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2655 Park Center Dr., Suite A  
Simi Valley, CA 93065  
T: +1 805 526 7161  
[www.alsglobal.com](http://www.alsglobal.com)

## LABORATORY REPORT

May 7, 2021

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

**RE: EHS H2S Work**

Dear Jake:

Enclosed are the results of the samples submitted to our laboratory on April 30, 2021. For your reference, these analyses have been assigned our service request number P2102296.

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 Sue Anderson at 2:29 pm, May 07, 2021

Sue Anderson  
Project Manager



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Client: Caerus Oil and Gas LLC  
Project: EHS H2S Work

Service Request No: P2102296

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## CASE NARRATIVE

The samples were received intact under chain of custody on April 30, 2021 and were stored in accordance with the analytical method requirements. Sample P2102296-008 through P2102296-015 were received past the recommended holding time. The analysis was performed as soon as possible after receipt by the laboratory. The data is flagged to indicate the holding time exceedance. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

### Hydrogen Sulfide Analysis

The samples were analyzed for hydrogen sulfide per modified SCAQMD Method 307-91 and 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 accreditation. Method SCAQMD 307-91 is not included on the laboratory's NELAP or DoD-ELAP accreditation.

The first seven sample were received with insufficient hold time remaining to complete the analysis within the recommended limit. The analysis was performed as soon as possible after receipt by the laboratory and the data flagged to indicate the holding time exceedance.

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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
Alaska DEC	<a href="http://dec.alaska.gov/eh/lab.aspx">http://dec.alaska.gov/eh/lab.aspx</a>	17-019
Arizona DHS	<a href="http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home">http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home</a>	AZ0694
Florida DOH (NELAP)	<a href="http://www.floridahealth.gov/licensing-and-regulation/environmental-laboratories/index.html">http://www.floridahealth.gov/licensing-and-regulation/environmental-laboratories/index.html</a>	E871020
Louisiana DEQ (NELAP)	<a href="http://www.deq.louisiana.gov/page/la-lab-accreditation">http://www.deq.louisiana.gov/page/la-lab-accreditation</a>	05071
Maine DHHS	<a href="http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml">http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml</a>	2018027
Minnesota DOH (NELAP)	<a href="http://www.health.state.mn.us/accreditation">http://www.health.state.mn.us/accreditation</a>	1776326
New Jersey DEP (NELAP)	<a href="http://www.nj.gov/dep/enforcement/oqa.html">http://www.nj.gov/dep/enforcement/oqa.html</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://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx">http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx</a>	4068-008
Pennsylvania DEP	<a href="http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx">http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx</a>	68-03307 (Registration)
PJLA (DoD ELAP)	<a href="http://www.pjlabs.com/search-accredited-labs">http://www.pjlabs.com/search-accredited-labs</a>	65818 (Testing)
Texas CEQ (NELAP)	<a href="http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html">http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html</a>	T104704413- 19-10
Utah DOH (NELAP)	<a href="http://health.utah.gov/lab/lab_cert_env">http://health.utah.gov/lab/lab_cert_env</a>	CA01627201 9-10
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: EHS H2S Work

Service Request: P2102296

Date Received: 4/30/2021  
 Time Received: 09:30

ASTM D 5504-12 - H2S Bag

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	
20210429 08C Fed 8-21B	P2102296-001	Air	4/29/2021	10:10	X
20210429 08C Fed 8-31C	P2102296-002	Air	4/29/2021	10:05	X
20210429 08C Fed 8-31D	P2102296-003	Air	4/29/2021	10:00	X
20210429 08C Fed 8-32B	P2102296-004	Air	4/29/2021	09:55	X
20210429 08C Fed 8-22B	P2102296-005	Air	4/29/2021	09:50	X
20210429 08C Fed 5-24D	P2102296-006	Air	4/29/2021	09:40	X
20210429 08C Fed 5-24C	P2102296-007	Air	4/29/2021	09:35	X
20210429 08C Fed 32-14D	P2102296-008	Air	4/29/2021	09:30	X
20210429 08D SGV Fed 08-11B (8D)	P2102296-009	Air	4/29/2021	09:20	X
20210429 08D SGV Fed 08-11D	P2102296-010	Air	4/29/2021	09:15	X
20210429 08D SGV Fed 08-11A	P2102296-011	Air	4/29/2021	09:10	X
20210429 08D SGV Fed 08-12A	P2102296-012	Air	4/29/2021	09:05	X
20210429 08D Fed SP 22-08	P2102296-013	Air	4/29/2021	09:00	X
20210429 08D SVG Fed 7-41C	P2102296-014	Air	4/29/2021	08:50	X
20210429 07G Fed 7-32D	P2102296-015	Air	4/29/2021	08:30	X



# Air - Chain of Custody Record & Analytical Service Request

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Simi Valley, California 93065  
Phone (805) 526-7161

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Requested Turnaround Time in Business Days (Surcharges) please circle  
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard

ALS Project No: 1402286

Company Name & Address (Reporting Information) <u>Carr's Oil and Gas</u> <u>143 Diamond ave</u> <u>Pasadena, CO 80659</u>		Project Name <u>EHS H2S marks</u>		ALS Contact:				
Project Manager <u>Take Janiceli</u>		Project Number		Analysis Method				
Phone <u>770-775-2314</u>		FAX <u>770-775-2314</u>		Comments e.g. Actual Preservative or specific instructions				
Email Address for Result Reporting <u>Janiceli@carvalongas.com</u>		SAMPLER (Print & Sign)		Project Requirements (MRLs, QAPP)				
Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume
<u>2021042909C Fed 8-21B</u>	<u>1</u>	<u>4-29-21</u>	<u>10:10</u>					
<u>2021042909C Fed 8-31C</u>	<u>2</u>	<u>4-29-21</u>	<u>10:05</u>					
<u>2021042909C Fed 8-31D</u>	<u>3</u>	<u>4-29-21</u>	<u>10:00</u>					
<u>2021042909C Fed 8-32A</u>	<u>4</u>	<u>4-29-21</u>	<u>9:55</u>					
<u>2021042909C Fed 5-21D</u>	<u>5</u>	<u>4-29-21</u>	<u>9:50</u>					
<u>2021042909C Fed 5-21C</u>	<u>6</u>	<u>4-29-21</u>	<u>9:40</u>					
<u>2021042909C Fed 32-11D</u>	<u>7</u>	<u>4-29-21</u>	<u>9:35</u>					
<u>2021042909C Fed 32-11D</u>	<u>8</u>	<u>4-29-21</u>	<u>9:30</u>					
<u>2021042909D SGV Fed 08-11A (FSD)</u>	<u>9</u>	<u>4-29-21</u>	<u>9:20</u>					
<u>2021042909D SGV Fed 08-11D</u>	<u>10</u>	<u>4-29-21</u>	<u>9:15</u>					
<u>2021042909D SGV Fed 08-11A</u>	<u>11</u>	<u>4-29-21</u>	<u>9:10</u>					
<u>2021042909D SGV Fed 08-12A</u>	<u>12</u>	<u>4-29-21</u>	<u>9:05</u>					
<u>2021042909D Fed 7-11C</u>	<u>13</u>	<u>4-29-21</u>	<u>9:00</u>					
<u>2021042909D Fed 7-11C</u>	<u>14</u>	<u>4-29-21</u>	<u>8:50</u>					

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

EDD required Yes / No \_\_\_\_\_ Units: \_\_\_\_\_

Received by: (Signature) \_\_\_\_\_ Date: 4-29-21 Time: 11:00 AM

Received by: (Signature) \_\_\_\_\_ Date: 4-30-21 Time: 18:30

Relinquished by: (Signature) \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Relinquished by: (Signature) \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Project Requirements (MRLs, QAPP)

Project Requirements (MRLs, QAPP)

Cooler / Blank Temperature \_\_\_\_\_ °C



**ALS Environmental  
Sample Acceptance Check Form**

Client: Caerus Oil and Gas LLC Work order: P2102296  
 Project: EHS H2S Work  
 Sample(s) received on: 4/30/21 Date opened: 4/30/21 by: ADAVID

**Note:** This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

- |   | Yes                                 | No                       | N/A                                 |
|---|-------------------------------------|--------------------------|-------------------------------------|
| 1 Were <b>sample containers</b> properly marked with client sample ID?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 2 Did <b>sample containers</b> arrive in good condition?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 3 Were <b>chain-of-custody</b> papers used and filled out?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 4 Did <b>sample container labels</b> and/or tags agree with custody papers?                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 5 Was <b>sample volume</b> received adequate for analysis?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 6 Are samples within specified holding times?   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 7 Was proper <b>temperature</b> (thermal preservation) of cooler at receipt adhered to?                         | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 8 Were <b>custody seals</b> on outside of cooler/Box/Container?   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| Location of seal(s)? <u>Cooler lid.</u> Sealing Lid?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| Were signature and date included?   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| Were seals intact?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 9 Do containers have appropriate <b>preservation</b> , according to method/SOP or Client specified information? | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Is there a client indication that the submitted samples are <b>pH</b> preserved?                                | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were <b>VOA vials</b> checked for presence/absence of air bubbles?  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it?       | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 10 <b>Tubes:</b> Are the tubes capped and intact?   | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 11 <b>Badges:</b> Are the badges properly capped and intact?  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Are dual bed badges separated and individually capped and intact?   | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2102296-001.01	1 L Zefon Bag					
P2102296-002.01	1 L Zefon Bag					
P2102296-003.01	1 L Zefon Bag					
P2102296-004.01	1 L Zefon Bag					
P2102296-005.01	1 L Zefon Bag					
P2102296-006.01	1 L Zefon Bag					
P2102296-007.01	1 L Zefon Bag					
P2102296-008.01	1 L Zefon Bag					
P2102296-009.01	1 L Zefon Bag					
P2102296-010.01	1 L Zefon Bag					
P2102296-011.01	1 L Zefon Bag					
P2102296-012.01	1 L Zefon Bag					
P2102296-013.01	1 L Zefon Bag					
P2102296-014.01	1 L Zefon Bag					
P2102296-015.01	1 L Zefon Bag					

Explain any discrepancies: (include lab sample ID numbers): \_\_\_\_\_

# ALS ENVIRONMENTAL

## RESULTS OF ANALYSIS

Page 1 of 1

**Client:** Caerus Oil and Gas LLC

**Client Project ID:** EHS H2S Work

ALS Project ID: P2102296

### Hydrogen Sulfide

Test Code: ASTM D 5504-12

Instrument ID: Agilent 6890A/GC13/SCD

Analyst: Gilbert Gutierrez

Sample Type: 1 L Zefon Bag(s)

Test Notes:

Date(s) Collected: 4/29/21

Date Received: 4/30/21

Date Analyzed: 4/30/21

Client Sample ID	ALS Sample ID	Injection Volume ml(s)	Time Analyzed	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
20210429 08C Fed 8-21B	P2102296-001	0.10	10:15	97,000	70	70,000	50	H1
20210429 08C Fed 8-31C	P2102296-002	0.10	10:22	67,000	70	48,000	50	H1
20210429 08C Fed 8-31D	P2102296-003	0.10	10:27	41,000	70	29,000	50	H1
20210429 08C Fed 8-32B	P2102296-004	0.10	10:35	69,000	70	49,000	50	H1
20210429 08C Fed 8-22B	P2102296-005	0.10	10:42	42,000	70	30,000	50	H1
20210429 08C Fed 5-24D	P2102296-006	0.10	10:49	51,000	70	37,000	50	H1
20210429 08C Fed 5-24C	P2102296-007	0.10	10:57	62,000	70	45,000	50	H1
20210429 08C Fed 32-14D	P2102296-008	0.10	11:03	160,000	70	110,000	50	H3
20210429 08D SGV Fed 08-11B (8D)	P2102296-009	0.10	11:06	37,000	70	27,000	50	H3
20210429 08D SGV Fed 08-11D	P2102296-010	0.10	11:28	37,000	70	27,000	50	H3
20210429 08D SGV Fed 08-11A	P2102296-011	0.10	11:33	78,000	70	56,000	50	H3
20210429 08D SGV Fed 08-12A	P2102296-012	0.10	11:38	56,000	70	41,000	50	H3
20210429 08D Fed SP 22-08	P2102296-013	0.10	11:48	140,000	70	100,000	50	H3
20210429 08D SVG Fed 7-41C	P2102296-014	0.10	11:54	84,000	70	60,000	50	H3
20210429 07G Fed 7-32D	P2102296-015	0.10	11:59	33,000	70	24,000	50	H3
Method Blank	P210430-MB	1.0	07:49	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.

H1 = Sample analysis performed past holding time. See case narrative.

H3 = Sample was received and analyzed past holding time.

# 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:** EHS H2S Work

ALS Project ID: P2102296  
ALS Sample ID: P210430-LCS

Test Code: ASTM D 5504-12  
Instrument ID: Agilent 6890A/GC13/SCD  
Analyst: Gilbert Gutierrez  
Sample Type: 1 L Zefon Bag  
Test Notes:

Date Collected: NA  
Date Received: NA  
Date Analyzed: 4/30/21  
Volume(s) Analyzed: NA ml(s)

CAS #	Compound	Spike Amount ppbV	Result ppbV	% Recovery	ALS Acceptance Limits	Data Qualifier
7783-06-4	Hydrogen Sulfide	989	1,040	105	72-122	