



Well Name: CHRISMAN GAS COM 1E;
 API #: API # 3004525206
 Source: BRADENHEAD
 Sample Type: GAS
 Analysis No: HS2021092
 Cust No: 35825-13535

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	BRADENHEAD
Well Name:	CHRISMAN GAS COM 1E; BHD	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	0.7 PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:		Ambient Temp:	62 DEG. F
Formation:		Flow Rate:	0 MCF/D
Cust. Stn. No.:	API # 3004525206	Sample Method:	Purge & Fill
		Sample Date:	05/10/2021
		Sample Time:	9.39 AM
	AREA 2 / RUN 0208	Sampled By:	NED HERNANDEZ
Heat Trace:	N	Sampled by (CO):	HILCORP
Remarks:	PRESSURED WITH HELIUM TO 30LBS.		

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.8818	0.5888	0.2080	0.00	0.0182
CO2	0.0911	0.0285	0.0160	0.00	0.0014
Methane	85.1470	26.6420	14.4730	859.98	0.4716
Ethane	7.1222	2.2285	1.9100	126.04	0.0739
Propane	3.6859	1.1533	1.0180	92.74	0.0561
Iso-Butane	0.4235	0.1325	0.1390	13.77	0.0085
N-Butane	0.9457	0.2959	0.2990	30.85	0.0190
I-Pentane	0.2247	0.0703	0.0820	8.99	0.0056
N-Pentane	0.1598	0.0500	0.0580	6.41	0.0040
Hexane Plus	0.3183	0.0996	0.1420	16.78	0.0105
Total	100.0000	31.2894	18.3450	1155.56	0.6689

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0029
BTU/CU.FT IDEAL:	1158.2
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1161.6
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1141.4
DRY BTU @ 15.025:	1184.9
REAL SPECIFIC GRAVITY:	0.6705

CYLINDER #:	4132
CYLINDER PRESSURE:	PSIG
ANALYSIS DATE:	05/17/2021
ANALYSIS TIME:	04:22:28 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: 05/19/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	CHRISMAN GAS COM 1E; BHD	BRADENHEAD	05/19/2021
Stn. No.:	API # 3004525206		35825-13535
Mtr. No.:			

Smpl Date:	05/10/2021	04/21/2021
Test Date:	05/17/2021	04/29/2021
Run No:	HS2021092	HS2021031
Nitrogen:	1.8818	1.8379
CO2:	0.0911	0.0133
Methane:	85.1470	85.3711
Ethane:	7.1222	7.1181
Propane:	3.6859	3.6482
I-Butane:	0.4235	0.4161
N-Butane:	0.9457	0.9313
I-Pentane:	0.2247	0.2172
N-Pentane:	0.1598	0.1540
Hexane+:	0.3183	0.2928
BTU:	1161.6	1160.3
GPM:	18.3450	18.3310
SPG:	0.6705	0.6679



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

Analysis No: HS2021094
Cust No: 35825-13550

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	INTERMEDIATE
Well Name:	CHRISMAN GAS COM 1E; INT	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	202 PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:		Ambient Temp:	62 DEG. F
Formation:		Flow Rate:	0 MCF/D
Cust. Stn. No.:	API # 3004525206	Sample Method:	Purge & Fill
		Sample Date:	05/10/2021
		Sample Time:	9.33 AM
		Sampled By:	NED HERNANDEZ
		Sampled by (CO):	HILCORP
Heat Trace:	N		
Remarks:			

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.0481	1.0327	0.1160	0.00	0.0101
CO2	0.0107	0.0105	0.0020	0.00	0.0002
Methane	79.8582	78.6821	13.5840	806.57	0.4423
Ethane	9.1856	9.0503	2.4650	162.56	0.0954
Propane	6.1489	6.0583	1.7000	154.71	0.0936
Iso-Butane	0.8500	0.8375	0.2790	27.64	0.0171
N-Butane	1.7000	1.6750	0.5380	55.46	0.0341
I-Pentane	0.4840	0.4769	0.1780	19.36	0.0121
N-Pentane	0.3778	0.3722	0.1370	15.14	0.0094
Hexane Plus	0.3367	0.3317	0.1510	17.75	0.0111
Total	100.0000	98.5272	19.1500	1259.20	0.7254

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0036	CYLINDER #:	6031
BTU/CU.FT IDEAL:	1262.1	CYLINDER PRESSURE:	207 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1266.7	ANALYSIS DATE:	05/18/2021
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1244.7	ANALYSIS TIME:	08:14:32 AM
DRY BTU @ 15.025:	1292.1	ANALYSIS RUN BY:	RICHARD WILSON
REAL SPECIFIC GRAVITY:	0.7277		

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: 05/19/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: CHRISMAN GAS COM 1E; INT INTERMEDIATE 05/19/2021
Stn. No.: API # 3004525206 35825-13550
Mtr. No.:

Smpl Date:	05/10/2021	04/21/2021
Test Date:	05/18/2021	04/29/2021
Run No:	HS2021094	HS2021034
Nitrogen:	1.0481	0.4050
CO2:	0.0107	0.6474
Methane:	79.8582	75.0648
Ethane:	9.1856	7.5737
Propane:	6.1489	3.2534
I-Butane:	0.8500	0.6799
N-Butane:	1.7000	1.0203
I-Pentane:	0.4840	0.6149
N-Pentane:	0.3778	0.5231
Hexane+:	0.3367	10.2175
BTU:	1266.7	1629.4
GPM:	19.1500	21.4700
SPG:	0.7277	0.9651



Well Name: CHRISMAN GAS COM 1E;
 API #: API # 3004525206
 Source: CASING
 Sample Type: GAS
 Analysis No: HS2021093
 Cust No: 35825-13540

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
 Well Name: CHRISMAN GAS COM 1E; CSG
 County/State: SAN JUAN NM
 Location:
 Lease/PA/CA:
 Formation:
 Cust. Stn. No.: API # 3004525206
 AREA 2 / RUN 0208
 Heat Trace: N
 Remarks:

Source: CASING
 Well Flowing: Y
 Pressure: 68 PSIG
 Flow Temp: DEG. F
 Ambient Temp: 62 DEG. F
 Flow Rate: 0 MCF/D
 Sample Method: Purge & Fill
 Sample Date: 05/10/2021
 Sample Time: 9.24 AM
 Sampled By: NED HERNANDEZ
 Sampled by (CO): HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1509	0.1483	0.0170	0.00	0.0015
CO2	0.7457	0.7327	0.1280	0.00	0.0113
Methane	82.6154	81.1761	14.0500	834.42	0.4576
Ethane	9.3520	9.1891	2.5090	165.50	0.0971
Propane	3.8883	3.8206	1.0750	97.83	0.0592
Iso-Butane	0.7201	0.7076	0.2360	23.42	0.0145
N-Butane	1.0245	1.0067	0.3240	33.42	0.0206
I-Pentane	0.3976	0.3907	0.1460	15.91	0.0099
N-Pentane	0.2774	0.2726	0.1010	11.12	0.0069
Hexane Plus	0.8281	0.8137	0.3700	43.65	0.0274
Total	100.0000	98.2581	18.9560	1225.27	0.7059

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0034
 BTU/CU.FT IDEAL: 1228.1
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1232.3
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1210.9
 DRY BTU @ 15.025: 1257.0
 REAL SPECIFIC GRAVITY: 0.708

CYLINDER #: 6081
 CYLINDER PRESSURE: 71 PSIG
 ANALYSIS DATE: 05/18/2021
 ANALYSIS TIME: 08:02:49 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: 05/19/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	CHRISMAN GAS COM 1E; CSG	CASING	05/19/2021
Stn. No.:	API # 3004525206		35825-13540
Mtr. No.:			

Smpl Date:	05/10/2021	04/21/2021
Test Date:	05/18/2021	04/29/2021
Run No:	HS2021093	HS2021032
Nitrogen:	0.1509	1.0930
CO2:	0.7457	0.0013
Methane:	82.6154	80.8136
Ethane:	9.3520	8.1693
Propane:	3.8883	6.8177
I-Butane:	0.7201	0.9794
N-Butane:	1.0245	1.3207
I-Pentane:	0.3976	0.3207
N-Pentane:	0.2774	0.2424
Hexane+:	0.8281	0.2419
BTU:	1232.3	1249.8
GPM:	18.9560	18.9960
SPG:	0.7080	0.7172



Well Name: CHRISMAN GAS COM 1E;
 API #: API # 3004525206
 Source: TUBING
 Sample Type: GAS
 Analysis No: HS2021095
 Cust No: 35825-13545

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
 Well Name: CHRISMAN GAS COM 1E; TBG
 County/State: SAN JUAN NM
 Location:
 Lease/PA/CA:
 Formation:
 Cust. Stn. No.: API # 3004525206

Source: TUBING
 Well Flowing: Y
 Pressure: 68 PSIG
 Flow Temp: DEG. F
 Ambient Temp: 62 DEG. F
 Flow Rate: 0 MCF/D
 Sample Method: Purge & Fill
 Sample Date: 05/10/2021
 Sample Time: 9.17 AM
 Sampled By: NED HERNANDEZ
 Sampled by (CO): HILCORP

Heat Trace: AREA 2 / RUN 0208
 N
 Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1513	0.1482	0.0170	0.00	0.0015
CO2	0.6472	0.6338	0.1110	0.00	0.0098
Methane	82.4415	80.7391	14.0220	832.66	0.4566
Ethane	9.4792	9.2835	2.5430	167.75	0.0984
Propane	3.9245	3.8435	1.0850	98.74	0.0598
Iso-Butane	0.7198	0.7049	0.2360	23.41	0.0144
N-Butane	1.0351	1.0137	0.3270	33.77	0.0208
I-Pentane	0.4032	0.3949	0.1480	16.13	0.0100
N-Pentane	0.2757	0.2700	0.1000	11.05	0.0069
Hexane Plus	0.9225	0.9035	0.4130	48.63	0.0305
Total	100.0000	97.9351	19.0020	1232.14	0.7088

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0035
 BTU/CU.FT IDEAL: 1235.0
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1239.3
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1217.7
 DRY BTU @ 15.025: 1264.1
 REAL SPECIFIC GRAVITY: 0.711

CYLINDER #: 5023
 CYLINDER PRESSURE: 71 PSIG
 ANALYSIS DATE: 05/17/2021
 ANALYSIS TIME: 04:40:51 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: 05/19/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: CHRISMAN GAS COM 1E; TBG TUBING 05/19/2021
Stn. No.: API # 3004525206 35825-13545
Mtr. No.:

Smpl Date:	05/10/2021	04/21/2021
Test Date:	05/17/2021	04/29/2021
Run No:	HS2021095	HS2021033
Nitrogen:	0.1513	0.1542
CO2:	0.6472	0.7367
Methane:	82.4415	82.7564
Ethane:	9.4792	9.3022
Propane:	3.9245	3.8168
I-Butane:	0.7198	0.6990
N-Butane:	1.0351	0.9981
I-Pentane:	0.4032	0.3904
N-Pentane:	0.2757	0.2353
Hexane+:	0.9225	0.9109
BTU:	1239.3	1231.9
GPM:	19.0020	18.9500
SPG:	0.7110	0.7077

District I
1625 N. French Dr., Hobbs, NM 88240
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District II
811 S. First St., Artesia, NM 88210
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District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 28964

CONDITIONS OF APPROVAL

Operator:	HILCORP ENERGY COMPANY	1111 Travis Street	Houston, TX77002	OGRID:	372171	Action Number:	28964	Action Type:	GAS ANALYSIS
OCD Reviewer	Condition								
mkuehling	None								