



Well Name: CULPEPPER MARTIN SRC
 API #: 3004530048
 Source: BRADENHEAD
 Sample Type: GAS
 Analysis No: HS20230207
 Cust No: 35825-15375

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	BRADENHEAD
Well Name:	CULPEPPER MARTIN SRC 4B; BHD	Well Flowing:	N
County/State:	SAN JUAN NM	Pressure:	44 PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:	FEE	Ambient Temp:	97 DEG. F
Formation:	MV / DK	Flow Rate:	MCF/D
Cust. Stn. No.:	3004530048	Sample Method:	Purge & Fill
		Sample Date:	08/04/2023
		Sample Time:	1.30 PM
		Sampled By:	JEFF HOWE
		Sampled by (CO):	HILCORP

Heat Trace: N

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5259	0.5192	0.0580	0.00	0.0051
CO2	0.0369	0.0364	0.0060	0.00	0.0006
Methane	89.2257	88.0944	15.1630	901.18	0.4942
Ethane	6.0198	5.9435	1.6140	106.53	0.0625
Propane	2.4503	2.4192	0.6770	61.65	0.0373
Iso-Butane	0.5714	0.5642	0.1870	18.58	0.0115
N-Butane	0.6664	0.6580	0.2110	21.74	0.0134
I-Pentane	0.1940	0.1915	0.0710	7.76	0.0048
N-Pentane	0.1376	0.1359	0.0500	5.52	0.0034
Hexane Plus	0.1720	0.1698	0.0770	9.07	0.0057
Total	100.0000	98.7321	18.1140	1132.03	0.6385

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0027	CYLINDER #:	528
BTU/CU.FT IDEAL:	1134.6	CYLINDER PRESSURE:	22 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1137.7	ANALYSIS DATE:	08/09/2023
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1117.9	ANALYSIS TIME:	09:17:51 AM
DRY BTU @ 15.025:	1160.5	ANALYSIS RUN BY:	SARAH BALLARD
REAL SPECIFIC GRAVITY:	0.6399		

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 SRC 4B; BHD	BRADENHEAD	08/15/2023
Stn. No.:	3004530048	MV / DK	35825-15375
Mtr. No.:			

Smpl Date: 08/04/2023
Test Date: 08/09/2023
Run No: HS20230207

Nitrogen: 0.5259
CO2: 0.0369
Methane: 89.2257
Ethane: 6.0198
Propane: 2.4503
I-Butane: 0.5714
N-Butane: 0.6664
I-Pentane: 0.1940
N-Pentane: 0.1376
Hexane+: 0.1720

BTU: 1137.7
GPM: 18.1140
SPG: 0.6399



Well Name: CULPEPPER MARTIN SRC
 API #: 3004530048
 Source: CASING
 Sample Type: GAS
 Analysis No: HS20230208
 Cust No: 35825-15380

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	CASING
Well Name:	CULPEPPER MARTIN SRC 4B; CSG	Well Flowing:	N
County/State:	SAN JUAN NM	Pressure:	78 PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:	FEE	Ambient Temp:	97 DEG. F
Formation:	MV / DK	Flow Rate:	MCF/D
Cust. Stn. No.:	3004530048	Sample Method:	Purge & Fill
		Sample Date:	08/04/2023
		Sample Time:	1.35 PM
		Sampled By:	JEFF HOWE
		Sampled by (CO):	HILCORP

Heat Trace: N

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2956	0.2972	0.0330	0.00	0.0029
CO2	1.1586	1.1648	0.1980	0.00	0.0176
Methane	78.7077	79.1265	13.3920	794.95	0.4360
Ethane	10.5948	10.6512	2.8440	187.50	0.1100
Propane	4.6955	4.7205	1.2980	118.14	0.0715
Iso-Butane	0.7810	0.7852	0.2570	25.40	0.0157
N-Butane	1.5727	1.5811	0.4980	51.31	0.0316
I-Pentane	0.6321	0.6355	0.2320	25.29	0.0157
N-Pentane	0.5442	0.5471	0.1980	21.82	0.0136
Hexane Plus	1.0178	1.0232	0.4560	53.65	0.0337
Total	100.0000	100.5323	19.4060	1278.04	0.7481

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0039
BTU/CU.FT IDEAL:	1281.0
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1286.0
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1263.6
DRY BTU @ 15.025:	1311.8
REAL SPECIFIC GRAVITY:	0.7508

CYLINDER #:	4112
CYLINDER PRESSURE:	76 PSIG
ANALYSIS DATE:	08/09/2023
ANALYSIS TIME:	08:52:20 AM
ANALYSIS RUN BY:	SARAH BALLARD

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 SRC 4B; CSG	CASING	08/15/2023
Stn. No.:	3004530048	MV / DK	35825-15380
Mtr. No.:			

Smpl Date: 08/04/2023
Test Date: 08/09/2023
Run No: HS20230208

Nitrogen: 0.2956
CO2: 1.1586
Methane: 78.7077
Ethane: 10.5948
Propane: 4.6955
I-Butane: 0.7810
N-Butane: 1.5727
I-Pentane: 0.6321
N-Pentane: 0.5442
Hexane+: 1.0178

BTU: 1286.0
GPM: 19.4060
SPG: 0.7508



Well Name: CULPEPPER MARTIN SRC

API #: 3004530048

Source: TUBING

Sample Type: GAS

Analysis No: HS20230209

Cust No: 35825-15385

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
 Well Name: CULPEPPER MARTIN SRC 4B; TBG
 County/State: SAN JUAN NM
 Location:
 Lease/PA/CA: FEE
 Formation: MV / DK
 Cust. Stn. No.: 3004530048

Source: TUBING
 Well Flowing: N
 Pressure: 82 PSIG
 Flow Temp: DEG. F
 Ambient Temp: 97 DEG. F
 Flow Rate: MCF/D
 Sample Method: Purge & Fill
 Sample Date: 08/04/2023
 Sample Time: 1.40 PM
 Sampled By: JEFF HOWE
 Sampled by (CO): HILCORP

Heat Trace: N
 Remarks: AREA 2, RUN 201

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3013	0.2961	0.0330	0.00	0.0029
CO2	1.1526	1.1326	0.1970	0.00	0.0175
Methane	79.0448	77.6745	13.4470	798.35	0.4378
Ethane	10.9854	10.7950	2.9480	194.41	0.1141
Propane	4.7818	4.6989	1.3220	120.31	0.0728
Iso-Butane	0.7237	0.7112	0.2380	23.53	0.0145
N-Butane	1.3712	1.3474	0.4340	44.73	0.0275
I-Pentane	0.4846	0.4762	0.1780	19.39	0.0121
N-Pentane	0.3232	0.3176	0.1180	12.96	0.0081
Hexane Plus	0.8314	0.8170	0.3720	43.82	0.0275
Total	100.0000	98.2665	19.2870	1257.51	0.7348

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0037
 BTU/CU.FT IDEAL: 1260.4
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1265.1
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1243.1
 DRY BTU @ 15.025: 1290.4
 REAL SPECIFIC GRAVITY: 0.7372

CYLINDER #: 4237
 CYLINDER PRESSURE: 69 PSIG
 ANALYSIS DATE: 08/09/2023
 ANALYSIS TIME: 09:36:39 AM
 ANALYSIS RUN BY: SARAH BALLARD

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 SRC 4B; TBG	TUBING	08/15/2023
Stn. No.:	3004530048	MV / DK	35825-15385
Mtr. No.:			

Smpl Date: 08/04/2023
Test Date: 08/09/2023
Run No: HS20230209

Nitrogen: 0.3013
CO2: 1.1526
Methane: 79.0448
Ethane: 10.9854
Propane: 4.7818
I-Butane: 0.7237
N-Butane: 1.3712
I-Pentane: 0.4846
N-Pentane: 0.3232
Hexane+: 0.8314

BTU: 1265.1
GPM: 19.2870
SPG: 0.7372

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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 252543

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 252543
	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