TABLE 1
UNOCAL 1
SOIL ANALYTICAL RESULTS
CAERUS OIL AND GAS
PICEANCE BASIN, COLORADO

PARAMETER	COGCC CONCENTRATION LEVELS	UNITS	Unocal 1 Landfarm	BKGD 1*
Sample Date			9/26/2016	7/22/2013
Sample Type			Landfarm	Background
Arsenic	0.39	mg/kg	24	39
Barium	15,000	mg/kg	350	NA
Cadmium	70	mg/kg	ND	NA
Chromium (III)	120,000	mg/kg	17	NA
Chromium (VI)	23	mg/kg	ND	NA
Copper	3,100	mg/kg	22	NA
Lead	400	mg/kg	13	NA
Mercury	23	mg/kg	0.019	NA
Nickel	1,600	mg/kg	23	NA
Selenium	390	mg/kg	ND	NA
Silver	390	mg/kg	ND	NA
Zinc	23,000	mg/kg	71	NA
EC	4 or 2x background	mmhos/cm	18	NA
pH	6-9	SU	8.0	NA
SAR	12	unitless	15	NA
TPH-DRO			190	NA
TPH-GRO			38	NA
TPH	500	mg/kg	228	NA
Benzene	0.17	mg/kg	ND	NA
Toluene	85	mg/kg	ND	NA
Ethylbenzene	100	mg/kg	ND	NA
Total Xylenes	175	mg/kg	0.28	NA
Acenaphthene	1,000	mg/kg	ND	NA
Anthracene	1,000	mg/kg	ND	NA
Benz(a)anthracene	0.22	mg/kg	ND	NA
Benzo(b)fluoranthene	0.22	mg/kg	ND	NA
Benzo(k)fluoranthene	2.2	mg/kg	ND	NA
Benzo(a)pyrene	0.022	mg/kg	ND	NA
Chrysene	22	mg/kg	ND	NA
Dibenzo(a,h)anthracene	0.022	mg/kg	ND	NA
Fluoranthene	1,000	mg/kg	ND	NA
Fluorene	1,000	mg/kg	ND	NA
Indeno(1,2,3,c,d)pyrene	0.22	mg/kg	ND	NA
Naphthalene	23	mg/kg	ND	NA
Pyrene	1,000	mg/kg	ND	NA

Notes:
* This background sample was collected near another pad location, Chevron 41-8D (COGCC Location ID 324198)
< - less than the stated reporting limit
Highlight - indicates result exceeds the COGCC concentration level
COGCC - Colorado Oil and Gas Conservation Commission
EC - electrical conductivity
mg/kg - milligrams per kilogram
mmhos/cm - millimhos per centimeter
NA - not analyzed
SAR - sodium adsorption ratio
SU - standard unit
TPH-GRO - total petroleum hydrocarbons-gasoline range organics
TPH-DRO - total petroleum hydrocarbons-diesel range organics
TPH - combination of TPH-GRO and TPH-DRO

04-Oct-2016

Jake Janicek
Caerus Oil and Gas LLC
120 N. Railroad Ave. Suite D
Parachute, CO 81635

Re: **Unocal 1 Landfarm** Work Order: **16091544**

Dear Jake,

ALS Environmental received 1 sample on 27-Sep-2016 09:30 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 23.

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

Sincerely,

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager

Certificate No: MN 998501

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

ALS Group USA, Corp

Date: 04-Oct-16

Client: Caerus Oil and Gas LLC
Project: Unocal 1 Landfarm
Work Order: **16091544**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
16091544-01	Unocal 1 Landfarm	Soil		9/26/2016 13:48	9/27/2016 09:30	☐

ALS Group USA, Corp

Date: 04-Oct-16

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 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.

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

ALS Group USA, Corp

Date: *04-Oct-16*

Client: Caerus Oil and Gas LLC
Project: Unocal 1 Landfarm
Sample ID: Unocal 1 Landfarm
Collection Date: 9/26/2016 01:48 PM

Work Order: 16091544
Lab ID: 16091544-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3546 / 9/30/16	Analyst: **IT**
DRO (C10-C28)	**190**		**9.3**	**mg/Kg-dry**	1	10/3/2016 12:18 PM
Surr: 4-Terphenyl-d14	*65.2*		*39-133*	*%REC*	1	10/3/2016 12:18 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015D**		Prep: SW5035 / 9/27/16	Analyst: **IT**
GRO (C6-C10)	**38**		**3.1**	**mg/Kg-dry**	1	9/27/2016 07:56 PM
Surr: Toluene-d8	*101*		*50-150*	*%REC*	1	9/27/2016 07:56 PM
MERCURY BY CVAA			**SW7471B**		Prep: SW7471 / 10/3/16	Analyst: **LR**
Mercury	**0.019**		**0.015**	**mg/Kg-dry**	1	10/3/2016 04:09 PM
METALS ANALYSIS BY ICP			**SW846 6010C**		Prep: SW3050B / 9/30/16	Analyst: **JEC**
Arsenic	**24**		**0.45**	**mg/Kg-dry**	1	10/1/2016 11:04 PM
Barium	**350**		**0.45**	**mg/Kg-dry**	1	10/1/2016 11:04 PM
Cadmium	ND		0.90	mg/Kg-dry	1	10/1/2016 11:04 PM
Chromium	**17**		**0.45**	**mg/Kg-dry**	1	10/1/2016 11:04 PM
Copper	**22**		**0.90**	**mg/Kg-dry**	1	10/1/2016 11:04 PM
Lead	**13**		**0.45**	**mg/Kg-dry**	1	10/1/2016 11:04 PM
Nickel	**23**		**0.45**	**mg/Kg-dry**	1	10/1/2016 11:04 PM
Selenium	ND		0.90	mg/Kg-dry	1	10/1/2016 11:04 PM
Silver	ND		0.45	mg/Kg-dry	1	10/1/2016 11:04 PM
Zinc	**71**		**0.90**	**mg/Kg-dry**	1	10/1/2016 11:04 PM
SOLUBLE CATIONS FOR SAR			**SW846 6010C**		Prep: USDA Method 20B / 9/29/16	Analyst: **JEC**
Calcium	**660**		**5.0**	**mg/L**	10	9/30/2016 10:34 AM
Magnesium	**530**		**2.0**	**mg/L**	10	9/30/2016 10:34 AM
Sodium	**2,100**		**2.0**	**mg/L**	10	9/30/2016 10:34 AM
SODIUM ADSORPTION RATIO			**USDA H60 METHO**		Prep: USDA Method 20B / 9/29/16	Analyst: **JEC**
Sodium Adsorption Ratio	**15**		**0.010**	**none**	1	9/30/2016
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep: SW3546 / 9/28/16	Analyst: **JF**
Acenaphthene	ND		0.015	mg/Kg-dry	1	9/29/2016 03:23 AM
Anthracene	ND		0.015	mg/Kg-dry	1	9/29/2016 03:23 AM
Benzo(a)anthracene	ND		0.015	mg/Kg-dry	1	9/29/2016 03:23 AM
Benzo(a)pyrene	ND		0.015	mg/Kg-dry	1	9/29/2016 03:23 AM
Benzo(b)fluoranthene	ND		0.015	mg/Kg-dry	1	9/29/2016 03:23 AM
Benzo(k)fluoranthene	ND		0.015	mg/Kg-dry	1	9/29/2016 03:23 AM
Chrysene	ND		0.015	mg/Kg-dry	1	9/29/2016 03:23 AM
Dibenzo(a,h)anthracene	ND		0.015	mg/Kg-dry	1	9/29/2016 03:23 AM
Fluoranthene	ND		0.015	mg/Kg-dry	1	9/29/2016 03:23 AM

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

ALS Group USA, Corp

Date: *04-Oct-16*

Client: Caerus Oil and Gas LLC
Project: Unocal 1 Landfarm
Work Order: 16091544
Sample ID: Unocal 1 Landfarm
Lab ID: 16091544-01
Collection Date: 9/26/2016 01:48 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		0.015	mg/Kg-dry	1	9/29/2016 03:23 AM
Indeno(1,2,3-cd)pyrene	ND		0.015	mg/Kg-dry	1	9/29/2016 03:23 AM
Naphthalene	ND		0.015	mg/Kg-dry	1	9/29/2016 03:23 AM
Pyrene	ND		0.015	mg/Kg-dry	1	9/29/2016 03:23 AM
Surr: 2-Fluorobiphenyl	*75.6*		*12-100*	*%REC*	1	9/29/2016 03:23 AM
Surr: 4-Terphenyl-d14	*99.8*		*25-137*	*%REC*	1	9/29/2016 03:23 AM
Surr: Nitrobenzene-d5	*64.6*		*37-107*	*%REC*	1	9/29/2016 03:23 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep: SW5035 / 9/27/16	Analyst: **LSY**
Benzene	ND		0.030	mg/Kg-dry	1	9/28/2016 06:26 PM
Ethylbenzene	ND		0.030	mg/Kg-dry	1	9/28/2016 06:26 PM
m,p-Xylene	**0.24**		**0.060**	**mg/Kg-dry**	1	9/28/2016 06:26 PM
o-Xylene	**0.045**		**0.030**	**mg/Kg-dry**	1	9/28/2016 06:26 PM
Toluene	ND		0.030	mg/Kg-dry	1	9/28/2016 06:26 PM
Xylenes, Total	**0.28**		**0.090**	**mg/Kg-dry**	1	9/28/2016 06:26 PM
Surr: 1,2-Dichloroethane-d4	*101*		*70-130*	*%REC*	1	9/28/2016 06:26 PM
Surr: 4-Bromofluorobenzene	*99.8*		*70-130*	*%REC*	1	9/28/2016 06:26 PM
Surr: Dibromofluoromethane	*94.8*		*70-130*	*%REC*	1	9/28/2016 06:26 PM
Surr: Toluene-d8	*98.7*		*70-130*	*%REC*	1	9/28/2016 06:26 PM
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHO**		Prep: USDA Method 20B / 9/29/16	Analyst: **ED**
Electrical Conductivity @ Saturation	**18**		**0.10**	**mmhos/cm @2**	20	9/29/2016 03:15 PM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **JB**
Chromium, Trivalent	**17**		**0.56**	**mg/Kg-dry**	1	10/4/2016 11:30 AM
CHROMIUM, HEXAVALENT			**SW7196A**		Prep: SW3060A / 9/28/16	Analyst: **LW**
Chromium, Hexavalent	ND		1.1	mg/Kg-dry	1	9/29/2016 03:00 PM
MOISTURE			**SW3550C**			Analyst: **EDL**
Moisture	**11**		**0.050**	**% of sample**	1	9/29/2016 01:48 PM
PH			**SW9045D**		Prep: EXTRACT / 9/28/16	Analyst: **KF**
pH	**8.0**			**s.u.**	1	9/29/2016 12:50 PM

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

ALS Group USA, Corp

Date: 04-Oct-16

Client: Caerus Oil and Gas LLC

Work Order: 16091544

Project: Unocal 1 Landfarm

QC BATCH REPORT

Batch ID: **92193** Instrument ID **GC8** Method: **SW8015M**

MBLK Sample ID: **DBLKS1-92193-92193** Units: **mg/Kg** Analysis Date: **10/3/2016 10:23 AM**

Client ID: Run ID: **GC8_161003A** SeqNo: **4062565** Prep Date: **9/30/2016** 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								
Surr: 4-Terphenyl-d14	*1.534*	0	*3.333*	0	*46*	*39-133*	0			

LCS Sample ID: **DLCSS1-92193-92193** Units: **mg/Kg** Analysis Date: **10/3/2016 10:51 AM**

Client ID: Run ID: **GC8_161003A** SeqNo: **4062566** Prep Date: **9/30/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	306.8	8.3	333.3	0	92	61-109	0			
Surr: 4-Terphenyl-d14	*1.642*	0	*3.333*	0	*49.3*	*39-133*	0			

MS Sample ID: **16091544-01A MS** Units: **mg/Kg** Analysis Date: **10/3/2016 11:20 AM**

Client ID: **Unocal 1 Landfarm** Run ID: **GC8_161003A** SeqNo: **4062567** Prep Date: **9/30/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	446.7	8.3	332.4	165.6	84.6	48-110	0			
Surr: 4-Terphenyl-d14	*2.199*	0	*3.324*	0	*66.2*	*39-133*	0			

MSD Sample ID: **16091544-01A MSD** Units: **mg/Kg** Analysis Date: **10/3/2016 11:49 AM**

Client ID: **Unocal 1 Landfarm** Run ID: **GC8_161003A** SeqNo: **4062568** Prep Date: **9/30/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	437.9	8.1	325.9	165.6	83.6	48-110	446.7	1.99	30	
Surr: 4-Terphenyl-d14	*2.172*	0	*3.259*	0	*66.7*	*39-133*	2.199	*1.23*	*30*	

The following samples were analyzed in this batch: 16091544-01A

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

Client: Caerus Oil and Gas LLC
Work Order: 16091544
Project: Unocal 1 Landfarm

QC BATCH REPORT

Batch ID: **92011** Instrument ID **GC9** Method: **SW8015D**

MBLK Sample ID: **MBLK-92011-92011** Units: **µg/Kg-dry** Analysis Date: **9/27/2016 05:51 PM**
Client ID: Run ID: **GC9_160927B** SeqNo: **4053003** Prep Date: **9/27/2016** 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								
Surr: Toluene-d8	*4464*	0	*5000*	0	*89.3*	*50-150*	0			

LCS Sample ID: **LCS-92011-92011** Units: **µg/Kg-dry** Analysis Date: **9/27/2016 05:26 PM**
Client ID: Run ID: **GC9_160927B** SeqNo: **4053002** Prep Date: **9/27/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	507700	2,500	500000	0	102	70-130	0			
Surr: Toluene-d8	*5460*	0	*5000*	0	*109*	*50-150*	0			

MS Sample ID: **16091544-01A MS** Units: **µg/Kg-dry** Analysis Date: **9/27/2016 08:46 PM**
Client ID: **Unocal 1 Landfarm** Run ID: **GC9_160927B** SeqNo: **4053010** Prep Date: **9/27/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	680100	3,100	623600	38110	103	70-130	0			
Surr: Toluene-d8	*6903*	0	*6236*	0	*111*	*50-150*	0			

MSD Sample ID: **16091544-01A MSD** Units: **µg/Kg-dry** Analysis Date: **9/27/2016 09:11 PM**
Client ID: **Unocal 1 Landfarm** Run ID: **GC9_160927B** SeqNo: **4053011** Prep Date: **9/27/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	719100	3,100	623600	38110	109	70-130	680100	5.57	30	
Surr: Toluene-d8	*7042*	0	*6236*	0	*113*	*50-150*	6903	*1.99*	*30*	

The following samples were analyzed in this batch: 16091544-01A

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

Client: Caerus Oil and Gas LLC
Work Order: 16091544
Project: Unocal 1 Landfarm

QC BATCH REPORT

Batch ID: **92247** Instrument ID **HG1** Method: **SW7471B**

MBLK	Sample ID: **MBLK-92247-92247**			Units: **mg/Kg**			Analysis Date: **10/3/2016 03:16 PM**			
Client ID:	Run ID: **HG1_161003A**			SeqNo: **4062438**			Prep Date: **10/3/2016**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.020								

LCS	Sample ID: **LCS-92247-92247**			Units: **mg/Kg**			Analysis Date: **10/3/2016 03:18 PM**			
Client ID:	Run ID: **HG1_161003A**			SeqNo: **4062439**			Prep Date: **10/3/2016**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1692	0.020	0.1665	0	102	80-120	0			

MS	Sample ID: **16091477-02AMS**			Units: **mg/Kg**			Analysis Date: **10/3/2016 03:34 PM**			
Client ID:	Run ID: **HG1_161003A**			SeqNo: **4062444**			Prep Date: **10/3/2016**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1249	0.014	0.115	-0.0003041	109	75-125	0			

MSD	Sample ID: **16091477-02AMSD**			Units: **mg/Kg**			Analysis Date: **10/3/2016 03:36 PM**			
Client ID:	Run ID: **HG1_161003A**			SeqNo: **4062445**			Prep Date: **10/3/2016**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1278	0.014	0.1177	-0.0003041	109	75-125	0.1249	2.33	35	

The following samples were analyzed in this batch: 16091544-01A

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

Client: Caerus Oil and Gas LLC
Work Order: 16091544
Project: Unocal 1 Landfarm

QC BATCH REPORT

Batch ID: **92147** Instrument ID **ICP2** Method: **SW846 6010C**

DUP Sample ID: **16091543-01ADUP** Units: **mg/L** Analysis Date: **9/30/2016 10:28 AM**
Client ID: Run ID: **ICP2_160930A** SeqNo: **4058354** Prep Date: **9/29/2016** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	90.88	5.0	0	0	0	0-0	117.1	25.2		
Magnesium	106.7	2.0	0	0	0	0-0	130	19.7		
Sodium	498.6	2.0	0	0	0	0-0	512.3	2.7		

DUP Sample ID: **16091543-01ADUP** Units: **none** Analysis Date: **9/30/2016**
Client ID: Run ID: **SAR_160930A** SeqNo: **4058424** Prep Date: **9/29/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	8.407	0.010	0	0	0		7.749	8.15	50	

The following samples were analyzed in this batch: 16091544-01A

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

Client: Caerus Oil and Gas LLC
Work Order: 16091544
Project: Unocal 1 Landfarm

QC BATCH REPORT

Batch ID: **92233** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK Sample ID: **MBLK-92233-92233** Units: **mg/Kg** Analysis Date: **10/1/2016 10:53 PM**
Client ID: Run ID: **ICP2_161001A** SeqNo: **4061398** Prep Date: **9/30/2016** 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	0.50								
Chromium	0.03793	0.25								J
Copper	ND	0.50								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.50								
Silver	ND	0.25								
Zinc	0.191	0.50								J

LCS Sample ID: **LCS-92233-92233** Units: **mg/Kg** Analysis Date: **10/1/2016 10:59 PM**
Client ID: Run ID: **ICP2_161001A** SeqNo: **4061399** Prep Date: **9/30/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.969	0.25	5	0	99.4	80-120	0			
Barium	4.854	0.25	5	0	97.1	80-120	0			
Cadmium	4.987	0.50	5	0	99.7	80-120	0			
Chromium	5.087	0.25	5	0	102	80-120	0			
Copper	5.018	0.50	5	0	100	80-120	0			
Lead	4.857	0.25	5	0	97.1	80-120	0			
Nickel	4.981	0.25	5	0	99.6	80-120	0			
Selenium	4.719	0.50	5	0	94.4	80-120	0			
Silver	4.276	0.25	5	0	85.5	80-120	0			
Zinc	4.973	0.50	5	0	99.5	80-120	0			

MS Sample ID: **16091801-10AMS** Units: **mg/Kg** Analysis Date: **10/2/2016 12:31 AM**
Client ID: Run ID: **ICP2_161001A** SeqNo: **4061428** Prep Date: **9/30/2016** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	20.74	3.7	7.452	12.2	115	75-125	0			
Barium	213	3.7	7.452	334	-1620	75-125	0			SO
Cadmium	7.225	7.5	7.452	0.1434	95	75-125	0			J
Chromium	20.97	3.7	7.452	9.371	156	75-125	0			S
Copper	25.37	7.5	7.452	15.4	134	75-125	0			S
Lead	19.33	3.7	7.452	15.32	53.9	75-125	0			S
Nickel	23.22	3.7	7.452	13.63	129	75-125	0			S
Selenium	8.833	7.5	7.452	-0.5971	127	75-125	0			S
Silver	7.006	3.7	7.452	-0.05447	94.8	75-125	0			
Zinc	520.4	7.5	7.452	537.5	-230	75-125	0			SO

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

Client: Caerus Oil and Gas LLC
Work Order: 16091544
Project: Unocal 1 Landfarm

QC BATCH REPORT

Batch ID: **92233** Instrument ID **ICP2** Method: **SW846 6010C**

MS Sample ID: **16091801-44AMS** Units: **mg/Kg** Analysis Date: **10/2/2016 01:36 AM**
Client ID: Run ID: **ICP2_161001A** SeqNo: **4061442** Prep Date: **9/30/2016** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	16.98	3.4	6.887	9.585	107	75-125	0			
Barium	340.8	3.4	6.887	565.7	-3270	75-125	0			SO
Cadmium	7.502	6.9	6.887	0.6784	99.1	75-125	0			
Chromium	21.97	3.4	6.887	9.855	176	75-125	0			S
Copper	25.69	6.9	6.887	17.02	126	75-125	0			S
Lead	42.13	3.4	6.887	28.75	194	75-125	0			SO
Nickel	22.26	3.4	6.887	11.9	151	75-125	0			S
Selenium	5.764	6.9	6.887	-0.9583	97.6	75-125	0			J
Silver	6.38	3.4	6.887	0.08582	91.4	75-125	0			
Zinc	367.3	6.9	6.887	301.2	960	75-125	0			SO

MSD Sample ID: **16091801-10AMSD** Units: **mg/Kg** Analysis Date: **10/2/2016 12:37 AM**
Client ID: Run ID: **ICP2_161001A** SeqNo: **4061429** Prep Date: **9/30/2016** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	19.85	3.7	7.429	12.2	103	75-125	20.74	4.36	20	
Barium	311.8	3.7	7.429	334	-299	75-125	213	37.7	20	SRO
Cadmium	7.469	7.4	7.429	0.1434	98.6	75-125	7.225	3.32	20	
Chromium	22.29	3.7	7.429	9.371	174	75-125	20.97	6.09	20	S
Copper	24.15	7.4	7.429	15.4	118	75-125	25.37	4.95	20	
Lead	17.25	3.7	7.429	15.32	26	75-125	19.33	11.4	20	S
Nickel	25.45	3.7	7.429	13.63	159	75-125	23.22	9.17	20	S
Selenium	8.367	7.4	7.429	-0.5971	121	75-125	8.833	5.42	20	
Silver	7.106	3.7	7.429	-0.05447	96.4	75-125	7.006	1.41	20	
Zinc	1244	7.4	7.429	537.5	9510	75-125	520.4	82	20	SRO

MSD Sample ID: **16091801-44AMSD** Units: **mg/Kg** Analysis Date: **10/2/2016 01:41 AM**
Client ID: Run ID: **ICP2_161001A** SeqNo: **4061443** Prep Date: **9/30/2016** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	17.06	3.5	6.925	9.585	108	75-125	16.98	0.473	20	
Barium	426.5	3.5	6.925	565.7	-2010	75-125	340.8	22.3	20	SRO
Cadmium	7.371	6.9	6.925	0.6784	96.6	75-125	7.502	1.77	20	
Chromium	19.76	3.5	6.925	9.855	143	75-125	21.97	10.6	20	S
Copper	30.85	6.9	6.925	17.02	200	75-125	25.69	18.3	20	S
Lead	48.95	3.5	6.925	28.75	292	75-125	42.13	15	20	SO
Nickel	20.56	3.5	6.925	11.9	125	75-125	22.26	7.95	20	S
Selenium	8.157	6.9	6.925	-0.9583	132	75-125	5.764	34.4	20	SR
Silver	6.744	3.5	6.925	0.08582	96.1	75-125	6.38	5.55	20	
Zinc	493.1	6.9	6.925	301.2	2770	75-125	367.3	29.2	20	SRO

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

Client: Caerus Oil and Gas LLC
Work Order: 16091544
Project: Unocal 1 Landfarm

QC BATCH REPORT

Batch ID: **92233** Instrument ID **ICP2** Method: **SW846 6010C**

The following samples were analyzed in this batch:	16091544-01A

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

Client: Caerus Oil and Gas LLC
Work Order: 16091544
Project: Unocal 1 Landfarm

QC BATCH REPORT

Batch ID: **92058** Instrument ID **SVMS5** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-92058-92058** Units: **µg/Kg** Analysis Date: **9/28/2016 06:16 PM**
Client ID: Run ID: **SVMS5_160928A** SeqNo: **4055934** Prep Date: **9/28/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	13								
Anthracene	ND	13								
Benzo(a)anthracene	ND	13								
Benzo(a)pyrene	ND	13								
Benzo(b)fluoranthene	ND	13								
Benzo(k)fluoranthene	ND	13								
Chrysene	ND	13								
Dibenzo(a,h)anthracene	ND	13								
Fluoranthene	ND	13								
Fluorene	ND	13								
Indeno(1,2,3-cd)pyrene	ND	13								
Naphthalene	ND	13								
Pyrene	ND	13								
Surr: 2-Fluorobiphenyl	*2350*	0	*3333*	0	*70.5*	*12-100*	0			
Surr: 4-Terphenyl-d14	*2603*	0	*3333*	0	*78.1*	*25-137*	0			
Surr: Nitrobenzene-d5	*2122*	0	*3333*	0	*63.7*	*37-107*	0			

LCS Sample ID: **SLCSS1-92058-92058** Units: **µg/Kg** Analysis Date: **9/28/2016 06:40 PM**
Client ID: Run ID: **SVMS5_160928A** SeqNo: **4055935** Prep Date: **9/28/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1009	13	1333	0	75.7	45-110	0			
Anthracene	1187	13	1333	0	89	55-105	0			
Benzo(a)anthracene	1134	13	1333	0	85	50-110	0			
Benzo(a)pyrene	1093	13	1333	0	82	50-110	0			
Benzo(b)fluoranthene	1083	13	1333	0	81.2	45-115	0			
Benzo(k)fluoranthene	1191	13	1333	0	89.3	45-115	0			
Chrysene	1173	13	1333	0	88	55-110	0			
Dibenzo(a,h)anthracene	1081	13	1333	0	81	40-125	0			
Fluoranthene	1174	13	1333	0	88	55-115	0			
Fluorene	1117	13	1333	0	83.8	50-110	0			
Indeno(1,2,3-cd)pyrene	1015	13	1333	0	76.1	40-120	0			
Naphthalene	1016	13	1333	0	76.2	40-105	0			
Pyrene	1172	13	1333	0	87.9	45-125	0			
Surr: 2-Fluorobiphenyl	*2445*	0	*3333*	0	*73.4*	*12-100*	0			
Surr: 4-Terphenyl-d14	*2623*	0	*3333*	0	*78.7*	*25-137*	0			
Surr: Nitrobenzene-d5	*2225*	0	*3333*	0	*66.7*	*37-107*	0			

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

Client: Caerus Oil and Gas LLC
Work Order: 16091544
Project: Unocal 1 Landfarm

QC BATCH REPORT

Batch ID: **92058** Instrument ID **SVMS5** Method: **SW846 8270D**

MS Sample ID: **16091553-01A MS** Units: **µg/Kg** Analysis Date: **9/28/2016 07:38 PM**
Client ID: Run ID: **SVMS5_160928A** SeqNo: **4055936** Prep Date: **9/28/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1070	13	1301	96.78	74.8	45-110	0			
Anthracene	1223	13	1301	115.3	85.1	55-105	0			
Benzo(a)anthracene	1357	13	1301	984.4	28.7	50-110	0			S
Benzo(a)pyrene	1416	13	1301	1065	27	50-110	0			S
Benzo(b)fluoranthene	1645	13	1301	1664	-1.45	45-115	0			S
Benzo(k)fluoranthene	1351	13	1301	625.1	55.8	45-115	0			
Chrysene	1467	13	1301	1336	10	55-110	0			S
Dibenzo(a,h)anthracene	1031	13	1301	191.6	64.5	40-125	0			
Fluoranthene	1923	13	1301	2755	-63.9	55-115	0			S
Fluorene	1157	13	1301	94.8	81.6	50-110	0			
Indeno(1,2,3-cd)pyrene	1245	13	1301	830.6	31.9	40-120	0			S
Naphthalene	1037	13	1301	0	79.6	40-105	0			
Pyrene	1987	13	1301	2966	-75.2	45-125	0			S
Surr: 2-Fluorobiphenyl	*2551*	0	*3254*	0	*78.4*	*12-100*	0			
Surr: 4-Terphenyl-d14	*2937*	0	*3254*	0	*90.3*	*25-137*	0			
Surr: Nitrobenzene-d5	*2229*	0	*3254*	0	*68.5*	*37-107*	0			

MSD Sample ID: **16091553-01A MSD** Units: **µg/Kg** Analysis Date: **9/28/2016 08:02 PM**
Client ID: Run ID: **SVMS5_160928A** SeqNo: **4055937** Prep Date: **9/28/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1021	13	1263	96.78	73.1	45-110	1070	4.74	30	
Anthracene	1219	13	1263	115.3	87.4	55-105	1223	0.284	30	
Benzo(a)anthracene	1394	13	1263	984.4	32.4	50-110	1357	2.63	30	S
Benzo(a)pyrene	1404	13	1263	1065	26.8	50-110	1416	0.87	30	S
Benzo(b)fluoranthene	1630	13	1263	1664	-2.65	45-115	1645	0.887	30	S
Benzo(k)fluoranthene	1323	13	1263	625.1	55.2	45-115	1351	2.1	30	
Chrysene	1435	13	1263	1336	7.77	55-110	1467	2.21	30	S
Dibenzo(a,h)anthracene	1043	13	1263	191.6	67.4	40-125	1031	1.18	30	
Fluoranthene	1852	13	1263	2755	-71.5	55-115	1923	3.78	30	S
Fluorene	1129	13	1263	94.8	81.8	50-110	1157	2.46	30	
Indeno(1,2,3-cd)pyrene	1231	13	1263	830.6	31.7	40-120	1245	1.2	30	S
Naphthalene	939.4	13	1263	0	74.3	40-105	1037	9.84	30	
Pyrene	2027	13	1263	2966	-74.3	45-125	1987	2.02	30	S
Surr: 2-Fluorobiphenyl	*2334*	0	*3159*	0	*73.9*	*12-100*	2551	*8.89*	*40*	
Surr: 4-Terphenyl-d14	*2980*	0	*3159*	0	*94.3*	*25-137*	2937	*1.44*	*40*	
Surr: Nitrobenzene-d5	*2020*	0	*3159*	0	*63.9*	*37-107*	2229	*9.84*	*40*	

The following samples were analyzed in this batch: 16091544-01A

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

Client: Caerus Oil and Gas LLC
Work Order: 16091544
Project: Unocal 1 Landfarm

QC BATCH REPORT

Batch ID: **92010** Instrument ID **VMS9** Method: **SW8260B**

MBLK Sample ID: **MBLK-92010-92010** Units: **µg/Kg-dry** Analysis Date: **9/27/2016 12:20 PM**
Client ID: Run ID: **VMS9_160927A** SeqNo: **4052453** Prep Date: **9/27/2016** 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								
Surr: 1,2-Dichloroethane-d4	*1044*	0	*1000*	0	*104*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*894.5*	0	*1000*	0	*89.4*	*70-130*	0			
Surr: Dibromofluoromethane	*999.5*	0	*1000*	0	*100*	*70-130*	0			
Surr: Toluene-d8	*960*	0	*1000*	0	*96*	*70-130*	0			

LCS Sample ID: **LCS-92010-92010** Units: **µg/Kg-dry** Analysis Date: **9/27/2016 11:06 AM**
Client ID: Run ID: **VMS9_160927A** SeqNo: **4052452** Prep Date: **9/27/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1132	30	1000	0	113	75-125	0			
Ethylbenzene	1022	30	1000	0	102	75-125	0			
m,p-Xylene	2098	60	2000	0	105	80-125	0			
o-Xylene	1060	30	1000	0	106	75-125	0			
Toluene	1044	30	1000	0	104	70-125	0			
Xylenes, Total	3158	90	3000	0	105	75-125	0			
Surr: 1,2-Dichloroethane-d4	*1052*	0	*1000*	0	*105*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*993*	0	*1000*	0	*99.3*	*70-130*	0			
Surr: Dibromofluoromethane	*1026*	0	*1000*	0	*103*	*70-130*	0			
Surr: Toluene-d8	*967.5*	0	*1000*	0	*96.8*	*70-130*	0			

MS Sample ID: **16091544-01A MS** Units: **µg/Kg-dry** Analysis Date: **9/28/2016 08:05 PM**
Client ID: **Unocal 1 Landfarm** Run ID: **VMS9_160928A** SeqNo: **4054629** Prep Date: **9/27/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	991	30	1000	0	99.1	75-125	0			
Ethylbenzene	997	30	1000	24	97.3	75-125	0			
m,p-Xylene	2038	60	2000	237	90	80-125	0			
o-Xylene	1014	30	1000	45	97	75-125	0			
Toluene	962.5	30	1000	0	96.2	70-125	0			
Xylenes, Total	3052	90	3000	285	92.2	75-125	0			
Surr: 1,2-Dichloroethane-d4	*1016*	0	*1000*	0	*102*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1031*	0	*1000*	0	*103*	*70-130*	0			
Surr: Dibromofluoromethane	*969*	0	*1000*	0	*96.9*	*70-130*	0			
Surr: Toluene-d8	*1008*	0	*1000*	0	*101*	*70-130*	0			

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

Client: Caerus Oil and Gas LLC
Work Order: 16091544
Project: Unocal 1 Landfarm

QC BATCH REPORT

Batch ID: **92010** Instrument ID **VMS9** Method: **SW8260B**

MSD Sample ID: **16091544-01A MSD** Units: **µg/Kg-dry** Analysis Date: **9/28/2016 08:29 PM**
Client ID: **Unocal 1 Landfarm** Run ID: **VMS9_160928A** SeqNo: **4054630** Prep Date: **9/27/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1018	30	1000	0	102	75-125	991	2.74	30	
Ethylbenzene	1040	30	1000	24	102	75-125	997	4.27	30	
m,p-Xylene	2220	60	2000	237	99.1	80-125	2038	8.53	30	
o-Xylene	1069	30	1000	45	102	75-125	1014	5.23	30	
Toluene	1008	30	1000	0	101	70-125	962.5	4.57	30	
Xylenes, Total	3288	90	3000	285	100	75-125	3052	7.44	30	
Surr: 1,2-Dichloroethane-d4	*1004*	0	*1000*	0	*100*	*70-130*	1016	*1.09*	*30*	
Surr: 4-Bromofluorobenzene	*1044*	0	*1000*	0	*104*	*70-130*	1031	*1.25*	*30*	
Surr: Dibromofluoromethane	*969.5*	0	*1000*	0	*97*	*70-130*	969	*0.0516*	*30*	
Surr: Toluene-d8	*1010*	0	*1000*	0	*101*	*70-130*	1008	*0.297*	*30*	

The following samples were analyzed in this batch: 16091544-01A

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

Client: Caerus Oil and Gas LLC
Work Order: 16091544
Project: Unocal 1 Landfarm

QC BATCH REPORT

Batch ID: **92104** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK	Sample ID: **MBLK-92104-92104**				Units: **mg/Kg**			Analysis Date: **9/29/2016 03:00 PM**		
Client ID:	Run ID: **WETCHEM_160929X**				SeqNo: **4058362**			Prep Date: **9/28/2016**		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								

LCS	Sample ID: **LCS-92104-92104**				Units: **mg/Kg**			Analysis Date: **9/29/2016 03:00 PM**		
Client ID:	Run ID: **WETCHEM_160929X**				SeqNo: **4058363**			Prep Date: **9/28/2016**		DF: **1**
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	4.7	1.0	5	0	94	80-120	0			

MS	Sample ID: **16091453-01B MS**				Units: **mg/Kg**			Analysis Date: **9/29/2016 03:00 PM**		
Client ID:	Run ID: **WETCHEM_160929X**				SeqNo: **4058365**			Prep Date: **9/28/2016**		DF: **1**
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	4.843	0.98	4.902	0.22	94.3	75-125	0			

MS	Sample ID: **16091453-01B MSI**				Units: **mg/Kg**			Analysis Date: **9/29/2016 03:00 PM**		
Client ID:	Run ID: **WETCHEM_160929X**				SeqNo: **4058367**			Prep Date: **9/28/2016**		DF: **100**
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	2733	100	2880	0.22	94.9	75-125	0			

MSD	Sample ID: **16091453-01B MSD**				Units: **mg/Kg**			Analysis Date: **9/29/2016 03:00 PM**		
Client ID:	Run ID: **WETCHEM_160929X**				SeqNo: **4058366**			Prep Date: **9/28/2016**		DF: **1**
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	4.843	0.98	4.902	0.22	94.3	75-125	4.843	0	20	

The following samples were analyzed in this batch: 16091544-01A

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

Client: Caerus Oil and Gas LLC
Work Order: 16091544
Project: Unocal 1 Landfarm

QC BATCH REPORT

Batch ID: **92147** Instrument ID **WETCHEM** Method: **USDA H60 Metho**

MBLK	Sample ID: **WBLKW1-160929-92147**				Units: **mmhos/cm @25°**		Analysis Date: **9/29/2016 03:15 PM**			
Client ID:		Run ID: **WETCHEM_160929P**			SeqNo: **4056743**		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	0.00086	0.0050								J

DUP	Sample ID: **16091543-01ADUP**				Units: **mmhos/cm @25°**		Analysis Date: **9/29/2016 03:15 PM**			
Client ID:		Run ID: **WETCHEM_160929P**			SeqNo: **4056741**		Prep Date: **9/29/2016**		DF: **20**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	4.02	0.10	0	0	0		4.4	9.03	50	

LCS1	Sample ID: **WLCS1W1-160929-92147**				Units: **mmhos/cm @25°**		Analysis Date: **9/29/2016 03:15 PM**			
Client ID:		Run ID: **WETCHEM_160929P**			SeqNo: **4056744**		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	0.01541	0.0050	0.0149	0	103	85-107	0			

LCS2	Sample ID: **WLCS2W1-160929-92147**				Units: **mmhos/cm @25°**		Analysis Date: **9/29/2016 03:15 PM**			
Client ID:		Run ID: **WETCHEM_160929P**			SeqNo: **4056745**		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	0.601	0.0050	0.592	0	102	85-107	0			

The following samples were analyzed in this batch: 16091544-01A

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

Client: Caerus Oil and Gas LLC
Work Order: 16091544
Project: Unocal 1 Landfarm

QC BATCH REPORT

Batch ID: **92149** Instrument ID **WETCHEM** Method: **SW9045D**

LCS	Sample ID: **LCS-92149-92149**				Units: **s.u.**			Analysis Date: **9/29/2016 12:50 PM**			
Client ID:		Run ID: **WETCHEM_160929I**			SeqNo: **4055964**			Prep Date: **9/28/2016**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH	3.97	0	4	0	99.2	90-110	0				

DUP	Sample ID: **16091553-01A DUP**				Units: **s.u.**			Analysis Date: **9/29/2016 12:50 PM**			
Client ID:		Run ID: **WETCHEM_160929I**			SeqNo: **4055968**			Prep Date: **9/28/2016**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH	7.78	0	0	0	0	0-0	7.67	1.42	20		

The following samples were analyzed in this batch: 16091544-01A

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

Client: Caerus Oil and Gas LLC
Work Order: 16091544
Project: Unocal 1 Landfarm

QC BATCH REPORT

Batch ID: **R197016** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R197016** Units: **% of sample** Analysis Date: **9/29/2016 01:48 PM**
Client ID: Run ID: **MOIST_160929C** SeqNo: **4058559** 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-R197016** Units: **% of sample** Analysis Date: **9/29/2016 01:48 PM**
Client ID: Run ID: **MOIST_160929C** SeqNo: **4058558** 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: **16091695-01B DUP** Units: **% of sample** Analysis Date: **9/29/2016 01:48 PM**
Client ID: Run ID: **MOIST_160929C** SeqNo: **4058552** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	11.67	0.050	0	0	0		12.4	6.07	20	

DUP Sample ID: **16091695-02B DUP** Units: **% of sample** Analysis Date: **9/29/2016 01:48 PM**
Client ID: Run ID: **MOIST_160929C** SeqNo: **4058554** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	14.5	0.050	0	0	0		16.23	11.3	20	

The following samples were analyzed in this batch: 16091544-01A

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

ALS Laboratory Group

ALS Holland 3352 128th Ave, Holland MI
855-572-1944 616-399-6070

Chain-of-Custody

Form 292r6

WORKORDER # 1609154 4

PAGE 1 of 1

DISPOSAL (By Lab) or Return to Clie

PROJECT NAME	Unocal 1 LandFarm	SAMPLER	Tyler Rust
PROJECT No.		SITE ID	
		EDD FORMAT	
		PURCHASE ORDER	
COMPANY NAME	Caerus Piceance, LLC	BILL TO COMPANY	Caerus Piceance, LLC
SEND REPORT TO	Jake Janicek	INVOICE ATTN TO	Jake Janicek
ADDRESS	120 N. Railroad,suite D	ADDRESS	120 N. Railroad,suite D
CITY / STATE / ZIP	Parachute Co, 81635	CITY / STATE / ZIP	Parachute Co, 81635
PHONE	970-285-9608	PHONE	970-285-9608
FAX		FAX	
E-MAIL	jjanicek@caerusoilandgas.com	E-MAIL	invoices@caerusoilandgas.com

DATE 9-26-16

TURNAROUND Std 5 Day

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	TPH/GRO/DRO	BTEX	Table 910 PAH;s	EC	PH	SAR	Benzene	Table 910 Metals		
1	Unocal 1 LandFarm	Soil	9-26-16	1348	2	-	-	X	X	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

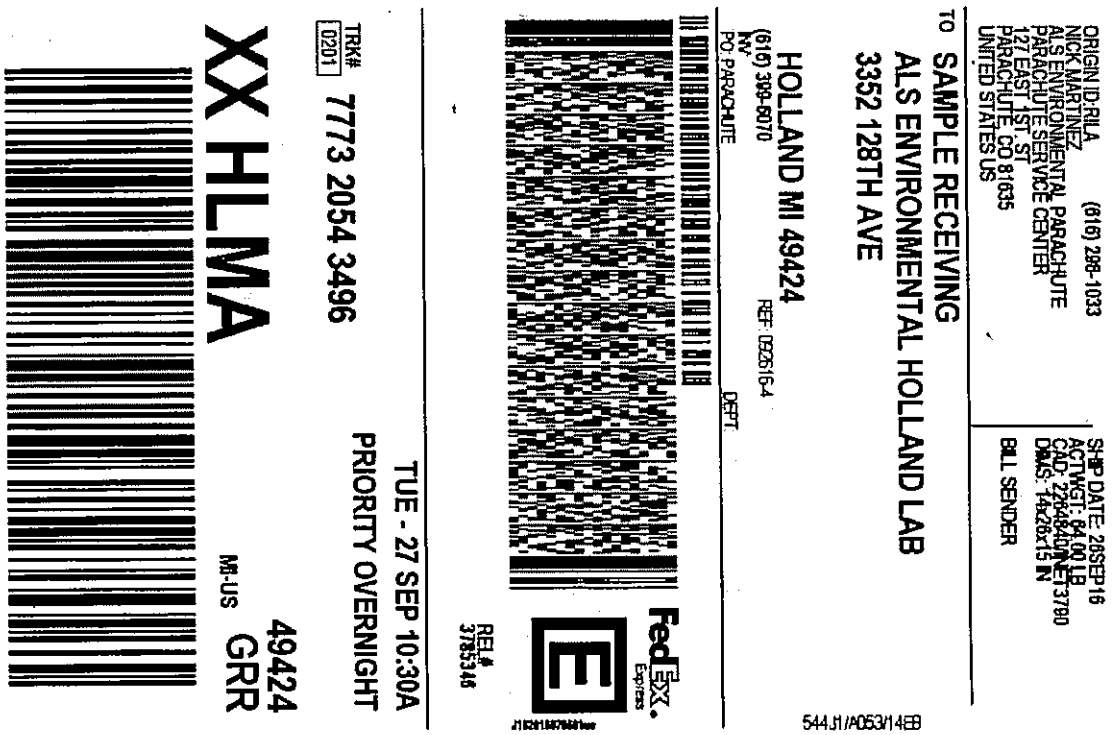
For metals or anions, please detail analytes below.

Comments: 2.0 ~

QC PACKAGE (check below)	
X	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	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		Tyler Rust	9-26-16	2:45
RECEIVED BY			9-26-16	7:45
RELINQUISHED BY			9-27-16	12:00
RECEIVED BY		Diane F. Sha	9/27/16	0930
RELINQUISHED BY				
RECEIVED BY				



After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **CAERUS** Date/Time Received: **27-Sep-16 09:30**

Work Order: **16091544** Received by: **DS**

Checklist completed by Diane Shaw (eSignature) 27-Sep-16 (Date) Reviewed by: Chad Whelton (eSignature) 27-Sep-16 (Date)

Matrices: Soil

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):	2.0/2.0 c	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	9/27/2016 12:18:49 PM		
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: