



12-Jul-2016

Kris Rowe
HRL Compliance Solutions, Inc
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **Terra Energy - TR 24-28-597 - Pad Site Inves.**

Work Order: **1607432**

Dear Kris,

ALS Environmental received 3 samples on 08-Jul-2016 04:00 PM for the analyses presented in the following report.

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

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

The total number of pages in this report is 27.

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

Sincerely,

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

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager



Certificate No: MN 998501

Report of Laboratory Analysis

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Client: HRL Compliance Solutions, Inc
Project: Terra Energy - TR 24-28-597 - Pad Site Inves.
Work Order: 1607432

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1607432-01	Excavation - Tier 1 Side Wall	Soil		7/7/2016 10:45	7/8/2016 16:00	<input type="checkbox"/>
1607432-02	Excavation - Bottom Tier Side Wall	Soil		7/7/2016 11:00	7/8/2016 16:00	<input type="checkbox"/>
1607432-03	Landfarm	Soil		7/7/2016 10:30	7/8/2016 16:00	<input type="checkbox"/>

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

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

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

ALS Group USA, Corp

Date: 12-Jul-16

Client: HRL Compliance Solutions, Inc
Project: Terra Energy - TR 24-28-597 - Pad Site Inves.
Sample ID: Excavation - Tier 1 Side Wall
Collection Date: 7/7/2016 10:45 AM

Work Order: 1607432
Lab ID: 1607432-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			SW8015M		Prep: SW3546 / 7/11/16	Analyst: IT
DRO (C10-C28)	630		12	mg/Kg-dry	1	7/12/2016 01:50 AM
<i>Surr: 4-Terphenyl-d14</i>	58.9		39-133	%REC	1	7/12/2016 01:50 AM
GASOLINE RANGE ORGANICS BY GC-FID			SW8015D		Prep: SW5035 / 7/11/16	Analyst: IT
GRO (C6-C10)	300		4.9	mg/Kg-dry	1	7/11/2016 01:11 PM
<i>Surr: Toluene-d8</i>	109		50-150	%REC	1	7/11/2016 01:11 PM
MERCURY BY CVAA			SW7471B		Prep: SW7471 / 7/10/16	Analyst: LR
Mercury	0.095		0.020	mg/Kg-dry	1	7/11/2016 01:08 AM
SOLUBLE CATIONS FOR SAR			SW846 6010C		Prep: USDA Method 20B / 7/11/16	Analyst: JEC
Calcium	340		5.0	mg/L	10	7/11/2016 10:41 AM
Magnesium	83		2.0	mg/L	10	7/11/2016 10:41 AM
Sodium	300		2.0	mg/L	10	7/11/2016 10:41 AM
SODIUM ADSORPTION RATIO			USDA H60 METHO		Prep: USDA Method 20B / 7/11/16	Analyst: JEC
Sodium Adsorption Ratio	3.7		0.010	none	1	7/12/2016
METALS BY ICP-MS			SW6020A		Prep: SW3050B / 7/11/16	Analyst: ML
Arsenic	7.3		2.0	mg/Kg-dry	4	7/11/2016 03:51 PM
Barium	570		2.0	mg/Kg-dry	4	7/11/2016 03:51 PM
Cadmium	ND		0.81	mg/Kg-dry	4	7/11/2016 03:51 PM
Chromium	32		2.0	mg/Kg-dry	4	7/11/2016 03:51 PM
Copper	30		2.0	mg/Kg-dry	4	7/11/2016 03:51 PM
Lead	22		2.0	mg/Kg-dry	4	7/11/2016 03:51 PM
Nickel	31		2.0	mg/Kg-dry	4	7/11/2016 03:51 PM
Selenium	2.3		2.0	mg/Kg-dry	4	7/11/2016 03:51 PM
Silver	ND		2.0	mg/Kg-dry	4	7/11/2016 03:51 PM
Zinc	80		4.1	mg/Kg-dry	4	7/11/2016 03:51 PM
SEMI-VOLATILE ORGANIC COMPOUNDS			SW846 8270D		Prep: SW3546 / 7/11/16	Analyst: RS
Acenaphthene	ND		19	µg/Kg-dry	1	7/12/2016 06:10 AM
Acenaphthylene	ND		19	µg/Kg-dry	1	7/12/2016 06:10 AM
Anthracene	ND		19	µg/Kg-dry	1	7/12/2016 06:10 AM
Benzo(a)anthracene	ND		19	µg/Kg-dry	1	7/12/2016 06:10 AM
Benzo(a)pyrene	ND		19	µg/Kg-dry	1	7/12/2016 06:10 AM
Benzo(b)fluoranthene	ND		19	µg/Kg-dry	1	7/12/2016 06:10 AM
Benzo(g,h,i)perylene	ND		19	µg/Kg-dry	1	7/12/2016 06:10 AM
Benzo(k)fluoranthene	ND		19	µg/Kg-dry	1	7/12/2016 06:10 AM
Chrysene	ND		19	µg/Kg-dry	1	7/12/2016 06:10 AM

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

ALS Group USA, Corp

Date: 12-Jul-16

Client: HRL Compliance Solutions, Inc
Project: Terra Energy - TR 24-28-597 - Pad Site Inves.
Sample ID: Excavation - Tier 1 Side Wall
Collection Date: 7/7/2016 10:45 AM

Work Order: 1607432
Lab ID: 1607432-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		19	µg/Kg-dry	1	7/12/2016 06:10 AM
Fluoranthene	ND		19	µg/Kg-dry	1	7/12/2016 06:10 AM
Fluorene	140		19	µg/Kg-dry	1	7/12/2016 06:10 AM
Indeno(1,2,3-cd)pyrene	ND		19	µg/Kg-dry	1	7/12/2016 06:10 AM
Naphthalene	860		19	µg/Kg-dry	1	7/12/2016 06:10 AM
Pyrene	ND		19	µg/Kg-dry	1	7/12/2016 06:10 AM
Surr: 2-Fluorobiphenyl	63.1		12-100	%REC	1	7/12/2016 06:10 AM
Surr: 4-Terphenyl-d14	65.2		25-137	%REC	1	7/12/2016 06:10 AM
Surr: Nitrobenzene-d5	58.9		37-107	%REC	1	7/12/2016 06:10 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B		Prep: SW5035 / 7/8/16	Analyst: BG
Benzene	ND		0.058	mg/Kg-dry	1	7/11/2016 11:51 AM
Ethylbenzene	ND		0.058	mg/Kg-dry	1	7/11/2016 11:51 AM
m,p-Xylene	0.98		0.12	mg/Kg-dry	1	7/11/2016 11:51 AM
o-Xylene	0.32		0.058	mg/Kg-dry	1	7/11/2016 11:51 AM
Toluene	ND		0.058	mg/Kg-dry	1	7/11/2016 11:51 AM
Xylenes, Total	1.3		0.17	mg/Kg-dry	1	7/11/2016 11:51 AM
Surr: 1,2-Dichloroethane-d4	98.0		70-130	%REC	1	7/11/2016 11:51 AM
Surr: 4-Bromofluorobenzene	103		70-130	%REC	1	7/11/2016 11:51 AM
Surr: Dibromofluoromethane	91.8		70-130	%REC	1	7/11/2016 11:51 AM
Surr: Toluene-d8	97.0		70-130	%REC	1	7/11/2016 11:51 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep: USDA Method 20B / 7/11/16	Analyst: JB
Electrical Conductivity @ Saturation	5.2		0.25	mmhos/cm @2	50	7/11/2016 03:40 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: MB
Chromium, Trivalent	32		0.74	mg/Kg-dry	1	7/12/2016 03:30 PM
CHROMIUM, HEXAVALENT			SW7196A		Prep: SW3060A / 7/11/16	Analyst: MB
Chromium, Hexavalent	ND		1.4	mg/Kg-dry	1	7/12/2016 01:00 PM
MOISTURE			SW3550C			Analyst: EDL
Moisture	32		0.050	% of sample	1	7/10/2016 05:57 PM
PH			SW9045D		Prep: EXTRACT / 7/11/16	Analyst: KF
pH	7.4			s.u.	1	7/11/2016 04:00 PM

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

ALS Group USA, Corp

Date: 12-Jul-16

Client: HRL Compliance Solutions, Inc
Project: Terra Energy - TR 24-28-597 - Pad Site Inves.
Sample ID: Excavation - Bottom Tier Side Wall
Collection Date: 7/7/2016 11:00 AM

Work Order: 1607432
Lab ID: 1607432-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			SW8015M		Prep: SW3546 / 7/11/16	Analyst: IT
DRO (C10-C28)	72		11	mg/Kg-dry	1	7/12/2016 02:20 AM
<i>Surr: 4-Terphenyl-d14</i>	<i>50.9</i>		<i>39-133</i>	<i>%REC</i>	1	7/12/2016 02:20 AM
GASOLINE RANGE ORGANICS BY GC-FID			SW8015D		Prep: SW5035 / 7/11/16	Analyst: IT
GRO (C6-C10)	11		4.0	mg/Kg-dry	1	7/11/2016 01:35 PM
<i>Surr: Toluene-d8</i>	<i>102</i>		<i>50-150</i>	<i>%REC</i>	1	7/11/2016 01:35 PM
MERCURY BY CVAA			SW7471B		Prep: SW7471 / 7/10/16	Analyst: LR
Mercury	0.036		0.018	mg/Kg-dry	1	7/11/2016 01:10 AM
SOLUBLE CATIONS FOR SAR			SW846 6010C		Prep: USDA Method 20B / 7/11/16	Analyst: JEC
Calcium	320		5.0	mg/L	10	7/11/2016 10:47 AM
Magnesium	60		2.0	mg/L	10	7/11/2016 10:47 AM
Sodium	2,200		2.0	mg/L	10	7/11/2016 10:47 AM
SODIUM ADSORPTION RATIO			USDA H60 METHO		Prep: USDA Method 20B / 7/11/16	Analyst: JEC
Sodium Adsorption Ratio	30		0.010	none	1	7/12/2016
METALS BY ICP-MS			SW6020A		Prep: SW3050B / 7/11/16	Analyst: ML
Arsenic	13		2.0	mg/Kg-dry	4	7/11/2016 03:57 PM
Barium	680		2.0	mg/Kg-dry	4	7/11/2016 03:57 PM
Cadmium	ND		0.80	mg/Kg-dry	4	7/11/2016 03:57 PM
Chromium	34		2.0	mg/Kg-dry	4	7/11/2016 03:57 PM
Copper	23		2.0	mg/Kg-dry	4	7/11/2016 03:57 PM
Lead	19		2.0	mg/Kg-dry	4	7/11/2016 03:57 PM
Nickel	29		2.0	mg/Kg-dry	4	7/11/2016 03:57 PM
Selenium	ND		2.0	mg/Kg-dry	4	7/11/2016 03:57 PM
Silver	ND		2.0	mg/Kg-dry	4	7/11/2016 03:57 PM
Zinc	71		4.0	mg/Kg-dry	4	7/11/2016 03:57 PM
SEMI-VOLATILE ORGANIC COMPOUNDS			SW846 8270D		Prep: SW3546 / 7/11/16	Analyst: RS
Acenaphthene	ND		17	µg/Kg-dry	1	7/12/2016 06:33 AM
Acenaphthylene	ND		17	µg/Kg-dry	1	7/12/2016 06:33 AM
Anthracene	ND		17	µg/Kg-dry	1	7/12/2016 06:33 AM
Benzo(a)anthracene	ND		17	µg/Kg-dry	1	7/12/2016 06:33 AM
Benzo(a)pyrene	ND		17	µg/Kg-dry	1	7/12/2016 06:33 AM
Benzo(b)fluoranthene	ND		17	µg/Kg-dry	1	7/12/2016 06:33 AM
Benzo(g,h,i)perylene	ND		17	µg/Kg-dry	1	7/12/2016 06:33 AM
Benzo(k)fluoranthene	ND		17	µg/Kg-dry	1	7/12/2016 06:33 AM
Chrysene	ND		17	µg/Kg-dry	1	7/12/2016 06:33 AM

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

ALS Group USA, Corp

Date: 12-Jul-16

Client: HRL Compliance Solutions, Inc
Project: Terra Energy - TR 24-28-597 - Pad Site Inves.
Sample ID: Excavation - Bottom Tier Side Wall
Collection Date: 7/7/2016 11:00 AM

Work Order: 1607432
Lab ID: 1607432-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		17	µg/Kg-dry	1	7/12/2016 06:33 AM
Fluoranthene	ND		17	µg/Kg-dry	1	7/12/2016 06:33 AM
Fluorene	ND		17	µg/Kg-dry	1	7/12/2016 06:33 AM
Indeno(1,2,3-cd)pyrene	ND		17	µg/Kg-dry	1	7/12/2016 06:33 AM
Naphthalene	ND		17	µg/Kg-dry	1	7/12/2016 06:33 AM
Pyrene	ND		17	µg/Kg-dry	1	7/12/2016 06:33 AM
Surr: 2-Fluorobiphenyl	59.0		12-100	%REC	1	7/12/2016 06:33 AM
Surr: 4-Terphenyl-d14	59.1		25-137	%REC	1	7/12/2016 06:33 AM
Surr: Nitrobenzene-d5	61.7		37-107	%REC	1	7/12/2016 06:33 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B		Prep: SW5035 / 7/8/16	Analyst: AK
Benzene	ND		0.048	mg/Kg-dry	1	7/10/2016 02:34 PM
Ethylbenzene	ND		0.048	mg/Kg-dry	1	7/10/2016 02:34 PM
m,p-Xylene	ND		0.096	mg/Kg-dry	1	7/10/2016 02:34 PM
o-Xylene	ND		0.048	mg/Kg-dry	1	7/10/2016 02:34 PM
Toluene	ND		0.048	mg/Kg-dry	1	7/10/2016 02:34 PM
Xylenes, Total	ND		0.14	mg/Kg-dry	1	7/10/2016 02:34 PM
Surr: 1,2-Dichloroethane-d4	107		70-130	%REC	1	7/10/2016 02:34 PM
Surr: 4-Bromofluorobenzene	94.9		70-130	%REC	1	7/10/2016 02:34 PM
Surr: Dibromofluoromethane	93.2		70-130	%REC	1	7/10/2016 02:34 PM
Surr: Toluene-d8	95.0		70-130	%REC	1	7/10/2016 02:34 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep: USDA Method 20B / 7/11/16	Analyst: JB
Electrical Conductivity @ Saturation	17		0.25	mmhos/cm @2	50	7/11/2016 03:40 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: MB
Chromium, Trivalent	34		0.65	mg/Kg-dry	1	7/12/2016 03:30 PM
CHROMIUM, HEXAVALENT			SW7196A		Prep: SW3060A / 7/11/16	Analyst: MB
Chromium, Hexavalent	ND		1.3	mg/Kg-dry	1	7/12/2016 01:00 PM
MOISTURE			SW3550C			Analyst: EDL
Moisture	23		0.050	% of sample	1	7/10/2016 05:57 PM
PH			SW9045D		Prep: EXTRACT / 7/11/16	Analyst: KF
pH	8.1			s.u.	1	7/11/2016 04:00 PM

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

ALS Group USA, Corp

Date: 12-Jul-16

Client: HRL Compliance Solutions, Inc
Project: Terra Energy - TR 24-28-597 - Pad Site Inves.
Sample ID: Landfarm
Collection Date: 7/7/2016 10:30 AM

Work Order: 1607432
Lab ID: 1607432-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	510		10	mg/Kg-dry	1	7/12/2016 02:50 AM
Surr: 4-Terphenyl-d14	64.4		39-133	%REC	1	7/12/2016 02:50 AM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	61		3.8	mg/Kg-dry	1	7/11/2016 02:00 PM
Surr: Toluene-d8	104		50-150	%REC	1	7/11/2016 02:00 PM
MERCURY BY CVAA						
Mercury	0.042		0.018	mg/Kg-dry	1	7/11/2016 01:13 AM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 7/11/16	Analyst: JEC
Calcium	280		5.0	mg/L	10	7/11/2016 10:53 AM
Magnesium	62		2.0	mg/L	10	7/11/2016 10:53 AM
Sodium	890		2.0	mg/L	10	7/11/2016 10:53 AM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 7/11/16	Analyst: JEC
Sodium Adsorption Ratio	12		0.010	none	1	7/12/2016
METALS BY ICP-MS						
			SW6020A		Prep: SW3050B / 7/11/16	Analyst: ML
Arsenic	12		1.7	mg/Kg-dry	4	7/11/2016 04:03 PM
Barium	560		17	mg/Kg-dry	40	7/11/2016 04:46 PM
Cadmium	ND		0.68	mg/Kg-dry	4	7/11/2016 04:03 PM
Chromium	35		1.7	mg/Kg-dry	4	7/11/2016 04:03 PM
Copper	23		1.7	mg/Kg-dry	4	7/11/2016 04:03 PM
Lead	20		1.7	mg/Kg-dry	4	7/11/2016 04:03 PM
Nickel	27		1.7	mg/Kg-dry	4	7/11/2016 04:03 PM
Selenium	2.1		1.7	mg/Kg-dry	4	7/11/2016 04:03 PM
Silver	ND		1.7	mg/Kg-dry	4	7/11/2016 04:03 PM
Zinc	72		3.4	mg/Kg-dry	4	7/11/2016 04:03 PM
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3546 / 7/11/16	Analyst: RS
Acenaphthene	ND		16	µg/Kg-dry	1	7/12/2016 06:55 AM
Acenaphthylene	ND		16	µg/Kg-dry	1	7/12/2016 06:55 AM
Anthracene	ND		16	µg/Kg-dry	1	7/12/2016 06:55 AM
Benzo(a)anthracene	ND		16	µg/Kg-dry	1	7/12/2016 06:55 AM
Benzo(a)pyrene	ND		16	µg/Kg-dry	1	7/12/2016 06:55 AM
Benzo(b)fluoranthene	ND		16	µg/Kg-dry	1	7/12/2016 06:55 AM
Benzo(g,h,i)perylene	ND		16	µg/Kg-dry	1	7/12/2016 06:55 AM
Benzo(k)fluoranthene	ND		16	µg/Kg-dry	1	7/12/2016 06:55 AM
Chrysene	ND		16	µg/Kg-dry	1	7/12/2016 06:55 AM

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

ALS Group USA, Corp

Date: 12-Jul-16

Client: HRL Compliance Solutions, Inc
Project: Terra Energy - TR 24-28-597 - Pad Site Inves.
Sample ID: Landfarm
Collection Date: 7/7/2016 10:30 AM

Work Order: 1607432
Lab ID: 1607432-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		16	µg/Kg-dry	1	7/12/2016 06:55 AM
Fluoranthene	ND		16	µg/Kg-dry	1	7/12/2016 06:55 AM
Fluorene	63		16	µg/Kg-dry	1	7/12/2016 06:55 AM
Indeno(1,2,3-cd)pyrene	ND		16	µg/Kg-dry	1	7/12/2016 06:55 AM
Naphthalene	ND		16	µg/Kg-dry	1	7/12/2016 06:55 AM
Pyrene	ND		16	µg/Kg-dry	1	7/12/2016 06:55 AM
Surr: 2-Fluorobiphenyl	63.1		12-100	%REC	1	7/12/2016 06:55 AM
Surr: 4-Terphenyl-d14	64.8		25-137	%REC	1	7/12/2016 06:55 AM
Surr: Nitrobenzene-d5	65.4		37-107	%REC	1	7/12/2016 06:55 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B		Prep: SW5035 / 7/8/16	Analyst: AK
Benzene	ND		0.046	mg/Kg-dry	1	7/10/2016 02:09 PM
Ethylbenzene	ND		0.046	mg/Kg-dry	1	7/10/2016 02:09 PM
m,p-Xylene	ND		0.092	mg/Kg-dry	1	7/10/2016 02:09 PM
o-Xylene	ND		0.046	mg/Kg-dry	1	7/10/2016 02:09 PM
Toluene	ND		0.046	mg/Kg-dry	1	7/10/2016 02:09 PM
Xylenes, Total	ND		0.14	mg/Kg-dry	1	7/10/2016 02:09 PM
Surr: 1,2-Dichloroethane-d4	104		70-130	%REC	1	7/10/2016 02:09 PM
Surr: 4-Bromofluorobenzene	104		70-130	%REC	1	7/10/2016 02:09 PM
Surr: Dibromofluoromethane	91.6		70-130	%REC	1	7/10/2016 02:09 PM
Surr: Toluene-d8	95.4		70-130	%REC	1	7/10/2016 02:09 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep: USDA Method 20B / 7/11/16	Analyst: JB
Electrical Conductivity @ Saturation	7.9		0.25	mmhos/cm @2	50	7/11/2016 03:40 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: MB
Chromium, Trivalent	35		0.64	mg/Kg-dry	1	7/12/2016 03:30 PM
CHROMIUM, HEXAVALENT			SW7196A		Prep: SW3060A / 7/11/16	Analyst: MB
Chromium, Hexavalent	ND		1.2	mg/Kg-dry	1	7/12/2016 01:00 PM
MOISTURE			SW3550C			Analyst: EDL
Moisture	21		0.050	% of sample	1	7/10/2016 05:57 PM
PH			SW9045D		Prep: EXTRACT / 7/11/16	Analyst: KF
pH	7.8			s.u.	1	7/11/2016 04:00 PM

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

Client: HRL Compliance Solutions, Inc

QC BATCH REPORT

Work Order: 1607432

Project: Terra Energy - TR 24-28-597 - Pad Site Inves.

Batch ID: **88407**

Instrument ID **GC8**

Method: **SW8015M**

MBLK		Sample ID: DBLKS1-88407-88407				Units: mg/Kg		Analysis Date: 7/11/2016 05:21 PM		
Client ID:		Run ID: GC8_160711B		SeqNo: 3917624		Prep Date: 7/11/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	8.3								
<i>Surr: 4-Terphenyl-d14</i>	2.149	0	3.333	0	64.5	39-133	0			

LCS		Sample ID: DLCSS1-88407-88407				Units: mg/Kg		Analysis Date: 7/11/2016 05:51 PM		
Client ID:		Run ID: GC8_160711B		SeqNo: 3917625		Prep Date: 7/11/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	275.2	8.3	333.3	0	82.5	61-109	0			
<i>Surr: 4-Terphenyl-d14</i>	1.779	0	3.333	0	53.4	39-133	0			

MS		Sample ID: 1607429-01B MS				Units: mg/Kg		Analysis Date: 7/11/2016 06:21 PM		
Client ID:		Run ID: GC8_160711B		SeqNo: 3917626		Prep Date: 7/11/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	260.1	8.2	328.9	12.92	75.2	48-110	0			
<i>Surr: 4-Terphenyl-d14</i>	1.653	0	3.289	0	50.3	39-133	0			

MSD		Sample ID: 1607429-01B MSD				Units: mg/Kg		Analysis Date: 7/11/2016 06:51 PM		
Client ID:		Run ID: GC8_160711B		SeqNo: 3917627		Prep Date: 7/11/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	274.2	8.2	329	12.92	79.4	48-110	260.1	5.28	30	
<i>Surr: 4-Terphenyl-d14</i>	1.71	0	3.29	0	52	39-133	1.653	3.38	30	

The following samples were analyzed in this batch:

1607432-01B	1607432-02B	1607432-03B
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Client: HRL Compliance Solutions, Inc
Work Order: 1607432
Project: Terra Energy - TR 24-28-597 - Pad Site Inves.

QC BATCH REPORT

Batch ID: **88419** Instrument ID **GC9** Method: **SW8015D**

MBLK		Sample ID: MBLK-88419-88419				Units: µg/Kg-dry		Analysis Date: 7/11/2016 12:46 PM		
Client ID:		Run ID: GC9_160711A		SeqNo: 3916309		Prep Date: 7/11/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	4610	0	5000	0	92.2	50-150	0			

LCS		Sample ID: LCS-88419-88419				Units: µg/Kg-dry		Analysis Date: 7/11/2016 12:21 PM		
Client ID:		Run ID: GC9_160711A		SeqNo: 3916307		Prep Date: 7/11/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10)	439500	2,500	500000	0	87.9	70-130	0			
<i>Surr: Toluene-d8</i>	4597	0	5000	0	91.9	50-150	0			

MS		Sample ID: 1607432-02A MS				Units: µg/Kg-dry		Analysis Date: 7/11/2016 02:25 PM		
Client ID: Excavation - Bottom Tier Side Wall		Run ID: GC9_160711A		SeqNo: 3916313		Prep Date: 7/11/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10)	774800	4,000	798700	10660	95.7	70-130	0			
<i>Surr: Toluene-d8</i>	8001	0	7987	0	100	50-150	0			

MSD		Sample ID: 1607432-02A MSD				Units: µg/Kg-dry		Analysis Date: 7/11/2016 02:50 PM		
Client ID: Excavation - Bottom Tier Side Wall		Run ID: GC9_160711A		SeqNo: 3916314		Prep Date: 7/11/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10)	832800	4,000	798700	10660	103	70-130	774800	7.22	30	
<i>Surr: Toluene-d8</i>	7993	0	7987	0	100	50-150	8001	0.11	30	

The following samples were analyzed in this batch: 1607432-01A 1607432-02A 1607432-03A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1607432
Project: Terra Energy - TR 24-28-597 - Pad Site Inves.

QC BATCH REPORT

Batch ID: **88423** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: MBLK-88423-88423				Units: mg/Kg		Analysis Date: 7/11/2016 03:38 PM		
Client ID:		Run ID: ICPMS1_160711A			SeqNo: 3916332		Prep Date: 7/11/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.10								
Chromium	0.02686	0.25								J
Copper	ND	0.25								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	ND	0.50								

LCS		Sample ID: LCS-88423-88423				Units: mg/Kg		Analysis Date: 7/11/2016 03:44 PM		
Client ID:		Run ID: ICPMS1_160711A			SeqNo: 3916333		Prep Date: 7/11/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.901	0.25	5	0	98	80-120	0			
Barium	4.906	0.25	5	0	98.1	80-120	0			
Cadmium	4.778	0.10	5	0	95.6	80-120	0			
Chromium	4.834	0.25	5	0	96.7	80-120	0			
Copper	4.678	0.25	5	0	93.6	80-120	0			
Lead	4.798	0.25	5	0	96	80-120	0			
Nickel	4.73	0.25	5	0	94.6	80-120	0			
Selenium	4.61	0.25	5	0	92.2	80-120	0			
Silver	4.638	0.25	5	0	92.8	80-120	0			
Zinc	4.833	0.50	5	0	96.7	80-120	0			

MS		Sample ID: 1607287-07BMS				Units: mg/Kg		Analysis Date: 7/11/2016 04:34 PM		
Client ID:		Run ID: ICPMS1_160711A			SeqNo: 3916636		Prep Date: 7/11/2016		DF: 4	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	17.23	1.3	6.485	9.202	124	75-125	0			
Barium	82.44	1.3	6.485	60.44	339	75-125	0			SO
Cadmium	7.759	0.52	6.485	0.291	115	75-125	0			
Chromium	23.82	1.3	6.485	13.56	158	75-125	0			S
Copper	31.96	1.3	6.485	25.96	92.5	75-125	0			O
Lead	18.45	1.3	6.485	10.7	119	75-125	0			
Nickel	30.53	1.3	6.485	23.14	114	75-125	0			
Selenium	8.01	1.3	6.485	1.105	106	75-125	0			
Silver	6.594	1.3	6.485	0.07778	100	75-125	0			
Zinc	54.94	2.6	6.485	44.2	166	75-125	0			SO

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

Client: HRL Compliance Solutions, Inc
Work Order: 1607432
Project: Terra Energy - TR 24-28-597 - Pad Site Inves.

QC BATCH REPORT

Batch ID: **88423** Instrument ID **ICPMS1** Method: **SW6020A**

MSD		Sample ID: 1607287-07BMSD				Units: mg/Kg		Analysis Date: 7/11/2016 04:40 PM		
Client ID:		Run ID: ICPMS1_160711A			SeqNo: 3916637		Prep Date: 7/11/2016		DF: 4	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	16.95	1.3	6.485	9.202	119	75-125	17.23	1.62	25	
Barium	79.64	1.3	6.485	60.44	296	75-125	82.44	3.46	25	SO
Cadmium	7.668	0.52	6.485	0.291	114	75-125	7.759	1.18	25	
Chromium	22.75	1.3	6.485	13.56	142	75-125	23.82	4.59	25	S
Copper	33.75	1.3	6.485	25.96	120	75-125	31.96	5.45	25	O
Lead	19.68	1.3	6.485	10.7	138	75-125	18.45	6.45	25	S
Nickel	29.47	1.3	6.485	23.14	97.6	75-125	30.53	3.55	25	
Selenium	8.418	1.3	6.485	1.105	113	75-125	8.01	4.96	25	
Silver	6.56	1.3	6.485	0.07778	100	75-125	6.594	0.513	25	
Zinc	54.35	2.6	6.485	44.2	156	75-125	54.94	1.09	25	SO

The following samples were analyzed in this batch:

1607432-01B	1607432-02B	1607432-03B
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1607432
Project: Terra Energy - TR 24-28-597 - Pad Site Inves.

QC BATCH REPORT

Batch ID: **88406** Instrument ID **SVMS7** Method: **SW846 8270D**

MBLK		Sample ID: SBLKS1-88406-88406				Units: µg/Kg		Analysis Date: 7/11/2016 04:28 PM		
Client ID:		Run ID: SVMS7_160711A		SeqNo: 3917622		Prep Date: 7/11/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	13								
Acenaphthylene	ND	13								
Anthracene	ND	13								
Benzo(a)anthracene	ND	13								
Benzo(a)pyrene	ND	13								
Benzo(b)fluoranthene	ND	13								
Benzo(g,h,i)perylene	ND	13								
Benzo(k)fluoranthene	ND	13								
Chrysene	ND	13								
Dibenzo(a,h)anthracene	ND	13								
Fluoranthene	ND	13								
Fluorene	ND	13								
Indeno(1,2,3-cd)pyrene	ND	13								
Naphthalene	ND	13								
Pyrene	ND	13								
<i>Surr: 2-Fluorobiphenyl</i>	2272	0	3333	0	68.2	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	2633	0	3333	0	79	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	2392	0	3333	0	71.8	37-107	0			

LCS		Sample ID: SLCSS1-88406-88406				Units: µg/Kg		Analysis Date: 7/11/2016 04:51 PM		
Client ID:		Run ID: SVMS7_160711A		SeqNo: 3917623		Prep Date: 7/11/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1090	13	1333	0	81.7	45-110	0			
Acenaphthylene	1173	13	1333	0	88	45-105	0			
Anthracene	1223	13	1333	0	91.7	55-105	0			
Benzo(a)anthracene	1211	13	1333	0	90.8	50-110	0			
Benzo(a)pyrene	1261	13	1333	0	94.5	50-110	0			
Benzo(b)fluoranthene	1245	13	1333	0	93.4	45-115	0			
Benzo(g,h,i)perylene	1273	13	1333	0	95.4	40-125	0			
Benzo(k)fluoranthene	1150	13	1333	0	86.2	45-115	0			
Chrysene	1190	13	1333	0	89.2	55-110	0			
Dibenzo(a,h)anthracene	1317	13	1333	0	98.8	40-125	0			
Fluoranthene	1406	13	1333	0	105	55-115	0			
Fluorene	1164	13	1333	0	87.3	50-110	0			
Indeno(1,2,3-cd)pyrene	1397	13	1333	0	105	40-120	0			
Naphthalene	1049	13	1333	0	78.7	40-105	0			
Pyrene	1175	13	1333	0	88.1	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	2457	0	3333	0	73.7	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	2541	0	3333	0	76.2	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	2624	0	3333	0	78.7	37-107	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 1607432
Project: Terra Energy - TR 24-28-597 - Pad Site Inves.

QC BATCH REPORT

Batch ID: **88406** Instrument ID **SVMS7** Method: **SW846 8270D**

MS		Sample ID: 1607319-03A MS			Units: µg/Kg			Analysis Date: 7/11/2016 10:21 PM		
Client ID:		Run ID: SVMS7_160711A			SeqNo: 3917592		Prep Date: 7/11/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	824.4	13	1265	11.12	64.3	45-110		0		
Acenaphthylene	877.5	13	1265	13.08	68.3	45-105		0		
Anthracene	974.3	13	1265	47.1	73.3	55-105		0		
Benzo(a)anthracene	1036	13	1265	218.5	64.6	50-110		0		
Benzo(a)pyrene	1098	13	1265	251.2	66.9	50-110		0		
Benzo(b)fluoranthene	1156	13	1265	376.8	61.6	45-115		0		
Benzo(g,h,i)perylene	1114	13	1265	260.4	67.4	40-125		0		
Benzo(k)fluoranthene	933.2	13	1265	124.3	63.9	45-115		0		
Chrysene	1024	13	1265	246.6	61.5	55-110		0		
Dibenzo(a,h)anthracene	1034	13	1265	56.26	77.3	40-125		0		
Fluoranthene	1484	13	1265	521.4	76	55-115		0		
Fluorene	913.6	13	1265	15.7	71	50-110		0		
Indeno(1,2,3-cd)pyrene	1248	13	1265	316	73.6	40-120		0		
Naphthalene	710.5	13	1265	30.09	53.8	40-105		0		
Pyrene	1055	13	1265	327.8	57.4	45-125		0		
<i>Surr: 2-Fluorobiphenyl</i>	1792	0	3163	0	56.7	12-100		0		
<i>Surr: 4-Terphenyl-d14</i>	1952	0	3163	0	61.7	25-137		0		
<i>Surr: Nitrobenzene-d5</i>	1728	0	3163	0	54.6	37-107		0		

MS		Sample ID: 1607319-09A MS			Units: µg/Kg			Analysis Date: 7/11/2016 11:51 PM		
Client ID:		Run ID: SVMS7_160711A			SeqNo: 3917596		Prep Date: 7/11/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1032	13	1314	0	78.5	45-110		0		
Acenaphthylene	1139	13	1314	0	86.7	45-105		0		
Anthracene	1231	13	1314	0	93.7	55-105		0		
Benzo(a)anthracene	1196	13	1314	39.57	88	50-110		0		
Benzo(a)pyrene	1245	13	1314	34.38	92.1	50-110		0		
Benzo(b)fluoranthene	1205	13	1314	44.11	88.4	45-115		0		
Benzo(g,h,i)perylene	1198	13	1314	31.14	88.8	40-125		0		
Benzo(k)fluoranthene	1100	13	1314	19.46	82.3	45-115		0		
Chrysene	1146	13	1314	25.95	85.3	55-110		0		
Dibenzo(a,h)anthracene	1277	13	1314	0	97.2	40-125		0		
Fluoranthene	1516	13	1314	45.41	112	55-115		0		
Fluorene	1163	13	1314	0	88.5	50-110		0		
Indeno(1,2,3-cd)pyrene	1399	13	1314	35.68	104	40-120		0		
Naphthalene	1009	13	1314	7.135	76.3	40-105		0		
Pyrene	1114	13	1314	33.08	82.2	45-125		0		
<i>Surr: 2-Fluorobiphenyl</i>	2332	0	3285	0	71	12-100		0		
<i>Surr: 4-Terphenyl-d14</i>	2354	0	3285	0	71.7	25-137		0		
<i>Surr: Nitrobenzene-d5</i>	2557	0	3285	0	77.8	37-107		0		

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1607432
 Project: Terra Energy - TR 24-28-597 - Pad Site Inves.

QC BATCH REPORT

Batch ID: 88406 Instrument ID SVMS7 Method: SW846 8270D

MSD				Sample ID: 1607319-03A MSD			Units: µg/Kg		Analysis Date: 7/11/2016 10:44 PM		
Client ID:		Run ID: SVMS7_160711A			SeqNo: 3917593		Prep Date: 7/11/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	942.3	13	1299	11.12	71.7	45-110	824.4	13.3	30		
Acenaphthylene	1013	13	1299	13.08	77	45-105	877.5	14.3	30		
Anthracene	1168	13	1299	47.1	86.3	55-105	974.3	18	30		
Benzo(a)anthracene	1271	13	1299	218.5	81	50-110	1036	20.4	30		
Benzo(a)pyrene	1363	13	1299	251.2	85.6	50-110	1098	21.5	30		
Benzo(b)fluoranthene	1427	13	1299	376.8	80.8	45-115	1156	21	30		
Benzo(g,h,i)perylene	1354	13	1299	260.4	84.2	40-125	1114	19.5	30		
Benzo(k)fluoranthene	1169	13	1299	124.3	80.4	45-115	933.2	22.4	30		
Chrysene	1263	13	1299	246.6	78.3	55-110	1024	20.9	30		
Dibenzo(a,h)anthracene	1263	13	1299	56.26	92.9	40-125	1034	19.9	30		
Fluoranthene	1827	13	1299	521.4	101	55-115	1484	20.7	30		
Fluorene	1070	13	1299	15.7	81.2	50-110	913.6	15.8	30		
Indeno(1,2,3-cd)pyrene	1522	13	1299	316	92.9	40-120	1248	19.8	30		
Naphthalene	771.5	13	1299	30.09	57.1	40-105	710.5	8.23	30		
Pyrene	1328	13	1299	327.8	77	45-125	1055	22.9	30		
Surr: 2-Fluorobiphenyl	1924	0	3247	0	59.2	12-100	1792	7.06	40		
Surr: 4-Terphenyl-d14	2220	0	3247	0	68.4	25-137	1952	12.8	40		
Surr: Nitrobenzene-d5	1823	0	3247	0	56.2	37-107	1728	5.35	40		

MSD				Sample ID: 1607319-09A MSD			Units: µg/Kg		Analysis Date: 7/12/2016 12:13 PM		
Client ID:		Run ID: SVMS7_160711A			SeqNo: 3917619		Prep Date: 7/11/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	997.1	13	1308	0	76.2	45-110	1032	3.45	30		
Acenaphthylene	1110	13	1308	0	84.9	45-105	1139	2.58	30		
Anthracene	1180	13	1308	0	90.2	55-105	1231	4.23	30		
Benzo(a)anthracene	1155	13	1308	39.57	85.3	50-110	1196	3.43	30		
Benzo(a)pyrene	1200	13	1308	34.38	89.1	50-110	1245	3.7	30		
Benzo(b)fluoranthene	1193	13	1308	44.11	87.9	45-115	1205	1.02	30		
Benzo(g,h,i)perylene	1179	13	1308	31.14	87.8	40-125	1198	1.58	30		
Benzo(k)fluoranthene	1044	13	1308	19.46	78.4	45-115	1100	5.25	30		
Chrysene	1104	13	1308	25.95	82.4	55-110	1146	3.8	30		
Dibenzo(a,h)anthracene	1234	13	1308	0	94.3	40-125	1277	3.45	30		
Fluoranthene	1455	13	1308	45.41	108	55-115	1516	4.14	30		
Fluorene	1127	13	1308	0	86.1	50-110	1163	3.23	30		
Indeno(1,2,3-cd)pyrene	1381	13	1308	35.68	103	40-120	1399	1.28	30		
Naphthalene	1002	13	1308	7.135	76.1	40-105	1009	0.674	30		
Pyrene	1073	13	1308	33.08	79.5	45-125	1114	3.72	30		
Surr: 2-Fluorobiphenyl	2242	0	3269	0	68.6	12-100	2332	3.95	40		
Surr: 4-Terphenyl-d14	2238	0	3269	0	68.5	25-137	2354	5.07	40		
Surr: Nitrobenzene-d5	2486	0	3269	0	76	37-107	2557	2.82	40		

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

Client: HRL Compliance Solutions, Inc
Work Order: 1607432
Project: Terra Energy - TR 24-28-597 - Pad Site Inves.

QC BATCH REPORT

Batch ID: **88406** Instrument ID **SVMS7** Method: **SW846 8270D**

The following samples were analyzed in this batch:

1607432-01B	1607432-02B	1607432-03B
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
 Work Order: 1607432
 Project: Terra Energy - TR 24-28-597 - Pad Site Inves.

QC BATCH REPORT

Batch ID: **88387** Instrument ID **VMS9** Method: **SW8260B**

MBLK		Sample ID: MBLK-88362-88387			Units: µg/Kg-dry			Analysis Date: 7/10/2016 12:55 PM		
Client ID:		Run ID: VMS9_160710A			SeqNo: 3914302		Prep Date: 7/8/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	30								
Ethylbenzene	ND	30								
m,p-Xylene	ND	60								
o-Xylene	ND	30								
Toluene	ND	30								
Xylenes, Total	ND	90								
<i>Surr: 1,2-Dichloroethane-d4</i>	1048	0	1000	0	105	70-130	0			
<i>Surr: 4-Bromofluorobenzene</i>	952.5	0	1000	0	95.2	70-130	0			
<i>Surr: Dibromofluoromethane</i>	890	0	1000	0	89	70-130	0			
<i>Surr: Toluene-d8</i>	966.5	0	1000	0	96.6	70-130	0			

MBLK		Sample ID: MBLK-88387-88387			Units: µg/Kg-dry			Analysis Date: 7/10/2016 12:07 PM		
Client ID:		Run ID: VMS6_160710A			SeqNo: 3915161		Prep Date: 7/8/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	30								
Ethylbenzene	ND	30								
m,p-Xylene	ND	60								
o-Xylene	ND	30								
Toluene	ND	30								
Xylenes, Total	ND	90								
<i>Surr: 1,2-Dichloroethane-d4</i>	952	0	1000	0	95.2	70-130	0			
<i>Surr: 4-Bromofluorobenzene</i>	1028	0	1000	0	103	70-130	0			
<i>Surr: Dibromofluoromethane</i>	949.5	0	1000	0	95	70-130	0			
<i>Surr: Toluene-d8</i>	897	0	1000	0	89.7	70-130	0			

LCS		Sample ID: LCS-88362-88387			Units: µg/Kg-dry			Analysis Date: 7/10/2016 11:41 AM		
Client ID:		Run ID: VMS9_160710A			SeqNo: 3914301		Prep Date: 7/8/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	980.5	30	1000	0	98	75-125	0			
Ethylbenzene	981.5	30	1000	0	98.2	75-125	0			
m,p-Xylene	2012	60	2000	0	101	80-125	0			
o-Xylene	962	30	1000	0	96.2	75-125	0			
Toluene	979	30	1000	0	97.9	70-125	0			
Xylenes, Total	2974	90	3000	0	99.1	75-125	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	1030	0	1000	0	103	70-130	0			
<i>Surr: 4-Bromofluorobenzene</i>	1010	0	1000	0	101	70-130	0			
<i>Surr: Dibromofluoromethane</i>	951	0	1000	0	95.1	70-130	0			
<i>Surr: Toluene-d8</i>	980.5	0	1000	0	98	70-130	0			

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1607432
 Project: Terra Energy - TR 24-28-597 - Pad Site Inves.

QC BATCH REPORT

Batch ID: **88387** Instrument ID **VMS9** Method: **SW8260B**

LCS		Sample ID: LCS-88387-88387				Units: µg/Kg-dry		Analysis Date: 7/10/2016 10:49 AM		
Client ID:		Run ID: VMS6_160710A			SeqNo: 3915160		Prep Date: 7/8/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1256	30	1000	0	126	75-125	0			S
Ethylbenzene	1092	30	1000	0	109	75-125	0			
m,p-Xylene	2184	60	2000	0	109	80-125	0			
o-Xylene	1072	30	1000	0	107	75-125	0			
Toluene	1124	30	1000	0	112	70-125	0			
Xylenes, Total	3256	90	3000	0	109	75-125	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	928.5	0	1000	0	92.8	70-130	0			
<i>Surr: 4-Bromofluorobenzene</i>	1058	0	1000	0	106	70-130	0			
<i>Surr: Dibromofluoromethane</i>	1006	0	1000	0	101	70-130	0			
<i>Surr: Toluene-d8</i>	914.5	0	1000	0	91.4	70-130	0			

MS		Sample ID: 1607432-01A MS				Units: µg/Kg-dry		Analysis Date: 7/10/2016 07:30 PM		
Client ID: Excavation - Tier 1 Side Wall		Run ID: VMS9_160710A			SeqNo: 3914305		Prep Date: 7/8/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	2155	58	1941	0	111	75-125	0			
Ethylbenzene	2267	58	1941	0	117	75-125	0			
m,p-Xylene	5896	120	3882	975.4	127	80-125	0			S
o-Xylene	2529	58	1941	317.4	114	75-125	0			
Toluene	2138	58	1941	0	110	70-125	0			
Xylenes, Total	8426	170	5824	1300	122	75-125	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	1995	0	1941	0	103	70-130	0			
<i>Surr: 4-Bromofluorobenzene</i>	2112	0	1941	0	109	70-130	0			
<i>Surr: Dibromofluoromethane</i>	1933	0	1941	0	99.6	70-130	0			
<i>Surr: Toluene-d8</i>	1937	0	1941	0	99.8	70-130	0			

MSD		Sample ID: 1607432-01A MSD				Units: µg/Kg-dry		Analysis Date: 7/10/2016 07:55 PM		
Client ID: Excavation - Tier 1 Side Wall		Run ID: VMS9_160710A			SeqNo: 3914306		Prep Date: 7/8/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	2195	58	1941	0	113	75-125	2155	1.87	30	
Ethylbenzene	2193	58	1941	0	113	75-125	2267	3.35	30	
m,p-Xylene	5202	120	3882	975.4	109	80-125	5896	12.5	30	
o-Xylene	2392	58	1941	317.4	107	75-125	2529	5.56	30	
Toluene	2082	58	1941	0	107	70-125	2138	2.67	30	
Xylenes, Total	7595	170	5824	1300	108	75-125	8426	10.4	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	1963	0	1941	0	101	70-130	1995	1.62	30	
<i>Surr: 4-Bromofluorobenzene</i>	2046	0	1941	0	105	70-130	2112	3.17	30	
<i>Surr: Dibromofluoromethane</i>	1798	0	1941	0	92.6	70-130	1933	7.23	30	
<i>Surr: Toluene-d8</i>	1870	0	1941	0	96.4	70-130	1937	3.52	30	

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

Client: HRL Compliance Solutions, Inc
Work Order: 1607432
Project: Terra Energy - TR 24-28-597 - Pad Site Inves.

QC BATCH REPORT

Batch ID: **88387** Instrument ID **VMS9** Method: **SW8260B**

The following samples were analyzed in this batch:

1607432-01A	1607432-02A	1607432-03A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1607432
Project: Terra Energy - TR 24-28-597 - Pad Site Inves.

QC BATCH REPORT

Batch ID: **88442** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-88442-88442				Units: s.u.		Analysis Date: 7/11/2016 04:00 PM		
Client ID:		Run ID: WETCHEM_160711K		SeqNo: 3916351		Prep Date: 7/11/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	3.98	0	4	0	99.5	90-110	0			

DUP		Sample ID: 1607432-02B DUP				Units: s.u.		Analysis Date: 7/11/2016 04:00 PM		
Client ID: Excavation - Bottom Tier Side Wall		Run ID: WETCHEM_160711K		SeqNo: 3916354		Prep Date: 7/11/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.06	0	0	0	0	0-0	8.11	0.618	20	

The following samples were analyzed in this batch:

1607432-01B	1607432-02B	1607432-03B
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1607432
Project: Terra Energy - TR 24-28-597 - Pad Site Inves.

QC BATCH REPORT

Batch ID: **88489** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK	Sample ID: MBLK-88489-88489				Units: mg/Kg			Analysis Date: 7/12/2016 01:00 PM		
Client ID:	Run ID: WETCHEM_160712D			SeqNo: 3918442	Prep Date: 7/11/2016		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.97

LCS	Sample ID: LCS-88489-88489				Units: mg/Kg			Analysis Date: 7/12/2016 01:00 PM		
Client ID:	Run ID: WETCHEM_160712D			SeqNo: 3918441	Prep Date: 7/11/2016		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.078 0.97 4.854 0 84 80-120 0

MS	Sample ID: 1607316-04AMSI				Units: mg/Kg			Analysis Date: 7/12/2016 01:00 PM		
Client ID:	Run ID: WETCHEM_160712D			SeqNo: 3918421	Prep Date: 7/11/2016		DF: 100			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 2483 97 3093 0 80.3 75-125 0

MS	Sample ID: 1607316-04AMS				Units: mg/Kg			Analysis Date: 7/12/2016 01:00 PM		
Client ID:	Run ID: WETCHEM_160712D			SeqNo: 3918423	Prep Date: 7/11/2016		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.97 4.854 0 0 75-125 0 S

MS	Sample ID: 1607319-03AMSI				Units: mg/Kg			Analysis Date: 7/12/2016 01:00 PM		
Client ID:	Run ID: WETCHEM_160712D			SeqNo: 3918428	Prep Date: 7/11/2016		DF: 100			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 2727 98 3297 0.3238 82.7 75-125 0

MS	Sample ID: 1607319-03AMS				Units: mg/Kg			Analysis Date: 7/12/2016 01:00 PM		
Client ID:	Run ID: WETCHEM_160712D			SeqNo: 3918430	Prep Date: 7/11/2016		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.95 4.762 0.3238 -6.8 75-125 0 S

MSD	Sample ID: 1607316-04AMSD				Units: mg/Kg			Analysis Date: 7/12/2016 01:00 PM		
Client ID:	Run ID: WETCHEM_160712D			SeqNo: 3918424	Prep Date: 7/11/2016		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.96 4.808 0 0 75-125 0 0 20 S

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

Client: HRL Compliance Solutions, Inc
Work Order: 1607432
Project: Terra Energy - TR 24-28-597 - Pad Site Inves.

QC BATCH REPORT

Batch ID: **88489** Instrument ID **WETCHEM** Method: **SW7196A**

MSD		Sample ID: 1607319-03AMSD				Units: mg/Kg		Analysis Date: 7/12/2016 01:00 PM			
Client ID:		Run ID: WETCHEM_160712D			SeqNo: 3918431		Prep Date: 7/11/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chromium, Hexavalent	ND	0.99	4.95	0.3238	-6.54	75-125	0	0	20	S	

The following samples were analyzed in this batch:

 1607432-01B 1607432-02B 1607432-03B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1607432
Project: Terra Energy - TR 24-28-597 - Pad Site Inves.

QC BATCH REPORT

Batch ID: **R191232** Instrument ID **MOIST** Method: **SW3550C**

MBLK		Sample ID: WBLKS-R191232				Units: % of sample		Analysis Date: 7/10/2016 05:57 PM		
Client ID:		Run ID: MOIST_160710A		SeqNo: 3915421		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture ND 0.050

LCS		Sample ID: LCS-R191232				Units: % of sample		Analysis Date: 7/10/2016 05:57 PM		
Client ID:		Run ID: MOIST_160710A		SeqNo: 3915420		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: 1607316-04A DUP				Units: % of sample		Analysis Date: 7/10/2016 05:57 PM		
Client ID:		Run ID: MOIST_160710A		SeqNo: 3915403		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 30.16 0.050 0 0 0 29.97 0.632 20

DUP		Sample ID: 1607319-03A DUP				Units: % of sample		Analysis Date: 7/10/2016 05:57 PM		
Client ID:		Run ID: MOIST_160710A		SeqNo: 3915409		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 6.57 0.050 0 0 0 6.57 0 20

The following samples were analyzed in this batch:

1607432-01B	1607432-02B	1607432-03B
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.



ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
 TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Form 202r1

WORKORDER #	1607432
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SAMPLER	Kris Rowe	DATE	7/7/2016	PAGE	1 of 2																																																												
PROJECT NAME	Terra Energy -TR 24-28-597 - Pad Site Inves.	SITE ID	Trail Ridge 24-28-597 Pad	TURNAROUND	24 Rush																																																												
DISPOSAL	By Lab or Return to Client																																																																
PROJECT No.	EDD FORMAT	<table border="1"> <tr><td>DRO</td><td>GRO</td><td>BTEX</td><td>910-1 Metals</td><td>Semi Vols - PAH</td><td>SAR / EC / pH</td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>				DRO	GRO	BTEX	910-1 Metals	Semi Vols - PAH	SAR / EC / pH																																																						
DRO	GRO					BTEX	910-1 Metals	Semi Vols - PAH	SAR / EC / pH																																																								
COMPANY NAME	HRL COMPLIANCE SOLUTIONS Inc.	PURCHASE ORDER																																																															
BILL TO COMPANY	Terra Energy	INVOICE ATTN TO	Mike Gardner																																																														
SEND REPORT TO	KRIS ROWE	ADDRESS																																																															
ADDRESS	2385 F 1/2	CITY / STATE / ZIP																																																															
PHONE	970-243-3271	PHONE																																																															
FAX	970-243-3280	FAX																																																															
E-MAIL	KROWE@HRLCOMP.COM	E-MAIL																																																															

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	DRO	GRO	BTEX	910-1 Metals	Semi Vols - PAH	SAR / EC / pH
1	Excavation - Tier 1 Side Wall	S	7/7/2016	10:45				x	x	x	x	x	x
2	Excavation - Bottom Tier Side Wall	S	7/7/2016	11:00				x	x	x	x	x	x
3	Landfarm	S	7/7/2016	10:30				x	x	x	x	x	x

*Time Zone (Circle): EST CST MST PST Matrix: O=oil S=soil NS=non-soil solid W=water L=liquid E=extract F=filter

For metals or anions, please detail analytes below.

Comments: <div style="text-align: center; font-size: 2em;">340</div>	QC PACKAGE (check below)
	<input type="checkbox"/> LEVEL II (Standard QC)
	<input type="checkbox"/> LEVEL III (Std QC + forms)
	<input type="checkbox"/> LEVEL IV (Std QC + forms + raw data)
	Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		Kris Rowe	7/7/2016	
RECEIVED BY			7-7-16	1805
RELINQUISHED BY			7-7-16	1820
RECEIVED BY		Kerul WIERENCA	7/6/16	1600
RELINQUISHED BY				
RECEIVED BY				

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **08-Jul-16 16:00**

Work Order: **1607432**

Received by: **KRW**

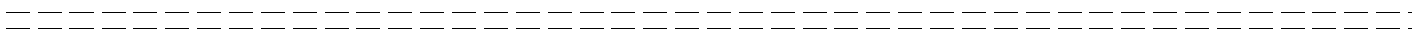
Checklist completed by Keith Wierenga 08-Jul-16
eSignature Date

Reviewed by: Chad Whelton 08-Jul-16
eSignature Date

Matrices: Soil
 Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.4/3.4 C</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>7/8/2016 4:40:44 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u></u>		

Login Notes:



Client Contacted: _____ Date Contacted: _____ Person Contacted: _____

Contacted By: _____ Regarding: _____

Comments:

CorrectiveAction: