

Technical Report for

Renegade Oil & Gas

REM 9615

Document 2527700

Bird State 32-1 Pit

SGS Accutest Job Number: D91976

Sampling Date: 03/10/17

Report to:

**Renegade Oil & Gas
P.O. Box 460413
Aurora, CO 80046
jbcrog@aol.com**

ATTN: JB Condill

Total number of pages in report: 18



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

**Scott Heideman
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Certifications: CO (CO00049), ID (CO00049), NE (NE-OS-06-04), ND (R-027), NJ (CO007), OK (D9942)
UT (NELAP CO00049), LA (LA150028), TX (T104704511), WY (8TMS-L)

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Test results relate only to samples analyzed.

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Sample Summary

Renegade Oil & Gas

Job No: D91976

Bird State 32-1 Pit

| Sample Number | Collected | | Received | Matrix | | Client Sample ID |
|---------------|-----------|----------|----------|--------|------|-------------------------------|
| | Date | Time By | | Code | Type | |
| D91976-1 | 03/10/17 | 09:50 CB | 03/11/17 | SO | Soil | RECLAIMED PIT #1- SOUTH 12YD |
| D91976-2 | 03/10/17 | 09:53 CB | 03/11/17 | SO | Soil | RECLAIMED PIT #2- WEST 12YDS |
| D91976-3 | 03/10/17 | 09:55 CB | 03/11/17 | SO | Soil | RECLAIMED PIT #3- EAST 15YDS |
| D91976-4 | 03/10/17 | 09:58 CB | 03/11/17 | SO | Soil | RECLAIMED PIT #4- NORTH 12YDS |
| D91976-5 | 03/10/17 | 10:00 CB | 03/11/17 | SO | Soil | RECLAIMED PIT #5-NE 12YDS |

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Renegade Oil & Gas

Job No D91976

Site: Bird State 32-1 Pit

Report Date 3/27/2017 6:33:40 PM

On 03/11/2017, 5 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at SGS Accutest Mountain States (SAMS) at a temperature of 1.1 °C. The samples were intact and properly preserved, unless noted below. An SAMS Job Number of D91976 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Extractables by GC By Method SW846-8015B

| | |
|-------------------|--------------------------|
| Matrix: SO | Batch ID: OP14748 |
|-------------------|--------------------------|

- All samples were extracted and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D91976-5MS, D91976-5MSD were used as the QC samples indicated.

Wet Chemistry By Method SM2540G-2011 M

| | |
|-------------------|--------------------------|
| Matrix: SO | Batch ID: GN38004 |
|-------------------|--------------------------|

- The data for SM2540G-2011 M meets quality control requirements.

SAMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SAMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by SAMS indicated via signature on the report cover.

Summary of Hits

Job Number: D91976
Account: Renegade Oil & Gas
Project: Bird State 32-1 Pit
Collected: 03/10/17



| Lab Sample ID | Client Sample ID | Result/ Qual | RL | MDL | Units | Method |
|-------------------|-------------------------------|-----------------|-----|-----|-------|-------------|
| D91976-1 | RECLAIMED PIT #1- SOUTH 12YD | | | | | |
| TPH-DRO (C10-C28) | | 631 | 11 | 10 | mg/kg | SW846-8015B |
| D91976-2 | RECLAIMED PIT #2- WEST 12YDS | | | | | |
| TPH-DRO (C10-C28) | | 895 | 12 | 11 | mg/kg | SW846-8015B |
| D91976-3 | RECLAIMED PIT #3- EAST 15YDS | | | | | |
| TPH-DRO (C10-C28) | | 33.6 | 11 | 10 | mg/kg | SW846-8015B |
| D91976-4 | RECLAIMED PIT #4- NORTH 12YDS | | | | | |
| TPH-DRO (C10-C28) | | 2330 | 120 | 110 | mg/kg | SW846-8015B |
| D91976-5 | RECLAIMED PIT #5-NE 12YDS | | | | | |
| TPH-DRO (C10-C28) | | 37.8 | 11 | 10 | mg/kg | SW846-8015B |

Sample Results

Report of Analysis

Report of Analysis

| | |
|---|--------------------------------|
| Client Sample ID: RECLAIMED PIT #1- SOUTH 12YD | Date Sampled: 03/10/17 |
| Lab Sample ID: D91976-1 | Date Received: 03/11/17 |
| Matrix: SO - Soil | Percent Solids: 87.0 |
| Method: SW846-8015B SW846 3546 | |
| Project: Bird State 32-1 Pit | |

| Run # | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | FI52121.D | 1 | 03/20/17 | CH | 03/16/17 | OP14748 | GFI2189 |
| Run #2 | | | | | | | |

| Run # | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 20.0 g | 1.0 ml |
| Run #2 | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
| | TPH-DRO (C10-C28) | 631 | 11 | 10 | mg/kg | |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits | | |
| 84-15-1 | o-Terphenyl | 109% | | 41-134% | | |

| | | |
|---|------------------------------|--|
| ND = Not detected | MDL = Method Detection Limit | J = Indicates an estimated value |
| RL = Reporting Limit | | B = Indicates analyte found in associated method blank |
| E = Indicates value exceeds calibration range | | N = Indicates presumptive evidence of a compound |

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Report of Analysis

| | |
|---|--------------------------------|
| Client Sample ID: RECLAIMED PIT #2- WEST 12YDS | Date Sampled: 03/10/17 |
| Lab Sample ID: D91976-2 | Date Received: 03/11/17 |
| Matrix: SO - Soil | Percent Solids: 84.1 |
| Method: SW846-8015B SW846 3546 | |
| Project: Bird State 32-1 Pit | |

| Run # | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | FI52123.D | 1 | 03/20/17 | CH | 03/16/17 | OP14748 | GFI2189 |
| Run #2 | | | | | | | |

| Run # | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 20.1 g | 1.0 ml |
| Run #2 | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
| | TPH-DRO (C10-C28) | 895 | 12 | 11 | mg/kg | |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits | | |
| 84-15-1 | o-Terphenyl | 99% | | 41-134% | | |

| | | |
|---|------------------------------|--|
| ND = Not detected | MDL = Method Detection Limit | J = Indicates an estimated value |
| RL = Reporting Limit | | B = Indicates analyte found in associated method blank |
| E = Indicates value exceeds calibration range | | N = Indicates presumptive evidence of a compound |

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Report of Analysis

| | |
|---|--------------------------------|
| Client Sample ID: RECLAIMED PIT #3- EAST 15YDS | Date Sampled: 03/10/17 |
| Lab Sample ID: D91976-3 | Date Received: 03/11/17 |
| Matrix: SO - Soil | Percent Solids: 88.1 |
| Method: SW846-8015B SW846 3546 | |
| Project: Bird State 32-1 Pit | |

| Run # | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | FI52125.D | 1 | 03/20/17 | CH | 03/16/17 | OP14748 | GFI2189 |
| Run #2 | | | | | | | |

| Run # | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 20.1 g | 1.0 ml |
| Run #2 | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
| | TPH-DRO (C10-C28) | 33.6 | 11 | 10 | mg/kg | |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits | | |
| 84-15-1 | o-Terphenyl | 88% | | 41-134% | | |

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.3
4

Report of Analysis

| | |
|--|--------------------------------|
| Client Sample ID: RECLAIMED PIT #4- NORTH 12YDS | Date Sampled: 03/10/17 |
| Lab Sample ID: D91976-4 | Date Received: 03/11/17 |
| Matrix: SO - Soil | Percent Solids: 84.8 |
| Method: SW846-8015B SW846 3546 | |
| Project: Bird State 32-1 Pit | |

| Run # | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | FI52303.D | 10 | 03/27/17 | GN | 03/16/17 | OP14748 | GFI2201 |
| Run #2 | | | | | | | |

| Run # | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 20.0 g | 1.0 ml |
| Run #2 | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
| | TPH-DRO (C10-C28) | 2330 | 120 | 110 | mg/kg | |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits | | |
| 84-15-1 | o-Terphenyl | 109% | | 41-134% | | |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.4
4

Report of Analysis

| | |
|--|--------------------------------|
| Client Sample ID: RECLAIMED PIT #5-NE 12YDS | Date Sampled: 03/10/17 |
| Lab Sample ID: D91976-5 | Date Received: 03/11/17 |
| Matrix: SO - Soil | Percent Solids: 89.5 |
| Method: SW846-8015B SW846 3546 | |
| Project: Bird State 32-1 Pit | |

| Run # | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | FI52113.D | 1 | 03/20/17 | CH | 03/16/17 | OP14748 | GFI2189 |
| Run #2 | | | | | | | |

| Run # | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 20.0 g | 1.0 ml |
| Run #2 | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
| | TPH-DRO (C10-C28) | 37.8 | 11 | 10 | mg/kg | |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits | | |
| 84-15-1 | o-Terphenyl | 108% | | 41-134% | | |

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.5
4

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

SGS Accutest Sample Receipt Summary

Job Number: D91976

Client: RENEGADE

Project: BIRD STATE DRO

Date / Time Received: 3/11/2017 8:05:00 AM

Delivery Method: _____

Airbill #'s: hd

Cooler Temps (Initial/Adjusted): #1: (1.1/1.1):

Cooler Security

Y or N

Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature

Y or N

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | <u>IR Gun;</u> | |
| 3. Cooler media: | <u>Ice (Bag)</u> | |
| 4. No. Coolers: | <u>1</u> | |

Quality Control Preservation

Y or N

N/A

- | | | | |
|---------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Trip Blank listed on COC: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments

Sample Integrity - Documentation

Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | <u>Intact</u> | |

Sample Integrity - Instructions

Y or N

N/A

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume recvd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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D91976: Chain of Custody

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GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D91976
Account: RENOGCOA Renegade Oil & Gas
Project: Bird State 32-1 Pit

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| OP14748-MB | FI52105.D | 1 | 03/20/17 | CH | 03/16/17 | OP14748 | GFI2189 |

The QC reported here applies to the following samples:

Method: SW846-8015B

D91976-1, D91976-2, D91976-3, D91976-4, D91976-5

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---------|-------------------|--------|----|-----|-------|---|
| | TPH-DRO (C10-C28) | ND | 10 | 9.0 | mg/kg | |

| CAS No. | Surrogate Recoveries | Limits |
|---------|----------------------|--------------|
| 84-15-1 | o-Terphenyl | 114% 41-134% |

Blank Spike Summary

Job Number: D91976
 Account: RENOGCOA Renegade Oil & Gas
 Project: Bird State 32-1 Pit

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| OP14748-BS | FI52107.D | 1 | 03/20/17 | CH | 03/16/17 | OP14748 | GFI2189 |

The QC reported here applies to the following samples:

Method: SW846-8015B

D91976-1, D91976-2, D91976-3, D91976-4, D91976-5

| CAS No. | Compound | Spike mg/kg | BSP mg/kg | BSP % | Limits |
|---------|-------------------|----------------|--------------|----------|--------|
| | TPH-DRO (C10-C28) | 250 | 186 | 74 | 35-130 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---------|----------------------|------|---------|
| 84-15-1 | o-Terphenyl | 117% | 41-134% |

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D91976
 Account: RENOGCOA Renegade Oil & Gas
 Project: Bird State 32-1 Pit

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP14748-MS | FI52109.D | 1 | 03/20/17 | CH | 03/16/17 | OP14748 | GFI2189 |
| OP14748-MSD | FI52111.D | 1 | 03/20/17 | CH | 03/16/17 | OP14748 | GFI2189 |
| D91976-5 | FI52113.D | 1 | 03/20/17 | CH | 03/16/17 | OP14748 | GFI2189 |

The QC reported here applies to the following samples:

Method: SW846-8015B

D91976-1, D91976-2, D91976-3, D91976-4, D91976-5

| CAS No. | Compound | D91976-5 mg/kg | Spike mg/kg | MS mg/kg | MS % | Spike mg/kg | MSD mg/kg | MSD % | RPD | Limits Rec/RPD |
|---------|-------------------|-------------------|----------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| | TPH-DRO (C10-C28) | 37.8 | 279 | 216 | 64 | 279 | 239 | 72 | 10 | 10-171/30 |

| CAS No. | Surrogate Recoveries | MS | MSD | D91976-5 | Limits |
|---------|----------------------|------|------|----------|---------|
| 84-15-1 | o-Terphenyl | 101% | 111% | 108% | 41-134% |

* = Outside of Control Limits.