



30-045-23425  
Bradenhead

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

Analysis No: SO170049  
Cust No: 15950-10245

**Well/Lease Information**

Customer Name: BP - SOUTH BHD PROJECT  
Well Name: LINDSEY B 1 BHD  
County/State: NM  
Location:  
Field:  
Formation: DK  
Cust. Stn. No.:

OIL CONS. DIV DIST. 3

JAN 02 2018

Source: BRADENHEAD  
Well Flowing: Y  
Pressure: 23 PSIG  
Flow Temp: DEG. F  
Ambient Temp: 82 DEG. F  
Flow Rate: MCF/D  
Sample Method: Purge & Fill  
Date Sampled: 07/12/2017  
Sampled By: MATHEW YAZZIE  
Foreman/Engr.: SABRE BEEBE

Remarks:

**Analysis**

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	28.2623	3.1150	0.00	0.2734
CO2	0.3917	0.0670	0.00	0.0060
Methane	62.9471	10.6910	635.77	0.3487
Ethane	4.3200	1.1570	76.45	0.0449
Propane	1.4843	0.4100	37.35	0.0226
Iso-Butane	0.3337	0.1090	10.85	0.0067
N-Butane	0.3381	0.1070	11.03	0.0068
I-Pentane	0.3024	0.1110	12.10	0.0075
N-Pentane	0.2076	0.0750	8.32	0.0052
Hexane Plus	1.4128	0.6310	74.47	0.0468
Total	100.0000	16.4730	866.34	0.7684

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

\*\*@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0021	CYLINDER #:	80746
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	870.2	CYLINDER PRESSURE:	22 PSIG
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	855.1	DATE RUN:	7/27/17 4:35 PM
REAL SPECIFIC GRAVITY:	0.7697	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: 08/01/2017

GC Method: C6+ Gas

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30-045-23425  
Bradenhead



BP - SOUTH BHD PROJECT  
WELL ANALYSIS COMPARISON

Lease: LINDSEY B 1 BHD  
Stn. No.:  
Mtr. No.:

BRADENHEAD  
DK

08/01/2017  
15950-10245

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Smpl Date: 07/12/2017  
Test Date: 07/27/2017  
Run No: SO170049  
Nitrogen: 28.2623  
CO2: 0.3917  
Methane: 62.9471  
Ethane: 4.3200  
Propane: 1.4843  
I-Butane: 0.3337  
N-Butane: 0.3381  
I-Pentane: 0.3024  
N-Pentane: 0.2076  
Hexane+: 1.4128  
BTU: 870.2  
GPM: 16.4730  
SPG: 0.7697



30-045-23425  
*Casing*  
 2030 Afton Place  
 Farmington, NM 87401  
 (505) 325-6622

Analysis No: SO170050  
 Cust No: 15950-10240

**Well/Lease Information**

Customer Name: BP - SOUTH BHD PROJECT  
 Well Name: LINDSEY B 001 CSG  
 County/State: NM  
 Location:  
 Field:  
 Formation: DK  
 Cust. Stn. No.:

OIL CONS. DIV DIST. 3

JAN 02 2018

Source: CASING  
 Well Flowing: Y  
 Pressure: 117 PSIG  
 Flow Temp: DEG. F  
 Ambient Temp: 85 DEG. F  
 Flow Rate: MCF/D  
 Sample Method: Purge & Fill  
 Date Sampled: 07/12/2017  
 Sampled By: MATHEW YAZZIE  
 Foreman/Engr.:

Remarks:

**Analysis**

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1597	0.0180	0.00	0.0015
CO2	1.8638	0.3190	0.00	0.0283
Methane	91.2167	15.5020	921.29	0.5052
Ethane	3.6806	0.9870	65.14	0.0382
Propane	0.9510	0.2630	23.93	0.0145
Iso-Butane	0.3964	0.1300	12.89	0.0080
N-Butane	0.2803	0.0890	9.14	0.0056
I-Pentane	0.3038	0.1110	12.15	0.0076
N-Pentane	0.1606	0.0580	6.44	0.0040
Hexane Plus	0.9871	0.4410	52.03	0.0327
<b>Total</b>	<b>100.0000</b>	<b>17.9180</b>	<b>1103.01</b>	<b>0.6456</b>

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

\*\*@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0027	CYLINDER #:	96846
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1108.6	CYLINDER PRESSURE:	101 PSIG
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1089.3	DATE RUN:	7/27/17 12:00 AM
REAL SPECIFIC GRAVITY:	0.6471	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: 08/01/2017

GC Method: C6+ Gas

30-045-23425  
Casing



BP - SOUTH BHD PROJECT  
WELL ANALYSIS COMPARISON

Lease: LINDSEY B 001 CSG  
Stn. No.:  
Mtr. No.:

CASING  
DK

08/01/2017  
15950-10240

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Smpl Date: 07/12/2017  
Test Date: 07/27/2017  
Run No: SO170050  
Nitrogen: 0.1597  
CO2: 1.8638  
Methane: 91.2167  
Ethane: 3.6806  
Propane: 0.9510  
I-Butane: 0.3964  
N-Butane: 0.2803  
I-Pentane: 0.3038  
N-Pentane: 0.1606  
Hexane+: 0.9871  
BTU: 1108.6  
GPM: 17.9180  
SPG: 0.6471



30-045-23425  
tubing

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

Analysis No: SO170051  
Cust No: 15950-10235

**Well/Lease Information**

Customer Name: BP - SOUTH BHD PROJECT  
Well Name: LINDSEY B 001 TBG  
County/State: NM  
Location:  
Field:  
Formation: DK  
Cust. Str. No.:

Source: TUBING  
Well Flowing: Y  
Pressure: 106 PSIG  
Flow Temp: DEG. F  
Ambient Temp: 82 DEG. F  
Flow Rate: MCF/D  
Sample Method: Purge & Fill  
Date Sampled: 07/12/2017  
Sampled By: MATHEW YAZZIE  
Foreman/Engr.: SABRE BEEBE

Remarks:

**Analysis**

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1295	0.0140	0.00	0.0013
CO2	2.0380	0.3490	0.00	0.0310
Methane	92.6468	15.7400	935.73	0.5132
Ethane	3.4678	0.9290	61.37	0.0360
Propane	0.7497	0.2070	18.86	0.0114
Iso-Butane	0.2734	0.0900	8.89	0.0055
N-Butane	0.1656	0.0520	5.40	0.0033
I-Pentane	0.1388	0.0510	5.55	0.0035
N-Pentane	0.0690	0.0250	2.77	0.0017
Hexane Plus	0.3214	0.1440	16.94	0.0106
<b>Total</b>	<b>100.0000</b>	<b>17.6010</b>	<b>1055.52</b>	<b>0.6174</b>

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

\*\*@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0024	CYLINDER #:	7000
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1060.5	CYLINDER PRESSURE:	114 PSIG
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1042.0	DATE RUN:	7/27/17 4:38 PM
REAL SPECIFIC GRAVITY:	0.6187	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: 08/01/2017

GC Method: C6+ Gas

30-045-23425  
tubing



BP - SOUTH BHD PROJECT  
WELL ANALYSIS COMPARISON

Lease: LINDSEY B 001 TBG  
Stn. No.:  
Mtr. No.:

TUBING  
DK

08/01/2017  
15950-10235

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Smpl Date: 07/12/2017  
Test Date: 07/27/2017  
Run No: SO170051  
Nitrogen: 0.1295  
CO2: 2.0380  
Methane: 92.6468  
Ethane: 3.4678  
Propane: 0.7497  
I-Butane: 0.2734  
N-Butane: 0.1656  
I-Pentane: 0.1388  
N-Pentane: 0.0690  
Hexane+: 0.3214  
BTU: 1060.5  
GPM: 17.6010  
SPG: 0.6187



**NEW MEXICO ENERGY, MINERALS  
AND NATURAL RESOURCES DEPARTMENT**

OIL CONSERVATION DIVISION  
AZTEC DISTRICT OFFICE  
1000 RIO BRAZOS ROAD  
AZTEC, NM 87410  
(505 334-6178 FAX: (505) 334-6170  
<http://www.emnrd.state.nm.us/ocd/>

OIL CONS. DIV DIST. 3

**JAN 02 2018**

**BRADENHEAD TEST REPORT**

(Submit 2 copies to above address)

Date of Test 07/12/2017 Operator BP America Production Company API # 3004523425

Property Name LINDSEY B 001-DK Location: Unit M Section 28 Township 30 Range 9  
(Well Name and Number)

Pressure (Shut-in or Producing) Tubing 105.9psi Intermediate N/A Casing 116.9psi Bradenhead 22.9psi

OPEN BRADENHEAD AND INTERMEDIATE TO ATMOSPHERE INDIVIDUALLY FOR 15 MINUTES EACH

Time	Bradenhead			Intermediate		Bradenhead Flowed	Intermediate Flowed
	BH Blowdown	Casing Monitor	Intermediate Monitor	Intermediate Blowdown	Casing Monitor		
5 minutes	<u>0 psi</u>	<u>125.8psi</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>		<u>N/A</u>
10 minutes	<u>0 psi</u>	<u>127.5psi</u>					
15 minutes	<u>0 psi</u>	<u>112.6psi</u>					
20 minutes	<u>0 psi</u>	<u>107.3psi</u>					
25 minutes	<u>0 psi</u>	<u>104.1psi</u>					
30 minutes	<u>0 psi</u>	<u>103.1psi</u>					
5 minute SI	<u>1.2 psi</u>	<u>105.2psi</u>					

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

Clear  Fresh  Salty  Sulfur  Black

5 Minute Shut-in Bradenhead 1.2psi Intermediate N/A

REMARKS:

No compressor on location. Casing closed. Pulled gas samples from all strings Tubing, Bradenhead, and Casing. Well started flowing 12 minutes into testing of Bradenhead.

By Matthew Yarnie Witness \_\_\_\_\_  
Perseid Field Tech  
(Position)