



Well Name: NAVAJO LAKE 14-1; BHD

API #:

Source: BRADENHEAD

Sample Type: GAS

Analysis No: SR200185

Cust No: 72550-11075

Well/Lease Information

Customer Name: SOUTHLAND ROYALTY
Well Name: NAVAJO LAKE 14-1; BHD
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation: FC
Cust. Str. No.:

Source: BRADENHEAD
Well Flowing: Y
Pressure: 28 PSIG
Flow Temp: DEG. F
Ambient Temp: DEG. F
Flow Rate: MCF/D
Sample Method:
Sample Date: 04/22/2020
Sample Time: 10.00 AM
Sampled By: JON HARDY
Sampled by (CO): SOUTHLAND

Heat Trace:

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	20.7286	19.6162	2.2840	0.00	0.2005
CO2	0.0320	0.0303	0.0050	0.00	0.0005
Methane	77.0739	72.9376	13.0840	778.45	0.4269
Ethane	1.5635	1.4796	0.4190	27.67	0.0162
Propane	0.4484	0.4243	0.1240	11.28	0.0068
Iso-Butane	0.0696	0.0659	0.0230	2.26	0.0014
N-Butane	0.0543	0.0514	0.0170	1.77	0.0011
I-Pentane	0.0134	0.0127	0.0050	0.54	0.0003
N-Pentane	0.0072	0.0068	0.0030	0.29	0.0002
Hexane Plus	0.0091	0.0086	0.0040	0.48	0.0003
Total	100.0000	94.6334	15.9680	822.74	0.6542

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0016
BTU/CU.FT IDEAL: 824.6
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 826.0
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 811.6
DRY BTU @ 15.025: 842.5
REAL SPECIFIC GRAVITY: 0.655

CYLINDER #: 4076
CYLINDER PRESSURE: 24 PSIG
ANALYSIS DATE: 04/27/2020
ANALYSIS TIME: 08:01:35 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

GC Method: C6+ Gas

Last Cal/Verify: 04/28/2020



SOUTHLAND ROYALTY
WELL ANALYSIS COMPARISON

Lease: NAVAJO LAKE 14-1; BHD
Stn. No.:
Mtr. No.:

BRADENHEAD
FC

04/28/2020
72550-11075

Smpl Date: 04/22/2020
Test Date: 04/27/2020
Run No: SR200185

Nitrogen: 20.7286
CO2: 0.0320
Methane: 77.0739
Ethane: 1.5635
Propane: 0.4484
I-Butane: 0.0696
N-Butane: 0.0543
I-Pentane: 0.0134
N-Pentane: 0.0072
Hexane+: 0.0091

BTU: 826.0
GPM: 15.9680
SPG: 0.6550



Well Name: NAVAJO LAKE 14-1; CSG

API #:

Source: CASING

Sample Type: GAS

Analysis No: SR200186

Cust No: 72550-11080

Well/Lease Information

Customer Name: SOUTHLAND ROYALTY
Well Name: NAVAJO LAKE 14-1; CSG
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation: FC
Cust. Stn. No.:

Source: CASING
Well Flowing:
Pressure: 72 PSIG
Flow Temp: DEG. F
Ambient Temp: DEG. F
Flow Rate: MCF/D
Sample Method:
Sample Date: 04/22/2020
Sample Time: 10.00 AM
Sampled By: JON HARDY
Sampled by (CO): SOUTHLAND

Heat Trace:

Remarks:

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.0234	0.0230	0.0030	0.00	0.0002
CO2	4.0776	4.0117	0.6970	0.00	0.0620
Methane	95.4914	93.9477	16.2190	964.46	0.5289
Ethane	0.3490	0.3434	0.0940	6.18	0.0036
Propane	0.0466	0.0458	0.0130	1.17	0.0007
Iso-Butane	0.0041	0.0040	0.0010	0.13	0.0001
N-Butane	0.0053	0.0052	0.0020	0.17	0.0001
I-Pentane	0.0000	0.0000	0.0000	0.00	0.0000
N-Pentane	0.0000	0.0000	0.0000	0.00	0.0000
Hexane Plus	0.0026	0.0026	0.0010	0.14	0.0001
Total	100.0000	98.3834	17.0300	972.26	0.5957

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0021
BTU/CU.FT IDEAL: 974.5
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 976.6
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 959.6
DRY BTU @ 15.025: 996.2
REAL SPECIFIC GRAVITY: 0.5967

CYLINDER #: 6167
CYLINDER PRESSURE: 78 PSIG
ANALYSIS DATE: 04/27/2020
ANALYSIS TIME: 07:52:46 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

GC Method: C6+ Gas

Last Cal/Verify: 04/28/2020



SOUTHLAND ROYALTY
WELL ANALYSIS COMPARISON

Lease: NAVAJO LAKE 14-1; CSG
Stn. No.:
Mtr. No.:

CASING
FC

04/28/2020
72550-11080

Smpl Date: 04/22/2020
Test Date: 04/27/2020
Run No: SR200186

Nitrogen: 0.0234
CO2: 4.0776
Methane: 95.4914
Ethane: 0.3490
Propane: 0.0466
I-Butane: 0.0041
N-Butane: 0.0053
I-Pentane: 0.0000
N-Pentane: 0.0000
Hexane+: 0.0026

BTU: 976.6
GPM: 17.0300
SPG: 0.5967