



Well Name: CULPEPPER MARTIN 1E;
 API #: 3004525114
 Source: BRADENHEAD
 Sample Type: GAS
 Analysis No: HS20230213
 Cust No: 35825-12960

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	BRADENHEAD
Well Name:	CULPEPPER MARTIN 1E; BHD	Well Flowing:	N
County/State:	SAN JUAN NM	Pressure:	106 PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:	FEE	Ambient Temp:	91 DEG. F
Formation:	MV / DK	Flow Rate:	MCF/D
Cust. Stn. No.:	3004525114	Sample Method:	Purge & Fill
	3583930	Sample Date:	08/04/2023
	AREA 2, RUN 201	Sample Time:	11.09 AM
Heat Trace:	N	Sampled By:	JEFF HOWE
Remarks:		Sampled by (CO):	HILCORP

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.9066	0.8863	0.1000	0.00	0.0088
CO2	0.0043	0.0042	0.0010	0.00	0.0001
Methane	87.1705	85.2163	14.8160	880.42	0.4828
Ethane	6.9518	6.7960	1.8640	123.03	0.0722
Propane	3.6815	3.5990	1.0170	92.63	0.0561
Iso-Butane	0.4784	0.4677	0.1570	15.56	0.0096
N-Butane	0.5129	0.5014	0.1620	16.73	0.0103
I-Pentane	0.0956	0.0935	0.0350	3.82	0.0024
N-Pentane	0.0660	0.0645	0.0240	2.65	0.0016
Hexane Plus	0.1324	0.1294	0.0590	6.98	0.0044
Total	100.0000	97.7583	18.2350	1141.82	0.6482

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0028	CYLINDER #:	2183
BTU/CU.FT IDEAL:	1144.5	CYLINDER PRESSURE:	99 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1147.7	ANALYSIS DATE:	08/09/2023
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1127.7	ANALYSIS TIME:	09:56:30 AM
DRY BTU @ 15.025:	1170.7	ANALYSIS RUN BY:	SARAH BALLARD
REAL SPECIFIC GRAVITY:	0.6498		

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: 08/15/2023

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	CULPEPPER MARTIN 1E; BHD	BRADENHEAD	08/15/2023
Stn. No.:	3004525114	MV / DK	35825-12960
Mtr. No.:	3583930		

Smpl Date:	08/04/2023	08/21/2020
Test Date:	08/09/2023	08/25/2020
Run No:	HS20230213	HS200213
Nitrogen:	0.9066	0.8004
CO2:	0.0043	0.0019
Methane:	87.1705	86.2307
Ethane:	6.9518	7.2865
Propane:	3.6815	4.0586
I-Butane:	0.4784	0.5852
N-Butane:	0.5129	0.6604
I-Pentane:	0.0956	0.1468
N-Pentane:	0.0660	0.1072
Hexane+:	0.1324	0.1223
BTU:	1147.7	1165.3
GPM:	18.2350	18.3690
SPG:	0.6498	0.6599



Well Name: CULPEPPER MARTIN 1E;
 API #: 3004525114
 Source: TUBING
 Sample Type: GAS
 Analysis No: HS20230205
 Cust No: 35825-12970

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)	Source: TUBING
Well Name: CULPEPPER MARTIN 1E; TBG	Well Flowing: N
County/State: SAN JUAN NM	Pressure: 51 PSIG
Location:	Flow Temp: DEG. F
Lease/PA/CA: FEE	Ambient Temp: 91 DEG. F
Formation: MV / DK	Flow Rate: MCF/D
Cust. Stn. No.: 3004525114	Sample Method: Purge & Fill
3583930	Sample Date: 08/04/2023
AREA 2, RUN 201	Sample Time: 11.17 AM
Heat Trace: N	Sampled By: JEFF HOWE
Remarks:	Sampled by (CO): HILCORP

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2198	0.2156	0.0240	0.00	0.0021
CO2	1.3661	1.3400	0.2340	0.00	0.0208
Methane	80.6970	79.1556	13.7260	815.04	0.4470
Ethane	9.8382	9.6503	2.6400	174.11	0.1021
Propane	4.2409	4.1599	1.1720	106.71	0.0646
Iso-Butane	0.7732	0.7584	0.2540	25.14	0.0155
N-Butane	1.2254	1.2020	0.3880	39.98	0.0246
I-Pentane	0.4556	0.4469	0.1670	18.23	0.0113
N-Pentane	0.3255	0.3193	0.1180	13.05	0.0081
Hexane Plus	0.8583	0.8419	0.3840	45.24	0.0284
Total	100.0000	98.0899	19.1070	1237.49	0.7245

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0036	CYLINDER #:	6246
BTU/CU.FT IDEAL:	1240.4	CYLINDER PRESSURE:	40 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1244.8	ANALYSIS DATE:	08/09/2023
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1223.1	ANALYSIS TIME:	10:28:04 AM
DRY BTU @ 15.025:	1269.7	ANALYSIS RUN BY:	SARAH BALLARD
REAL SPECIFIC GRAVITY:	0.7269		

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: 08/15/2023

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	CULPEPPER MARTIN 1E; TBG	TUBING	08/15/2023
Stn. No.:	3004525114	MV / DK	35825-12970
Mtr. No.:	3583930		

Smpl Date:	08/04/2023	08/21/2020
Test Date:	08/09/2023	08/25/2020
Run No:	HS20230205	HS200215
Nitrogen:	0.2198	0.2373
CO2:	1.3661	1.4280
Methane:	80.6970	80.3170
Ethane:	9.8382	9.5811
Propane:	4.2409	4.1613
I-Butane:	0.7732	0.7871
N-Butane:	1.2254	1.2606
I-Pentane:	0.4556	0.5102
N-Pentane:	0.3255	0.3887
Hexane+:	0.8583	1.3287
BTU:	1244.8	1265.9
GPM:	19.1070	19.2360
SPG:	0.7269	0.7417



Well Name: CULPEPPER MARTIN 1E;
 API #: 3004525114
 Source: CASING
 Sample Type: GAS
 Analysis No: HS20230206
 Cust No: 35825-12965

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	CASING
Well Name:	CULPEPPER MARTIN 1E; CSG	Well Flowing:	N
County/State:	SAN JUAN NM	Pressure:	52 PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:	FEE	Ambient Temp:	91 DEG. F
Formation:	MV / DK	Flow Rate:	MCF/D
Cust. Stn. No.:	3004525114	Sample Method:	Purge & Fill
	3583930	Sample Date:	08/04/2023
	AREA 2, RUN 201	Sample Time:	11.22 AM
Heat Trace:	N	Sampled By:	JEFF HOWE
Remarks:		Sampled by (CO):	HILCORP

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2488	0.2393	0.0270	0.00	0.0024
CO2	2.3331	2.2438	0.4000	0.00	0.0355
Methane	76.4376	73.5107	13.0150	772.02	0.4234
Ethane	8.6425	8.3116	2.3210	152.95	0.0897
Propane	5.1439	4.9469	1.4230	129.43	0.0783
Iso-Butane	1.1308	1.0875	0.3720	36.77	0.0227
N-Butane	2.0011	1.9245	0.6340	65.28	0.0402
I-Pentane	1.0119	0.9732	0.3720	40.49	0.0252
N-Pentane	0.9425	0.9064	0.3430	37.78	0.0235
Hexane Plus	2.1078	2.0271	0.9440	111.10	0.0698
Total	100.0000	96.1710	19.8510	1345.82	0.8106

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0046	CYLINDER #:	4179
BTU/CU.FT IDEAL:	1348.9	CYLINDER PRESSURE:	53 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1355.2	ANALYSIS DATE:	08/09/2023
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1331.6	ANALYSIS TIME:	11:21:51 AM
DRY BTU @ 15.025:	1382.3	ANALYSIS RUN BY:	SARAH BALLARD
REAL SPECIFIC GRAVITY:	0.814		

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: 08/15/2023

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	CULPEPPER MARTIN 1E; CSG	CASING	08/15/2023
Stn. No.:	3004525114	MV / DK	35825-12965
Mtr. No.:	3583930		

Smpl Date:	08/04/2023	08/21/2020
Test Date:	08/09/2023	08/25/2020
Run No:	HS20230206	HS200214
Nitrogen:	0.2488	0.2782
CO2:	2.3331	2.2706
Methane:	76.4376	78.8078
Ethane:	8.6425	8.0011
Propane:	5.1439	4.0046
I-Butane:	1.1308	0.8777
N-Butane:	2.0011	1.4855
I-Pentane:	1.0119	0.8056
N-Pentane:	0.9425	0.7239
Hexane+:	2.1078	2.7450
BTU:	1355.2	1330.2
GPM:	19.8510	19.6390
SPG:	0.8140	0.7973

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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 252541

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 252541
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	does not appear to be the same gas	9/18/2023