



NMOCD REC'D  
10/12/20

Well Name: NEBU 49M; CSG  
API #: API # 300453330500  
Source: CASING  
Sample Type: GAS  
Analysis No: SO200127  
Cust No: 15950-12000

### Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT  
Well Name: NEBU 49M; CSG  
County/State: NM  
Location:  
Lease/PA/CA:  
Formation:  
Cust. Stn. No.: API # 300453330500

Source: CASING  
Well Flowing: Y  
Pressure: 92 PSIG  
Flow Temp: DEG. F  
Ambient Temp: 79 DEG. F  
Flow Rate: MCF/D  
Sample Method: Purge & Fill  
Sample Date: 09/16/2020  
Sample Time: 6.52 PM  
Sampled By: ERIK SHAW  
Sampled by (CO): ABC

Heat Trace: N  
Remarks:

### Analysis

| Component:: | Mole%:   | Unnormalized %: | **GPM:  | *BTU:   | *SP Gravity: |
|-------------|----------|-----------------|---------|---------|--------------|
| Nitrogen    | 0.1334   | 0.1269          | 0.0150  | 0.00    | 0.0013       |
| CO2         | 0.3578   | 0.3403          | 0.0610  | 0.00    | 0.0054       |
| Methane     | 88.9023  | 84.5445         | 15.1080 | 897.91  | 0.4924       |
| Ethane      | 7.2659   | 6.9098          | 1.9480  | 128.58  | 0.0754       |
| Propane     | 2.0906   | 1.9881          | 0.5770  | 52.60   | 0.0318       |
| Iso-Butane  | 0.2348   | 0.2233          | 0.0770  | 7.64    | 0.0047       |
| N-Butane    | 0.4171   | 0.3967          | 0.1320  | 13.61   | 0.0084       |
| I-Pentane   | 0.1228   | 0.1168          | 0.0450  | 4.91    | 0.0031       |
| N-Pentane   | 0.0992   | 0.0943          | 0.0360  | 3.98    | 0.0025       |
| Hexane Plus | 0.3761   | 0.3577          | 0.1680  | 19.82   | 0.0124       |
| Total       | 100.0000 | 95.0984         | 18.1670 | 1129.06 | 0.6375       |

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

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

COMPRESSIBILITY FACTOR (1/Z): 1.0027  
BTU/CU.FT IDEAL: 1131.7  
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1134.7  
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1115.0  
DRY BTU @ 15.025: 1157.4  
REAL SPECIFIC GRAVITY: 0.639

CYLINDER #: 1270  
CYLINDER PRESSURE: 86 PSIG  
ANALYSIS DATE: 09/23/2020  
ANALYSIS TIME: 09:13:01 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: 09/24/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT  
WELL ANALYSIS COMPARISON

Lease: NEBU 49M; CSG  
Stn. No.: API #  
Mtr. No.:

CASING

09/24/2020  
15950-12000

Smpl Date: 09/16/2020  
Test Date: 09/23/2020  
Run No: SO200127

Nitrogen: 0.1334  
CO2: 0.3578  
Methane: 88.9023  
Ethane: 7.2659  
Propane: 2.0906  
I-Butane: 0.2348  
N-Butane: 0.4171  
I-Pentane: 0.1228  
N-Pentane: 0.0992  
Hexane+: 0.3761

BTU: 1134.7  
GPM: 18.1670  
SPG: 0.6390



NMOCD REC'D  
10/12/20

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

Analysis No: SO200128  
Cust No: 15950-12005

### Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT  
Well Name: NEBU 49M; INT  
County/State: NM  
Location:  
Lease/PA/CA:  
Formation:  
Cust. Stn. No.: API # 300453330500

Source: INTERMEDIATE  
Well Flowing: Y  
Pressure: 91 PSIG  
Flow Temp: DEG. F  
Ambient Temp: 79 DEG. F  
Flow Rate: MCF/D  
Sample Method: Purge & Fill  
Sample Date: 09/16/2020  
Sample Time: 6.59 PM  
Sampled By: ERK SHAW  
Sampled by (CO): ABC

Heat Trace: N  
Remarks:

### Analysis

| Component:  | Mole%:   | Unnormalized %: | **GPM:  | *BTU:  | *SP Gravity: |
|-------------|----------|-----------------|---------|--------|--------------|
| Nitrogen    | 0.1173   | 0.1160          | 0.0130  | 0.00   | 0.0011       |
| CO2         | 2.8584   | 2.8265          | 0.4890  | 0.00   | 0.0434       |
| Methane     | 96.3687  | 95.2944         | 16.3680 | 973.32 | 0.5338       |
| Ethane      | 0.5523   | 0.5461          | 0.1480  | 9.77   | 0.0057       |
| Propane     | 0.0643   | 0.0636          | 0.0180  | 1.62   | 0.0010       |
| Iso-Butane  | 0.0187   | 0.0185          | 0.0060  | 0.61   | 0.0004       |
| N-Butane    | 0.0087   | 0.0086          | 0.0030  | 0.28   | 0.0002       |
| I-Pentane   | 0.0031   | 0.0031          | 0.0010  | 0.12   | 0.0001       |
| N-Pentane   | 0.0014   | 0.0014          | 0.0010  | 0.06   | 0.0000       |
| Hexane Plus | 0.0071   | 0.0070          | 0.0030  | 0.37   | 0.0002       |
| Total       | 100.0000 | 98.8852         | 17.0500 | 986.16 | 0.5860       |

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

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

COMPRESSIBILITY FACTOR (1/Z): 1.0021  
BTU/CU.FT IDEAL: 988.4  
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 990.5  
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 973.3  
DRY BTU @ 15.025: 1010.3  
REAL SPECIFIC GRAVITY: 0.587

CYLINDER #: 1068  
CYLINDER PRESSURE: 43 PSIG  
ANALYSIS DATE: 09/23/2020  
ANALYSIS TIME: 09:03:49 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: 09/24/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT  
WELL ANALYSIS COMPARISON

Lease: NEBU 49M; INT  
Stn. No.: API #  
Mtr. No.:

INTERMEDIATE

09/24/2020  
15950-12005

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Smpl Date: 09/16/2020  
Test Date: 09/23/2020  
Run No: SO200128  
  
Nitrogen: 0.1173  
CO2: 2.8584  
Methane: 96.3687  
Ethane: 0.5523  
Propane: 0.0643  
I-Butane: 0.0187  
N-Butane: 0.0087  
I-Pentane: 0.0031  
N-Pentane: 0.0014  
Hexane+: 0.0071  
  
BTU: 990.5  
GPM: 17.0500  
SPG: 0.5870



NMOCD REC'D  
10/12/20

Well Name: NEBU 49M; TBG  
API #: API # 300453330500  
Source: TUBING  
Sample Type: GAS  
Analysis No: SO200126  
Cust No: 15950-11995

### Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT  
Well Name: NEBU 49M; TBG  
County/State: NM  
Location:  
Lease/PA/CA:  
Formation:  
Cust. Stn. No.: API # 300453330500

Source: TUBING  
Well Flowing: Y  
Pressure: 45.6 PSIG  
Flow Temp: DEG. F  
Ambient Temp: 79 DEG. F  
Flow Rate: MCF/D  
Sample Method: Purge & Fill  
Sample Date: 09/16/2020  
Sample Time: 6.47 PM  
Sampled By: ERIK SHAW  
Sampled by (CO): ABC

Heat Trace: N  
Remarks:

### Analysis

| Component:: | Mole%:   | Unnormalized %: | **GPM:  | *BTU:   | *SP Gravity: |
|-------------|----------|-----------------|---------|---------|--------------|
| Nitrogen    | 0.0847   | 0.0843          | 0.0090  | 0.00    | 0.0008       |
| CO2         | 1.7349   | 1.7263          | 0.2970  | 0.00    | 0.0264       |
| Methane     | 94.0695  | 93.6022         | 15.9800 | 950.10  | 0.5211       |
| Ethane      | 3.0411   | 3.0260          | 0.8150  | 53.82   | 0.0316       |
| Propane     | 0.6849   | 0.6815          | 0.1890  | 17.23   | 0.0104       |
| Iso-Butane  | 0.1162   | 0.1156          | 0.0380  | 3.78    | 0.0023       |
| N-Butane    | 0.1205   | 0.1199          | 0.0380  | 3.93    | 0.0024       |
| I-Pentane   | 0.0449   | 0.0447          | 0.0160  | 1.80    | 0.0011       |
| N-Pentane   | 0.0245   | 0.0244          | 0.0090  | 0.98    | 0.0006       |
| Hexane Plus | 0.0788   | 0.0784          | 0.0350  | 4.15    | 0.0026       |
| Total       | 100.0000 | 99.5033         | 17.4260 | 1035.80 | 0.5993       |

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

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

COMPRESSIBILITY FACTOR (1/Z): 1.0023  
BTU/CU.FT IDEAL: 1038.2  
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1040.6  
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1022.5  
DRY BTU @ 15.025: 1061.4  
REAL SPECIFIC GRAVITY: 0.6005

CYLINDER #: 1061  
CYLINDER PRESSURE: 86 PSIG  
ANALYSIS DATE: 09/23/2020  
ANALYSIS TIME: 09:26:58 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: 09/24/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT  
WELL ANALYSIS COMPARISON

Lease: NEBU 49M; TBG  
Stn. No.: API #  
Mtr. No.:

TUBING

09/24/2020  
15950-11995

Smpl Date: 09/16/2020  
Test Date: 09/23/2020  
Run No: SO200126

Nitrogen: 0.0847  
CO2: 1.7349  
Methane: 94.0695  
Ethane: 3.0411  
Propane: 0.6849  
I-Butane: 0.1162  
N-Butane: 0.1205  
I-Pentane: 0.0449  
N-Pentane: 0.0245  
Hexane+: 0.0788

BTU: 1040.6  
GPM: 17.4260  
SPG: 0.6005