



Well Name: MADDOX C WN FED 1F;
 API #: 3004534530
 Source: BRADENHEAD
 Sample Type: GAS
 Analysis No: HS2021147
 Cust No: 35825-10870

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
 Well Name: MADDOX C WN FED 1F; BHD
 County/State: SAN JUAN NM
 Location:
 Lease/PA/CA: NM0546
 Formation:
 Cust. Stn. No.: 3004534530

Source: BRADENHEAD
 Well Flowing: Y
 Pressure: 65 PSIG
 Flow Temp: 92 DEG. F
 Ambient Temp: 92 DEG. F
 Flow Rate: MCF/D
 Sample Method: Purge & Fill
 Sample Date: 07/26/2021
 Sample Time: 2.40 PM
 Sampled By: JACINTO C.
 Sampled by (CO): HILCORP

AREA 2 / RUN 0206

Heat Trace:

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3301	0.3262	0.0360	0.00	0.0032
CO2	0.0065	0.0064	0.0010	0.00	0.0001
Methane	92.8368	91.7291	15.7720	937.65	0.5142
Ethane	5.2873	5.2242	1.4170	93.57	0.0549
Propane	1.2334	1.2187	0.3410	31.03	0.0188
Iso-Butane	0.1258	0.1243	0.0410	4.09	0.0025
N-Butane	0.1155	0.1141	0.0360	3.77	0.0023
I-Pentane	0.0166	0.0164	0.0060	0.66	0.0004
N-Pentane	0.0094	0.0093	0.0030	0.38	0.0002
Hexane Plus	0.0386	0.0381	0.0170	2.03	0.0013
Total	100.0000	98.8068	17.6700	1073.19	0.5980

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0024
 BTU/CU.FT IDEAL: 1075.7
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1078.3
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1059.5
 DRY BTU @ 15.025: 1099.9
 REAL SPECIFIC GRAVITY: 0.5992

CYLINDER #: 4011
 CYLINDER PRESSURE: 63 PSIG
 ANALYSIS DATE: 08/03/2021
 ANALYSIS TIME: 10:08:30 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: 08/06/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	MADDOX C WN FED 1F; BHD	BRADENHEAD	08/06/2021
Stn. No.:	3004534530		35825-10870
Mtr. No.:			

Smpl Date:	07/26/2021	09/26/2018
Test Date:	08/03/2021	09/26/2018
Run No:	HS2021147	HS180212
Nitrogen:	0.3301	0.3135
CO2:	0.0065	0.0038
Methane:	92.8368	93.1806
Ethane:	5.2873	4.9975
Propane:	1.2334	1.1384
I-Butane:	0.1258	0.1600
N-Butane:	0.1155	0.1260
I-Pentane:	0.0166	0.0218
N-Pentane:	0.0094	0.0109
Hexane+:	0.0386	0.0475
BTU:	1078.3	1076.3
GPM:	17.6700	17.6430
SPG:	0.5992	0.5977



Well Name: MADDOX C WN FED 1F;
 API #: 3004534530
 Source: CASING
 Sample Type: GAS
 Analysis No: HS2021148
 Cust No: 35825-10875

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
 Well Name: MADDOX C WN FED 1F; CSG
 County/State: SAN JUAN NM
 Location:
 Lease/PA/CA: NM0546
 Formation:
 Cust. Stn. No.: 3004534530

Source: CASING
 Well Flowing: Y
 Pressure: 128 PSIG
 Flow Temp: 92 DEG. F
 Ambient Temp: 92 DEG. F
 Flow Rate: MCF/D
 Sample Method: Purge & Fill
 Sample Date: 07/26/2021
 Sample Time: 3.03 PM
 Sampled By: JACINTO C.
 Sampled by (CO): HILCORP

AREA 2 / RUN 0206

Heat Trace:

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.7897	0.7404	0.0870	0.00	0.0076
CO2	1.1015	1.0328	0.1890	0.00	0.0167
Methane	81.6222	76.5303	13.8810	824.38	0.4521
Ethane	9.4582	8.8682	2.5370	167.38	0.0982
Propane	3.7067	3.4755	1.0240	93.26	0.0564
Iso-Butane	0.5575	0.5227	0.1830	18.13	0.0112
N-Butane	1.0207	0.9570	0.3230	33.30	0.0205
I-Pentane	0.4638	0.4349	0.1700	18.56	0.0116
N-Pentane	0.4565	0.4280	0.1660	18.30	0.0114
Hexane Plus	0.8232	0.7718	0.3680	43.39	0.0272
Total	100.0000	93.7616	18.9280	1216.71	0.7130

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0034
 BTU/CU.FT IDEAL: 1219.5
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1223.7
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1202.4
 DRY BTU @ 15.025: 1248.2
 REAL SPECIFIC GRAVITY: 0.7151

CYLINDER #: 7016
 CYLINDER PRESSURE: 119 PSIG
 ANALYSIS DATE: 08/03/2021
 ANALYSIS TIME: 10:28:48 AM
 ANALYSIS RUN BY:

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: 08/06/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	MADDOX C WN FED 1F; CSG	CASING	08/06/2021
Stn. No.:	3004534530		35825-10875
Mtr. No.:			

Smpl Date:	07/26/2021	09/26/2018
Test Date:	08/03/2021	09/26/2018
Run No:	HS2021148	HS180213
Nitrogen:	0.7897	0.9384
CO2:	1.1015	0.8151
Methane:	81.6222	86.0922
Ethane:	9.4582	8.7236
Propane:	3.7067	2.5031
I-Butane:	0.5575	0.2420
N-Butane:	1.0207	0.2889
I-Pentane:	0.4638	0.0724
N-Pentane:	0.4565	0.0579
Hexane+:	0.8232	0.2664
BTU:	1223.7	1129.2
GPM:	18.9280	18.2420
SPG:	0.7151	0.6513



Well Name: MADDOX C WN FED 1F;
 API #: 3004534530
 Source: TUBING
 Sample Type: GAS
 Analysis No: HS2021149
 Cust No: 35825-10880

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
 Well Name: MADDOX C WN FED 1F; TBG
 County/State: SAN JUAN NM
 Location:
 Lease/PA/CA: NM0546
 Formation:
 Cust. Stn. No.: 3004534530

Source: TUBING
 Well Flowing:
 Pressure: 121 PSIG
 Flow Temp: 92 DEG. F
 Ambient Temp: 92 DEG. F
 Flow Rate: MCF/D
 Sample Method: Purge & Fill
 Sample Date: 07/26/2021
 Sample Time: 2.45 PM
 Sampled By: JACINTO C.
 Sampled by (CO): HILCORP

AREA 2 / RUN 0206

Heat Trace:

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5432	0.5452	0.0600	0.00	0.0053
CO2	1.5649	1.5705	0.2680	0.00	0.0238
Methane	79.1310	79.4152	13.4600	799.22	0.4383
Ethane	10.6199	10.6580	2.8500	187.94	0.1103
Propane	4.6814	4.6982	1.2940	117.79	0.0713
Iso-Butane	0.6923	0.6948	0.2270	22.51	0.0139
N-Butane	1.2788	1.2834	0.4050	41.72	0.0257
I-Pentane	0.3929	0.3943	0.1440	15.72	0.0098
N-Pentane	0.3607	0.3620	0.1310	14.46	0.0090
Hexane Plus	0.7349	0.7375	0.3290	38.74	0.0243
Total	100.0000	100.3591	19.1680	1238.10	0.7315

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0036
 BTU/CU.FT IDEAL: 1241.0
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1245.4
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1223.7
 DRY BTU @ 15.025: 1270.3
 REAL SPECIFIC GRAVITY: 0.7339

CYLINDER #: 7024
 CYLINDER PRESSURE: 121 PSIG
 ANALYSIS DATE: 08/03/2021
 ANALYSIS TIME: 10:37:08 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: 08/06/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: MADDOX C WN FED 1F; TBG
Stn. No.: 3004534530
Mtr. No.:

TUBING

08/06/2021
35825-10880

Smpl Date:	07/26/2021	09/26/2018
Test Date:	08/03/2021	09/26/2018
Run No:	HS2021149	HS180214
Nitrogen:	0.5432	0.5509
CO2:	1.5649	1.5096
Methane:	79.1310	79.2311
Ethane:	10.6199	10.3139
Propane:	4.6814	4.5706
I-Butane:	0.6923	0.7127
N-Butane:	1.2788	1.3285
I-Pentane:	0.3929	0.4414
N-Pentane:	0.3607	0.4146
Hexane+:	0.7349	0.9267
BTU:	1245.4	1254.9
GPM:	19.1680	19.2120
SPG:	0.7339	0.7392

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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 40801

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 40801
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	None	8/16/2021