



Well Name: FOSTER #1; TBG
 API #: API #3003960109
 Source: TUBING
 Sample Type: GAS
 Analysis No: MS20220057
 Cust No: 53400-11755

Well/Lease Information

Customer Name: MORNINGSTAR
 Well Name: FOSTER #1; TBG
 County/State: SAN JUAN NM
 Location:
 Lease/PA/CA:
 Formation:
 Cust. Stn. No.: API #3003960109

Source: TUBING
 Well Flowing: N
 Pressure: 54 PSIG
 Flow Temp: DEG. F
 Ambient Temp: DEG. F
 Flow Rate: MCF/D
 Sample Method: Purge & Fill
 Sample Date: 04/05/2022
 Sample Time: 1.41 PM
 Sampled By: CODY PARIS
 Sampled by (CO):

Heat Trace: N
 Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.0081	0.9897	0.1110	0.00	0.0098
CO2	0.2480	0.2435	0.0420	0.00	0.0038
Methane	85.7770	84.2125	14.5830	866.35	0.4751
Ethane	6.5561	6.4365	1.7580	116.02	0.0681
Propane	3.4606	3.3975	0.9560	87.07	0.0527
Iso-Butane	0.8008	0.7862	0.2630	26.04	0.0161
N-Butane	0.8623	0.8466	0.2730	28.13	0.0173
I-Pentane	0.3746	0.3678	0.1370	14.99	0.0093
N-Pentane	0.2192	0.2152	0.0800	8.79	0.0055
Hexane Plus	0.6933	0.6807	0.3100	36.54	0.0229
Total	100.0000	98.1762	18.5130	1183.93	0.6805

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0031
 BTU/CU.FT IDEAL: 1186.7
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1190.4
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1169.7
 DRY BTU @ 15.025: 1214.2
 REAL SPECIFIC GRAVITY: 0.6823

CYLINDER #: 6237
 CYLINDER PRESSURE: 52 PSIG
 ANALYSIS DATE: 04/07/2022
 ANALYSIS TIME: 03:50:47 AM
 ANALYSIS RUN BY: ALEXIS MITCHELL

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: 04/11/2022

GC Method: C6+ Gas



MORNINGSTAR
WELL ANALYSIS COMPARISON

Lease:	FOSTER #1; TBG	TUBING	04/11/2022
Stn. No.:	API #3003960109		53400-11755
Mtr. No.:			

Smpl Date:	04/05/2022	06/21/2021
Test Date:	04/07/2022	06/29/2021
Run No:	MS20220057	MS2021204
Nitrogen:	1.0081	1.0510
CO2:	0.2480	0.2658
Methane:	85.7770	86.1224
Ethane:	6.5561	6.3663
Propane:	3.4606	3.3341
I-Butane:	0.8008	0.7958
N-Butane:	0.8623	0.8285
I-Pentane:	0.3746	0.3675
N-Pentane:	0.2192	0.2153
Hexane+:	0.6933	0.6533
BTU:	1190.4	1183.5
GPM:	18.5130	18.4590
SPG:	0.6823	0.6787



Well Name: FOSTER # 1; CSG
 API #: API #3003960109
 Source: CASING
 Sample Type: GAS
 Analysis No: MS20220056
 Cust No: 53400-11750

Well/Lease Information

Customer Name: MORNINGSTAR
 Well Name: FOSTER # 1; CSG
 County/State: SAN JUAN NM
 Location:
 Lease/PA/CA:
 Formation:
 Cust. Stn. No.: API #3003960109

Source: CASING
 Well Flowing: N
 Pressure: 55 PSIG
 Flow Temp: DEG. F
 Ambient Temp: DEG. F
 Flow Rate: MCF/D
 Sample Method: Purge & Fill
 Sample Date: 04/05/2022
 Sample Time: 1.48 PM
 Sampled By: CODY PARIS
 Sampled by (CO):

Heat Trace: N
 Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.0091	0.9911	0.1110	0.00	0.0098
CO2	0.2704	0.2656	0.0460	0.00	0.0041
Methane	85.8210	84.2908	14.5910	866.79	0.4754
Ethane	6.5574	6.4405	1.7590	116.05	0.0681
Propane	3.4602	3.3985	0.9560	87.06	0.0527
Iso-Butane	0.7993	0.7850	0.2620	25.99	0.0160
N-Butane	0.8596	0.8443	0.2720	28.04	0.0173
I-Pentane	0.3733	0.3666	0.1370	14.94	0.0093
N-Pentane	0.2192	0.2153	0.0800	8.79	0.0055
Hexane Plus	0.6305	0.6193	0.2820	33.23	0.0209
Total	100.0000	98.2170	18.4960	1180.89	0.6789

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0031
 BTU/CU.FT IDEAL: 1183.6
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1187.3
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1166.6
 DRY BTU @ 15.025: 1211.1
 REAL SPECIFIC GRAVITY: 0.6807

CYLINDER #: 6137
 CYLINDER PRESSURE: 53 PSIG
 ANALYSIS DATE: 04/07/2022
 ANALYSIS TIME: 04:05:50 AM
 ANALYSIS RUN BY: ALEXIS MITCHELL

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: 04/11/2022

GC Method: C6+ Gas



MORNINGSTAR
WELL ANALYSIS COMPARISON

Lease:	FOSTER # 1; CSG	CASING	04/11/2022
Stn. No.:	API #3003960109		53400-11750
Mtr. No.:			

Smpl Date:	04/05/2022	06/21/2021
Test Date:	04/07/2022	06/29/2021
Run No:	MS20220056	MS2021203
Nitrogen:	1.0091	1.0526
CO2:	0.2704	0.2730
Methane:	85.8210	86.0261
Ethane:	6.5574	6.3667
Propane:	3.4602	3.3374
I-Butane:	0.7993	0.7969
N-Butane:	0.8596	0.8295
I-Pentane:	0.3733	0.3685
N-Pentane:	0.2192	0.2165
Hexane+:	0.6305	0.7328
BTU:	1187.3	1186.9
GPM:	18.4960	18.4850
SPG:	0.6807	0.6810



Well Name: FOSTER 1; BHD
 API #: API #3003960109
 Source: BRADENHEAD
 Sample Type: GAS
 Analysis No: MS20220055
 Cust No: 53400-11745

Well/Lease Information

Customer Name: MORNINGSTAR	Source: BRADENHEAD
Well Name: FOSTER 1; BHD	Well Flowing: N
County/State: SAN JUAN NM	Pressure: 30 PSIG
Location:	Flow Temp: DEG. F
Lease/PA/CA:	Ambient Temp: DEG. F
Formation:	Flow Rate: MCF/D
Cust. Stn. No.: API #3003960109	Sample Method:
	Sample Date: 04/05/2022
	Sample Time: 1.33 PM
	Sampled By: CODY PARIS
	Sampled by (CO):

Heat Trace: N

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.0533	1.0339	0.1160	0.00	0.0102
CO2	0.2435	0.2390	0.0420	0.00	0.0037
Methane	86.1190	84.5337	14.6400	869.80	0.4770
Ethane	6.5665	6.4456	1.7610	116.21	0.0682
Propane	3.4433	3.3799	0.9510	86.64	0.0524
Iso-Butane	0.7788	0.7645	0.2560	25.33	0.0156
N-Butane	0.8338	0.8185	0.2640	27.20	0.0167
I-Pentane	0.3393	0.3331	0.1240	13.58	0.0085
N-Pentane	0.1963	0.1927	0.0710	7.87	0.0049
Hexane Plus	0.4262	0.4184	0.1910	22.47	0.0141
Total	100.0000	98.1593	18.4160	1169.08	0.6713

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.003	CYLINDER #:	4112
BTU/CU.FT IDEAL:	1171.8	CYLINDER PRESSURE:	29 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1175.3	ANALYSIS DATE:	04/07/2022
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1154.8	ANALYSIS TIME:	03:37:59 AM
DRY BTU @ 15.025:	1198.8	ANALYSIS RUN BY:	ALEXIS MITCHELL
REAL SPECIFIC GRAVITY:	0.6731		

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: 04/11/2022

GC Method: C6+ Gas



MORNINGSTAR
WELL ANALYSIS COMPARISON

Lease: FOSTER 1; BHD
Stn. No.: API #3003960109
Mtr. No.:

BRADENHEAD

04/11/2022
53400-11745

Smpl Date:	04/05/2022	06/21/2021
Test Date:	04/07/2022	06/29/2021
Run No:	MS20220055	MS2021202
Nitrogen:	1.0533	1.0509
CO2:	0.2435	0.2158
Methane:	86.1190	86.3100
Ethane:	6.5665	6.5659
Propane:	3.4433	3.4303
I-Butane:	0.7788	0.7757
N-Butane:	0.8338	0.8224
I-Pentane:	0.3393	0.3205
N-Pentane:	0.1963	0.1554
Hexane+:	0.4262	0.3531
BTU:	1175.3	1170.2
GPM:	18.4160	18.3810
SPG:	0.6731	0.6693

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
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

COMMENTS

Action 98666

COMMENTS

Operator: MorningStar Operating LLC 400 W 7th St Fort Worth, TX 76102	OGRID: 330132
	Action Number: 98666
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

COMMENTS

Created By	Comment	Comment Date
mkuehling	For record only	6/13/2022

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
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CONDITIONS

Action 98666

CONDITIONS

Operator: MorningStar Operating LLC 400 W 7th St Fort Worth, TX 76102	OGRID: 330132
	Action Number: 98666
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	same gas all strings	6/13/2022