*	0	*3333*	0	*84.8*	*22-172*	0			
Surr: Nitrobenzene-d5	*3044*	0	*3333*	0	*91.3*	*28-140*	0			

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

Client: Olsson Associates
Work Order: 18051330
Project: Carney 21-35 Spill

QC BATCH REPORT

Batch ID: **118880** Instrument ID **SVMS6** Method: **SW846 8270D**

MS Sample ID: **18051675-01A MS** Units: **µg/Kg** Analysis Date: **5/25/2018 09:48 PM**
Client ID: Run ID: **SVMS6_180525A** SeqNo: **5058612** Prep Date: **5/25/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	965.3	41	1320	0	73.1	40-140	0			
Anthracene	1091	41	1320	0	82.6	40-140	0			
Benzo(a)anthracene	929.4	41	1320	0	70.4	40-140	0			
Benzo(a)pyrene	1031	41	1320	0	78.1	40-140	0			
Benzo(b)fluoranthene	893.6	41	1320	0	67.7	40-140	0			
Benzo(k)fluoranthene	1087	41	1320	0	82.4	40-140	0			
Chrysene	1114	41	1320	0	84.4	40-140	0			
Dibenzo(a,h)anthracene	1015	41	1320	0	76.9	40-140	0			
Fluoranthene	936.8	41	1320	0	71	40-140	0			
Fluorene	1000	41	1320	0	75.8	40-140	0			
Indeno(1,2,3-cd)pyrene	1019	41	1320	0	77.2	40-140	0			
Naphthalene	1175	41	1320	0	89	40-140	0			
Pyrene	1054	41	1320	0	79.9	40-140	0			
Surr: 2-Fluorobiphenyl	*2133*	0	*3300*	0	*64.6*	*20-140*	0			
Surr: 4-Terphenyl-d14	*2757*	0	*3300*	0	*83.5*	*22-172*	0			
Surr: Nitrobenzene-d5	*3089*	0	*3300*	0	*93.6*	*28-140*	0			

MSD Sample ID: **18051675-01A MSD** Units: **µg/Kg** Analysis Date: **5/25/2018 10:02 PM**
Client ID: Run ID: **SVMS6_180525A** SeqNo: **5058613** Prep Date: **5/25/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1002	41	1326	0	75.5	40-140	965.3	3.7	30	
Anthracene	1143	41	1326	0	86.2	40-140	1091	4.69	30	
Benzo(a)anthracene	990.2	41	1326	0	74.7	40-140	929.4	6.33	30	
Benzo(a)pyrene	1087	41	1326	0	81.9	40-140	1031	5.28	30	
Benzo(b)fluoranthene	917.2	41	1326	0	69.2	40-140	893.6	2.61	30	
Benzo(k)fluoranthene	1129	41	1326	0	85.1	40-140	1087	3.74	30	
Chrysene	1125	41	1326	0	84.9	40-140	1114	0.99	30	
Dibenzo(a,h)anthracene	1021	41	1326	0	77	40-140	1015	0.53	30	
Fluoranthene	955.9	41	1326	0	72.1	40-140	936.8	2.02	30	
Fluorene	1038	41	1326	0	78.3	40-140	1000	3.67	30	
Indeno(1,2,3-cd)pyrene	1089	41	1326	0	82.1	40-140	1019	6.62	30	
Naphthalene	1111	41	1326	0	83.8	40-140	1175	5.62	30	
Pyrene	1076	41	1326	0	81.2	40-140	1054	2.05	30	
Surr: 2-Fluorobiphenyl	*2258*	0	*3315*	0	*68.1*	*20-140*	2133	*5.73*	*0*	
Surr: 4-Terphenyl-d14	*2874*	0	*3315*	0	*86.7*	*22-172*	2757	*4.17*	*0*	
Surr: Nitrobenzene-d5	*3272*	0	*3315*	0	*98.7*	*28-140*	3089	*5.76*	*0*	

The following samples were analyzed in this batch: 18051330-01A

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

Client: Olsson Associates
Work Order: 18051330
Project: Carney 21-35 Spill

QC BATCH REPORT

Batch ID: **118682** Instrument ID **VMS7** Method: **SW8260C**

MBLK Sample ID: **MBLK-118682-118682** Units: **µg/Kg-dry** Analysis Date: **5/22/2018 03:39 PM**
Client ID: Run ID: **VMS7_180522A** SeqNo: **5047565** Prep Date: **5/22/2018** 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								
Surr: 1,2-Dichloroethane-d4	*1044*	0	*1000*	0	*104*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*993*	0	*1000*	0	*99.3*	*70-130*	0			
Surr: Dibromofluoromethane	*910*	0	*1000*	0	*91*	*70-130*	0			
Surr: Toluene-d8	*1054*	0	*1000*	0	*105*	*70-130*	0			

LCS Sample ID: **LCS-118682-118682** Units: **µg/Kg-dry** Analysis Date: **5/22/2018 02:35 PM**
Client ID: Run ID: **VMS7_180522A** SeqNo: **5047564** Prep Date: **5/22/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1015	30	1000	0	102	75-125	0			
Ethylbenzene	990.5	30	1000	0	99	75-125	0			
m,p-Xylene	2025	60	2000	0	101	80-125	0			
o-Xylene	998.5	30	1000	0	99.8	75-125	0			
Toluene	946.5	30	1000	0	94.6	70-125	0			
Xylenes, Total	3024	90	3000	0	101	75-125	0			
Surr: 1,2-Dichloroethane-d4	*1028*	0	*1000*	0	*103*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*990.5*	0	*1000*	0	*99*	*70-130*	0			
Surr: Dibromofluoromethane	*996*	0	*1000*	0	*99.6*	*70-130*	0			
Surr: Toluene-d8	*977.5*	0	*1000*	0	*97.8*	*70-130*	0			

MS Sample ID: **18051330-01A MS** Units: **µg/Kg-dry** Analysis Date: **5/22/2018 11:47 PM**
Client ID: **CT2135-SS1** Run ID: **VMS7_180522A** SeqNo: **5047567** Prep Date: **5/22/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1004	30	1000	0	100	75-125	0			
Ethylbenzene	1008	30	1000	0	101	75-125	0			
m,p-Xylene	2178	60	2000	0	109	80-125	0			
o-Xylene	1073	30	1000	0	107	75-125	0			
Toluene	993.5	30	1000	0	99.4	70-125	0			
Xylenes, Total	3252	90	3000	0	108	75-125	0			
Surr: 1,2-Dichloroethane-d4	*981.5*	0	*1000*	0	*98.2*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1080*	0	*1000*	0	*108*	*70-130*	0			
Surr: Dibromofluoromethane	*970*	0	*1000*	0	*97*	*70-130*	0			
Surr: Toluene-d8	*1036*	0	*1000*	0	*104*	*70-130*	0			

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

Client: Olsson Associates
Work Order: 18051330
Project: Carney 21-35 Spill

QC BATCH REPORT

Batch ID: **118682** Instrument ID **VMS7** Method: **SW8260C**

MSD Sample ID: **18051330-01A MSD** Units: **µg/Kg-dry** Analysis Date: **5/23/2018 12:08 PM**
Client ID: **CT2135-SS1** Run ID: **VMS7_180522A** SeqNo: **5047568** Prep Date: **5/22/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	933.5	30	1000	0	93.4	75-125	1004	7.23	30	
Ethylbenzene	918.5	30	1000	0	91.8	75-125	1008	9.34	30	
m,p-Xylene	1929	60	2000	0	96.4	80-125	2178	12.1	30	
o-Xylene	966.5	30	1000	0	96.6	75-125	1073	10.4	30	
Toluene	924	30	1000	0	92.4	70-125	993.5	7.25	30	
Xylenes, Total	2896	90	3000	0	96.5	75-125	3252	11.6	30	
Surr: 1,2-Dichloroethane-d4	*968*	0	*1000*	0	*96.8*	*70-130*	981.5	*1.38*	*30*	
Surr: 4-Bromofluorobenzene	*1002*	0	*1000*	0	*100*	*70-130*	1080	*7.54*	*30*	
Surr: Dibromofluoromethane	*967.5*	0	*1000*	0	*96.8*	*70-130*	970	*0.258*	*30*	
Surr: Toluene-d8	*1052*	0	*1000*	0	*105*	*70-130*	1036	*1.63*	*30*	

The following samples were analyzed in this batch:

18051330-01A	18051330-02A	18051330-03A
18051330-04A		

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

Client: Olsson Associates
Work Order: 18051330
Project: Carney 21-35 Spill

QC BATCH REPORT

Batch ID: **118770** Instrument ID **WETCHEM** Method: **SW9045D**

LCS Sample ID: **LCS-118770-118770** Units: **s.u.** Analysis Date: **5/24/2018 04:15 PM**
Client ID: Run ID: **WETCHEM_180524P** SeqNo: **5053776** Prep Date: **5/23/2018** 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			

DUP Sample ID: **18051342-01A DUP** Units: **s.u.** Analysis Date: **5/24/2018 04:15 PM**
Client ID: Run ID: **WETCHEM_180524P** SeqNo: **5053784** Prep Date: **5/23/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.17	0.10	0	0	0	0-0	7.02	2.11	20	

DUP Sample ID: **18051406-02A DUP** Units: **s.u.** Analysis Date: **5/24/2018 04:15 PM**
Client ID: Run ID: **WETCHEM_180524P** SeqNo: **5053791** Prep Date: **5/23/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6.55	0.10	0	0	0	0-0	6.52	0.459	20	

The following samples were analyzed in this batch:

18051330-01A	18051330-02A	18051330-03A
18051330-04A		

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

Client: Olsson Associates
Work Order: 18051330
Project: Carney 21-35 Spill

QC BATCH REPORT

Batch ID: **118812** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK Sample ID: **MBLK-118812-118812** Units: **mg/Kg** Analysis Date: **5/24/2018 04:10 PM**
Client ID: Run ID: **WETCHEM_180524Q** SeqNo: **5053830** Prep Date: **5/23/2018** 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-118812-118812** Units: **mg/Kg** Analysis Date: **5/24/2018 04:10 PM**
Client ID: Run ID: **WETCHEM_180524Q** SeqNo: **5053829** Prep Date: **5/23/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	4.48	1.0	5	0	89.6	80-120	0			

MS Sample ID: **18051330-01A MS** Units: **mg/Kg** Analysis Date: **5/24/2018 04:10 PM**
Client ID: **CT2135-SS1** Run ID: **WETCHEM_180524Q** SeqNo: **5053810** Prep Date: **5/23/2018** 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	0.22	74.8	75-125	0			S

MS Sample ID: **18051330-01A MSI** Units: **mg/Kg** Analysis Date: **5/24/2018 04:10 PM**
Client ID: **CT2135-SS1** Run ID: **WETCHEM_180524Q** SeqNo: **5053812** Prep Date: **5/23/2018** DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1527	98	1704	0.22	89.6	75-125	0			

MS Sample ID: **18051454-02A MS** Units: **mg/Kg** Analysis Date: **5/24/2018 04:10 PM**
Client ID: Run ID: **WETCHEM_180524Q** SeqNo: **5053824** Prep Date: **5/23/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	2.29	1.0	5	-0.04	46.6	75-125	0			S

MS Sample ID: **18051454-02A MSI** Units: **mg/Kg** Analysis Date: **5/24/2018 04:10 PM**
Client ID: Run ID: **WETCHEM_180524Q** SeqNo: **5053826** Prep Date: **5/23/2018** DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1816	100	2076	-0.04	87.5	75-125	0			

MSD Sample ID: **18051330-01A MSD** Units: **mg/Kg** Analysis Date: **5/24/2018 04:10 PM**
Client ID: **CT2135-SS1** Run ID: **WETCHEM_180524Q** SeqNo: **5053811** Prep Date: **5/23/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	3.71	1.0	5	0.22	69.8	75-125	3.96	6.52	20	S

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

Client: Olsson Associates
Work Order: 18051330
Project: Carney 21-35 Spill

QC BATCH REPORT

Batch ID: **118812** Instrument ID **WETCHEM** Method: **SW7196A**

MSD Sample ID: **18051454-02A MSD** Units: **mg/Kg** Analysis Date: **5/24/2018 04:10 PM**

Client ID: Run ID: **WETCHEM_180524Q** SeqNo: **5053825** Prep Date: **5/23/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	2.34	0.97	4.854	-0.04	49	75-125	2.29	2.15	20	S

The following samples were analyzed in this batch:

18051330-01A
18051330-02A
18051330-03A
18051330-04A

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

Client: Olsson Associates
Work Order: 18051330
Project: Carney 21-35 Spill

QC BATCH REPORT

Batch ID: **118813** Instrument ID **Titrator 1** Method: **USDA H60 Metho**

DUP Sample ID: **18051330-01ADUP** Units: **mmhos/cm @25°** Analysis Date: **5/24/2018 05:10 PM**

Client ID: **CT2135-SS1** Run ID: **TITRATOR 1_180524G** SeqNo: **5053926** Prep Date: **5/24/2018** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	56.82	0.10	0	0	0		48.84	15.1	50	

The following samples were analyzed in this batch:

18051330-01A
18051330-02A
18051330-03A
18051330-04A

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

Client: Olsson Associates
Work Order: 18051330
Project: Carney 21-35 Spill

QC BATCH REPORT

Batch ID: **R236547** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R236547** Units: **% of sample** Analysis Date: **5/23/2018 05:15 PM**
Client ID: Run ID: **MOIST_180523C** SeqNo: **5050621** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	0.03	0.050								J

LCS Sample ID: **LCS-R236547** Units: **% of sample** Analysis Date: **5/23/2018 05:15 PM**
Client ID: Run ID: **MOIST_180523C** SeqNo: **5050620** 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: **18051481-04A DUP** Units: **% of sample** Analysis Date: **5/23/2018 05:15 PM**
Client ID: Run ID: **MOIST_180523C** SeqNo: **5050617** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	3.38	0.050	0	0	0	0-0	3.21	5.16	10	

DUP Sample ID: **18051481-05A DUP** Units: **% of sample** Analysis Date: **5/23/2018 05:15 PM**
Client ID: Run ID: **MOIST_180523C** SeqNo: **5050619** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	13.7	0.050	0	0	0	0-0	13.59	0.806	10	

The following samples were analyzed in this batch:

18051330-01A	18051330-02A	18051330-03A
18051330-04A		

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

Chain of Custody Form

ALS Environmental

Page 1 of 1

COC ID: 123456

☐ Cincinnati, OH +1 513 733 5336 ☑ Holland, MI +1 616 399 6070 ☐ Salt Lake City, UT +1 801 266 7700
☐ Everett, WA +1 425 356 2600 ☐ Houston, TX +1 281 530 5656 ☐ Spring City, PA +1 610 948 4903
☐ Fort Collins, CO +1 970 490 1511 ☐ Middletown, PA +1 717 944 5541 ☐ York, PA +1 717 505 5280

ALS Project Manager: | Work Order #: 1805133 6

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Carney 21-35 Spill	A	TPH (GRO & DRO)
Work Order		Project Number	013.3287.400.400004	B	BTEX
Company Name	Olsson Associates	Bill To Company	Olsson Associates	C	PAH (See Attached List) CO Table 910
Send Report To	Tim Dobransky	Invoice Attn.	Dana Mack	D	Electrical Conductivity
Address	760 Horizon Drive, Ste. 102	Address		E	Sodium Adsorption Ratio
				F	pH
City/State/Zip	Grand Junction, CO 81506	City/State/Zip		G	Metals (See Attached List) CO Table 910
Phone	970.263.7800	Phone		H	Arsenic Only
Fax	970.263.7456	Fax		I	
e-Mail Address	tdobransky@entradainc.com	e-Mail Address	dmack@olssonassociates.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	CT2135-SS1	05/16/18	1310	Soil	8	2	X	X	X	X	X	X	X				
2	CT2135-SS2	05/16/18	1325	Soil	8	2	X	X	X	X	X	X	X				
3	CT2135-SS3	05/16/18	1335	Soil	8	2	X	X	X	X	X	X	X				
4	CT2135-SS4	05/16/18	1345	Soil	8	2	X	X	X	X	X	X	X				
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s): Please Print & Sign: Tim Dobransky

Shipment Method: FedEx

Required Turnaround Time: ☐STD 10 Wk Days ☑5 Wk Days ☐2 Wk Days ☐24 Hour ☐Other _____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
	5/17/18	1010	
Relinquished by:	Date:	Time:	Received by (Laboratory):
	5-17-18	1820	5/18/18 0930
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):
KC	5/19/18	0945	

Notes: Chevron Pricing Applies - Per Bruce Schlatter

Cooler Temp: 4.2°C SR

QC Package: (Check Box Below)

- [x] Level II: Standard QC
- [ ] Level III: Std QC + Raw Data
- [ ] 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.

ALS Group, USA

Sample Receipt Checklist

Client Name: **OLSSON** Date/Time Received: **18-May-18 09:30**

Work Order: **18051330** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 19-May-18 (Date) Reviewed by: Chad Whelton (eSignature) 20-May-18 (Date)

Matrices: Water

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	4.2/4.2 C	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	5/19/2018 9:14:15 AM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

28-May-2013

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

Tel: (970) 263-7800
Fax: (970) 263-7456

Re: Chevron CT Carney 17-35 Spill 9.008.203.203004 Work Order: **1305729**

Dear Tim,

ALS Environmental received 9 samples on 11-May-2013 09:25 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. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is XX.

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

Sincerely,

Electronically approved by: Sonia West

Sonia West
Project Manager

Certificate No: T104704231-12-10

Client:	Olsson Associates
Project:	Chevron CT Carney 17-35 Spill 9.008.203.203004
Work Order:	1305729

Case Narrative

Batch 70041, TPH DRO 8015, Sample CT 17-35-SS2: The surrogate was diluted out in the 125 x dilution.

Batch 70025, Semivolatile Organics 8270, Sample CT 17-35-SS2: This sample was analyzed at a 25 x dilution due to matrix interference. The lowest possible dilution was analyzed.

Batch 69993, Total Metals 6020, Sample 1305716-02A: MS/MSD are for an unrelated sample.

Batch 70043, Total Metals 6020, Sample 1305785-04A: MS/MSD are for an unrelated sample.

Batch 70025, Semivolatile Organics 8270, Sample 1305469-01A: MS/MSD are for an unrelated sample.

Batch R147370, Volatile Organics 8260, Sample 1305469-19A: MS is for an unrelated sample.

ALS Environmental

Date: *28-May-13*

Client: Olsson Associates

Project: Chevron CT Carney 17-35 Spill 9.008.203.203004 **Work Order:** 1305729

Sample ID: CT 17-35-SS1 **Lab ID:** 1305729-01

Collection Date: 5/9/2013 10:45 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
TPH (DRO) - 8015C			**SW8015M**				Analyst: **RPM**
DRO (>C10 - C28)	**33**		**1.7**	**mg/Kg**	1	5/16/2013	5/16/2013 10:25 PM
Surr: 2-Fluorobiphenyl	*84.7*		*60-135*	*%REC*	1	5/16/2013	5/16/2013 10:25 PM
GASOLINE RANGE ORGANICS - SW8015C			**SW8015**				Analyst: **KKP**
Gasoline Range Organics	**0.65**		**0.050**	**mg/Kg**	1		5/16/2013 03:55 AM
Surr: 4-Bromofluorobenzene	*91.5*		*70-130*	*%REC*	1		5/16/2013 03:55 AM
TRIVALENT CHROMIUM			**CALCULATION**				Analyst: **SKS**
Chromium, Trivalent	**8.04**		**5.00**	**mg/Kg**	1		5/22/2013
MERCURY - SW7471B			**SW7471A**				Analyst: **OFO**
Mercury	**0.0215**		**0.00354**	**mg/Kg**	1	5/17/2013	5/17/2013 01:18 PM
METALS			**SW6020**				Analyst: **JCJ**
Arsenic	**3.47**		**0.435**	**mg/Kg**	1	5/15/2013	5/16/2013 05:18 AM
Barium	**183**		**4.35**	**mg/Kg**	10	5/15/2013	5/16/2013 06:21 PM
Cadmium	**0.183**	J	**0.435**	**mg/Kg**	1	5/15/2013	5/16/2013 05:18 AM
Chromium	**8.04**		**0.435**	**mg/Kg**	1	5/15/2013	5/16/2013 05:18 AM
Copper	**10.8**		**0.435**	**mg/Kg**	1	5/15/2013	5/16/2013 05:18 AM
Lead	**13.5**		**0.435**	**mg/Kg**	1	5/15/2013	5/16/2013 05:18 AM
Nickel	**13.7**		**0.435**	**mg/Kg**	1	5/15/2013	5/16/2013 05:18 AM
Selenium	**0.908**		**0.435**	**mg/Kg**	1	5/15/2013	5/16/2013 05:18 AM
Silver	U		0.435	mg/Kg	1	5/15/2013	5/16/2013 05:18 AM
Zinc	**54.7**		**0.435**	**mg/Kg**	1	5/15/2013	5/16/2013 05:18 AM
LA29B SODIUM ADSORPTION RATIO			**LA29B SAR**				Analyst: **ALR**
Sodium Adsorption Ratio	**20.1**		**0.0100**	**meq/meq**	1	5/16/2013	5/21/2013
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR			**LA29B-6020**				Analyst: **JCJ**
Calcium	**872**		**4.99**	**mg/L**	10	5/16/2013	5/17/2013 07:52 PM
Magnesium	**97.3**		**4.99**	**mg/L**	10	5/16/2013	5/17/2013 07:52 PM
Sodium	**2,340**		**49.9**	**mg/L**	100	5/16/2013	5/20/2013 02:50 PM
LOW-LEVEL PAHS			**SW8270**				Analyst: **LG**
Acenaphthene	U		0.0066	mg/Kg	1	5/15/2013	5/17/2013 12:54 AM
Anthracene	U		0.0066	mg/Kg	1	5/15/2013	5/17/2013 12:54 AM
Benz(a)anthracene	**0.016**		**0.0066**	**mg/Kg**	1	5/15/2013	5/17/2013 12:54 AM
Benzo(a)pyrene	U		0.0066	mg/Kg	1	5/15/2013	5/17/2013 12:54 AM
Benzo(b)fluoranthene	U		0.0066	mg/Kg	1	5/15/2013	5/17/2013 12:54 AM
Benzo(k)fluoranthene	U		0.0066	mg/Kg	1	5/15/2013	5/17/2013 12:54 AM
Chrysene	**0.031**		**0.0066**	**mg/Kg**	1	5/15/2013	5/17/2013 12:54 AM
Dibenz(a,h)anthracene	U		0.0066	mg/Kg	1	5/15/2013	5/17/2013 12:54 AM
Fluoranthene	U		0.0066	mg/Kg	1	5/15/2013	5/17/2013 12:54 AM

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

ALS Environmental

Date: *28-May-13*

Client: Olsson Associates

Project: Chevron CT Carney 17-35 Spill 9.008.203.203004 **Work Order:** 1305729

Sample ID: CT 17-35-SS1 **Lab ID:** 1305729-01

Collection Date: 5/9/2013 10:45 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
Fluorene	**0.0035**	J	**0.0066**	**mg/Kg**	1	5/15/2013	5/17/2013 12:54 AM
Indeno(1,2,3-cd)pyrene	U		0.0066	mg/Kg	1	5/15/2013	5/17/2013 12:54 AM
Naphthalene	**0.0040**	J	**0.0066**	**mg/Kg**	1	5/15/2013	5/17/2013 12:54 AM
Pyrene	U		0.0066	mg/Kg	1	5/15/2013	5/17/2013 12:54 AM
Surr: 2-Fluorobiphenyl	*79.9*		*43-125*	*%REC*	1	5/15/2013	5/17/2013 12:54 AM
Surr: 4-Terphenyl-d14	*86.0*		*32-125*	*%REC*	1	5/15/2013	5/17/2013 12:54 AM
Surr: Nitrobenzene-d5	*64.9*		*37-125*	*%REC*	1	5/15/2013	5/17/2013 12:54 AM
VOLATILES - SW8260C			**SW8260**				Analyst: **WLR**
Benzene	U		0.0050	mg/Kg	1		5/15/2013 03:25 PM
Ethylbenzene	**0.0021**	J	**0.0050**	**mg/Kg**	1		5/15/2013 03:25 PM
m,p-Xylene	U		0.010	mg/Kg	1		5/15/2013 03:25 PM
o-Xylene	**0.015**		**0.0050**	**mg/Kg**	1		5/15/2013 03:25 PM
Toluene	U		0.0050	mg/Kg	1		5/15/2013 03:25 PM
Xylenes, Total	**0.015**		**0.010**	**mg/Kg**	1		5/15/2013 03:25 PM
Surr: 1,2-Dichloroethane-d4	*99.3*		*70-128*	*%REC*	1		5/15/2013 03:25 PM
Surr: 4-Bromofluorobenzene	*105*		*73-126*	*%REC*	1		5/15/2013 03:25 PM
Surr: Dibromofluoromethane	*99.8*		*71-128*	*%REC*	1		5/15/2013 03:25 PM
Surr: Toluene-d8	*96.4*		*73-127*	*%REC*	1		5/15/2013 03:25 PM
HEXAVALENT CHROMIUM - SW7196A			**SW7196**				Analyst: **EDG**
Chromium, Hexavalent	U		1.96	mg/Kg	1	5/20/2013	5/20/2013 04:30 PM
LA29B ELECTRICAL CONDUCTIVITY			**LADNR-29B EC**				Analyst: **VAN**
Electrical Conductivity @ saturation	**24.4**		**0.0100**	**mmhos/cm @25°C**	1		5/21/2013 01:30 PM
Electrical Conductivity, 1:1 aqueous	**12.8**		**0.0100**	**mmhos/cm @25°C**	1		5/21/2013 01:30 PM
LA29B SATURATION POINT (AS FRACTION)			**LADNR-29B SP**				Analyst: **VAN**
Saturation Point	**24.4**		**0.100**	**SP as fraction**	1		5/21/2013 01:35 PM
MOISTURE			**SW3550**				Analyst: **KAH**
Percent Moisture	**15.3**		**0.0100**	**wt%**	1		5/16/2013 02:40 PM
PH - SOIL - SW9045D			**SW9045B**				Analyst: **KL**
pH	**8.75**		**0.100**	**pH Units**	1		5/21/2013 08:15 AM

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

ALS Environmental

Date: *28-May-13*

Client: Olsson Associates

Project: Chevron CT Carney 17-35 Spill 9.008.203.203004 **Work Order:** 1305729

Sample ID: CT 17-35-BG1 **Lab ID:** 1305729-02

Collection Date: 5/9/2013 10:55 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
MERCURY - SW7471B			**SW7471A**				Analyst: **OFO**
Mercury	**0.164**		**0.00352**	**mg/Kg**	1	5/17/2013	5/17/2013 03:03 PM
METALS			**SW6020**				Analyst: **JCJ**
Arsenic	**4.80**		**0.442**	**mg/Kg**	1	5/16/2013	5/16/2013 08:55 PM
Barium	**140**		**0.442**	**mg/Kg**	1	5/16/2013	5/16/2013 08:55 PM
Cadmium	**0.217**	J	**0.442**	**mg/Kg**	1	5/16/2013	5/16/2013 08:55 PM
Chromium	**9.04**		**0.442**	**mg/Kg**	1	5/16/2013	5/16/2013 08:55 PM
Copper	**12.8**		**0.442**	**mg/Kg**	1	5/16/2013	5/16/2013 08:55 PM
Lead	**15.1**		**0.442**	**mg/Kg**	1	5/16/2013	5/16/2013 08:55 PM
Nickel	**14.1**		**0.442**	**mg/Kg**	1	5/16/2013	5/16/2013 08:55 PM
Selenium	**1.11**		**0.442**	**mg/Kg**	1	5/16/2013	5/16/2013 08:55 PM
Silver	**0.0744**	J	**0.442**	**mg/Kg**	1	5/16/2013	5/16/2013 08:55 PM
Zinc	**61.7**		**0.442**	**mg/Kg**	1	5/16/2013	5/16/2013 08:55 PM
LA29B SODIUM ADSORPTION RATIO			**LA29B SAR**				Analyst: **ALR**
Sodium Adsorption Ratio	**0.910**		**0.0100**	**meq/meq**	1	5/16/2013	5/21/2013
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR			**LA29B-6020**				Analyst: **JCJ**
Calcium	**157**		**4.96**	**mg/L**	10	5/16/2013	5/17/2013 07:56 PM
Magnesium	**8.56**		**4.96**	**mg/L**	10	5/16/2013	5/17/2013 07:56 PM
Sodium	**43.1**		**4.96**	**mg/L**	10	5/16/2013	5/17/2013 07:56 PM
LA29B ELECTRICAL CONDUCTIVITY			**LADNR-29B EC**				Analyst: **VAN**
Electrical Conductivity @ saturation	**2.01**		**0.0100**	**mmhos/cm @25°C**	1		5/21/2013 01:30 PM
Electrical Conductivity, 1:1 aqueous	**0.831**		**0.0100**	**mmhos/cm @25°C**	1		5/21/2013 01:30 PM
LA29B SATURATION POINT (AS FRACTION)			**LADNR-29B SP**				Analyst: **VAN**
Saturation Point	**2.01**		**0.100**	**SP as fraction**	1		5/21/2013 01:35 PM
MOISTURE			**SW3550**				Analyst: **KAH**
Percent Moisture	**8.77**		**0.0100**	**wt%**	1		5/16/2013 02:40 PM
PH - SOIL - SW9045D			**SW9045B**				Analyst: **KL**
pH	**8.38**		**0.100**	**pH Units**	1		5/21/2013 08:15 AM

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

ALS Environmental

Date: *28-May-13*

Client: Olsson Associates

Project: Chevron CT Carney 17-35 Spill 9.008.203.203004 **Work Order:** 1305729

Sample ID: CT 17-35-SS2 **Lab ID:** 1305729-03

Collection Date: 5/9/2013 11:15 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
TPH (DRO) - 8015C			**SW8015M**				Analyst: **RPM**
DRO (>C10 - C28)	**1,400**		**210**	**mg/Kg**	125	5/16/2013	5/17/2013 03:36 PM
Surr: 2-Fluorobiphenyl	*0*	S	*60-135*	*%REC*	125	5/16/2013	5/17/2013 03:36 PM
GASOLINE RANGE ORGANICS - SW8015C			**SW8015**				Analyst: **KKP**
Gasoline Range Organics	U		0.050	mg/Kg	1		5/16/2013 04:11 AM
Surr: 4-Bromofluorobenzene	*87.5*		*70-130*	*%REC*	1		5/16/2013 04:11 AM
TRIVALENT CHROMIUM			**CALCULATION**				Analyst: **SKS**
Chromium, Trivalent	**73.4**		**5.00**	**mg/Kg**	1		5/22/2013
MERCURY - SW7471B			**SW7471A**				Analyst: **OFO**
Mercury	**0.0130**		**0.00342**	**mg/Kg**	1	5/17/2013	5/17/2013 03:05 PM
METALS			**SW6020**				Analyst: **JCJ**
Arsenic	**4.29**		**0.425**	**mg/Kg**	1	5/15/2013	5/16/2013 05:23 AM
Barium	**3,260**		**42.5**	**mg/Kg**	100	5/15/2013	5/16/2013 06:26 PM
Cadmium	**0.242**	J	**0.425**	**mg/Kg**	1	5/15/2013	5/16/2013 05:23 AM
Chromium	**73.4**		**0.425**	**mg/Kg**	1	5/15/2013	5/16/2013 05:23 AM
Copper	**10.4**		**0.425**	**mg/Kg**	1	5/15/2013	5/16/2013 05:23 AM
Lead	**24.7**		**0.425**	**mg/Kg**	1	5/15/2013	5/16/2013 05:23 AM
Nickel	**12.1**		**0.425**	**mg/Kg**	1	5/15/2013	5/16/2013 05:23 AM
Selenium	**0.990**		**0.425**	**mg/Kg**	1	5/15/2013	5/16/2013 05:23 AM
Silver	U		0.425	mg/Kg	1	5/15/2013	5/16/2013 05:23 AM
Zinc	**95.3**		**0.425**	**mg/Kg**	1	5/15/2013	5/16/2013 05:23 AM
LA29B SODIUM ADSORPTION RATIO			**LA29B SAR**				Analyst: **ALR**
Sodium Adsorption Ratio	**1.13**		**0.0100**	**meq/meq**	1	5/16/2013	5/21/2013
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR			**LA29B-6020**				Analyst: **JCJ**
Calcium	**202**		**4.98**	**mg/L**	10	5/16/2013	5/17/2013 08:01 PM
Magnesium	**13.7**		**4.98**	**mg/L**	10	5/16/2013	5/17/2013 08:01 PM
Sodium	**61.6**		**4.98**	**mg/L**	10	5/16/2013	5/17/2013 08:01 PM
LOW-LEVEL PAHS			**SW8270**				Analyst: **LG**
Acenaphthene	U		0.16	mg/Kg	25	5/15/2013	5/18/2013 06:41 PM
Anthracene	U		0.16	mg/Kg	25	5/15/2013	5/18/2013 06:41 PM
Benz(a)anthracene	U		0.16	mg/Kg	25	5/15/2013	5/18/2013 06:41 PM
Benzo(a)pyrene	U		0.16	mg/Kg	25	5/15/2013	5/18/2013 06:41 PM
Benzo(b)fluoranthene	U		0.16	mg/Kg	25	5/15/2013	5/18/2013 06:41 PM
Benzo(k)fluoranthene	U		0.16	mg/Kg	25	5/15/2013	5/18/2013 06:41 PM
Chrysene	U		0.16	mg/Kg	25	5/15/2013	5/18/2013 06:41 PM
Dibenz(a,h)anthracene	U		0.16	mg/Kg	25	5/15/2013	5/18/2013 06:41 PM
Fluoranthene	U		0.16	mg/Kg	25	5/15/2013	5/18/2013 06:41 PM

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

ALS Environmental

Date: *28-May-13*

Client: Olsson Associates

Project: Chevron CT Carney 17-35 Spill 9.008.203.203004 **Work Order:** 1305729

Sample ID: CT 17-35-SS2 **Lab ID:** 1305729-03

Collection Date: 5/9/2013 11:15 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
Fluorene	U		0.16	mg/Kg	25	5/15/2013	5/18/2013 06:41 PM
Indeno(1,2,3-cd)pyrene	U		0.16	mg/Kg	25	5/15/2013	5/18/2013 06:41 PM
Naphthalene	U		0.16	mg/Kg	25	5/15/2013	5/18/2013 06:41 PM
Pyrene	U		0.16	mg/Kg	25	5/15/2013	5/18/2013 06:41 PM
Surr: 2-Fluorobiphenyl	*89.1*	J	*43-125*	*%REC*	25	5/15/2013	5/18/2013 06:41 PM
Surr: 4-Terphenyl-d14	*92.7*	J	*32-125*	*%REC*	25	5/15/2013	5/18/2013 06:41 PM
Surr: Nitrobenzene-d5	*65.9*	J	*37-125*	*%REC*	25	5/15/2013	5/18/2013 06:41 PM
VOLATILES - SW8260C			**SW8260**				Analyst: **WLR**
Benzene	U		0.0050	mg/Kg	1		5/15/2013 03:48 PM
Ethylbenzene	U		0.0050	mg/Kg	1		5/15/2013 03:48 PM
m,p-Xylene	U		0.010	mg/Kg	1		5/15/2013 03:48 PM
o-Xylene	U		0.0050	mg/Kg	1		5/15/2013 03:48 PM
Toluene	U		0.0050	mg/Kg	1		5/15/2013 03:48 PM
Xylenes, Total	U		0.010	mg/Kg	1		5/15/2013 03:48 PM
Surr: 1,2-Dichloroethane-d4	*89.9*		*70-128*	*%REC*	1		5/15/2013 03:48 PM
Surr: 4-Bromofluorobenzene	*98.1*		*73-126*	*%REC*	1		5/15/2013 03:48 PM
Surr: Dibromofluoromethane	*96.5*		*71-128*	*%REC*	1		5/15/2013 03:48 PM
Surr: Toluene-d8	*98.7*		*73-127*	*%REC*	1		5/15/2013 03:48 PM
HEXAVALENT CHROMIUM - SW7196A			**SW7196**				Analyst: **EDG**
Chromium, Hexavalent	U		1.97	mg/Kg	1	5/20/2013	5/20/2013 04:30 PM
LA29B ELECTRICAL CONDUCTIVITY			**LADNR-29B EC**				Analyst: **VAN**
Electrical Conductivity @ saturation	**2.28**		**0.0100**	**mmhos/cm @25°C**	1		5/21/2013 01:30 PM
Electrical Conductivity, 1:1 aqueous	**1.10**		**0.0100**	**mmhos/cm @25°C**	1		5/21/2013 01:30 PM
LA29B SATURATION POINT (AS FRACTION)			**LADNR-29B SP**				Analyst: **VAN**
Saturation Point	**2.28**		**0.100**	**SP as fraction**	1		5/21/2013 01:35 PM
MOISTURE			**SW3550**				Analyst: **KAH**
Percent Moisture	**11.7**		**0.0100**	**wt%**	1		5/16/2013 02:40 PM
PH - SOIL - SW9045D			**SW9045B**				Analyst: **KL**
pH	**8.38**		**0.100**	**pH Units**	1		5/21/2013 08:15 AM

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

ALS Environmental

Date: *28-May-13*

Client: Olsson Associates

Project: Chevron CT Carney 17-35 Spill 9.008.203.203004 **Work Order:** 1305729

Sample ID: CT 17-35-SS3 **Lab ID:** 1305729-04

Collection Date: 5/9/2013 11:20 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
TPH (DRO) - 8015C			**SW8015M**				Analyst: **RPM**
DRO (>C10 - C28)	**45**		**8.5**	**mg/Kg**	5	5/16/2013	5/17/2013 02:02 PM
Surr: 2-Fluorobiphenyl	*76.4*		*60-135*	*%REC*	5	5/16/2013	5/17/2013 02:02 PM
GASOLINE RANGE ORGANICS - SW8015C			**SW8015**				Analyst: **KKP**
Gasoline Range Organics	**0.14**		**0.050**	**mg/Kg**	1		5/16/2013 04:28 AM
Surr: 4-Bromofluorobenzene	*89.8*		*70-130*	*%REC*	1		5/16/2013 04:28 AM
TRIVALENT CHROMIUM			**CALCULATION**				Analyst: **SKS**
Chromium, Trivalent	**6.81**		**5.00**	**mg/Kg**	1		5/22/2013
MERCURY - SW7471B			**SW7471A**				Analyst: **OFO**
Mercury	**0.0146**		**0.00344**	**mg/Kg**	1	5/17/2013	5/17/2013 03:07 PM
METALS			**SW6020**				Analyst: **JCJ**
Arsenic	**3.55**		**0.479**	**mg/Kg**	1	5/15/2013	5/16/2013 05:39 AM
Barium	**254**		**4.79**	**mg/Kg**	10	5/15/2013	5/20/2013 05:55 PM
Cadmium	**0.154**	J	**0.479**	**mg/Kg**	1	5/15/2013	5/16/2013 05:39 AM
Chromium	**6.81**		**0.479**	**mg/Kg**	1	5/15/2013	5/16/2013 05:39 AM
Copper	**8.90**		**0.479**	**mg/Kg**	1	5/15/2013	5/16/2013 05:39 AM
Lead	**10.3**		**0.479**	**mg/Kg**	1	5/15/2013	5/16/2013 05:39 AM
Nickel	**10.2**		**0.479**	**mg/Kg**	1	5/15/2013	5/16/2013 05:39 AM
Selenium	**1.52**		**0.479**	**mg/Kg**	1	5/15/2013	5/16/2013 05:39 AM
Silver	U		0.479	mg/Kg	1	5/15/2013	5/16/2013 05:39 AM
Zinc	**41.9**		**0.479**	**mg/Kg**	1	5/15/2013	5/16/2013 05:39 AM
LA29B SODIUM ADSORPTION RATIO			**LA29B SAR**				Analyst: **ALR**
Sodium Adsorption Ratio	**11.4**		**0.0100**	**meq/meq**	1	5/16/2013	5/21/2013
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR			**LA29B-6020**				Analyst: **JCJ**
Calcium	**880**		**4.98**	**mg/L**	10	5/16/2013	5/17/2013 08:15 PM
Magnesium	**107**		**4.98**	**mg/L**	10	5/16/2013	5/17/2013 08:15 PM
Sodium	**1,350**		**49.8**	**mg/L**	100	5/16/2013	5/20/2013 02:55 PM
LOW-LEVEL PAHS			**SW8270**				Analyst: **LG**
Acenaphthene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:29 PM
Anthracene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:29 PM
Benz(a)anthracene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:29 PM
Benzo(a)pyrene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:29 PM
Benzo(b)fluoranthene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:29 PM
Benzo(k)fluoranthene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:29 PM
Chrysene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:29 PM
Dibenz(a,h)anthracene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:29 PM
Fluoranthene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:29 PM

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

Client: Olsson Associates
Project: Chevron CT Carney 17-35 Spill 9.008.203.203004 **Work Order:** 1305729
Sample ID: CT 17-35-SS3 **Lab ID:** 1305729-04
Collection Date: 5/9/2013 11:20 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
Fluorene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:29 PM
Indeno(1,2,3-cd)pyrene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:29 PM
Naphthalene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:29 PM
Pyrene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:29 PM
Surr: 2-Fluorobiphenyl	*66.2*		*43-125*	*%REC*	1	5/15/2013	5/16/2013 09:29 PM
Surr: 4-Terphenyl-d14	*64.1*		*32-125*	*%REC*	1	5/15/2013	5/16/2013 09:29 PM
Surr: Nitrobenzene-d5	*50.9*		*37-125*	*%REC*	1	5/15/2013	5/16/2013 09:29 PM
VOLATILES - SW8260C			**SW8260**				Analyst: **WLR**
Benzene	U		0.0050	mg/Kg	1		5/15/2013 04:11 PM
Ethylbenzene	U		0.0050	mg/Kg	1		5/15/2013 04:11 PM
m,p-Xylene	U		0.010	mg/Kg	1		5/15/2013 04:11 PM
o-Xylene	U		0.0050	mg/Kg	1		5/15/2013 04:11 PM
Toluene	U		0.0050	mg/Kg	1		5/15/2013 04:11 PM
Xylenes, Total	U		0.010	mg/Kg	1		5/15/2013 04:11 PM
Surr: 1,2-Dichloroethane-d4	*91.7*		*70-128*	*%REC*	1		5/15/2013 04:11 PM
Surr: 4-Bromofluorobenzene	*99.2*		*73-126*	*%REC*	1		5/15/2013 04:11 PM
Surr: Dibromofluoromethane	*96.4*		*71-128*	*%REC*	1		5/15/2013 04:11 PM
Surr: Toluene-d8	*95.4*		*73-127*	*%REC*	1		5/15/2013 04:11 PM
HEXAVALENT CHROMIUM - SW7196A			**SW7196**				Analyst: **EDG**
Chromium, Hexavalent	U		1.98	mg/Kg	1	5/20/2013	5/20/2013 04:30 PM
LA29B ELECTRICAL CONDUCTIVITY			**LADNR-29B EC**				Analyst: **VAN**
Electrical Conductivity @ saturation	**18.1**		**0.0100**	**mmhos/cm @25°C**	1		5/21/2013 01:30 PM
Electrical Conductivity, 1:1 aqueous	**8.59**		**0.0100**	**mmhos/cm @25°C**	1		5/21/2013 01:30 PM
LA29B SATURATION POINT (AS FRACTION)			**LADNR-29B SP**				Analyst: **VAN**
Saturation Point	**18.1**		**0.100**	**SP as fraction**	1		5/21/2013 01:35 PM
MOISTURE			**SW3550**				Analyst: **KAH**
Percent Moisture	**16.9**		**0.0100**	**wt%**	1		5/16/2013 02:40 PM
PH - SOIL - SW9045D			**SW9045B**				Analyst: **KL**
pH	**7.87**		**0.100**	**pH Units**	1		5/21/2013 08:15 AM

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

ALS Environmental

Date: *28-May-13*

Client: Olsson Associates

Project: Chevron CT Carney 17-35 Spill 9.008.203.203004 **Work Order:** 1305729

Sample ID: CT 17-35-SS4 **Lab ID:** 1305729-05

Collection Date: 5/9/2013 11:35 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
TPH (DRO) - 8015C			**SW8015M**				Analyst: **RPM**
DRO (>C10 - C28)	**16**		**1.7**	**mg/Kg**	1	5/16/2013	5/16/2013 10:49 PM
Surr: 2-Fluorobiphenyl	*97.5*		*60-135*	*%REC*	1	5/16/2013	5/16/2013 10:49 PM
GASOLINE RANGE ORGANICS - SW8015C			**SW8015**				Analyst: **KKP**
Gasoline Range Organics	U		0.050	mg/Kg	1		5/16/2013 04:44 AM
Surr: 4-Bromofluorobenzene	*86.0*		*70-130*	*%REC*	1		5/16/2013 04:44 AM
TRIVALENT CHROMIUM			**CALCULATION**				Analyst: **SKS**
Chromium, Trivalent	**8.71**		**5.00**	**mg/Kg**	1		5/22/2013
MERCURY - SW7471B			**SW7471A**				Analyst: **OFO**
Mercury	**0.0171**		**0.00355**	**mg/Kg**	1	5/17/2013	5/17/2013 03:13 PM
METALS			**SW6020**				Analyst: **JCJ**
Arsenic	**5.21**		**0.484**	**mg/Kg**	1	5/15/2013	5/16/2013 05:44 AM
Barium	**199**		**4.84**	**mg/Kg**	10	5/15/2013	5/16/2013 06:49 PM
Cadmium	**0.255**	J	**0.484**	**mg/Kg**	1	5/15/2013	5/16/2013 05:44 AM
Chromium	**8.71**		**0.484**	**mg/Kg**	1	5/15/2013	5/16/2013 05:44 AM
Copper	**14.3**		**0.484**	**mg/Kg**	1	5/15/2013	5/16/2013 05:44 AM
Lead	**15.3**		**0.484**	**mg/Kg**	1	5/15/2013	5/16/2013 05:44 AM
Nickel	**15.5**		**0.484**	**mg/Kg**	1	5/15/2013	5/16/2013 05:44 AM
Selenium	**1.28**		**0.484**	**mg/Kg**	1	5/15/2013	5/16/2013 05:44 AM
Silver	U		0.484	mg/Kg	1	5/15/2013	5/16/2013 05:44 AM
Zinc	**68.2**		**0.484**	**mg/Kg**	1	5/15/2013	5/16/2013 05:44 AM
LA29B SODIUM ADSORPTION RATIO			**LA29B SAR**				Analyst: **ALR**
Sodium Adsorption Ratio	**2.14**		**0.0100**	**meq/meq**	1	5/16/2013	5/21/2013
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR			**LA29B-6020**				Analyst: **JCJ**
Calcium	**330**		**4.97**	**mg/L**	10	5/16/2013	5/17/2013 08:20 PM
Magnesium	**22.8**		**4.97**	**mg/L**	10	5/16/2013	5/17/2013 08:20 PM
Sodium	**149**		**4.97**	**mg/L**	10	5/16/2013	5/17/2013 08:20 PM
LOW-LEVEL PAHS			**SW8270**				Analyst: **LG**
Acenaphthene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:49 PM
Anthracene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:49 PM
Benz(a)anthracene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:49 PM
Benzo(a)pyrene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:49 PM
Benzo(b)fluoranthene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:49 PM
Benzo(k)fluoranthene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:49 PM
Chrysene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:49 PM
Dibenz(a,h)anthracene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:49 PM
Fluoranthene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:49 PM

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

ALS Environmental

Date: *28-May-13*

Client: Olsson Associates

Project: Chevron CT Carney 17-35 Spill 9.008.203.203004 **Work Order:** 1305729

Sample ID: CT 17-35-SS4 **Lab ID:** 1305729-05

Collection Date: 5/9/2013 11:35 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
Fluorene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:49 PM
Indeno(1,2,3-cd)pyrene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:49 PM
Naphthalene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:49 PM
Pyrene	U		0.0065	mg/Kg	1	5/15/2013	5/16/2013 09:49 PM
Surr: 2-Fluorobiphenyl	*72.1*		*43-125*	*%REC*	1	5/15/2013	5/16/2013 09:49 PM
Surr: 4-Terphenyl-d14	*78.1*		*32-125*	*%REC*	1	5/15/2013	5/16/2013 09:49 PM
Surr: Nitrobenzene-d5	*61.7*		*37-125*	*%REC*	1	5/15/2013	5/16/2013 09:49 PM
VOLATILES - SW8260C			**SW8260**				Analyst: **WLR**
Benzene	U		0.0050	mg/Kg	1		5/15/2013 04:34 PM
Ethylbenzene	U		0.0050	mg/Kg	1		5/15/2013 04:34 PM
m,p-Xylene	U		0.010	mg/Kg	1		5/15/2013 04:34 PM
o-Xylene	U		0.0050	mg/Kg	1		5/15/2013 04:34 PM
Toluene	U		0.0050	mg/Kg	1		5/15/2013 04:34 PM
Xylenes, Total	U		0.010	mg/Kg	1		5/15/2013 04:34 PM
Surr: 1,2-Dichloroethane-d4	*96.4*		*70-128*	*%REC*	1		5/15/2013 04:34 PM
Surr: 4-Bromofluorobenzene	*102*		*73-126*	*%REC*	1		5/15/2013 04:34 PM
Surr: Dibromofluoromethane	*96.2*		*71-128*	*%REC*	1		5/15/2013 04:34 PM
Surr: Toluene-d8	*96.1*		*73-127*	*%REC*	1		5/15/2013 04:34 PM
HEXAVALENT CHROMIUM - SW7196A			**SW7196**				Analyst: **EDG**
Chromium, Hexavalent	U		1.92	mg/Kg	1	5/20/2013	5/20/2013 04:30 PM
LA29B ELECTRICAL CONDUCTIVITY			**LADNR-29B EC**				Analyst: **VAN**
Electrical Conductivity @ saturation	**5.30**		**0.0100**	**mmhos/cm @25°C**	1		5/21/2013 01:30 PM
Electrical Conductivity, 1:1 aqueous	**2.10**		**0.0100**	**mmhos/cm @25°C**	1		5/21/2013 01:30 PM
LA29B SATURATION POINT (AS FRACTION)			**LADNR-29B SP**				Analyst: **VAN**
Saturation Point	**5.30**		**0.100**	**SP as fraction**	1		5/21/2013 01:35 PM
MOISTURE			**SW3550**				Analyst: **KAH**
Percent Moisture	**7.89**		**0.0100**	**wt%**	1		5/16/2013 02:40 PM
PH - SOIL - SW9045D			**SW9045B**				Analyst: **KL**
pH	**7.82**		**0.100**	**pH Units**	1		5/21/2013 08:15 AM

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

ALS Environmental

Date: *28-May-13*

Client: Olsson Associates

Project: Chevron CT Carney 17-35 Spill 9.008.203.203004 **Work Order:** 1305729

Sample ID: CT 17-35-BG5 **Lab ID:** 1305729-06

Collection Date: 5/9/2013 11:40 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
METALS			**SW6020**				Analyst: **JCJ**
Arsenic	**6.43**		**0.408**	**mg/Kg**	1	5/16/2013	5/16/2013 09:00 PM
MOISTURE			**SW3550**				Analyst: **KAH**
Percent Moisture	**6.09**		**0.0100**	**wt%**	1		5/16/2013 02:40 PM

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

ALS Environmental

Date: *28-May-13*

Client: Olsson Associates

Project: Chevron CT Carney 17-35 Spill 9.008.203.203004 **Work Order:** 1305729

Sample ID: CT 17-35-BG4 **Lab ID:** 1305729-07

Collection Date: 5/9/2013 11:45 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
METALS			**SW6020**				Analyst: **JCJ**
Arsenic	**5.63**		**0.449**	**mg/Kg**	1	5/16/2013	5/16/2013 09:15 PM
MOISTURE			**SW3550**				Analyst: **KAH**
Percent Moisture	**6.80**		**0.0100**	**wt%**	1		5/16/2013 02:40 PM

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

ALS Environmental

Date: *28-May-13*

Client: Olsson Associates

Project: Chevron CT Carney 17-35 Spill 9.008.203.203004 **Work Order:** 1305729

Sample ID: CT 17-35-BG3 **Lab ID:** 1305729-08

Collection Date: 5/9/2013 11:50 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
METALS			**SW6020**				Analyst: **JCJ**
Arsenic	**6.58**		**0.453**	**mg/Kg**	1	5/16/2013	5/16/2013 09:20 PM
MOISTURE			**SW3550**				Analyst: **KAH**
Percent Moisture	**5.17**		**0.0100**	**wt%**	1		5/16/2013 02:40 PM

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

ALS Environmental

Date: *28-May-13*

Client: Olsson Associates

Project: Chevron CT Carney 17-35 Spill 9.008.203.203004 **Work Order:** 1305729

Sample ID: CT 17-35-BG2 **Lab ID:** 1305729-09

Collection Date: 5/9/2013 11:55 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
METALS			**SW6020**				Analyst: **JCJ**
Arsenic	**3.97**		**0.475**	**mg/Kg**	1	5/16/2013	5/16/2013 09:24 PM
MOISTURE			**SW3550**				Analyst: **KAH**
Percent Moisture	**7.44**		**0.0100**	**wt%**	1		5/16/2013 02:40 PM

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

Batch ID: **70041** Instrument ID **FID-7** Method: **SW8015M**

MBLK Sample ID: **FBLKS2-130516-70041** Units: **mg/Kg** Analysis Date: **5/16/2013 02:28 PM**

Client ID: Run ID: **FID-7_130516C** SeqNo: **3221518** Prep Date: **5/16/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (>C10 - C28)	U	1.7								
Surr: 2-Fluorobiphenyl	2.968	0	*3.3*	0	*90*	*60-135*	0			

LCS Sample ID: **FLCSS2-130516-70041** Units: **mg/Kg** Analysis Date: **5/16/2013 02:52 PM**

Client ID: Run ID: **FID-7_130516C** SeqNo: **3221519** Prep Date: **5/16/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (>C10 - C28)	31.13	1.7	33.3	0	93.5	70-130	0			
Surr: 2-Fluorobiphenyl	2.919	0	*3.3*	0	*88.5*	*60-135*	0			

MS Sample ID: **1305469-01AMS** Units: **mg/Kg** Analysis Date: **5/16/2013 06:30 PM**

Client ID: Run ID: **FID-7_130516C** SeqNo: **3221521** Prep Date: **5/16/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (>C10 - C28)	36.59	1.7	33.24	1.328	106	70-130	0			
Surr: 2-Fluorobiphenyl	3.286	0	*3.295*	0	*99.7*	*60-135*	0			

MSD Sample ID: **1305469-01AMSD** Units: **mg/Kg** Analysis Date: **5/16/2013 06:53 PM**

Client ID: Run ID: **FID-7_130516C** SeqNo: **3221522** Prep Date: **5/16/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (>C10 - C28)	31.63	1.7	33.23	1.328	91.2	70-130	36.59	14.6	30	
Surr: 2-Fluorobiphenyl	2.492	0	*3.293*	0	*75.7*	*60-135*	3.286	*27.5*	*30*	

The following samples were analyzed in this batch:

1305729-01A 1305729-03A 1305729-04A
1305729-05A

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

Client: Olsson Associates
Work Order: 1305729
Project: Chevron CT Carney 17-35 Spill 9.008.203.203004

QC BATCH REPORT

Batch ID: **R147473** Instrument ID **FID-14** Method: **SW8015**

MBLK Sample ID: **GBLKS-130515-R147473** Units: **mg/Kg** Analysis Date: **5/16/2013 12:26 AM**
Client ID: Run ID: **FID-14_130515B** SeqNo: **3218364** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	U	0.050								
Surr: 4-Bromofluorobenzene	0.0801	0.0050	*0.1*	0	*80.1*	*70-130*	0			

LCS Sample ID: **GLCSS-130515-R147473** Units: **mg/Kg** Analysis Date: **5/16/2013 12:10 AM**
Client ID: Run ID: **FID-14_130515B** SeqNo: **3218363** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.9548	0.050	1	0	95.5	70-130	0			
Surr: 4-Bromofluorobenzene	0.08502	0.0050	*0.1*	0	*85*	*70-130*	0			

MS Sample ID: **1305469-37AMS** Units: **mg/Kg** Analysis Date: **5/16/2013 06:53 AM**
Client ID: Run ID: **FID-14_130515B** SeqNo: **3218387** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.8553	0.050	1	0	85.5	70-130	0			
Surr: 4-Bromofluorobenzene	0.0866	0.0050	*0.1*	0	*86.6*	*70-130*	0			

MSD Sample ID: **1305469-37AMSD** Units: **mg/Kg** Analysis Date: **5/16/2013 07:09 AM**
Client ID: Run ID: **FID-14_130515B** SeqNo: **3218388** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.8772	0.050	1	0	87.7	70-130	0.8553	2.53	30	
Surr: 4-Bromofluorobenzene	0.08758	0.0050	*0.1*	0	*87.6*	*70-130*	0.0866	*1.12*	*30*	

The following samples were analyzed in this batch: 1305729-01A 1305729-03A 1305729-04A 1305729-05A

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

Client: Olsson Associates
Work Order: 1305729
Project: Chevron CT Carney 17-35 Spill 9.008.203.203004

QC BATCH REPORT

Batch ID: **69993** Instrument ID **ICPMS04** Method: **SW6020**

MBLK Sample ID: **MBLKS1-051513-69993** Units: **mg/Kg** Analysis Date: **5/17/2013 01:27 PM**
Client ID: Run ID: **ICPMS04_130517A** SeqNo: **3219878** Prep Date: **5/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.50								
Barium	U	0.50								
Cadmium	U	0.50								
Chromium	U	0.50								
Copper	U	0.50								
Lead	U	0.50								
Nickel	U	0.50								
Selenium	U	0.50								
Silver	U	0.50								
Zinc	U	0.50								

LCS Sample ID: **MLCSS1-051513-69993** Units: **mg/Kg** Analysis Date: **5/16/2013 02:56 AM**
Client ID: Run ID: **ICPMS04_130515A** SeqNo: **3216922** Prep Date: **5/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	8.86	0.50	10	0	88.6	80-120	0			
Barium	9.301	0.50	10	0	93	80-120	0			
Cadmium	8.913	0.50	10	0	89.1	80-120	0			
Chromium	9.118	0.50	10	0	91.2	80-120	0			
Copper	9.277	0.50	10	0	92.8	80-120	0			
Lead	8.943	0.50	10	0	89.4	80-120	0			
Nickel	9.222	0.50	10	0	92.2	80-120	0			
Selenium	9.096	0.50	10	0	91	80-120	0			
Silver	8.942	0.50	10	0	89.4	80-120	0			
Zinc	9.967	0.50	10	0	99.7	80-120	0			

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

Client: Olsson Associates
Work Order: 1305729
Project: Chevron CT Carney 17-35 Spill 9.008.203.203004

QC BATCH REPORT

Batch ID: **69993** Instrument ID **ICPMS04** Method: **SW6020**

MS Sample ID: **1305716-02AMS** Units: **mg/Kg** Analysis Date: **5/16/2013 06:36 AM**
Client ID: Run ID: **ICPMS04_130515A** SeqNo: **3216957** Prep Date: **5/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.23	0.48	9.607	5.108	84.5	75-125	0			
Barium	578.5	0.48	9.607	614.7	-377	75-125	0			SEO
Cadmium	8.835	0.48	9.607	0.1725	90.2	75-125	0			
Chromium	15.58	0.48	9.607	7.241	86.7	75-125	0			
Copper	18.48	0.48	9.607	10.26	85.5	75-125	0			
Lead	20.51	0.48	9.607	12.63	82	75-125	0			
Nickel	19.82	0.48	9.607	11.66	84.9	75-125	0			
Selenium	9.291	0.48	9.607	0.8155	88.2	75-125	0			
Silver	9.026	0.48	9.607	0.06545	93.3	75-125	0			
Zinc	62.34	0.48	9.607	53.52	91.7	75-125	0			O

MSD Sample ID: **1305716-02AMSD** Units: **mg/Kg** Analysis Date: **5/16/2013 06:41 AM**
Client ID: Run ID: **ICPMS04_130515A** SeqNo: **3216958** Prep Date: **5/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.33	0.47	9.357	5.108	87.8	75-125	13.23	0.733	25	
Barium	634.7	0.47	9.357	614.7	213	75-125	578.5	9.26	25	SEO
Cadmium	8.713	0.47	9.357	0.1725	91.3	75-125	8.835	1.39	25	
Chromium	15.34	0.47	9.357	7.241	86.5	75-125	15.58	1.53	25	
Copper	18.78	0.47	9.357	10.26	91	75-125	18.48	1.61	25	
Lead	20.42	0.47	9.357	12.63	83.3	75-125	20.51	0.435	25	
Nickel	19.84	0.47	9.357	11.66	87.4	75-125	19.82	0.121	25	
Selenium	8.942	0.47	9.357	0.8155	86.8	75-125	9.291	3.83	25	
Silver	8.6	0.47	9.357	0.06545	91.2	75-125	9.026	4.83	25	
Zinc	63.81	0.47	9.357	53.52	110	75-125	62.34	2.34	25	O

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

Client: Olsson Associates
Work Order: 1305729
Project: Chevron CT Carney 17-35 Spill 9.008.203.203004

QC BATCH REPORT

Batch ID: **69993** Instrument ID **ICPMS04** Method: **SW6020**

DUP Sample ID: **1305716-02ADUP** Units: **mg/Kg** Analysis Date: **5/16/2013 06:26 AM**
Client ID: Run ID: **ICPMS04_130515A** SeqNo: **3216955** Prep Date: **5/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	5.398	0.49	0	0	0	0-0	5.108	5.51	25	
Cadmium	0.1821	0.49	0	0	0	0-0	0.1725	0	25	J
Chromium	7.179	0.49	0	0	0	0-0	7.241	0.861	25	
Copper	9.995	0.49	0	0	0	0-0	10.26	2.62	25	
Lead	12.41	0.49	0	0	0	0-0	12.63	1.82	25	
Nickel	11.37	0.49	0	0	0	0-0	11.66	2.56	25	
Selenium	0.8999	0.49	0	0	0	0-0	0.8155	9.84	25	
Silver	U	0.49	0	0	0	0-0	0.06545	0	25	
Zinc	53.96	0.49	0	0	0	0-0	53.52	0.817	25	

DUP Sample ID: **1305716-02ADUP** Units: **mg/Kg** Analysis Date: **5/16/2013 07:23 PM**
Client ID: Run ID: **ICPMS04_130516A** SeqNo: **3219045** Prep Date: **5/15/2013** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	563.6	4.9	0	0	0	0-0	603.6	6.85	25	

The following samples were analyzed in this batch: 1305729-01A 1305729-03A 1305729-04A 1305729-05A

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

Client: Olsson Associates
Work Order: 1305729
Project: Chevron CT Carney 17-35 Spill 9.008.203.203004

QC BATCH REPORT

Batch ID: **69994** Instrument ID **HG02** Method: **SW7471A**

MBLK Sample ID: **GBLKS1-051713-69994** Units: **µg/Kg** Analysis Date: **5/17/2013 12:36 PM**
Client ID: Run ID: **HG02_130517A** SeqNo: **3220585** Prep Date: **5/17/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	3.3								

LCS Sample ID: **GLCSS1-051713-69994** Units: **µg/Kg** Analysis Date: **5/17/2013 12:38 PM**
Client ID: Run ID: **HG02_130517A** SeqNo: **3220586** Prep Date: **5/17/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	360	3.3	333.3	0	108	85-115	0			

MS Sample ID: **1305469-01AMS** Units: **µg/Kg** Analysis Date: **5/17/2013 12:44 PM**
Client ID: Run ID: **HG02_130517A** SeqNo: **3220589** Prep Date: **5/17/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	347.5	3.4	338.1	24.28	95.6	85-115	0			

MSD Sample ID: **1305469-01AMSD** Units: **µg/Kg** Analysis Date: **5/17/2013 12:46 PM**
Client ID: Run ID: **HG02_130517A** SeqNo: **3220590** Prep Date: **5/17/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	347.6	3.4	337.5	24.28	95.8	85-115	347.5	0.0255	20	

DUP Sample ID: **1305469-01ADUP** Units: **µg/Kg** Analysis Date: **5/17/2013 12:42 PM**
Client ID: Run ID: **HG02_130517A** SeqNo: **3220588** Prep Date: **5/17/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	24.92	3.4	0	0	0		24.28	2.57	20	

The following samples were analyzed in this batch: 1305729-01A

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

Client: Olsson Associates
Work Order: 1305729
Project: Chevron CT Carney 17-35 Spill 9.008.203.203004

QC BATCH REPORT

Batch ID: **70043** Instrument ID **ICPMS04** Method: **SW6020**

MBLK Sample ID: **MBLKS1-051613-70043** Units: **mg/Kg** Analysis Date: **5/17/2013 01:32 PM**
Client ID: Run ID: **ICPMS04_130517A** SeqNo: **3219879** Prep Date: **5/16/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.50								
Barium	U	0.50								
Cadmium	U	0.50								
Chromium	U	0.50								
Copper	U	0.50								
Lead	U	0.50								
Nickel	U	0.50								
Selenium	U	0.50								
Silver	U	0.50								
Zinc	U	0.50								

LCS Sample ID: **MLCSS1-051613-70043** Units: **mg/Kg** Analysis Date: **5/16/2013 07:53 PM**
Client ID: Run ID: **ICPMS04_130516A** SeqNo: **3219051** Prep Date: **5/16/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	8.224	0.50	10	0	82.2	80-120	0			
Barium	8.674	0.50	10	0	86.7	80-120	0			
Cadmium	8.343	0.50	10	0	83.4	80-120	0			
Chromium	8.443	0.50	10	0	84.4	80-120	0			
Copper	8.493	0.50	10	0	84.9	80-120	0			
Lead	8.416	0.50	10	0	84.2	80-120	0			
Nickel	8.4	0.50	10	0	84	80-120	0			
Selenium	8.618	0.50	10	0	86.2	80-120	0			
Silver	8.407	0.50	10	0	84.1	80-120	0			
Zinc	8.295	0.50	10	0	82.9	80-120	0			

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

Client: Olsson Associates
Work Order: 1305729
Project: Chevron CT Carney 17-35 Spill 9.008.203.203004

QC BATCH REPORT

Batch ID: **70043** Instrument ID **ICPMS04** Method: **SW6020**

MS Sample ID: **1305785-04AMS** Units: **mg/Kg** Analysis Date: **5/16/2013 09:53 PM**
Client ID: Run ID: **ICPMS04_130516A** SeqNo: **3219078** Prep Date: **5/16/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.35	0.41	8.14	5.327	86.3	75-125	0			
Barium	1827	0.41	8.14	1710	1440	75-125	0			SEO
Cadmium	7.911	0.41	8.14	0.3245	93.2	75-125	0			
Chromium	16.35	0.41	8.14	7.344	111	75-125	0			
Copper	18.61	0.41	8.14	12.19	78.8	75-125	0			
Lead	20.24	0.41	8.14	12.88	90.4	75-125	0			
Nickel	20.8	0.41	8.14	11.4	115	75-125	0			
Selenium	7.099	0.41	8.14	0.6772	78.9	75-125	0			
Silver	7.46	0.41	8.14	0.06073	90.9	75-125	0			
Zinc	66.78	0.41	8.14	51.07	193	75-125	0			SO

MSD Sample ID: **1305785-04AMSD** Units: **mg/Kg** Analysis Date: **5/16/2013 09:58 PM**
Client ID: Run ID: **ICPMS04_130516A** SeqNo: **3219079** Prep Date: **5/16/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.58	0.45	8.957	5.327	92.1	75-125	12.35	9.44	25	
Barium	1763	0.45	8.957	1710	594	75-125	1827	3.54	25	SEO
Cadmium	8.664	0.45	8.957	0.3245	93.1	75-125	7.911	9.08	25	
Chromium	16.76	0.45	8.957	7.344	105	75-125	16.35	2.47	25	
Copper	20.28	0.45	8.957	12.19	90.3	75-125	18.61	8.58	25	
Lead	23.01	0.45	8.957	12.88	113	75-125	20.24	12.8	25	
Nickel	20.15	0.45	8.957	11.4	97.6	75-125	20.8	3.2	25	
Selenium	7.913	0.45	8.957	0.6772	80.8	75-125	7.099	10.8	25	
Silver	8.372	0.45	8.957	0.06073	92.8	75-125	7.46	11.5	25	
Zinc	61.68	0.45	8.957	51.07	119	75-125	66.78	7.93	25	O

DUP Sample ID: **1305785-04DUP** Units: **mg/Kg** Analysis Date: **5/16/2013 09:44 PM**
Client ID: Run ID: **ICPMS04_130516A** SeqNo: **3219076** Prep Date: **5/16/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.461	0.44	0	0	0	0-0	5.327	17.7	25	
Cadmium	0.2995	0.44	0	0	0	0-0	0.3245	0	25	J
Chromium	6.285	0.44	0	0	0	0-0	7.344	15.5	25	
Selenium	0.6154	0.44	0	0	0	0-0	0.6772	9.56	25	
Silver	U	0.44	0	0	0	0-0	0.06073	0	25	

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

Client: Olsson Associates
Work Order: 1305729
Project: Chevron CT Carney 17-35 Spill 9.008.203.203004

QC BATCH REPORT

Batch ID: **70043** Instrument ID **ICPMS04** Method: **SW6020**

DUP Sample ID: **1305785-04ADUP** Units: **mg/Kg** Analysis Date: **5/17/2013 02:00 PM**

Client ID: Run ID: **ICPMS04_130517A** SeqNo: **3220011** Prep Date: **5/16/2013** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	1475	8.7	0	0	0	0-0	1695	13.9	25	
Copper	12.46	8.7	0	0	0	0-0	11.38	9.07	25	
Lead	13.22	8.7	0	0	0	0-0	12.06	9.15	25	
Nickel	11.6	8.7	0	0	0	0-0	11.63	0.274	25	
Zinc	52.26	8.7	0	0	0	0-0	51.55	1.37	25	

The following samples were analyzed in this batch:

1305729-02A	1305729-06A	1305729-07A
1305729-08A	1305729-09A	

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

Client: Olsson Associates
Work Order: 1305729
Project: Chevron CT Carney 17-35 Spill 9.008.203.203004

QC BATCH REPORT

Batch ID: **70051** Instrument ID **HG02** Method: **SW7471A**

MBLK Sample ID: **GBLKS3-051713-70051** Units: **µg/Kg** Analysis Date: **5/17/2013 02:49 PM**
Client ID: Run ID: **HG02_130517A** SeqNo: **3220648** Prep Date: **5/17/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	3.3								

LCS Sample ID: **GLCSS3-051713-70051** Units: **µg/Kg** Analysis Date: **5/17/2013 02:51 PM**
Client ID: Run ID: **HG02_130517A** SeqNo: **3220649** Prep Date: **5/17/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	366.7	3.3	333.3	0	110	85-115	0			

MS Sample ID: **1305664-02CMS** Units: **µg/Kg** Analysis Date: **5/17/2013 02:57 PM**
Client ID: Run ID: **HG02_130517A** SeqNo: **3220652** Prep Date: **5/17/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	339.9	3.4	337.2	18.11	95.4	85-115	0			

MSD Sample ID: **1305664-02CMSD** Units: **µg/Kg** Analysis Date: **5/17/2013 02:59 PM**
Client ID: Run ID: **HG02_130517A** SeqNo: **3220653** Prep Date: **5/17/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	338.7	3.4	336.6	18.11	95.2	85-115	339.9	0.367	20	

DUP Sample ID: **1305664-02CDUP** Units: **µg/Kg** Analysis Date: **5/17/2013 02:55 PM**
Client ID: Run ID: **HG02_130517A** SeqNo: **3220651** Prep Date: **5/17/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	19.85	3.4	0	0	0		18.11	9.13	20	

The following samples were analyzed in this batch: 1305729-02A 1305729-03A 1305729-04A 1305729-05A

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

Client: Olsson Associates
Work Order: 1305729
Project: Chevron CT Carney 17-35 Spill 9.008.203.203004

QC BATCH REPORT

Batch ID: **70059** Instrument ID **ICPMS04** Method: **La29B-6020**

MBLK Sample ID: **BLK-SAR1-051613-70059** Units: **mg/L** Analysis Date: **5/17/2013 06:22 PM**
Client ID: Run ID: **ICPMS04_130517A** SeqNo: **3221046** Prep Date: **5/16/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	U	0.50								
Magnesium	U	0.50								
Sodium	U	0.50								

LCS Sample ID: **LCS-SAR1-051613-70059** Units: **mg/L** Analysis Date: **5/17/2013 06:27 PM**
Client ID: Run ID: **ICPMS04_130517A** SeqNo: **3221047** Prep Date: **5/16/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	9.641	0.50	10	0	96.4	80-120	0			
Magnesium	10.03	0.50	10	0	100	80-120	0			
Sodium	9.918	0.50	10	0	99.2	80-120	0			

DUP Sample ID: **1305469-09BDUP** Units: **mg/L** Analysis Date: **5/17/2013 07:00 PM**
Client ID: Run ID: **ICPMS04_130517A** SeqNo: **3221054** Prep Date: **5/16/2013** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	38.19	5.0	0	0	0		38.08	0.297	30	
Magnesium	10.72	5.0	0	0	0		10.35	3.51	30	
Sodium	148.9	5.0	0	0	0		145.8	2.14	30	

The following samples were analyzed in this batch:

1305729-01B	1305729-02B	1305729-03B
1305729-04B	1305729-05B	

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

Client: Olsson Associates
Work Order: 1305729
Project: Chevron CT Carney 17-35 Spill 9.008.203.203004

QC BATCH REPORT

Batch ID: **70059a** Instrument ID **MISC-Metals** Method: **La29B SAR**

DUP Sample ID: **1305469-09BDUP** Units: **meq/meq** Analysis Date: **5/21/2013**
Client ID: Run ID: **MISC-METALS_130521** SeqNo: **3223415** Prep Date: **5/16/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	5.49	0.010	0	0	0		5.41	1.47	30	

The following samples were analyzed in this batch:

1305729-01B	1305729-02B	1305729-03B
1305729-04B	1305729-05B	

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

Client: Olsson Associates
Work Order: 1305729
Project: Chevron CT Carney 17-35 Spill 9.008.203.203004

QC BATCH REPORT

Batch ID: **70025** Instrument ID **SV-4** Method: **SW8270**

MBLK Sample ID: **SBLKS1-130516-70025** Units: **µg/Kg** Analysis Date: **5/16/2013 05:43 PM**
Client ID: Run ID: **SV-4_130516A** SeqNo: **3221640** Prep Date: **5/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	U	6.6								
Anthracene	U	6.6								
Benz(a)anthracene	U	6.6								
Benzo(a)pyrene	U	6.6								
Benzo(b)fluoranthene	U	6.6								
Benzo(k)fluoranthene	U	6.6								
Chrysene	U	6.6								
Dibenz(a,h)anthracene	U	6.6								
Fluoranthene	U	6.6								
Fluorene	U	6.6								
Indeno(1,2,3-cd)pyrene	U	6.6								
Naphthalene	U	6.6								
Pyrene	U	6.6								
Surr: 2-Fluorobiphenyl	139	6.6	*166.7*	0	*83.4*	*43-125*	0			
Surr: 4-Terphenyl-d14	147.4	6.6	*166.7*	0	*88.4*	*32-125*	0			
Surr: Nitrobenzene-d5	117.5	6.6	*166.7*	0	*70.5*	*37-125*	0			

LCS Sample ID: **SLCSS1-130516-70025** Units: **µg/Kg** Analysis Date: **5/16/2013 06:03 PM**
Client ID: Run ID: **SV-4_130516A** SeqNo: **3221641** Prep Date: **5/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	134.2	6.6	166.7	0	80.5	50-120	0			
Anthracene	120	6.6	166.7	0	72	50-123	0			
Benz(a)anthracene	144	6.6	166.7	0	86.4	50-131	0			
Benzo(a)pyrene	147.4	6.6	166.7	0	88.4	50-130	0			
Benzo(b)fluoranthene	195	6.6	166.7	0	117	50-137	0			
Benzo(k)fluoranthene	113.2	6.6	166.7	0	67.9	50-143	0			
Chrysene	133.8	6.6	166.7	0	80.3	50-130	0			
Dibenz(a,h)anthracene	147.2	6.6	166.7	0	88.3	50-130	0			
Fluoranthene	125.2	6.6	166.7	0	75.1	50-131	0			
Fluorene	130.8	6.6	166.7	0	78.5	50-125	0			
Indeno(1,2,3-cd)pyrene	161.5	6.6	166.7	0	96.9	45-139	0			
Naphthalene	124.4	6.6	166.7	0	74.6	50-125	0			
Pyrene	128.1	6.6	166.7	0	76.9	45-130	0			
Surr: 2-Fluorobiphenyl	135.3	6.6	*166.7*	0	*81.2*	*43-125*	0			
Surr: 4-Terphenyl-d14	148.6	6.6	*166.7*	0	*89.1*	*32-125*	0			
Surr: Nitrobenzene-d5	131.9	6.6	*166.7*	0	*79.2*	*37-125*	0			

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

Client: Olsson Associates
Work Order: 1305729
Project: Chevron CT Carney 17-35 Spill 9.008.203.203004

QC BATCH REPORT

Batch ID: **70025** Instrument ID **SV-4** Method: **SW8270**

MS Sample ID: **1305469-01AMS** Units: **µg/Kg** Analysis Date: **5/16/2013 06:44 PM**
Client ID: Run ID: **SV-4_130516A** SeqNo: **3221643** Prep Date: **5/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	111.9	6.5	165.2	0	67.7	50-120	0			
Anthracene	112.7	6.5	165.2	0	68.2	50-123	0			
Benz(a)anthracene	117.4	6.5	165.2	0	71.1	50-131	0			
Benzo(a)pyrene	121.9	6.5	165.2	0	73.8	50-130	0			
Benzo(b)fluoranthene	144.1	6.5	165.2	0	87.2	50-137	0			
Benzo(k)fluoranthene	111	6.5	165.2	0	67.2	50-143	0			
Chrysene	110.5	6.5	165.2	0	66.9	50-130	0			
Dibenz(a,h)anthracene	122	6.5	165.2	0	73.8	50-130	0			
Fluoranthene	116.7	6.5	165.2	2.761	68.9	50-131	0			
Fluorene	115.4	6.5	165.2	0	69.8	50-125	0			
Indeno(1,2,3-cd)pyrene	130.6	6.5	165.2	0	79	45-139	0			
Naphthalene	111.1	6.5	165.2	0	67.3	50-125	0			
Pyrene	110.3	6.5	165.2	2.278	65.3	45-130	0			
Surr: 2-Fluorobiphenyl	116.8	6.5	*165.2*	0	*70.7*	*43-125*	0			
Surr: 4-Terphenyl-d14	124.6	6.5	*165.2*	0	*75.4*	*32-125*	0			
Surr: Nitrobenzene-d5	106.2	6.5	*165.2*	0	*64.3*	*37-125*	0			

MSD Sample ID: **1305469-01AMSD** Units: **µg/Kg** Analysis Date: **5/16/2013 07:05 PM**
Client ID: Run ID: **SV-4_130516A** SeqNo: **3221644** Prep Date: **5/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	124.1	6.5	164.3	0	75.5	50-120	111.9	10.3	30	
Anthracene	118.9	6.5	164.3	0	72.4	50-123	112.7	5.42	30	
Benz(a)anthracene	157.6	6.5	164.3	0	95.9	50-131	117.4	29.2	30	
Benzo(a)pyrene	144.3	6.5	164.3	0	87.8	50-130	121.9	16.8	30	
Benzo(b)fluoranthene	199.5	6.5	164.3	0	121	50-137	144.1	32.2	30	R
Benzo(k)fluoranthene	102.9	6.5	164.3	0	62.6	50-143	111	7.61	30	
Chrysene	134.8	6.5	164.3	0	82.1	50-130	110.5	19.9	30	
Dibenz(a,h)anthracene	144.2	6.5	164.3	0	87.8	50-130	122	16.7	30	
Fluoranthene	120.7	6.5	164.3	2.761	71.8	50-131	116.7	3.41	30	
Fluorene	125.5	6.5	164.3	0	76.4	50-125	115.4	8.38	30	
Indeno(1,2,3-cd)pyrene	148.8	6.5	164.3	0	90.6	45-139	130.6	13	30	
Naphthalene	122.4	6.5	164.3	0	74.5	50-125	111.1	9.61	30	
Pyrene	130.1	6.5	164.3	2.278	77.8	45-130	110.3	16.5	30	
Surr: 2-Fluorobiphenyl	134.5	6.5	*164.3*	0	*81.9*	*43-125*	116.8	*14.1*	*30*	
Surr: 4-Terphenyl-d14	141.4	6.5	*164.3*	0	*86.1*	*32-125*	124.6	*12.7*	*30*	
Surr: Nitrobenzene-d5	124.9	6.5	*164.3*	0	*76.1*	*37-125*	106.2	*16.2*	*30*	

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

Client: Olsson Associates
Work Order: 1305729
Project: Chevron CT Carney 17-35 Spill 9.008.203.203004

QC BATCH REPORT

Batch ID: **70025** Instrument ID **SV-4** Method: **SW8270**

The following samples were analyzed in this batch:

1305729-01A	1305729-03A	1305729-04A
1305729-05A		

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

Client: Olsson Associates
Work Order: 1305729
Project: Chevron CT Carney 17-35 Spill 9.008.203.203004

QC BATCH REPORT

Batch ID: **R147370** Instrument ID **VOA5** Method: **SW8260**

MBLK Sample ID: **VBLKS1-051513-R147370** Units: **µg/Kg** Analysis Date: **5/15/2013 11:11 AM**
Client ID: Run ID: **VOA5_130515A** SeqNo: **3216153** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0								
Ethylbenzene	U	5.0								
m,p-Xylene	U	10								
o-Xylene	U	5.0								
Toluene	U	5.0								
Xylenes, Total	U	10								
Surr: 1,2-Dichloroethane-d4	46.93	0	*50*	0	*93.9*	*70-128*	0			
Surr: 4-Bromofluorobenzene	49.98	0	*50*	0	*100*	*73-126*	0			
Surr: Dibromofluoromethane	48.04	0	*50*	0	*96.1*	*71-128*	0			
Surr: Toluene-d8	49	0	*50*	0	*98*	*73-127*	0			

LCS Sample ID: **VLCSS1-051513-R147370** Units: **µg/Kg** Analysis Date: **5/15/2013 10:03 AM**
Client ID: Run ID: **VOA5_130515A** SeqNo: **3216151** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	53.73	5.0	50	0	107	79-120	0			
Ethylbenzene	51.62	5.0	50	0	103	80-122	0			
m,p-Xylene	102	10	100	0	102	79-122	0			
o-Xylene	51.31	5.0	50	0	103	80-123	0			
Toluene	49.84	5.0	50	0	99.7	79-120	0			
Xylenes, Total	153.3	10	150	0	102	80-120	0			
Surr: 1,2-Dichloroethane-d4	52.75	0	*50*	0	*105*	*70-128*	0			
Surr: 4-Bromofluorobenzene	51.12	0	*50*	0	*102*	*73-126*	0			
Surr: Dibromofluoromethane	51.05	0	*50*	0	*102*	*71-128*	0			
Surr: Toluene-d8	47.77	0	*50*	0	*95.5*	*73-127*	0			

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

Client: Olsson Associates
Work Order: 1305729
Project: Chevron CT Carney 17-35 Spill 9.008.203.203004

QC BATCH REPORT

Batch ID: **R147370** Instrument ID **VOA5** Method: **SW8260**

LCSD Sample ID: **VLCSDS1-051513-R147370** Units: **µg/Kg** Analysis Date: **5/15/2013 10:26 AM**
Client ID: Run ID: **VOA5_130515A** SeqNo: **3216152** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	55.74	5.0	50	0	111	79-120	53.73	3.68	30	
Ethylbenzene	54.5	5.0	50	0	109	80-122	51.62	5.42	30	
m,p-Xylene	107.8	10	100	0	108	79-122	102	5.53	30	
o-Xylene	53.69	5.0	50	0	107	80-123	51.31	4.55	30	
Toluene	52.6	5.0	50	0	105	79-120	49.84	5.39	30	
Xylenes, Total	161.4	10	150	0	108	79-123	153.3	5.2	30	
Surr: 1,2-Dichloroethane-d4	48.53	0	*50*	0	*97.1*	*70-128*	52.75	*8.33*	*30*	
Surr: 4-Bromofluorobenzene	50.63	0	*50*	0	*101*	*73-126*	51.12	*0.957*	*30*	
Surr: Dibromofluoromethane	49.47	0	*50*	0	*98.9*	*71-128*	51.05	*3.14*	*30*	
Surr: Toluene-d8	48.33	0	*50*	0	*96.7*	*73-127*	47.77	*1.15*	*30*	

MS Sample ID: **1305469-19AMS** Units: **µg/Kg** Analysis Date: **5/15/2013 01:06 PM**
Client ID: Run ID: **VOA5_130515A** SeqNo: **3216158** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	41.79	5.0	50	0	83.6	79-120	0			
Ethylbenzene	39.01	5.0	50	0	78	80-122	0			S
m,p-Xylene	78	10	100	0	78	79-122	0			S
o-Xylene	38.2	5.0	50	0	76.4	80-123	0			S
Toluene	40.61	5.0	50	0	81.2	79-120	0			
Xylenes, Total	116.2	10	150	0	77.5	80-120	0			S
Surr: 1,2-Dichloroethane-d4	47.42	0	*50*	0	*94.8*	*70-128*	0			
Surr: 4-Bromofluorobenzene	50.3	0	*50*	0	*101*	*73-126*	0			
Surr: Dibromofluoromethane	47.53	0	*50*	0	*95.1*	*71-128*	0			
Surr: Toluene-d8	49.74	0	*50*	0	*99.5*	*73-127*	0			

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

Client: Olsson Associates
Work Order: 1305729
Project: Chevron CT Carney 17-35 Spill 9.008.203.203004

QC BATCH REPORT

Batch ID: **R147370** Instrument ID **VOA5** Method: **SW8260**

MSD Sample ID: **1305469-19AMSD** Units: **µg/Kg** Analysis Date: **5/15/2013 01:29 PM**

Client ID: Run ID: **VOA5_130515A** SeqNo: **3216159** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	50.46	5.0	50	0	101	79-120	41.79	18.8	30	
Ethylbenzene	48.34	5.0	50	0	96.7	80-122	39.01	21.4	30	
m,p-Xylene	93.84	10	100	0	93.8	79-122	78	18.4	30	
o-Xylene	45.41	5.0	50	0	90.8	80-123	38.2	17.3	30	
Toluene	47.57	5.0	50	0	95.1	79-120	40.61	15.8	30	
Xylenes, Total	139.2	10	150	0	92.8	79-123	116.2	18	30	
Surr: 1,2-Dichloroethane-d4	49.39	0	*50*	0	*98.8*	*70-128*	47.42	*4.07*	*30*	
Surr: 4-Bromofluorobenzene	49.95	0	*50*	0	*99.9*	*73-126*	50.3	*0.704*	*30*	
Surr: Dibromofluoromethane	48.64	0	*50*	0	*97.3*	*71-128*	47.53	*2.3*	*30*	
Surr: Toluene-d8	48.09	0	*50*	0	*96.2*	*73-127*	49.74	*3.37*	*30*	

The following samples were analyzed in this batch: 1305729-01A 1305729-03A 1305729-04A 1305729-05A

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

Client: Olsson Associates
Work Order: 1305729
Project: Chevron CT Carney 17-35 Spill 9.008.203.203004

QC BATCH REPORT

Batch ID: **70158** Instrument ID **UV-2450** Method: **SW7196** **(Dissolve)**

MBLK Sample ID: **WBLKS2-052013-70158** Units: **mg/kg** Analysis Date: **5/20/2013 04:30 PM**
Client ID: Run ID: **UV-2450_130520F** SeqNo: **3223821** Prep Date: **5/20/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	U	2.0								

LCS Sample ID: **WLCSS2-052013-70158** Units: **mg/kg** Analysis Date: **5/20/2013 04:30 PM**
Client ID: Run ID: **UV-2450_130520F** SeqNo: **3223822** Prep Date: **5/20/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	9.4	2.0	10	0	94	80-120	0			

LCSD Sample ID: **WLCSDS2-052013-70158** Units: **mg/kg** Analysis Date: **5/20/2013 04:30 PM**
Client ID: Run ID: **UV-2450_130520F** SeqNo: **3223844** Prep Date: **5/20/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	9.2	2.0	10	0	92	80-120	9.4	2.15	20	

MS Sample ID: **1305469-21AMS** Units: **mg/kg** Analysis Date: **5/20/2013 04:30 PM**
Client ID: Run ID: **UV-2450_130520F** SeqNo: **3223849** Prep Date: **5/20/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	10.31	2.0	9.843	0	105	75-125	0			

The following samples were analyzed in this batch:

1305729-01A	1305729-03A	1305729-04A
1305729-05A		

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

Client: Olsson Associates
Work Order: 1305729
Project: Chevron CT Carney 17-35 Spill 9.008.203.203004

QC BATCH REPORT

Batch ID: **R147547** Instrument ID **Balance1** Method: **SW3550** **(Dissolve)**

DUP Sample ID: **1305469-37BDUP** Units: **wt%** Analysis Date: **5/16/2013 02:40 PM**
Client ID: Run ID: **BALANCE1_130516D** SeqNo: **3220207** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Percent Moisture	11.95	0.010	0	0	0	0-0	11.56	3.29	20	

DUP Sample ID: **1305716-03BDUP** Units: **wt%** Analysis Date: **5/16/2013 02:40 PM**
Client ID: Run ID: **BALANCE1_130516D** SeqNo: **3225587** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Percent Moisture	11.94	0.010	0	0	0	0-0	0			

The following samples were analyzed in this batch:

1305729-01B	1305729-02B	1305729-03B
1305729-04B	1305729-05B	1305729-06A
1305729-07A	1305729-08A	1305729-09A

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

Client: Olsson Associates
Work Order: 1305729
Project: Chevron CT Carney 17-35 Spill 9.008.203.203004

QC BATCH REPORT

Batch ID: **R147649** Instrument ID **WetChem** Method: **SW9045B** **(Dissolve)**

LCS Sample ID: **WLCSW1-130521-R147649** Units: **pH Units** Analysis Date: **5/21/2013 08:15 AM**

Client ID: Run ID: **WETCHEM_130521A** SeqNo: **3222497** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6.01	0.10	6	0	100	90-110	0			

DUP Sample ID: **1305716-03BDUP** Units: **pH Units** Analysis Date: **5/21/2013 08:15 AM**

Client ID: Run ID: **WETCHEM_130521A** SeqNo: **3222516** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.71	0.10	0	0	0	0-0	8.71	0	20	

The following samples were analyzed in this batch:

1305729-01B	1305729-02B	1305729-03B
1305729-04B	1305729-05B	

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

Client: Olsson Associates
Work Order: 1305729
Project: Chevron CT Carney 17-35 Spill 9.008.203.203004

QC BATCH REPORT

Batch ID: **R147675** Instrument ID **Balance1** Method: **LaDNR-29B EC (Dissolve)**

MBLK Sample ID: **WBLKW1-052113-R147675** Units: **mmhos/cm @25°** Analysis Date: **5/21/2013 01:30 PM**
Client ID: Run ID: **BALANCE1_130521A** SeqNo: **3223334** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity, 1:1 aqueous	U	0.010								

LCS Sample ID: **WLCSW1-052113-R147675** Units: **mmhos/cm @25°** Analysis Date: **5/21/2013 01:30 PM**
Client ID: Run ID: **BALANCE1_130521A** SeqNo: **3223335** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity, 1:1 aqueous	1.38	0.010	1.412	0	97.7	90-110	0			

DUP Sample ID: **1305716-02BDUP** Units: **mmhos/cm @25°** Analysis Date: **5/21/2013 01:30 PM**
Client ID: Run ID: **BALANCE1_130521A** SeqNo: **3223361** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ saturation	4.111	0.010	0	0	0		4.123	0.291	20	
Electrical Conductivity, 1:1 aqueous	1.4	0.010	0	0	0		1.4	0	20	

DUP Sample ID: **1305729-02BDUP** Units: **mmhos/cm @25°** Analysis Date: **5/21/2013 01:30 PM**
Client ID: **CT 17-35-BG1** Run ID: **BALANCE1_130521A** SeqNo: **3223368** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ saturation	2.08	0.010	0	0	0		2.01	3.42	20	
Electrical Conductivity, 1:1 aqueous	0.83	0.010	0	0	0		0.831	0.12	20	

The following samples were analyzed in this batch:

1305729-01B	1305729-02B	1305729-03B
1305729-04B	1305729-05B	

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

Client: Olsson Associates
Work Order: 1305729
Project: Chevron CT Carney 17-35 Spill 9.008.203.203004

QC BATCH REPORT

Batch ID: **R147697** Instrument ID **Balance1** Method: **LaDNR-29B SP (Dissolve)**

DUP Sample ID: **1305716-02BDUP** Units: **SP as fraction** Analysis Date: **5/21/2013 01:35 PM**
Client ID: Run ID: **BALANCE1_130521B** SeqNo: **3223913** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Saturation Point	4.111	0.10	0	0	0		4.123	0.294	30	

DUP Sample ID: **1305729-02BDUP** Units: **SP as fraction** Analysis Date: **5/21/2013 01:35 PM**
Client ID: **CT 17-35-BG1** Run ID: **BALANCE1_130521B** SeqNo: **3223923** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Saturation Point	2.08	0.10	0	0	0		2.01	3.4	30	

The following samples were analyzed in this batch:

1305729-01B	1305729-02B	1305729-03B
1305729-04B	1305729-05B	

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

ALS Environmental

Date: 28-May-13

Client: Olsson Associates
Project: Chevron CT Carney 17-35 Spill 9.008.203.203004
WorkOrder: **1305729**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	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 detected below quantitation limit
M	Manually integrated, see raw data for justification
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

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Units Reported	Description
meq/meq	
mg/Kg	Milligrams per Kilogram
mg/L	Milligrams per Liter
mmhos/cm @25°C	
pH Units	
SP as fraction	
wt%	

ALS Environmental

Sample Receipt Checklist

Client Name: **OLSSON ASSOC - GRAND JUNC** Date/Time Received: **11-May-13 09:25**

Work Order: **1305729** Received by: **RDH**

Checklist completed by Lahnnie B. Allen (eSignature) 20-May-13 (Date) Reviewed by: Sonia West (eSignature) 21-May-13 (Date)

Matrices: soil
Carrier name: FedEx Priority Overnight

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	2.2 C/2.2 C;3.1 C/3.1 C; 2.9 C/2.9 C u/c	IR 1	
Cooler(s)/Kit(s):	Medium Red/White/3148/4303		
Date/Time sample(s) sent to storage:	5/14/13 08:40		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Chain of Custody Form

ALS Environmental

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

1305729

OLSSON ASSOC - GRAND JUNCTION: Olsson Associates

Project: Chevron SKR Frac Sand - CO Table 910

ALS Project Manager:

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Chevron CT Carney 17-35 Spill	A	TPH (GRO & DRO)
Work Order		Project Number	9.0082.203.203004	B	BTEX
Company Name	Olsson Associates	Bill To Company	Olsson Associates	C	PAH (See Attached List) CO Table 910
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
				F	pH
City/State/Zip	Grand Junction, CO 81506	City/State/Zip	Grand Junction, CO 81506	G	Metals (See Attached List) CO Table 910
Phone	970.263.7800	Phone	970.263.7800	H	Arsenic Only
Fax	970.263.7456	Fax	970.263.7456	I	
e-Mail Address	tdobransky@oaconsulting.com	e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	CT 17-35-SS1	05/09/13	1045	Soil	8	2	X	X	X	X	X	X	X				
	CT 17-35-BG1	05/09/13	1055	Soil	8	2				X	X	X	X				
3	CT 17-35-SS2	05/09/13	1115	Soil	8	2	X	X	X	X	X	X	X				
4	CT 17-35-SS3	05/09/13	1120	Soil	8	2	X	X	X	X	X	X	X				
5	CT 17-35-SS4	05/09/13	1135	Soil	8	2	X	X	X	X	X	X	X				
6	CT 17-35-BG5	05/09/13	1140	Soil	8	1								X			
7	CT 17-35-BG4	05/09/13	1145	Soil	8	1								X			
8	CT 17-35-BG3	05/09/13	1150	Soil	8	1								X			
9	CT 17-35-BG2	05/09/13	1155	Soil	8	1								X			

Sampler(s): Please Print & Sign
Tim Dobransky

Shipment Method: FedEx

Required Turnaround Time: ☐ Other ____ ☑ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes:
	5/10/13	1700		Chevron Pricing Applies - Per Bruce Schlatter
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler Temp.
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	

QC Package: (Check Box Below)

- x Level II: Standard QC
- ☐ Level III: Std QC + Raw Data
- ☐ 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.

ORIGIN ID: GJTA (970) 270-2986
TIM DOBRANSKY
OLSSON ASSOCIATES, INC.
760 HORIZON DRIVE STE 102

GRAND JUNCTION, CO 81506
UNITED STATES US

SHIP DATE: 10MAY13
ACTWGT: 50.0 LB MAN
CAD: 390082/CAFE2608

BILL SENDER

TO SAMPLE RECEIVING
ALS ENVIRONMENTAL
10450 STANCLIFF RD. #210

HOUSTON TX 77099
(281) 530-5656
PO: 9.0082.203.203004

FedEx Express

SATURDAY 12:00P
PRIORITY OVERNIGHT

TRK# 0201 5632 6808 2250

XO SGRA

77099
TX-US IAH

CUSTODY SEAL

4303

ENVIRONMENTAL SAMPLING SUPPLY

9501 San Leandro St. Oakland, CA 800-233-8425

Date: 5/10/13 BNH

ure: 5/10/13

ORIGIN ID: GJTA (970) 270-2986
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TRK# 0201 5632 6808 2261

SATURDAY 12:00P
PRIORITY OVERNIGHT

X0 SGRA

77099
TX-US IAH

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FedEx Express

TRK# 0201 5632 6808 2240

SATURDAY 12:00P
PRIORITY OVERNIGHT

X0 SGRA

77099
TX-US IAH

CUSTODY SEAL

ENVIRONMENTAL SAMPLING SUPPLY
601 San Leandro St. Oakland, CA 800-233-84

Date: 5/10/13

nature:

CUSTODY SEAL

ENVIRONMENTAL SAMPLING SUPPLY
9601 San Leandro St. Oakland, CA 800-233-84

Sig