



NMOCD REC'D
10/12/20

Well Name: NEBU 321N; CSG
API #: API # 300453366500
Source: CASING
Sample Type: GAS
Analysis No: SO200164
Cust No: 15950-12180

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: NEBU 321N; CSG
County/State: NM
Location:
Lease/PA/CA:
Formation:
Cust. Stn. No.: API # 300453366500

Source: CASING
Well Flowing:
Pressure: 124 PSIG
Flow Temp: DEG. F
Ambient Temp: 81 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 09/16/2020
Sample Time: 12.41 PM
Sampled By: ERIK SHAW
Sampled by (CO): ABC

Heat Trace:

Remarks: CO-MINGLED TBG / CSG

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.0924	0.0918	0.0100	0.00	0.0009
CO2	2.1390	2.1251	0.3660	0.00	0.0325
Methane	96.0859	95.4631	16.3200	970.47	0.5322
Ethane	1.4146	1.4054	0.3790	25.03	0.0147
Propane	0.1938	0.1925	0.0530	4.88	0.0030
Iso-Butane	0.0317	0.0315	0.0100	1.03	0.0006
N-Butane	0.0208	0.0207	0.0070	0.68	0.0004
I-Pentane	0.0078	0.0077	0.0030	0.31	0.0002
N-Pentane	0.0035	0.0035	0.0010	0.14	0.0001
Hexane Plus	0.0105	0.0104	0.0050	0.55	0.0003
Total	100.0000	99.3517	17.1540	1003.09	0.5849

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0021
BTU/CU.FT IDEAL: 1005.4
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1007.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 990.0
DRY BTU @ 15.025: 1027.7
REAL SPECIFIC GRAVITY: 0.5859

CYLINDER #: 050
CYLINDER PRESSURE: 116 PSIG
ANALYSIS DATE: 09/23/2020
ANALYSIS TIME: 10:57:11 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: 09/29/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: NEBU 321N; CSG
Stn. No.: API #
Mtr. No.:

CASING

09/29/2020
15950-12180

Smpl Date: 09/16/2020
Test Date: 09/23/2020
Run No: SO200164

Nitrogen: 0.0924
CO2: 2.1390
Methane: 96.0859
Ethane: 1.4146
Propane: 0.1938
I-Butane: 0.0317
N-Butane: 0.0208
I-Pentane: 0.0078
N-Pentane: 0.0035
Hexane+: 0.0105

BTU: 1007.5
GPM: 17.1540
SPG: 0.5859



NMOCD REC'D
10/12/20

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

Analysis No: SO200165
Cust No: 15950-12185

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: NEBU 321N; INT
County/State: NM
Location:
Lease/PA/CA:
Formation:
Cust. Stn. No.: API # 300453366500

Source: INTERMEDIATE
Well Flowing: Y
Pressure: 111.9 PSIG
Flow Temp: DEG. F
Ambient Temp: 81 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 09/16/2020
Sample Time: 12.37 PM
Sampled By: ERIK SHAW
Sampled by (CO): ABC

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1282	0.1251	0.0140	0.00	0.0012
CO2	1.8119	1.7685	0.3100	0.00	0.0275
Methane	86.4424	84.3721	14.6920	873.07	0.4788
Ethane	8.0928	7.8990	2.1700	143.22	0.0840
Propane	2.2172	2.1641	0.6120	55.79	0.0338
Iso-Butane	0.3281	0.3202	0.1080	10.67	0.0066
N-Butane	0.3795	0.3704	0.1200	12.38	0.0076
I-Pentane	0.1420	0.1386	0.0520	5.68	0.0035
N-Pentane	0.0807	0.0788	0.0290	3.24	0.0020
Hexane Plus	0.3772	0.3682	0.1690	19.88	0.0125
Total	100.0000	97.6050	18.2760	1123.92	0.6576

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0028
BTU/CU.FT IDEAL: 1126.5
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1129.7
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1110.0
DRY BTU @ 15.025: 1152.3
REAL SPECIFIC GRAVITY: 0.6592

CYLINDER #: 039
CYLINDER PRESSURE: 108 PSIG
ANALYSIS DATE: 09/23/2020
ANALYSIS TIME: 10:00:42 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: 09/29/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease:	NEBU 321N; INT	INTERMEDIATE	09/29/2020
Stn. No.:	API #		15950-12185
Mtr. No.:			

Smpl Date:	09/16/2020
Test Date:	09/23/2020
Run No:	SO200165
Nitrogen:	0.1282
CO2:	1.8119
Methane:	86.4424
Ethane:	8.0928
Propane:	2.2172
I-Butane:	0.3281
N-Butane:	0.3795
I-Pentane:	0.1420
N-Pentane:	0.0807
Hexane+:	0.3772
BTU:	1129.7
GPM:	18.2760
SPG:	0.6592