

TABLE 1
SOIL ANALYTICAL RESULTS
NMU 11-12H WELLPAD
JACKSON COUNTY, COLORADO
BONANZA CREEK ENERGY OPERATING COMPANY LLC.

| Parameters | | COGCC Table 910-1 Concentration Level | SS01 | SS02 | SS03 |
|---------------------|----------------------|--|-------------|-------------|-------------|
| Sample Date | | | 7/30/2015 | 7/30/2015 | 7/30/2015 |
| Sample Depth (feet) | | | 0.83 - 1.33 | 0.83 - 1.33 | 0.83 - 1.33 |
| BTEX | Benzene | 0.17 | <0.002 | <0.002 | <0.002 |
| | Toluene | 85 | <0.002 | <0.002 | <0.002 |
| | Ethylbenzene | 100 | <0.002 | <0.002 | <0.002 |
| | Total Xylenes | 175 | <0.002 | <0.002 | <0.002 |
| TPH | DRO | -- | 75.1 | 95.0 | 236 |
| | GRO | -- | <0.200 | <0.200 | <0.200 |
| | Total | 500 | 75.1 | 95.0 | 236 |

Notes:

-- - no concentration level is available

BTEX - benzene, toluene, ethylbenzene, xylenes (total)

COGCC - Colorado Oil and Gas Conservation Commission

TPH - total petroleum hydrocarbons

DRO - diesel range organics

GRO - gasoline range organics

All results are in mg/kg unless stated otherwise.



August 05, 2015

Bonanza Creek Energy, Inc.

Brian Dodek

410 17th St, Suite 1400

Denver

CO 80211

Project Name - NMU 11-12 H

Project Number - [none]

Attached are your analytical results for NMU 11-12 H received by Origins Laboratory, Inc. July 31, 2015. This project is associated with Origins project number X507432-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Brian Dodek

Project Number: [none]

Project: NMU 11-12 H

CROSS REFERENCE REPORT

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-----------|---------------|--------|---------------------|------------------|
| SS01 | X507432-01 | Soil | July 30, 2015 11:30 | 07/31/2015 11:06 |
| SS02 | X507432-02 | Soil | July 30, 2015 11:40 | 07/31/2015 11:06 |
| SS03 | X507432-03 | Soil | July 30, 2015 11:50 | 07/31/2015 11:06 |

Origins Laboratory, Inc.



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Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Brian Dodek

Project Number: [none]

Project: NMU 11-12 H

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ORIGINS LABORATORY, INC

X50743Z

Client: Bonanza Creek Energy, Inc.
Address: 410 17th Street, Suite 1400
Telephone Number: 720-225-6653
Email Address: bdodek@bonanzacrk.com

Project Manager: Brian Dodek
Project Name: NMU 11-12 H
Project Number: NA
Samples Collected By: Sam Robles

| Sample ID Description | Date Sampled | Time Sampled | # of Containers | Preservative | | | | Matrix | | | Analysis | Sample Instructions |
|------------------------------|---------------|--------------|-----------------|--------------|-----|------------------|-------|--------------------------|------|-------------|---------------------------|--|
| | | | | Unpreserved | HCl | HNO ₃ | Other | Groundwater | Soil | Air Summa # | | |
| SS01 | 7-30-15 | 11:30 | 2 | ✓ | | | | | ✓ | | BTEX, TPH-GRO, TPH-DRO | 1 |
| SS02 | 7-30-15 | 11:40 | 2 | ✓ | | | | | ✓ | | BTEX, TPH-GRO, TPH-DRO | 2 |
| SS03 | 7-30-15 | 11:50 | 2 | ✓ | | | | | ✓ | | BTEX, TPH-GRO, TPH-DRO | 3 |
| | | | | | | | | | | | | 4 |
| | | | | | | | | | | | | 5 |
| | | | | | | | | | | | | 6 |
| | | | | | | | | | | | | 7 |
| | | | | | | | | | | | | 8 |
| | | | | | | | | | | | | 9 |
| | | | | | | | | | | | | 10 |
| Relinquished By: Sam Robles | Date: 7-31-15 | Time: 11:00 | | | | | | Received By: [Signature] | | | Date: 7-31-15 Time: 10:00 | Turnaround Time: Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input checked="" type="checkbox"/> 3-6 |
| Relinquished By: [Signature] | Date: 7-31-15 | Time: 11:00 | | | | | | Received By: [Signature] | | | Date: 7/31/15 Time: 10:00 | |

Date Results Needed

Origins Laboratory, Inc.

Jefe Pellegrini

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Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Brian Dodek

Project Number: [none]

Project: NMU 11-12 H

Origins Laboratory

F-012207-01-R1
Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: X507432

Client: Bonanza

Client Project ID: NMU

Checklist Completed by: Jeff Smith

Shipped Via: H/D - Cool - RT

(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 7/31/15

Airbill #: NA

Matrix(s) Received: (Check all that apply): X Soil/Solid Water Other:

Cooler Number/Temperature: 1 / 3.6 °C / °C / °C (Describe)

Thermometer ID: T203

| Requirement Description | Yes | No | N/A | Comments (if any) |
|---|----------|----------|----------|-------------------|
| If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ? | <u>X</u> | | | |
| Is there ice present (document if blue ice is used) | <u>X</u> | | | |
| Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact) | | <u>X</u> | | |
| Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact) | | <u>X</u> | | |
| Were all samples received intact ⁽¹⁾ ? | <u>X</u> | | | |
| Was adequate sample volume provided ⁽¹⁾ ? | <u>X</u> | | | |
| Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ? | | <u>X</u> | | |
| Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ? | <u>X</u> | | | |
| Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ? | <u>X</u> | | | |
| Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ? | <u>X</u> | | | |
| Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ? | <u>X</u> | | | |
| For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative. | | | <u>X</u> | |
| Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH >10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH) | | | <u>X</u> | |
| Additional Comments (if any): | | | | |

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by (Project Manager) [Signature]

Date/Time Reviewed 8/31/15

Origins Laboratory, Inc.

[Signature]

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Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Brian Dodek

Project Number: [none]

Project: NMU 11-12 H

SS01

7/30/2015 11:30:00AM

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|--------------------|-------|----------|-------|----------|----------|-------|
|---------|--------|--------------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc.
X507432-01 (Soil)

Diesel Range Organics (DRO/TEPH) by EPA 8015C

| | | | | | | | |
|------------------|------|------|-------|---|---------|------------|------------|
| Diesel (C10-C28) | 75.1 | 50.0 | mg/kg | 1 | 5H03010 | 08/03/2015 | 08/03/2015 |
|------------------|------|------|-------|---|---------|------------|------------|

| | | | | | | | |
|------------------------|--------|--------|--|--|---|---|---|
| Surrogate: o-Terphenyl | 71.4 % | 59-131 | | | " | " | " |
|------------------------|--------|--------|--|--|---|---|---|

GBTEX by EPA 8260C

| | | | | | | | |
|-----------------------------|----|-------|-------|---|---------|------------|------------|
| Gasoline Range Hydrocarbons | ND | 0.200 | mg/kg | 1 | 5H03011 | 08/03/2015 | 08/03/2015 |
|-----------------------------|----|-------|-------|---|---------|------------|------------|

| | | | | | | | |
|---------|----|-------|---|---|---|---|---|
| Benzene | ND | 0.002 | " | " | " | " | " |
|---------|----|-------|---|---|---|---|---|

| | | | | | | | |
|---------|----|-------|---|---|---|---|---|
| Toluene | ND | 0.002 | " | " | " | " | " |
|---------|----|-------|---|---|---|---|---|

| | | | | | | | |
|--------------|----|-------|---|---|---|---|---|
| Ethylbenzene | ND | 0.002 | " | " | " | " | " |
|--------------|----|-------|---|---|---|---|---|

| | | | | | | | |
|----------------|----|-------|---|---|---|---|---|
| Xylenes, total | ND | 0.002 | " | " | " | " | " |
|----------------|----|-------|---|---|---|---|---|

| | | | | | | | |
|----------------------------------|--------|--------|--|--|---|---|---|
| Surrogate: 1,2-Dichloroethane-d4 | 94.0 % | 70-130 | | | " | " | " |
|----------------------------------|--------|--------|--|--|---|---|---|

| | | | | | | | |
|-----------------------|--------|--------|--|--|---|---|---|
| Surrogate: Toluene-d8 | 98.4 % | 70-130 | | | " | " | " |
|-----------------------|--------|--------|--|--|---|---|---|

| | | | | | | | |
|---------------------------------|-------|--------|--|--|---|---|---|
| Surrogate: 4-Bromofluorobenzene | 114 % | 70-130 | | | " | " | " |
|---------------------------------|-------|--------|--|--|---|---|---|

Origins Laboratory, Inc.



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Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Brian Dodek

Project Number: [none]

Project: NMU 11-12 H

SS02**7/30/2015 11:40:00AM**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|--------------------|-------|----------|-------|----------|----------|-------|
|---------|--------|--------------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc.
X507432-02 (Soil)**Diesel Range Organics (DRO/TEPH) by EPA 8015C**

| | | | | | | | |
|------------------|------|------|-------|---|---------|------------|------------|
| Diesel (C10-C28) | 95.0 | 50.0 | mg/kg | 1 | 5H03010 | 08/03/2015 | 08/03/2015 |
|------------------|------|------|-------|---|---------|------------|------------|

| | | | | | | | |
|------------------------|--------|--------|--|--|---|---|---|
| Surrogate: o-Terphenyl | 72.4 % | 59-131 | | | " | " | " |
|------------------------|--------|--------|--|--|---|---|---|

GBTEX by EPA 8260C

| | | | | | | | |
|-----------------------------|----|-------|-------|---|---------|------------|------------|
| Gasoline Range Hydrocarbons | ND | 0.200 | mg/kg | 1 | 5H03011 | 08/03/2015 | 08/03/2015 |
|-----------------------------|----|-------|-------|---|---------|------------|------------|

| | | | | | | | |
|---------|----|-------|---|---|---|---|---|
| Benzene | ND | 0.002 | " | " | " | " | " |
|---------|----|-------|---|---|---|---|---|

| | | | | | | | |
|---------|----|-------|---|---|---|---|---|
| Toluene | ND | 0.002 | " | " | " | " | " |
|---------|----|-------|---|---|---|---|---|

| | | | | | | | |
|--------------|----|-------|---|---|---|---|---|
| Ethylbenzene | ND | 0.002 | " | " | " | " | " |
|--------------|----|-------|---|---|---|---|---|

| | | | | | | | |
|----------------|----|-------|---|---|---|---|---|
| Xylenes, total | ND | 0.002 | " | " | " | " | " |
|----------------|----|-------|---|---|---|---|---|

| | | | | | | | |
|----------------------------------|--------|--------|--|--|---|---|---|
| Surrogate: 1,2-Dichloroethane-d4 | 99.2 % | 70-130 | | | " | " | " |
|----------------------------------|--------|--------|--|--|---|---|---|

| | | | | | | | |
|-----------------------|--------|--------|--|--|---|---|---|
| Surrogate: Toluene-d8 | 96.0 % | 70-130 | | | " | " | " |
|-----------------------|--------|--------|--|--|---|---|---|

| | | | | | | | |
|---------------------------------|-------|--------|--|--|---|---|---|
| Surrogate: 4-Bromofluorobenzene | 107 % | 70-130 | | | " | " | " |
|---------------------------------|-------|--------|--|--|---|---|---|

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410 17th St, Suite 1400

Denver CO 80211

Brian Dodek

Project Number: [none]

Project: NMU 11-12 H

SS03

7/30/2015 11:50:00AM

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|--------------------|-------|----------|-------|----------|----------|-------|
|---------|--------|--------------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc.
X507432-03 (Soil)

Diesel Range Organics (DRO/TEPH) by EPA 8015C

| | | | | | | | |
|------------------|-----|------|-------|---|---------|------------|------------|
| Diesel (C10-C28) | 236 | 50.0 | mg/kg | 1 | 5H03010 | 08/03/2015 | 08/03/2015 |
|------------------|-----|------|-------|---|---------|------------|------------|

| | | | | | | | |
|------------------------|--------|--------|--|--|---|---|---|
| Surrogate: o-Terphenyl | 73.6 % | 59-131 | | | " | " | " |
|------------------------|--------|--------|--|--|---|---|---|

GBTEX by EPA 8260C

| | | | | | | | |
|-----------------------------|----|-------|-------|---|---------|------------|------------|
| Gasoline Range Hydrocarbons | ND | 0.200 | mg/kg | 1 | 5H03011 | 08/03/2015 | 08/03/2015 |
|-----------------------------|----|-------|-------|---|---------|------------|------------|

| | | | | | | | |
|---------|----|-------|---|---|---|---|---|
| Benzene | ND | 0.002 | " | " | " | " | " |
|---------|----|-------|---|---|---|---|---|

| | | | | | | | |
|---------|----|-------|---|---|---|---|---|
| Toluene | ND | 0.002 | " | " | " | " | " |
|---------|----|-------|---|---|---|---|---|

| | | | | | | | |
|--------------|----|-------|---|---|---|---|---|
| Ethylbenzene | ND | 0.002 | " | " | " | " | " |
|--------------|----|-------|---|---|---|---|---|

| | | | | | | | |
|----------------|----|-------|---|---|---|---|---|
| Xylenes, total | ND | 0.002 | " | " | " | " | " |
|----------------|----|-------|---|---|---|---|---|

| | | | | | | | |
|----------------------------------|--------|--------|--|--|---|---|---|
| Surrogate: 1,2-Dichloroethane-d4 | 98.4 % | 70-130 | | | " | " | " |
|----------------------------------|--------|--------|--|--|---|---|---|

| | | | | | | | |
|-----------------------|--------|--------|--|--|---|---|---|
| Surrogate: Toluene-d8 | 96.5 % | 70-130 | | | " | " | " |
|-----------------------|--------|--------|--|--|---|---|---|

| | | | | | | | |
|---------------------------------|-------|--------|--|--|---|---|---|
| Surrogate: 4-Bromofluorobenzene | 106 % | 70-130 | | | " | " | " |
|---------------------------------|-------|--------|--|--|---|---|---|

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Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Brian Dodek

Project Number: [none]

Project: NMU 11-12 H

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch 5H03011 - EPA 5030 (soil)

Blank (5H03011-BLK1)

Prepared: 08/03/2015 Analyzed: 08/03/2015

| | | | | | | | | | | |
|----------------------------------|------|-------|-------|------|--|------|--------|--|--|--|
| Gasoline Range Hydrocarbons | ND | 0.200 | mg/kg | | | | | | | |
| Benzene | ND | 0.002 | " | | | | | | | |
| Toluene | ND | 0.002 | " | | | | | | | |
| Ethylbenzene | ND | 0.002 | " | | | | | | | |
| Xylenes, total | ND | 0.002 | " | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 57.0 | | ug/kg | 62.5 | | 91.2 | 70-130 | | | |
| Surrogate: Toluene-d8 | 60.5 | | " | 62.5 | | 96.7 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 63.3 | | " | 62.5 | | 101 | 70-130 | | | |

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410 17th St, Suite 1400

Denver CO 80211

Brian Dodek

Project Number: [none]

Project: NMU 11-12 H

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch 5H03011 - EPA 5030 (soil)

LCS (5H03011-BS1)

Prepared: 08/03/2015 Analyzed: 08/03/2015

| | | | | | | | | | | |
|----------------------------------|-------|-------|-------|-------|--|------|----------|--|--|--|
| Benzene | 0.093 | 0.002 | mg/kg | 0.100 | | 93.2 | 77.1-124 | | | |
| Toluene | 0.087 | 0.002 | " | 0.100 | | 87.3 | 74.5-128 | | | |
| Ethylbenzene | 0.090 | 0.002 | " | 0.100 | | 89.7 | 66.4-127 | | | |
| m,p-Xylene | 0.179 | 0.004 | " | 0.200 | | 89.6 | 76.6-124 | | | |
| o-Xylene | 0.092 | 0.002 | " | 0.100 | | 92.1 | 76.6-124 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 53.3 | | ug/kg | 62.5 | | 85.3 | 70-130 | | | |
| Surrogate: Toluene-d8 | 59.8 | | " | 62.5 | | 95.7 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 62.4 | | " | 62.5 | | 99.8 | 70-130 | | | |

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Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Brian Dodek

Project Number: [none]

Project: NMU 11-12 H

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch 5H03011 - EPA 5030 (soil)

| Matrix Spike (5H03011-MS1) | | Source: X507431-01 | | | Prepared: 08/03/2015 Analyzed: 08/03/2015 | | | | | |
|----------------------------------|-------|--------------------|-------|-------|---|------|----------|--|--|--|
| Benzene | 0.088 | 0.002 | mg/kg | 0.100 | ND | 88.0 | 71.8-126 | | | |
| Toluene | 0.083 | 0.002 | " | 0.100 | ND | 83.1 | 65.1-130 | | | |
| Ethylbenzene | 0.090 | 0.002 | " | 0.100 | ND | 89.8 | 62.2-130 | | | |
| m,p-Xylene | 0.177 | 0.004 | " | 0.200 | ND | 88.5 | 46.5-137 | | | |
| o-Xylene | 0.091 | 0.002 | " | 0.100 | ND | 90.9 | 54.2-134 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 54.5 | | ug/kg | 62.5 | | 87.2 | 70-130 | | | |
| Surrogate: Toluene-d8 | 60.3 | | " | 62.5 | | 96.5 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 65.2 | | " | 62.5 | | 104 | 70-130 | | | |

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Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Brian Dodek

Project Number: [none]

Project: NMU 11-12 H

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch 5H03011 - EPA 5030 (soil)

| Matrix Spike Dup (5H03011-MSD1) | | Source: X507431-01 | | | Prepared: 08/03/2015 Analyzed: 08/03/2015 | | | | | |
|----------------------------------|-------|--------------------|-------|-------|---|------|----------|-------|------|--|
| Benzene | 0.091 | 0.002 | mg/kg | 0.100 | ND | 91.1 | 71.8-126 | 3.46 | 11.3 | |
| Toluene | 0.086 | 0.002 | " | 0.100 | ND | 86.0 | 65.1-130 | 3.50 | 15.4 | |
| Ethylbenzene | 0.089 | 0.002 | " | 0.100 | ND | 89.4 | 62.2-130 | 0.491 | 19.6 | |
| m,p-Xylene | 0.178 | 0.004 | " | 0.200 | ND | 89.1 | 46.5-137 | 0.653 | 19.2 | |
| o-Xylene | 0.092 | 0.002 | " | 0.100 | ND | 92.1 | 54.2-134 | 1.27 | 17.9 | |
| Surrogate: 1,2-Dichloroethane-d4 | 54.4 | | ug/kg | 62.5 | | 87.0 | 70-130 | | | |
| Surrogate: Toluene-d8 | 61.0 | | " | 62.5 | | 97.6 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 65.4 | | " | 62.5 | | 105 | 70-130 | | | |

Origins Laboratory, Inc.



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Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Brian Dodek

Project Number: [none]

Project: NMU 11-12 H

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control

Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Extractable Petroleum Hydrocarbons by 8015C - Quality Control

Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch 5H03010 - EPA 3580

Blank (5H03010-BLK1)

Prepared: 08/03/2015 Analyzed: 08/03/2015

| | | | | | | | | | | |
|------------------------|----|------|-------|------|--|------|--------|--|--|--|
| Diesel (C10-C28) | ND | 50.0 | mg/kg | | | | | | | |
| Surrogate: o-Terphenyl | 41 | | " | 50.0 | | 81.6 | 59-131 | | | |

LCS (5H03010-BS1)

Prepared: 08/03/2015 Analyzed: 08/03/2015

| | | | | | | | | | | |
|------------------------|-----|------|-------|------|--|------|--------|--|--|--|
| Diesel (C10-C28) | 807 | 50.0 | mg/kg | 1000 | | 80.7 | 64-121 | | | |
| Surrogate: o-Terphenyl | 44 | | " | 50.0 | | 89.0 | 59-131 | | | |

Matrix Spike (5H03010-MS1)

Source: X507431-01

Prepared: 08/03/2015 Analyzed: 08/03/2015

| | | | | | | | | | | |
|------------------------|-----|------|-------|------|-----|------|--------|--|--|--|
| Diesel (C10-C28) | 894 | 50.0 | mg/kg | 1000 | 147 | 74.7 | 53-125 | | | |
| Surrogate: o-Terphenyl | 42 | | " | 50.0 | | 83.9 | 59-131 | | | |

Matrix Spike Dup (5H03010-MSD1)

Source: X507431-01

Prepared: 08/03/2015 Analyzed: 08/03/2015

| | | | | | | | | | | |
|------------------------|-----|------|-------|------|-----|------|--------|------|----|--|
| Diesel (C10-C28) | 938 | 50.0 | mg/kg | 1000 | 147 | 79.2 | 53-125 | 4.88 | 20 | |
| Surrogate: o-Terphenyl | 41 | | " | 50.0 | | 82.8 | 59-131 | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

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Denver CO 80211

Brian Dodek

Project Number: [none]

Project: NMU 11-12 H

Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President