



OCD Received
8/6/2020

Well Name: CASE 7; BHD
API #: API #3004510606
Source: BRADENHEAD
Sample Type: GAS
Analysis No: HS200111
Cust No: 35825-12525

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: CASE 7; BHD
County/State: SAN JUAN NM
Location:
Lease/PA/CA: NMSF-078095
Formation: MV
Cust. Stn. No.: API #3004510606
71-398-01

Source: BRADENHEAD
Well Flowing: Y
Pressure: 125 PSIG
Flow Temp: 92 DEG. F
Ambient Temp: 72 DEG. F
Flow Rate: 0 MCF/D
Sample Method: Purge & Fill
Sample Date: 07/28/2020
Sample Time: 9.30 AM
Sampled By:
Sampled by (CO): HILCORP

Heat Trace: AREA 1 / RUN 109
N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.6079	0.6054	0.0670	0.00	0.0059
CO2	0.0329	0.0328	0.0060	0.00	0.0005
Methane	87.7134	87.3465	14.9090	885.91	0.4858
Ethane	5.9018	5.8771	1.5830	104.44	0.0613
Propane	3.3262	3.3123	0.9190	83.69	0.0506
Iso-Butane	0.8155	0.8121	0.2680	26.52	0.0164
N-Butane	0.8902	0.8865	0.2810	29.04	0.0179
I-Pentane	0.2861	0.2849	0.1050	11.45	0.0071
N-Pentane	0.1816	0.1808	0.0660	7.28	0.0045
Hexane Plus	0.2444	0.2434	0.1090	12.88	0.0081
Total	100.0000	99.5818	18.3130	1161.21	0.6581

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0029
BTU/CU.FT IDEAL: 1163.9
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1167.3
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1147.0
DRY BTU @ 15.025: 1190.7
REAL SPECIFIC GRAVITY: 0.6598

CYLINDER #: 6216
CYLINDER PRESSURE: 54 PSIG
ANALYSIS DATE: 08/04/2020
ANALYSIS TIME: 08:51:11 AM
ANALYSIS RUN BY: SHYANN ELLEDGE

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: 08/05/2020

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	CASE 7; BHD	BRADENHEAD	08/05/2020
Stn. No.:	API #3004510606	MV	35825-12525
Mtr. No.:	71-398-01		

Smpl Date: 07/28/2020
Test Date: 08/04/2020
Run No: HS200111

Nitrogen: 0.6079
CO2: 0.0329
Methane: 87.7134
Ethane: 5.9018
Propane: 3.3262
I-Butane: 0.8155
N-Butane: 0.8902
I-Pentane: 0.2861
N-Pentane: 0.1816
Hexane+: 0.2444

BTU: 1167.3
GPM: 18.3130
SPG: 0.6598



Well Name: CASE 7; CSG
API #: API #3004510606
Source: CASING
Sample Type: GAS
Analysis No: HS200112
Cust No: 35825-12530

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: CASE 7; CSG
County/State: SAN JUAN NM
Location:
Lease/PA/CA: NMSF-078095
Formation: MV
Cust. Stn. No.: API #3004510606
71-398-01

Source: CASING
Well Flowing: Y
Pressure: 125 PSIG
Flow Temp: 92 DEG. F
Ambient Temp: 72 DEG. F
Flow Rate: 0 MCF/D
Sample Method: Purge & Fill
Sample Date: 07/28/2020
Sample Time: 9.30 AM
Sampled By:
Sampled by (CO): HILCORP

AREA 1 / RUN 109

Heat Trace: N

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	2.0345	2.0073	0.2240	0.00	0.0197
CO2	0.0211	0.0208	0.0040	0.00	0.0003
Methane	83.4202	82.3031	14.1840	842.54	0.4621
Ethane	7.7285	7.6250	2.0730	136.77	0.0802
Propane	3.9987	3.9451	1.1050	100.61	0.0609
Iso-Butane	0.5142	0.5073	0.1690	16.72	0.0103
N-Butane	1.0204	1.0067	0.3230	33.29	0.0205
I-Pentane	0.3138	0.3096	0.1150	12.55	0.0078
N-Pentane	0.2653	0.2617	0.0960	10.64	0.0066
Hexane Plus	0.6833	0.6741	0.3060	36.02	0.0226
Total	100.0000	98.6607	18.5990	1189.14	0.6910

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0032
BTU/CU.FT IDEAL: 1191.9
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1195.7
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1174.9
DRY BTU @ 15.025: 1219.6
REAL SPECIFIC GRAVITY: 0.693

CYLINDER #: 4239
CYLINDER PRESSURE: 135 PSIG
ANALYSIS DATE: 08/04/2020
ANALYSIS TIME: 09:05:11 AM
ANALYSIS RUN BY: SHYANN ELLEDGE

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: 08/05/2020

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	CASE 7; CSG	CASING	08/05/2020
Stn. No.:	API #3004510606	MV	35825-12530
Mtr. No.:	71-398-01		

Smpl Date: 07/28/2020
Test Date: 08/04/2020
Run No: HS200112

Nitrogen: 2.0345
CO2: 0.0211
Methane: 83.4202
Ethane: 7.7285
Propane: 3.9987
I-Butane: 0.5142
N-Butane: 1.0204
I-Pentane: 0.3138
N-Pentane: 0.2653
Hexane+: 0.6833

BTU: 1195.7
GPM: 18.5990
SPG: 0.6930



Well Name: CASE 7; TBG
 API #: API #3004510606
 Source: TUBING
 Sample Type: GAS
 Analysis No: HS200113
 Cust No: 35825-12535

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	TUBING
Well Name:	CASE 7; TBG	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	125 PSIG
Location:		Flow Temp:	92 DEG. F
Lease/PA/CA:	NMSF-078095	Ambient Temp:	72 DEG. F
Formation:	MV	Flow Rate:	0 MCF/D
Cust. Stn. No.:	API #3004510606	Sample Method:	Purge & Fill
	71-398-01	Sample Date:	07/28/2020
	AREA 1 / RUN 109	Sample Time:	9.30 AM
Heat Trace:	N	Sampled By:	
Remarks:	PRESSURED WITH HELIUM TO 30 LBS.	Sampled by (CO):	HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2822	0.1198	0.0310	0.00	0.0027
CO2	0.8602	0.3652	0.1470	0.00	0.0131
Methane	83.5803	35.4831	14.2130	844.16	0.4630
Ethane	8.7751	3.7254	2.3540	155.29	0.0911
Propane	3.6008	1.5287	0.9950	90.60	0.0548
Iso-Butane	0.5804	0.2464	0.1910	18.87	0.0116
N-Butane	0.9931	0.4216	0.3140	32.40	0.0199
I-Pentane	0.3481	0.1478	0.1280	13.93	0.0087
N-Pentane	0.2732	0.1160	0.0990	10.95	0.0068
Hexane Plus	0.7066	0.3000	0.3160	37.25	0.0234
Total	100.0000	42.4540	18.7880	1203.45	0.6951

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0033	CYLINDER #:	6138
BTU/CU.FT IDEAL:	1206.2	CYLINDER PRESSURE:	3 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1210.2	ANALYSIS DATE:	08/04/2020
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1189.1	ANALYSIS TIME:	09:17:10 AM
DRY BTU @ 15.025:	1234.4	ANALYSIS RUN BY:	SHYANN ELLEDGE
REAL SPECIFIC GRAVITY:	0.6971		

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: 08/05/2020

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	CASE 7; TBG	TUBING	08/05/2020
Stn. No.:	API #3004510606	MV	35825-12535
Mtr. No.:	71-398-01		

Smpl Date: 07/28/2020
Test Date: 08/04/2020
Run No: HS200113

Nitrogen: 0.2822
CO2: 0.8602
Methane: 83.5803
Ethane: 8.7751
Propane: 3.6008
I-Butane: 0.5804
N-Butane: 0.9931
I-Pentane: 0.3481
N-Pentane: 0.2732
Hexane+: 0.7066

BTU: 1210.2
GPM: 18.7880
SPG: 0.6971