



OCD Received
8/17/2020

Well Name: HUBBELL 3; CSG
API #: API # 3004511995
Source: CASING
Sample Type: GAS
Analysis No: HS200099
Cust No: 35825-12460

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: HUBBELL 3; CSG
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation:
Cust. Stn. No.: API # 3004511995

Source: CASING
Well Flowing: N
Pressure: 81 PSIG
Flow Temp: 85 DEG. F
Ambient Temp: 74 DEG. F
Flow Rate: 148 MCF/D
Sample Method: Purge & Fill
Sample Date: 07/24/2020
Sample Time: 10.22 AM
Sampled By: ANDREW HARRIS
Sampled by (CO): HILCORP

Heat Trace: N
Remarks: AREA 7 / RUN 704

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2790	0.2761	0.0310	0.00	0.0027
CO2	1.5137	1.4977	0.2600	0.00	0.0230
Methane	72.9824	72.2122	12.4300	737.12	0.4042
Ethane	10.3017	10.1930	2.7680	182.31	0.1070
Propane	6.4224	6.3546	1.7780	161.59	0.0978
Iso-Butane	1.8199	1.8007	0.5980	59.18	0.0365
N-Butane	2.7877	2.7583	0.8830	90.94	0.0559
I-Pentane	1.4826	1.4670	0.5450	59.32	0.0369
N-Pentane	1.1192	1.1074	0.4080	44.87	0.0279
Hexane Plus	1.2914	1.2778	0.5790	68.07	0.0427
Total	100.0000	98.9448	20.2800	1403.40	0.8347

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0049
BTU/CU.FT IDEAL: 1406.6
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1413.6
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1389.0
DRY BTU @ 15.025: 1441.9
REAL SPECIFIC GRAVITY: 0.8385

CYLINDER #: 7056
CYLINDER PRESSURE: 80 PSIG
ANALYSIS DATE: 07/30/2020
ANALYSIS TIME: 09:47:25 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: 08/04/2020

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: HUBBELL 3; CSG
Stn. No.: API # 3004511995
Mtr. No.:

CASING

08/04/2020
35825-12460

Smpl Date: 07/24/2020
Test Date: 07/30/2020
Run No: HS200099
Nitrogen: 0.2790
CO2: 1.5137
Methane: 72.9824
Ethane: 10.3017
Propane: 6.4224
I-Butane: 1.8199
N-Butane: 2.7877
I-Pentane: 1.4826
N-Pentane: 1.1192
Hexane+: 1.2914
BTU: 1413.6
GPM: 20.2800
SPG: 0.8385



OCD Received
8/17/2020

Well Name: HUBBELL 3; BHD
API #: API #3004511995
Source: BRADENHEAD
Sample Type: GAS
Analysis No: HS200136
Cust No: 35825-12645

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	BRADENHEAD
Well Name:	HUBBELL 3; BHD	Well Flowing:	N
County/State:	SAN JUAN NM	Pressure:	25.20 PSIG
Location:		Flow Temp:	99.70 DEG. F
Lease/PA/CA:		Ambient Temp:	95 DEG. F
Formation:	MV DK	Flow Rate:	195 MCF/D
Cust. Stn. No.:	API #3004511995	Sample Method:	Purge & Fill
	73-300-01	Sample Date:	07/30/2020
		Sample Time:	1.05 PM
	AREA 7 / RUN 704	Sampled By:	ANDREW HARRIS
Heat Trace:	N	Sampled by (CO):	
Remarks:	PRESSURED WITH HELIUM TO 30 LBS.		

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	57.1967	18.3029	6.3070	0.00	0.5532
CO2	0.0744	0.0238	0.0130	0.00	0.0011
Methane	27.1389	8.6844	4.6120	274.10	0.1503
Ethane	4.4178	1.4137	1.1840	78.18	0.0459
Propane	3.3903	1.0849	0.9360	85.30	0.0516
Iso-Butane	1.1328	0.3625	0.3720	36.84	0.0227
N-Butane	1.6075	0.5144	0.5080	52.44	0.0323
I-Pentane	1.0853	0.3473	0.3980	43.42	0.0270
N-Pentane	0.4994	0.1598	0.1810	20.02	0.0124
Hexane Plus	3.4569	1.1062	1.5450	182.22	0.1144
Total	100.0000	31.9999	16.0560	772.52	1.0110

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0026	CYLINDER #:	6198
BTU/CU.FT IDEAL:	774.3	CYLINDER PRESSURE:	10 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	776.3	ANALYSIS DATE:	08/05/2020
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	762.8	ANALYSIS TIME:	10:28:07 AM
DRY BTU @ 15.025:	791.8	ANALYSIS RUN BY:	SHYANN ELLEDGE
REAL SPECIFIC GRAVITY:	1.0132		

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: 08/06/2020

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	HUBBELL 3; BHD	BRADENHEAD	08/06/2020
Stn. No.:	API #3004511995	MV DK	35825-12645
Mtr. No.:	73-300-01		

Smpl Date:	07/30/2020
Test Date:	08/05/2020
Run No:	HS200136
Nitrogen:	57.1967
CO2:	0.0744
Methane:	27.1389
Ethane:	4.4178
Propane:	3.3903
I-Butane:	1.1328
N-Butane:	1.6075
I-Pentane:	1.0853
N-Pentane:	0.4994
Hexane+:	3.4569
BTU:	776.3
GPM:	16.0560
SPG:	1.0132