Well Name: MASDEN GAS COM #1;
API #: 3004507894
Source: BRADENHEAD
Sample Type: GAS

Analysis No: HS20230191
Cust No: 35825-11010

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	BRADENHEAD
Well Name:	MASDEN GAS COM #1; BHD	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:		Ambient Temp:	DEG. F
Formation:		Flow Rate:	MCF/D
Cust. Stn. No.:	3004507894	Sample Method:	Purge & Fill
		Sample Date:	08/04/2023
		Sample Time:	2.31 PM
	AREA 7; RUN 703	Sampled By:	AUSTIN HAWS
Heat Trace:		Sampled by (CO):	HILCORP
Remarks:			

Analysis

Component::	Mole%:	Unormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.6971	0.6918	0.0770	0.00	0.0067
CO2	0.0141	0.0140	0.0020	0.00	0.0002
Methane	88.2901	87.6171	15.0070	891.73	0.4890
Ethane	5.8945	5.8496	1.5810	104.31	0.0612
Propane	2.8358	2.8142	0.7830	71.35	0.0432
Iso-Butane	0.5545	0.5503	0.1820	18.03	0.0111
N-Butane	0.7264	0.7209	0.2300	23.70	0.0146
I-Pentane	0.2746	0.2725	0.1010	10.99	0.0068
N-Pentane	0.2088	0.2072	0.0760	8.37	0.0052
Hexane Plus	0.5041	0.5003	0.2250	26.57	0.0167
Total	100.0000	99.2379	18.2640	1155.05	0.6548

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBLITY FACTOR (1/Z):	1.0029	CYLINDER #:	4045
BTU/CU.FT IDEAL:	1157.7	CYLINDER PRESSURE:	21 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1161.1	ANALYIS DATE:	08/04/2023
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1140.9	ANALYIS TIME:	12:51:09 AM
DRY BTU @ 15.025:	1184.4	ANALYSIS RUN BY:	ALEXIS MITCHELL
REAL SPECIFIC GRAVITY:	0.6564		

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: 08/04/2023**
GC Method: C6+ Gas

HILCORP (BHD PROJECT)

WELL ANALYSIS COMPARISON

Lease:	MASDEN GAS COM #1; BHD	BRADENHEAD	08/04/2023
Stn. No.:	3004507894		35825-11010
Mtr. No.:			

Smpl Date:	08/04/2023	04/24/2019
Test Date:	08/04/2023	05/06/2019
Run No:	HS20230191	HS190023
Nitrogen:	0.6971	0.3328
CO2:	0.0141	0.1452
Methane:	88.2901	88.8842
Ethane:	5.8945	5.8173
Propane:	2.8358	2.6049
I-Butane:	0.5545	0.4928
N-Butane:	0.7264	0.6217
I-Pentane:	0.2746	0.2337
N-Pentane:	0.2088	0.1786
Hexane+:	0.5041	0.6888
BTU:	1161.1	1161.4
GPM:	18.2640	18.2680
SPG:	0.6564	0.6549

Well Name: MASDEN GAS COM #1;
API #: 3004507894
Source: CASING
Sample Type: GAS

Analysis No: HS20230192
Cust No: 35825-11015

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	CASING
Well Name:	MASDEN GAS COM #1; CSG	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	38 PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:		Ambient Temp:	DEG. F
Formation:		Flow Rate:	MCF/D
Cust. Stn. No.:	3004507894	Sample Method:	Purge & Fill
		Sample Date:	08/04/2023
		Sample Time:	2.33 PM
	AREA 7; RUN 703	Sampled By:	AUSTIN HAWS
Heat Trace:		Sampled by (CO):	HILCORP
Remarks:			

Analysis

Component::	Mole%:	Unormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3275	0.3260	0.0360	0.00	0.0032
CO2	1.5436	1.5366	0.2640	0.00	0.0235
Methane	79.4704	79.1075	13.5220	802.65	0.4402
Ethane	9.5971	9.5533	2.5760	169.84	0.0996
Propane	4.1296	4.1107	1.1420	103.90	0.0629
Iso-Butane	0.8281	0.8243	0.2720	26.93	0.0166
N-Butane	1.4087	1.4023	0.4460	45.96	0.0283
I-Pentane	0.6268	0.6239	0.2300	25.08	0.0156
N-Pentane	0.5453	0.5428	0.1980	21.86	0.0136
Hexane Plus	1.5229	1.5159	0.6820	80.27	0.0504
Total	100.0000	99.5433	19.3680	1276.49	0.7538

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBLITY FACTOR (1/Z):	1.0039	CYLINDER #:	6004
BTU/CU.FT IDEAL:	1279.4	CYLINDER PRESSURE:	18 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1284.5	ANALYIS DATE:	08/04/2023
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1262.1	ANALYIS TIME:	12:59:21 AM
DRY BTU @ 15.025:	1310.2	ANALYSIS RUN BY:	ALEXIS MITCHELL
REAL SPECIFIC GRAVITY:	0.7565		

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: 08/04/2023**
GC Method: C6+ Gas

HILCORP (BHD PROJECT)

WELL ANALYSIS COMPARISON

Lease:	MASDEN GAS COM #1; CSG	CASING	08/04/2023
Stn. No.:	3004507894		35825-11015
Mtr. No.:			

Smpl Date:	08/04/2023	04/23/2019
Test Date:	08/04/2023	05/06/2019
Run No:	HS20230192	HS190024
Nitrogen:	0.3275	0.3115
CO2:	1.5436	0.4640
Methane:	79.4704	76.5572
Ethane:	9.5971	10.2416
Propane:	4.1296	5.2244
I-Butane:	0.8281	1.2304
N-Butane:	1.4087	2.3035
I-Pentane:	0.6268	1.1493
N-Pentane:	0.5453	0.9950
Hexane+:	1.5229	1.5231
BTU:	1284.5	1376.6
GPM:	19.3680	19.9430
SPG:	0.7565	0.7980

Well Name: MASDEN GAS COM #1;
API #: 3004507894
Source: TUBING
Sample Type: GAS

Analysis No: HS20230193
Cust No: 35825-11020

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	TUBING
Well Name:	MASDEN GAS COM #1; TBG	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	35 PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:		Ambient Temp:	DEG. F
Formation:		Flow Rate:	MCF/D
Cust. Stn. No.:	3004507894	Sample Method:	Purge & Fill
		Sample Date:	08/04/2023
		Sample Time:	2.34 PM
	AREA 7; RUN 703	Sampled By:	AUSTIN HAWS
Heat Trace:		Sampled by (CO):	HILCORP
Remarks:			

Analysis

Component::	Mole%:	Unormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3407	0.3404	0.0380	0.00	0.0033
CO2	1.4705	1.4693	0.2520	0.00	0.0223
Methane	80.2219	80.1560	13.6470	810.24	0.4443
Ethane	9.6995	9.6915	2.6030	171.65	0.1007
Propane	4.1479	4.1445	1.1470	104.37	0.0632
Iso-Butane	0.8156	0.8149	0.2680	26.52	0.0164
N-Butane	1.3452	1.3441	0.4260	43.88	0.0270
I-Pentane	0.5409	0.5405	0.1980	21.64	0.0135
N-Pentane	0.4610	0.4606	0.1680	18.48	0.0115
Hexane Plus	0.9568	0.9560	0.4280	50.43	0.0317
Total	100.0000	99.9178	19.1750	1247.22	0.7338

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBLITY FACTOR (1/Z):	1.0037	CYLINDER #:	6143
BTU/CU.FT IDEAL:	1250.1	CYLINDER PRESSURE:	27 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1254.7	ANALYIS DATE:	08/04/2023
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1232.9	ANALYIS TIME:	01:07:52 PM
DRY BTU @ 15.025:	1279.8	ANALYSIS RUN BY:	ALEXIS MITCHELL
REAL SPECIFIC GRAVITY:	0.7363		

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: 08/04/2023**
GC Method: C6+ Gas

HILCORP (BHD PROJECT)

WELL ANALYSIS COMPARISON

Lease:	MASDEN GAS COM #1; TBG	TUBING	08/04/2023
Stn. No.:	3004507894		35825-11020
Mtr. No.:			

Smpl Date:	08/04/2023	04/23/2019
Test Date:	08/04/2023	05/06/2019
Run No:	HS20230193	HS190025
Nitrogen:	0.3407	0.3288
CO2:	1.4705	1.5820
Methane:	80.2219	79.6909
Ethane:	9.6995	9.8777
Propane:	4.1479	4.2472
I-Butane:	0.8156	0.8145
N-Butane:	1.3452	1.3434
I-Pentane:	0.5409	0.5262
N-Pentane:	0.4610	0.4358
Hexane+:	0.9568	1.1535
BTU:	1254.7	1263.9
GPM:	19.1750	19.2500
SPG:	0.7363	0.7438

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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 255420

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 255420
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	gas does not appear to be the same	9/15/2023