



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://emnrd.state.nm.us/ocd/District III/3district.htm](http://emnrd.state.nm.us/ocd/District%20III/3district.htm)

BRADENHEAD TEST REPORT

(submit 1 copy to above address)

OIL CONS. DIV DIST. 3

APR 17 2014

Date of Test 3-19-14 Operator Energen Resources API #30-0 3927528

Property Name Jicarilla 96 Well No. 3R Location: Unit B Section 12 Township 26 Range 3

Well Status (Shut-In or Producing) Initial PSI: Tubing 168 Intermediate Casing 179 Bradenhead 13

OPEN BRADENHEAD AND INTERMEDIATE TO ATMOSPHERE INDIVIDUALLY FOR 15 MINUTES EACH

Testing TIME	PRESSURE			INTERM	
	Bradenhead BH	Int	Csg	Int	Csg
5 min	<u>6</u>		<u>182</u>		
10 min	<u>3</u>		<u>183</u>		
15 min	<u>5</u>		<u>184</u>		
20 min	<u>3</u>		<u>185</u>		
25 min	<u>3</u>		<u>186</u>		
30 min	<u>3</u>		<u>187</u>		

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

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

OIL CONS. DIV DIST. 3

CLEAR FRESH SALTY SULFUR BLACK

APR 17 2014

5 MINUTE SHUT-IN PRESSURE BRADENHEAD 12 INTERMEDIATE

REMARKS:

AFTER 15 MIN BLOWING BRADENHEAD PRESSURE WAS AT 6 PSI AND BUILDING
10 MIN 3 PSI AND CLAIMING AFTER 5 MIN SHUT IN CASING 188

By MICHAEL L DEAN

Witness

(Position)

E-mail address



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

Analysis No: EN140204
Cust No: 73500-14440

Well/Lease Information

Customer Name: ENERGEN RESOURCES CORP.
Well Name: JICARILLA 96 3R BHD
County/State: RIO ARRIBA
Location:
Field:
Formation: GL/MV
Cust. Stn. No.: 83637-013

Source: BRADENHEAD
Pressure: 13 PSIG
Sample Temp: 41 DEG. F
Well Flowing: Y
Date Sampled: 03/19/2014
Sampled By: MICHAEL DEAN
Foreman/Engr.: MICHAEL DEAN

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.926	0.2130	0.00	0.0186
CO2	0.028	0.0050	0.00	0.0004
Methane	81.439	13.8480	822.53	0.4511
Ethane	8.910	2.3900	157.68	0.0925
Propane	4.758	1.3150	119.72	0.0724
Iso-Butane	0.677	0.2220	22.02	0.0136
N-Butane	1.233	0.3900	40.22	0.0247
I-Pentane	0.330	0.1210	13.20	0.0082
N-Pentane	0.271	0.0990	10.86	0.0068
Hexane Plus	0.428	0.1910	22.56	0.0142
Total	100.000	18.7940	1208.80	0.7026

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0033
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1215.6
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1194.4
REAL SPECIFIC GRAVITY: 0.7046

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

DRY BTU @ 14.650: 1209.0
DRY BTU @ 14.696: 1212.8
DRY BTU @ 14.730: 1215.6
DRY BTU @ 15.025: 1239.9

CYLINDER #: 6236
CYLINDER PRESSURE: 7 PSIG
DATE RUN: 4/2/14 12:00 AM
ANALYSIS RUN BY: PATRICIA KING



ENERGEN RESOURCES CORP.
WELL ANALYSIS COMPARISON

Lease: JICARILLA 96 3R BHD
Stn. No.: 83637-013
Mtr. No.:

BRADENHEAD
GL/MV

04/07/2014
73500-14440

Smpl Date: 03/19/2014
Test Date: 04/02/2014
Run No: EN140204

Nitrogen: 1.926
CO2: 0.028
Methane: 81.439
Ethane: 8.910
Propane: 4.758
I-Butane: 0.677
N-Butane: 1.233
I-Pentane: 0.330
N-Pentane: 0.271
Hexane+: 0.428

BTU: 1215.6
GPM: 18.7940
SPG: 0.7046



7#
☐ Helium ☐ Hydrogen ☐ Oxygen
☐ C6+ ☐ C9+ ☐ BTEX

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Company ENERLEN RESOURCES

Pressure(PSIG) 13

Well Name Jic 96 3R

Sample Temp (Deg. F) AMB. 41°

Location/Source BRADENHEAD

Well Flowing ☒ Yes ☐ No

Lease/County Rio Arriba

Date Sampled 3-19-24

Formation 6L / MV

Sampled By MICHAEL L DEAN

Meter No 83637-013

Cylinder No. 60236

Contact MICHAEL L DEAN 330-0342

Remarks BRADENHEAD TEST



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

Analysis No: EN140205
Cust No: 73500-14445

Well/Lease Information

Customer Name: ENERGEN RESOURCES CORP.
Well Name: JICARILLA 96 3R CSG
County/State: RIO ARRIBA
Location:
Field:
Formation: GL/MV
Cust. Stn. No.: 83637-013

Source: CASING
Pressure: 183 PSIG
Sample Temp: 41 DEG. F
Well Flowing: Y
Date Sampled: 03/19/2014
Sampled By: MICHAEL DEAN
Foreman/Engr.: MICHAEL DEAN

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.467	0.0520	0.00	0.0045
CO2	0.526	0.0900	0.00	0.0080
Methane	81.739	13.9010	825.56	0.4528
Ethane	9.594	2.5740	169.79	0.0996
Propane	4.573	1.2640	115.06	0.0696
Iso-Butane	0.784	0.2570	25.49	0.0157
N-Butane	1.148	0.3630	37.45	0.0230
I-Pentane	0.389	0.1430	15.56	0.0097
N-Pentane	0.299	0.1090	11.99	0.0074
Hexane Plus	0.481	0.2150	25.35	0.0159
Total	100.000	18.9680	1226.26	0.7063

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0034
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1233.3
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1211.8
REAL SPECIFIC GRAVITY: 0.7084

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

DRY BTU @ 14.650: 1226.6
DRY BTU @ 14.696: 1230.5
DRY BTU @ 14.730: 1233.3
DRY BTU @ 15.025: 1258.0

CYLINDER #: 4012
CYLINDER PRESSURE: 193 PSIG
DATE RUN: 4/2/14 12:00 AM
ANALYSIS RUN BY: PATRICIA KING



ENERGEN RESOURCES CORP.
WELL ANALYSIS COMPARISON

Lease: JICARILLA 96 3R CSG
Stn. No.: 83637-013
Mtr. No.:

CASING
GL/MV

04/07/2014
73500-14445

Smpl Date: 03/19/2014
Test Date: 04/02/2014
Run No: EN140205

Nitrogen: 0.467
CO2: 0.526
Methane: 81.739
Ethane: 9.594
Propane: 4.573
I-Butane: 0.784
N-Butane: 1.148
I-Pentane: 0.389
N-Pentane: 0.299
Hexane+: 0.481

BTU: 1233.3
GPM: 18.9680
SPG: 0.7084



193#
☐ Helium ☐ Hydrogen ☐ Oxygen
☐ C6+ ☐ C9+ ☐ BTEX

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Company ENERGEN RESOURCES

Pressure (PSIG) 183

Well Name JIC 96 3R

Sample Temp (Deg. F) AM13 41°

Location/Source CASINO

Well Flowing ☒ Yes ☐ No

Lease/County RIO ARriba

Date Sampled 3-19-14

Formation GL/MV

Sampled By MICHAEL L DEAN

Meter No 83637-013

Cylinder No. 4012

Contact MICHAEL L DEAN 330-0342

Remarks BROADENHEAD TEST

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

Analysis No: EN140206
Cust No: 73500-14450

Well/Lease Information

Customer Name: ENERGEN RESOURCES CORP.
Well Name: JICARILLA 96 3R TBG
County/State: RIO ARRIBA
Location:
Field:
Formation: GL/MV
Cust. Stn. No.: 83637-013

Source: TUBING
Pressure: 168 PSIG
Sample Temp: 41 DEG. F
Well Flowing: Y
Date Sampled: 03/19/2014
Sampled By: MICHAEL DEAN
Foreman/Engr.: MICHAEL DEAN

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.424	0.0470	0.00	0.0041
CO2	0.610	0.1040	0.00	0.0093
Methane	81.486	13.8580	823.01	0.4513
Ethane	9.932	2.6650	175.77	0.1031
Propane	4.511	1.2470	113.50	0.0687
Iso-Butane	0.724	0.2380	23.54	0.0145
N-Butane	1.174	0.3710	38.30	0.0236
I-Pentane	0.367	0.1350	14.68	0.0091
N-Pentane	0.278	0.1010	11.14	0.0069
Hexane Plus	0.494	0.2210	26.04	0.0163
Total	100.000	18.9870	1225.99	0.7070

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0034
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1233.0
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1211.5
REAL SPECIFIC GRAVITY: 0.7092

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

DRY BTU @ 14.650: 1226.3
DRY BTU @ 14.696: 1230.2
DRY BTU @ 14.730: 1233.0
DRY BTU @ 15.025: 1257.7

CYLINDER #: 4069
CYLINDER PRESSURE: 177 PSIG
DATE RUN: 4/2/14 12:00 AM
ANALYSIS RUN BY: LOGAN CHENEY



ENERGEN RESOURCES CORP.
WELL ANALYSIS COMPARISON

Lease: JICARILLA 96 3R TBG
Stn. No.: 83637-013
Mtr. No.:

TUBING
GL/MV

04/07/2014
73500-14450

Smpl Date: 03/19/2014
Test Date: 04/02/2014
Run No: EN140206

Nitrogen: 0.424
CO2: 0.610
Methane: 81.486
Ethane: 9.932
Propane: 4.511
I-Butane: 0.724
N-Butane: 1.174
I-Pentane: 0.367
N-Pentane: 0.278
Hexane+: 0.494

BTU: 1233.0
GPM: 18.9870
SPG: 0.7092



177#

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

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Company ENERGEN RESOURCES

Pressure(PSIG) 168

Well Name Jic 96 3R

Sample Temp (Deg. F) ABD. TEMP 41°

Location/Source TUBING

Well Flowing ☒ Yes ☐ No

Lease/County RIO ARIZONA

Date Sampled 3-19-14

Formation GL/MU

Sampled By MICHAEL L DEAN

Meter No. 83637-013

Cylinder No. 4069

Contact MICHAEL L DEAN 330-0342

Remarks BRADEN HEAD 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

MAR 21 2014

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

Farmington Field Office
Bureau of Land Management

SUBMIT IN TRIPLICATE - Other instructions on page 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)

660' FNL, 2500' FEL, Sec.12, T26N, R03W (B)

5. Lease Serial No.

Jicarilla Contract 96

6. If Indian, Allottee or Tribe Name

Jicarilla Apache

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

8. Well Name and No.

Jicarilla 96 # 3R

9. API Well No.

30-039-27528

10. Field and Pool, or Exploratory Area

Blanco Mesaverde
Gavilan PC

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

- | | | | |
|---|---|--|--|
| ☐ Acidize | ☐ Deepen | ☐ Production (Start/Resume) | ☐ Water Shut-Off |
| ☐ Alter Casing | ☐ Fracture Treat | ☐ Reclamation | ☒ Well Integrity |
| ☐ Casing Repair | ☐ New Construction | ☐ Recomplete | ☐ Other |
| ☐ Change Plans | ☐ Plug and Abandon | ☐ Temporarily Abandon | |
| ☐ Convert to Injection | ☐ Plug Back | ☐ 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 Jicarilla 96 #3R failed a bradenhead test on 3/19/2014. 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

MAR 24 2014

Office

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.

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.

NMOCDA