



OCD Received
8/21/2020

Well Name: RANDLEMON #100 RTU;
API #: API #3004534711
Source: BRADENHEAD
Sample Type: GAS
Analysis No: HS200192
Cust No: 35825-12860

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	BRADENHEAD
Well Name:	RANDLEMON #100 RTU; BHD	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	106 PSIA
Location:		Flow Temp:	87 DEG. F
Lease/PA/CA:		Ambient Temp:	80 DEG. F
Formation:	FC	Flow Rate:	179 MCF/D
Cust. Stn. No.:	API #3004534711	Sample Method:	Purge & Fill
	ELB88764	Sample Date:	08/14/2020
	AREA 3 / RUN 302	Sample Time:	9.32 AM
Heat Trace:	N	Sampled By:	DUSTIN TITUS
Remarks:		Sampled by (CO):	HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	8.1612	8.1481	0.8990	0.00	0.0789
CO2	0.0040	0.0040	0.0010	0.00	0.0001
Methane	88.1752	88.0331	14.9740	890.57	0.4884
Ethane	3.0383	3.0334	0.8140	53.77	0.0315
Propane	0.5056	0.5048	0.1400	12.72	0.0077
Iso-Butane	0.0386	0.0385	0.0130	1.26	0.0008
N-Butane	0.0538	0.0537	0.0170	1.76	0.0011
I-Pentane	0.0084	0.0084	0.0030	0.34	0.0002
N-Pentane	0.0036	0.0036	0.0010	0.14	0.0001
Hexane Plus	0.0113	0.0113	0.0050	0.60	0.0004
Total	100.0000	99.8389	16.8670	961.15	0.6092

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.002
BTU/CU.FT IDEAL:	963.4
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	965.3
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	948.5
DRY BTU @ 15.025:	984.6
REAL SPECIFIC GRAVITY:	0.6101

CYLINDER #:	6097
CYLINDER PRESSURE:	37 PSIG
ANALYSIS DATE:	08/18/2020
ANALYSIS TIME:	02:09:47 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: 08/20/2020

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	RANDLEMON #100 RTU; BHD	BRADENHEAD	08/20/2020
Stn. No.:	API #3004534711	FC	35825-12860
Mtr. No.:	ELB88764		

Smpl Date:	08/14/2020
Test Date:	08/18/2020
Run No:	HS200192
Nitrogen:	8.1612
CO2:	0.0040
Methane:	88.1752
Ethane:	3.0383
Propane:	0.5056
I-Butane:	0.0386
N-Butane:	0.0538
I-Pentane:	0.0084
N-Pentane:	0.0036
Hexane+:	0.0113
BTU:	965.3
GPM:	16.8670
SPG:	0.6101



Well Name: RANDLEMON #100; CSG
 API #: API #3004534711
 Source: CASING
 Sample Type: GAS
 Analysis No: HS200193
 Cust No: 35825-12865

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
 Well Name: RANDLEMON #100; CSG
 County/State: SAN JUAN NM
 Location:
 Lease/PA/CA:
 Formation: FC
 Cust. Stn. No.: API #3004534711
 ELB88764

Source: CASING
 Well Flowing: Y
 Pressure: 105 PSIG
 Flow Temp: 88 DEG. F
 Ambient Temp: 82 DEG. F
 Flow Rate: 172 MCF/D
 Sample Method: Purge & Fill
 Sample Date: 08/14/2020
 Sample Time: 9.50 AM
 Sampled By: DUSTIN TITUS
 Sampled by (CO): HILCORP

Heat Trace: N

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.4593	0.4562	0.0510	0.00	0.0044
CO2	0.4372	0.4343	0.0750	0.00	0.0066
Methane	90.0244	89.4223	15.2990	909.25	0.4986
Ethane	5.2844	5.2491	1.4170	93.52	0.0549
Propane	2.3551	2.3393	0.6500	59.26	0.0359
Iso-Butane	0.4764	0.4732	0.1560	15.49	0.0096
N-Butane	0.4300	0.4271	0.1360	14.03	0.0086
I-Pentane	0.1711	0.1700	0.0630	6.85	0.0043
N-Pentane	0.0970	0.0964	0.0350	3.89	0.0024
Hexane Plus	0.2651	0.2633	0.1190	13.97	0.0088
Total	100.0000	99.3312	18.0010	1116.25	0.6341

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0027
 BTU/CU.FT IDEAL: 1118.8
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1121.9
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1102.4
 DRY BTU @ 15.025: 1144.4
 REAL SPECIFIC GRAVITY: 0.6356

CYLINDER #: 6183
 CYLINDER PRESSURE: 24 PSIG
 ANALYSIS DATE: 08/18/2020
 ANALYSIS TIME: 02:27:35 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: 08/20/2020

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: RANDLEMON #100; CSG
Stn. No.: API #3004534711
Mtr. No.: ELB88764

CASING
FC

08/20/2020
35825-12865

Smpl Date: 08/14/2020
Test Date: 08/18/2020
Run No: HS200193

Nitrogen: 0.4593
CO2: 0.4372
Methane: 90.0244
Ethane: 5.2844
Propane: 2.3551
I-Butane: 0.4764
N-Butane: 0.4300
I-Pentane: 0.1711
N-Pentane: 0.0970
Hexane+: 0.2651

BTU: 1121.9
GPM: 18.0010
SPG: 0.6356



Well Name: RANDLEMON #100; TBG
API #: API #3004534711
Source: TUBING
Sample Type: GAS
Analysis No: HS200194
Cust No: 35825-12870

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: RANDLEMON #100; TBG
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation: FC
Cust. Stn. No.: API #3004534711
ELB88764
AREA 3 / RUN 302
Heat Trace: N
Remarks: PRESSURED WITH HELIUM TO 30 LBS.

Source: TUBING
Well Flowing: Y
Pressure: 105 PSIA
Flow Temp: 87 DEG. F
Ambient Temp: 80 DEG. F
Flow Rate: 178 MCF/D
Sample Method: Purge & Fill
Sample Date: 08/14/2020
Sample Time: 9.43 AM
Sampled By: DUSTIN TITUS
Sampled by (CO): HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.4022	0.2351	0.0440	0.00	0.0039
CO2	0.5444	0.3182	0.0930	0.00	0.0083
Methane	92.2287	53.9049	15.6690	931.51	0.5109
Ethane	4.2858	2.5049	1.1490	75.85	0.0445
Propane	1.7636	1.0308	0.4870	44.37	0.0269
Iso-Butane	0.3600	0.2104	0.1180	11.71	0.0072
N-Butane	0.1981	0.1158	0.0630	6.46	0.0040
I-Pentane	0.0778	0.0455	0.0290	3.11	0.0019
N-Pentane	0.0354	0.0207	0.0130	1.42	0.0009
Hexane Plus	0.1040	0.0608	0.0460	5.48	0.0034
Total	100.0000	58.4471	17.7110	1079.91	0.6118

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0024
BTU/CU.FT IDEAL: 1082.4
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1085.0
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1066.1
DRY BTU @ 15.025: 1106.7
REAL SPECIFIC GRAVITY: 0.6131

CYLINDER #: 7044
CYLINDER PRESSURE: PSIG
ANALYSIS DATE: 08/18/2020
ANALYSIS TIME: 02:17:31 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: 08/20/2020

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: RANDLEMON #100; TBG
Stn. No.: API #3004534711
Mtr. No.: ELB88764

TUBING
FC

08/20/2020
35825-12870

Smpl Date: 08/14/2020
Test Date: 08/18/2020
Run No: HS200194

Nitrogen: 0.4022
CO2: 0.5444
Methane: 92.2287
Ethane: 4.2858
Propane: 1.7636
I-Butane: 0.3600
N-Butane: 0.1981
I-Pentane: 0.0778
N-Pentane: 0.0354
Hexane+: 0.1040

BTU: 1085.0
GPM: 17.7110
SPG: 0.6131