



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC NM 87410
(505) 334-6178 FAX: (505) 334-6170
[http://emnr.state.nm.us/ocd/District III3district.htm](http://emnr.state.nm.us/ocd/District%20III3district.htm)

OIL CONS. DIV DIST. 3

APR 17 2014

BRADENHEAD TEST REPORT

(submit 1 copy to above address)

Date of Test 3-20-14 Operator Energen Resources API #30-0 3920016

Property Name Lindrith Unit Well No. 66 Location: Unit F Section 30 Township 24 Range 2

Well Status(Shut-In or Producing) Initial PSI: Tubing Intermediate N/A Casing 74 Bradenhead 13

OPEN BRADENHEAD AND INTERMEDIATE TO ATMOSPHERE INDIVIDUALLY FOR 15 MINUTES EACH

| Testing | PRESSURE | | | | |
|---------|------------|-----|-----------|--------|-----|
| | Bradenhead | | | INTERM | |
| | BH | Int | Csg | Int | Csg |
| TIME | | | | | |
| 5 min | <u>3</u> | | <u>75</u> | | |
| 10 min | <u>1</u> | | <u>75</u> | | |
| 15 min | <u>1</u> | | <u>75</u> | | |
| 20 min | <u>1</u> | | <u>75</u> | | |
| 25 min | <u>1</u> | | <u>75</u> | | |
| 30 min | <u>1</u> | | <u>75</u> | | |

| FLOW CHARACTERISTICS | |
|----------------------|--------------|
| BRADENHEAD | INTERMEDIATE |
| Steady Flow <u>X</u> | |
| Surges | |
| Down to Nothing | |
| Nothing | |
| Gas <u>X</u> | |
| Gas & Water | |
| Water | |

If bradenhead flowed water, check all of the descriptions that apply below:

CLEAR FRESH SALTY SULFUR BLACK

5 MINUTE SHUT-IN PRESSURE BRADENHEAD 7 INTERMEDIATE

REMARKS:

ALL GAS VENTED THROUGH A 1/4" ORPHIS

By MICHAEL L. DEAN

Witness

PRODUCTION FOREMAN
(Position)

E-mail address



2030 Afton Place
Farmington, NM 87401
(505) 325-6622

Analysis No: EN140213
Cust No: 73500-14485

Well/Lease Information

Customer Name: ENERGEN RESOURCES CORP.
Well Name: LINDRITH 66 BHD
County/State: RIO ARRIBA
Location:
Field:
Formation: PICTURED CLIFF
Cust. Stn. No.: 75657-01

Source: BRADENHEAD
Pressure: 13 PSIG
Sample Temp: DEG. F
Well Flowing: Y
Date Sampled: 03/20/2014
Sampled By: MICHAEL DEAN
Foreman/Engr.: MICHAEL DEAN

Remarks:

Analysis

| Component:: | Mole%: | **GPM: | *BTU: | *SP Gravity: |
|-------------|---------|---------|---------|--------------|
| Nitrogen | 0.378 | 0.0420 | 0.00 | 0.0037 |
| CO2 | 0.100 | 0.0170 | 0.00 | 0.0015 |
| Methane | 87.445 | 14.8650 | 883.20 | 0.4844 |
| Ethane | 6.396 | 1.7150 | 113.19 | 0.0664 |
| Propane | 3.152 | 0.8710 | 79.31 | 0.0480 |
| Iso-Butane | 0.611 | 0.2000 | 19.87 | 0.0123 |
| N-Butane | 0.746 | 0.2360 | 24.34 | 0.0150 |
| I-Pentane | 0.280 | 0.1030 | 11.20 | 0.0070 |
| N-Pentane | 0.193 | 0.0700 | 7.74 | 0.0048 |
| Hexane Plus | 0.699 | 0.3130 | 36.84 | 0.0231 |
| Total | 100.000 | 18.4320 | 1175.68 | 0.6661 |

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.003
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1181.9
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1161.3
REAL SPECIFIC GRAVITY: 0.6678

GPM, BTU, and SPG calculations as shown
above are based on current GPA factors.

DRY BTU @ 14.650: 1175.5
DRY BTU @ 14.696: 1179.2
DRY BTU @ 14.730: 1181.9
DRY BTU @ 15.025: 1205.6

CYLINDER #: 6110
CYLINDER PRESSURE: 71 PSIG
DATE RUN: 4/2/14 12:00 AM
ANALYSIS RUN BY: PATRICIA KING



ENERGEN RESOURCES CORP.
WELL ANALYSIS COMPARISON

Lease: LINDRITH 66 BHD
Stn. No.: 75657-01
Mtr. No.:

BRADENHEAD
PICTURED CLIFF

04/07/2014
73500-14485

Smpl Date: 03/20/2014
Test Date: 04/02/2014
Run No: EN140213
Nitrogen: 0.378
CO2: 0.100
Methane: 87.445
Ethane: 6.396
Propane: 3.152
I-Butane: 0.611
N-Butane: 0.746
I-Pentane: 0.280
N-Pentane: 0.193
Hexane+: 0.699
BTU: 1181.9
GPM: 18.4320
SPG: 0.6678



71#

☐ Helium ☐ Hydrogen ☐ Oxygen
☐ C6+ ☐ C9+ ☐ BTEX

2030 Afton Place, Farmington, NM 87401 • 505/325-6622

Company ENERZEN RESOURCES

Pressúre(PSIG) 13

Well Name LINDRITH 66

Sample Temp (Deg. F) Amb

Location/Source BRADEN HEAD

Well Flowing ☒ Yes ☐ No

Lease/County TRIO ARIZONA

Date Sampled 3-20-14

Formation PC

Sampled By MICHAEL L DEAN

Meter No 75657-01

Cylinder No. 6110

Contact MICHAEL L DEAN 330-0342

Remarks BRADENHEAD TEST



2030 Afton Place
Farmington, NM 87401
(505) 325-6622

Analysis No: EN140214
Cust No: 73500-14490

Well/Lease Information

Customer Name: ENERGEN RESOURCES CORP.
Well Name: LINDRITH UNIT #66 CSG
County/State: RIO ARRIBA
Location:
Field:
Formation: PICTURED CLIFF
Cust. Stn. No.: 75657-01

Source: CASING
Pressure: 74 PSIG
Sample Temp: 50 DEG. F
Well Flowing: Y
Date Sampled: 03/20/2014
Sampled By: MICHAEL DEAN
Foreman/Engr.: MICHAEL DEAN

Remarks:

Analysis

| Component:: | Mole%: | **GPM: | *BTU: | *SP Gravity: |
|-------------|---------|---------|---------|--------------|
| Nitrogen | 0.371 | 0.0410 | 0.00 | 0.0036 |
| CO2 | 0.096 | 0.0160 | 0.00 | 0.0015 |
| Methane | 87.304 | 14.8430 | 881.77 | 0.4836 |
| Ethane | 6.413 | 1.7200 | 113.49 | 0.0666 |
| Propane | 3.179 | 0.8780 | 79.99 | 0.0484 |
| Iso-Butane | 0.616 | 0.2020 | 20.03 | 0.0124 |
| N-Butane | 0.758 | 0.2400 | 24.73 | 0.0152 |
| I-Pentane | 0.285 | 0.1050 | 11.40 | 0.0071 |
| N-Pentane | 0.195 | 0.0710 | 7.82 | 0.0049 |
| Hexane Plus | 0.783 | 0.3500 | 41.27 | 0.0259 |
| Total | 100.000 | 18.4660 | 1180.50 | 0.6690 |

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0031

BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1186.9

BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1166.2

REAL SPECIFIC GRAVITY: 0.6709

GPM, BTU, and SPG calculations as shown
above are based on current GPA factors.

DRY BTU @ 14.650: 1180.5

DRY BTU @ 14.696: 1184.2

DRY BTU @ 14.730: 1186.9

DRY BTU @ 15.025: 1210.7

CYLINDER #: 4200

CYLINDER PRESSURE: 13 PSIG

DATE RUN: 4/2/14 12:00 AM

ANALYSIS RUN BY: LOGAN CHENEY



ENERGEN RESOURCES CORP.
WELL ANALYSIS COMPARISON

Lease: LINDRITH UNIT #66 CSG
Stn. No.: 75657-01
Mtr. No.:

CASING
PICTURED CLIFF

04/07/2014
73500-14490

Smpl Date: 03/20/2014
Test Date: 04/02/2014
Run No: EN140214

Nitrogen: 0.371
CO2: 0.096
Methane: 87.304
Ethane: 6.413
Propane: 3.179
I-Butane: 0.616
N-Butane: 0.758
I-Pentane: 0.285
N-Pentane: 0.195
Hexane+: 0.783

BTU: 1186.9
GPM: 18.4660
SPG: 0.6709



13#

☐ Helium ☐ Hydrogen ☐ Oxygen
☐ C6+ ☐ C9+ ☐ BTEX

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Company ENERGEN RESOURCES

Pressure(PSIG) 74

Well Name LINDRITH UNIT #66

Sample Temp (Deg. F) AMB 50°

Location/Source CASINL

Well Flowing ☒ Yes ☐ No

Lease/County RIO ARriba

Date Sampled 3-20-14

Formation PC

Sampled By MICHAEL L DEAN

Meter No. 75657-01

Cylinder No. 4200

Contact MICHAEL L DEAN 330-0342

Remarks BRADENHEAD TEST

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED
OMB NO. 1004-0137
Expires July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

MAR 21 2014

SUBMIT IN TRIPLICATE - Other instructions on page 2 of 2

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

ENERGEN RESOURCES CORPORATION

3a. Address

2010 Afton Place, Farmington, NM 87401

3b. Phone No. (include area code)

505.325.6800

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1460' FNL, 1600' FWL Section 30, T24N, R02W, Unit F

5. Lease Serial No.

SF-078909

6. If Indian, Allottee or Tribe Name

0

7. If Unit or CA/Agreement, Name and/or No.

Lindrith Unit

8. Well Name and No.

Lindrith Unit 66

9. API Well No.

30-039-20016

10. Field and Pool, or Exploratory Area Pictured Cliffs

11. County or Parish, State

Rio Arriba NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- | | | | |
|---|---|--|--|
| <input type="checkbox"/> Acidize | <input type="checkbox"/> Deepen | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Alter Casing | <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Reclamation | <input checked="" type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete | <input type="checkbox"/> Other |
| <input type="checkbox"/> Change Plans | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon | |
| <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back | <input type="checkbox"/> Water Disposal | |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

The Lindrith Unit #66 failed a bradenhead test on 3/20/14. Energen Resources intends to investigate the cause of the failure and determine whether to make repairs and return to production or permanently plug and abandon the well.

RCVD MAR 26 '14
OIL CONS. DIV.
DIST. 3

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Collin Placke

Title District Engineer

Signature

Collin Placke

Date 3/21/14

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Original Signed: Stephen Mason

Title

Date MAR 24 2014

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

NMUCDA