



OCD Received 9/9/2020

Well Name: SAN JUAN 32-8 UNIT 18;
API #: API # 3004534152
Source: CASING
Sample Type: GAS
Analysis No: HS200236
Cust No: 35825-13075

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: SAN JUAN 32-8 UNIT 18; CSG
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation: MV/DK
Cust. Stn. No.: API # 3004534152
8322601
AREA 4 / RUN 0406
Heat Trace: N
Remarks:

Source: CASING
Well Flowing: Y
Pressure: 136 PSIG
Flow Temp: 110 DEG. F
Ambient Temp: 95 DEG. F
Flow Rate: 55 MCF/D
Sample Method:
Sample Date: 08/21/2020
Sample Time: 1.30 PM
Sampled By: TC SCANLAN
Sampled by (CO): HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.0779	0.0773	0.0090	0.00	0.0008
CO2	2.8842	2.8629	0.4930	0.00	0.0438
Methane	92.1818	91.4995	15.6610	931.04	0.5106
Ethane	3.4097	3.3845	0.9140	60.34	0.0354
Propane	0.8358	0.8296	0.2310	21.03	0.0127
Iso-Butane	0.1627	0.1615	0.0530	5.29	0.0033
N-Butane	0.1547	0.1536	0.0490	5.05	0.0031
I-Pentane	0.0678	0.0673	0.0250	2.71	0.0017
N-Pentane	0.0349	0.0346	0.0130	1.40	0.0009
Hexane Plus	0.1905	0.1891	0.0850	10.04	0.0063
Total	100.0000	99.2599	17.5330	1036.90	0.6185

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0024
BTU/CU.FT IDEAL: 1039.3
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1041.8
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1023.7
DRY BTU @ 15.025: 1062.7
REAL SPECIFIC GRAVITY: 0.6198

CYLINDER #: 4156
CYLINDER PRESSURE: 130 PSIG
ANALYSIS DATE: 08/28/2020
ANALYSIS TIME: 01:42:02 PM
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: 09/03/2020

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	SAN JUAN 32-8 UNIT 18; CSG	CASING	09/03/2020
Stn. No.:	API # 3004534152	MV/DK	35825-13075
Mtr. No.:	8322601		

Smpl Date:	08/21/2020
Test Date:	08/28/2020
Run No:	HS200236
Nitrogen:	0.0779
CO2:	2.8842
Methane:	92.1818
Ethane:	3.4097
Propane:	0.8358
I-Butane:	0.1627
N-Butane:	0.1547
I-Pentane:	0.0678
N-Pentane:	0.0349
Hexane+:	0.1905
BTU:	1041.8
GPM:	17.5330
SPG:	0.6198



Well Name: SAN JUAN 32-8 UNIT 18;
API #: API # 3004534152
Source: INTERMEDIATE CASING
Sample Type: GAS
Analysis No: HS200237
Cust No: 35825-13080

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	INTERMEDIATE CASING
Well Name:	SAN JUAN 32-8 UNIT 18; INT	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	136 PSIG
Location:		Flow Temp:	110 DEG. F
Lease/PA/CA:		Ambient Temp:	95 DEG. F
Formation:	MV/DK	Flow Rate:	55 MCF/D
Cust. Stn. No.:	API # 3004534152	Sample Method:	
	8322601	Sample Date:	08/21/2020
		Sample Time:	1.30 PM
	AREA 4 / RUN 0406	Sampled By:	TC SCANLAN
Heat Trace:	N	Sampled by (CO):	ABC
Remarks:			

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.0813	0.0803	0.0090	0.00	0.0008
CO2	2.1005	2.0748	0.3590	0.00	0.0319
Methane	94.3507	93.1978	16.0280	952.94	0.5226
Ethane	2.5186	2.4878	0.6750	44.57	0.0261
Propane	0.5378	0.5312	0.1480	13.53	0.0082
Iso-Butane	0.1116	0.1102	0.0370	3.63	0.0022
N-Butane	0.0926	0.0915	0.0290	3.02	0.0019
I-Pentane	0.0441	0.0436	0.0160	1.76	0.0011
N-Pentane	0.0221	0.0218	0.0080	0.89	0.0006
Hexane Plus	0.1407	0.1390	0.0630	7.42	0.0047
Total	100.0000	98.7780	17.3720	1027.76	0.6001

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0023	CYLINDER #:	6006
BTU/CU.FT IDEAL:	1030.1	CYLINDER PRESSURE:	129 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1032.5	ANALYSIS DATE:	08/28/2020
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1014.5	ANALYSIS TIME:	02:22:28 AM
DRY BTU @ 15.025:	1053.2	ANALYSIS RUN BY:	RICHARD WILSON
REAL SPECIFIC GRAVITY:	0.6012		

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: 09/03/2020

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	SAN JUAN 32-8 UNIT 18; INT	INTERMEDIATE CASING	09/03/2020
Stn. No.:	API # 3004534152	MV/DK	35825-13080
Mtr. No.:	8322601		

Smpl Date:	08/21/2020
Test Date:	08/28/2020
Run No:	HS200237
Nitrogen:	0.0813
CO2:	2.1005
Methane:	94.3507
Ethane:	2.5186
Propane:	0.5378
I-Butane:	0.1116
N-Butane:	0.0926
I-Pentane:	0.0441
N-Pentane:	0.0221
Hexane+:	0.1407
BTU:	1032.5
GPM:	17.3720
SPG:	0.6012



Well Name: SAN JUAN 32-8 UNIT 18;
 API #: API # 3004534152
 Source: TUBING
 Sample Type: GAS
 Analysis No: HS200238
 Cust No: 35825-13085

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	TUBING
Well Name:	SAN JUAN 32-8 UNIT 18; TBG	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	136 PSIG
Location:		Flow Temp:	110 DEG. F
Lease/PA/CA:		Ambient Temp:	95 DEG. F
Formation:	MV/DK	Flow Rate:	55 MCF/D
Cust. Stn. No.:	API # 3004534152	Sample Method:	
	8322601	Sample Date:	08/21/2020
	AREA 4 / RUN 0406	Sample Time:	1.30 PM
Heat Trace:	N	Sampled By:	TC SCANLAN
Remarks:		Sampled by (CO):	HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.0888	0.0880	0.0100	0.00	0.0009
CO2	2.2253	2.2049	0.3810	0.00	0.0338
Methane	95.3280	94.4530	16.1920	962.81	0.5280
Ethane	1.8409	1.8240	0.4930	32.58	0.0191
Propane	0.3238	0.3208	0.0890	8.15	0.0049
Iso-Butane	0.0704	0.0698	0.0230	2.29	0.0014
N-Butane	0.0482	0.0478	0.0150	1.57	0.0010
I-Pentane	0.0245	0.0243	0.0090	0.98	0.0006
N-Pentane	0.0100	0.0099	0.0040	0.40	0.0002
Hexane Plus	0.0401	0.0397	0.0180	2.11	0.0013
Total	100.0000	99.0822	17.2340	1010.89	0.5913

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0022	CYLINDER #:	6040
BTU/CU.FT IDEAL:	1013.2	CYLINDER PRESSURE:	121 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1015.5	ANALYSIS DATE:	08/28/2020
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	997.8	ANALYSIS TIME:	01:54:22 PM
DRY BTU @ 15.025:	1035.8	ANALYSIS RUN BY:	RICHARD WILSON
REAL SPECIFIC GRAVITY:	0.5924		

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: 09/03/2020

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	SAN JUAN 32-8 UNIT 18; TBG	TUBING	09/03/2020
Stn. No.:	API # 3004534152	MV/DK	35825-13085
Mtr. No.:	8322601		

Smpl Date:	08/21/2020
Test Date:	08/28/2020
Run No:	HS200238
Nitrogen:	0.0888
CO2:	2.2253
Methane:	95.3280
Ethane:	1.8409
Propane:	0.3238
I-Butane:	0.0704
N-Butane:	0.0482
I-Pentane:	0.0245
N-Pentane:	0.0100
Hexane+:	0.0401
BTU:	1015.5
GPM:	17.2340
SPG:	0.5924