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

## LABORATORY REPORT

October 27, 2015

Jake Janicek  
Caerus Oil and Gas LLC  
120 North Railroad Ave.  
Parachute, CO 81635

**RE: Unocal 13D-16D**

Dear Jake:

Enclosed are the results of the sample submitted to our laboratory on October 17, 2015. For your reference, this analysis has been assigned our service request number P1504390.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at [www.alsglobal.com](http://www.alsglobal.com). Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

**ALS | Environmental**

By Kelly Horiuchi at 10:57 am, Oct 27, 2015

Kelly Horiuchi  
Laboratory Director



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Client: Caerus Oil and Gas LLC  
Project: Unocal 13D-16D

Service Request No: P1504390

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### CASE NARRATIVE

The sample was received intact under chain of custody on October 17, 2015 and was stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the sample at the time of sample receipt.

#### Hydrogen Sulfide Analysis

The sample was analyzed for hydrogen sulfide per ASTM D 5504-12 using a gas chromatograph equipped with a sulfur chemiluminescence detector (SCD). Method ASTM D 5504-12 is included on the laboratory's NELAP scope of accreditation, however it is not part of the DoD-ELAP or AIHA-LAP accreditation.

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*The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.*

*Use of ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.*



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ALS Environmental – Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
AIHA	<a href="http://www.aihaaccreditedlabs.org">http://www.aihaaccreditedlabs.org</a>	101661
Arizona DHS	<a href="http://www.azdhs.gov/lab/license/env.htm">http://www.azdhs.gov/lab/license/env.htm</a>	AZ0694
DoD ELAP	<a href="http://www.pjlabs.com/search-accredited-labs">http://www.pjlabs.com/search-accredited-labs</a>	L14-2-R1
Florida DOH (NELAP)	<a href="http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm">http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm</a>	E871020
Maine DHHS	<a href="http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/labcert.htm">http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/labcert.htm</a>	2014025
Minnesota DOH (NELAP)	<a href="http://www.health.state.mn.us/accreditation">http://www.health.state.mn.us/accreditation</a>	876241
New Jersey DEP (NELAP)	<a href="http://www.nj.gov/dep/oqa/">http://www.nj.gov/dep/oqa/</a>	CA009
New York DOH (NELAP)	<a href="http://www.wadsworth.org/labcert/elap/elap.html">http://www.wadsworth.org/labcert/elap/elap.html</a>	11221
Oregon PHD (NELAP)	<a href="http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx">http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx</a>	4068-001
Pennsylvania DEP	<a href="http://www.depweb.state.pa.us/labs">http://www.depweb.state.pa.us/labs</a>	68-03307 (Registration)
Texas CEQ (NELAP)	<a href="http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html">http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html</a>	T104704413-15-6
Utah DOH (NELAP)	<a href="http://www.health.utah.gov/lab/labimp/certification/index.html">http://www.health.utah.gov/lab/labimp/certification/index.html</a>	CA01627201 5-5
Washington DOE	<a href="http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html">http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html</a>	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at [www.alsglobal.com](http://www.alsglobal.com), or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

**ALS ENVIRONMENTAL**

**DETAIL SUMMARY REPORT**

Client: Caerus Oil and Gas LLC  
Project ID: Unocal 13D-16D

Service Request: P1504390

Date Received: 10/17/2015  
Time Received: 10:10

ASTM D 5504-12 - H2S Bag

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	
Unocal 13D-16D	P1504390-001	Air	10/16/2015	16:08	X





# ALS ENVIRONMENTAL

## RESULTS OF ANALYSIS

Page 1 of 1

**Client:** Caerus Oil and Gas LLC  
**Client Project ID:** Unocal 13D-16D

ALS Project ID: P1504390

### Hydrogen Sulfide

Test Code: ASTM D 5504-12  
Instrument ID: Agilent 7890A/GC22/SCD  
Analyst: Nalini Lall  
Sample Type: 1 L Zefon Bag(s)  
Test Notes:

Date(s) Collected: 10/16/15  
Date Received: 10/17/15  
Date Analyzed: 10/17/15

Client Sample ID	ALS Sample ID	Injection		Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result <b>ppbV</b>	MRL ppbV	Data Qualifier
		Volume ml(s)	Time Analyzed					
Unocal 13D-16D	P1504390-001	0.0050	11:39	<b>6,700,000</b>	1,400	<b>4,800,000</b>	1,000	
Method Blank	P151017-MB	1.0	08:36	ND	7.0	ND	5.0	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

**ALS ENVIRONMENTAL**

LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

**Client:** Caerus Oil and Gas LLC  
**Client Sample ID:** Lab Control Sample  
**Client Project ID:** Unocal 13D-16D

ALS Project ID: P1504390  
ALS Sample ID: P151017-LCS

Test Code: ASTM D 5504-12  
Instrument ID: Agilent 7890A/GC22/SCD  
Analyst: Nalini Lall  
Sample Type: 1 L Zefon Bag  
Test Notes:

Date Collected: NA  
Date Received: NA  
Date Analyzed: 10/17/15  
Volume(s) Analyzed: NA ml(s)

<b>CAS #</b>	<b>Compound</b>	<b>Spike Amount ppbV</b>	<b>Result ppbV</b>	<b>% Recovery</b>	<b>ALS Acceptance Limits</b>	<b>Data Qualifier</b>
7783-06-4	Hydrogen Sulfide	1,990	<b>1,840</b>	<b>92</b>	65-138	