



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

Analysis No: ED190725
Cust No: 25250-12330

30.039.06868

Well/Lease Information

Customer Name: ENDURING RESOURCES
Well Name: RINCON 149; CSG
County/State: RIO ARRIBA NM
Location:
Lease/PA/CA: NMNM 78406C
Formation:
Cust. Stn. No.:

Source: CASING
Well Flowing:
Pressure: 75 PSIG
Flow Temp: DEG. F
Ambient Temp: 84 DEG. F
Flow Rate: MCF/D
Sample Method:
Sample Date: 07/29/2019
Sample Time: 11.35 AM
Sampled By: CELIA L.
Sampled by (CO): ABC

Heat Trace:
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.6250	0.6263	0.0690	0.00	0.0060
CO2	1.3372	1.3401	0.2290	0.00	0.0203
Methane	87.9552	88.1442	14.9520	888.35	0.4872
Ethane	5.6697	5.6819	1.5200	100.34	0.0589
Propane	1.7601	1.7639	0.4860	44.29	0.0268
Iso-Butane	0.4996	0.5007	0.1640	16.25	0.0100
N-Butane	0.5134	0.5145	0.1620	16.75	0.0103
I-Pentane	0.3115	0.3122	0.1140	12.46	0.0078
N-Pentane	0.2119	0.2124	0.0770	8.49	0.0053
Hexane Plus	1.1164	1.1188	0.4990	58.85	0.0369
Total	100.0000	100.2150	18.2720	1145.77	0.6695

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.003
BTU/CU.FT IDEAL: 1148.4
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1151.9
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1131.9
DRY BTU @ 15.025: 1175.0
REAL SPECIFIC GRAVITY: 0.6713

CYLINDER #: 198
CYLINDER PRESSURE: 66 PSIG
ANALYSIS DATE: 07/30/2019
ANALYSIS TIME: 10:42:27 AM
ANALYSIS RUN BY: RICHARD WILSON

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

GPA Standard: GPA-2261

GC: Danalyzer Model 500

Last Cal/Verify: 07/31/2019

GC Method: C6+ Gas



ENDURING RESOURCES
WELL ANALYSIS COMPARISON

Lease: RINCON 149; CSG
Stn. No.:
Mtr. No.:

CASING

07/31/2019
25250-12330

Smpl Date: 07/29/2019
Test Date: 07/30/2019
Run No: ED190725

Nitrogen: 0.6250
CO2: 1.3372
Methane: 87.9552
Ethane: 5.6697
Propane: 1.7601
I-Butane: 0.4996
N-Butane: 0.5134
I-Pentane: 0.3115
N-Pentane: 0.2119
Hexane+: 1.1164

BTU: 1151.9
GPM: 18.2720
SPG: 0.6713



2030 Afton Place
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Analysis No: ED190726
Cust No: 25250-12335

Well/Lease Information

Customer Name: ENDURING RESOURCES
Well Name: RINCON 149; INT
County/State: RIO ARRIBA NM
Location:
Lease/PA/CA: NMNM 78406C
Formation:
Cust. Stn. No.:

Source: INTERMEDIATE
Well Flowing:
Pressure: 550 PSIG
Flow Temp: DEG. F
Ambient Temp: 84 DEG. F
Flow Rate: MCF/D
Sample Method:
Sample Date: 07/29/2019
Sample Time: 11.30 AM
Sampled By: CELIA L.
Sampled by (CO): ABC

Heat Trace:

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2570	0.2395	0.0280	0.00	0.0025
CO2	0.0021	0.0020	0.0000	0.00	0.0000
Methane	89.5597	83.4667	15.2200	904.55	0.4961
Ethane	6.5572	6.1111	1.7580	116.04	0.0681
Propane	2.1876	2.0388	0.6040	55.04	0.0333
Iso-Butane	0.2657	0.2476	0.0870	8.64	0.0053
N-Butane	0.4576	0.4265	0.1450	14.93	0.0092
I-Pentane	0.2312	0.2155	0.0850	9.25	0.0058
N-Pentane	0.1834	0.1709	0.0670	7.35	0.0046
Hexane Plus	0.2985	0.2782	0.1330	15.73	0.0099
Total	100.0000	93.1968	18.1270	1131.54	0.6347

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0027
BTU/CU.FT IDEAL: 1134.2
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1137.2
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1117.4
DRY BTU @ 15.025: 1160.0
REAL SPECIFIC GRAVITY: 0.6362

CYLINDER #: 4
CYLINDER PRESSURE: 455 PSIG
ANALYSIS DATE: 07/30/2019
ANALYSIS TIME: 11:20:00 AM
ANALYSIS RUN BY: RICHARD WILSON

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

GPA Standard: GPA-2261

GC: Danalyzer Model 500

Last Cal/Verify: 07/31/2019

GC Method: C6+ Gas



ENDURING RESOURCES
WELL ANALYSIS COMPARISON

Lease: RINCON 149; INT
Stn. No.:
Mtr. No.:

INTERMEDIATE

07/31/2019
25250-12335

Smpl Date: 07/29/2019
Test Date: 07/30/2019
Run No: ED190726

Nitrogen: 0.2570
CO2: 0.0021
Methane: 89.5597
Ethane: 6.5572
Propane: 2.1876
I-Butane: 0.2657
N-Butane: 0.4576
I-Pentane: 0.2312
N-Pentane: 0.1834
Hexane+: 0.2985

BTU: 1137.2
GPM: 18.1270
SPG: 0.6362



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

Analysis No: ED190727
Cust No: 25250-12340

Well/Lease Information

Customer Name: ENDURING RESOURCES
Well Name: RINCON 149; TBG
County/State: RIO ARRIBA NM
Location:
Lease/PA/CA: NMNM 78406C
Formation:
Cust. Stn. No.:

Source: TUBING
Well Flowing: Y
Pressure: 25 PSIG
Flow Temp: DEG. F
Ambient Temp: 84 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/29/2019
Sample Time: 11.40 AM
Sampled By: CELIA L.
Sampled by (CO): ABC

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3061	0.2996	0.0340	0.00	0.0030
CO2	1.2163	1.1906	0.2080	0.00	0.0185
Methane	81.8931	80.1625	13.9280	827.12	0.4536
Ethane	9.4450	9.2454	2.5340	167.15	0.0981
Propane	3.6425	3.5655	1.0070	91.65	0.0555
Iso-Butane	0.6202	0.6071	0.2040	20.17	0.0124
N-Butane	0.9534	0.9333	0.3020	31.10	0.0191
I-Pentane	0.4085	0.3999	0.1500	16.34	0.0102
N-Pentane	0.2990	0.2927	0.1090	11.99	0.0074
Hexane Plus	1.2159	1.1902	0.5440	64.09	0.0402
Total	100.0000	97.8868	19.0200	1229.61	0.7180

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0035
BTU/CU.FT IDEAL: 1232.5
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1236.8
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1215.3
DRY BTU @ 15.025: 1261.6
REAL SPECIFIC GRAVITY: 0.7202

CYLINDER #: 010
CYLINDER PRESSURE: 21 PSIG
ANALYSIS DATE: 07/30/2019
ANALYSIS TIME: 11:03:03 AM
ANALYSIS RUN BY: RICHARD WILSON

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

GPA Standard: GPA-2261

GC: Danalyzer Model 500

Last Cal/Verify: 07/31/2019

GC Method: C6+ Gas



ENDURING RESOURCES
WELL ANALYSIS COMPARISON

Lease: RINCON 149; TBG
Stn. No.:
Mtr. No.:

TUBING

07/31/2019
25250-12340

Smpl Date: 07/29/2019
Test Date: 07/30/2019
Run No: ED190727
Nitrogen: 0.3061
CO2: 1.2163
Methane: 81.8931
Ethane: 9.4450
Propane: 3.6425
I-Butane: 0.6202
N-Butane: 0.9534
I-Pentane: 0.4085
N-Pentane: 0.2990
Hexane+: 1.2159
BTU: 1236.8
GPM: 19.0200
SPG: 0.7202

Bradenhead Gas Analysis

Well Site	API	Sample Name	Date	Nitrogen %	CO2 %	Methane %	Ethane %	Propane %	Iso-Butane %	N-Butane %	I-Pentane %	N-Pentane %	Hexane Plus %
Rincon 149	30-039-06868	Casing	7/29/2019	0.625	1.3372	87.9552	5.6697	1.7601	0.4996	0.5134	0.3115	0.2119	1.1164
Rincon 149	30-039-06868	Intermediate	7/29/2019	0.257	0.0021	89.5597	6.5572	2.1876	0.2657	0.4576	0.2312	0.1834	0.2985
Rincon 149	30-039-06868	Tubing	7/29/2019	0.3061	1.2163	81.8931	9.445	3.6425	0.6202	0.9534	0.4085	0.299	1.2159

NO BH test - not enough gas pressure to collect a sample



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

NMOC

AUG 07 2019

DISTRICT III

BRADENHEAD TEST REPORT

(submit 1 copy to above address)

Date of Test 7/10/19 Operator Enduring Resources LLC API #30-039-06918
Property Name Rincon Unit Well No. 127 Location: Unit Section Township Range
Well Status (Shut-In or Producing) Producing Initial PSI: Tubing 74 Intermediate 211 Casing 79 Bradenhead 9

OPEN BRADENHEAD AND INTERMEDIATE TO ATMOSPHERE INDIVIDUALLY FOR 15 MINUTES EACH

Testing	PRESSURE			INTERM	
	BH	Int	Csg	Int	Csg
TIME					
5 min	<u>Ø</u>	<u>211</u>	<u>80</u>	<u>22</u>	<u>68</u>
10 min	<u>Ø</u>	<u>211</u>	<u>81</u>	<u>Ø</u>	<u>63</u>
15 min	<u>Ø</u>	<u>211</u>	<u>81</u>	<u>Ø</u>	<u>60</u>
20 min	<u>Ø</u>	<u>211</u>	<u>82</u>	<u>Ø</u>	<u>57</u>
25 min				<u>Ø</u>	<u>55</u>
30 min				<u>Ø</u>	<u>53</u>

	FLOW CHARACTERISTICS	
	BRADENHEAD	INTERMEDIATE
Steady Flow		
Surges		
Down to Nothing	☒	☒
Nothing		
Gas	☒	☒
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 9 INTERMEDIATE Ø

REMARKS:
- bradenhead down to vapors in one second; bradenhead had vapor to 20mins
- not blow down prior to test per request
- intermediate down to vapor after 10; down to nothing at 25

By John Dockter
H&E Tech
(Position)

Witness Monica Kuehling

E-mail address JDockter@EnduringResources.com

- small blow after 5 minute intermediate, request gas sample

7/29/19