



2030 Afton Place
Farmington, NM 87401
(505) 325-6622

Analysis No: MG180008
Cust No: 50000-10095

30-045-06815

Well/Lease Information

Customer Name: M & G DRILLING CO., INC.
Well Name: GRAHAM #32; CSG
County/State: SAN JUAN NM
Location:
Field:
Formation:
Cust. Stn. No.:

Source: CASING
Well Flowing: Y
Pressure: 103 PSIG
Flow Temp: DEG. F
Ambient Temp: DEG. F
Flow Rate: 66 MCF/D
Sample Method: Purge & Fill
Sample Date: 08/29/2018
Sample Time: 8.09 AM
Sampled By: DANIEL T.
Sampled by (CO): M&G DRILLING

NMOC
OCT 12 2018
DISTRICT III

Heat Trace:
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1495	0.1502	0.0160	0.00	0.0014
CO2	0.6517	0.6547	0.1110	0.00	0.0099
Methane	90.5173	90.9325	15.3810	914.22	0.5014
Ethane	5.7362	5.7625	1.5380	101.51	0.0596
Propane	1.9818	1.9909	0.5470	49.86	0.0302
Iso-Butane	0.4144	0.4163	0.1360	13.48	0.0083
N-Butane	0.2549	0.2561	0.0810	8.32	0.0051
I-Pentane	0.0966	0.0970	0.0350	3.86	0.0024
N-Pentane	0.0487	0.0489	0.0180	1.95	0.0012
Hexane Plus	0.1489	0.1496	0.0670	7.85	0.0049
Total	100.0000	100.4587	17.9300	1101.06	0.6244

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0026
BTU/CU.FT IDEAL: 1103.6
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1106.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1087.2
DRY BTU @ 15.025: 1128.7
REAL SPECIFIC GRAVITY: 0.6258

CYLINDER #: 5029
CYLINDER PRESSURE: 34 PSIG
ANALYSIS DATE: 09/06/2018
ANALYSIS TIME: 01:18:32 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

GC Method: C6+ Gas

Last Cal/Verify: 09/11/2018



M & G DRILLING CO., INC.
WELL ANALYSIS COMPARISON

Lease: GRAHAM #32; CSG
Stn. No.:
Mtr. No.:

CASING

09/11/2018
50000-10095

Smpl Date: 08/29/2018
Test Date: 09/06/2018
Run No: MG180008

Nitrogen: 0.1495
CO2: 0.6517
Methane: 90.5173
Ethane: 5.7362
Propane: 1.9818
I-Butane: 0.4144
N-Butane: 0.2549
I-Pentane: 0.0966
N-Pentane: 0.0487
Hexane+: 0.1489

BTU: 1106.5
GPM: 17.9300
SPG: 0.6258



2030 Afton Place
Farmington, NM 87401
(505) 325-6622

Analysis No: MG180009
Cust No: 50000-10100

Well/Lease Information

Customer Name: M & G DRILLING CO., INC.
Well Name: GRAHAM #32; INTRM CSG
County/State: SAN JUAN NM
Location:
Field:
Formation:
Cust. Stn. No.:

Source: INTERMEDIATE CASING
Well Flowing: Y
Pressure: 103 PSIG
Flow Temp: DEG. F
Ambient Temp: DEG. F
Flow Rate: 66 MCF/D
Sample Method: Purge & Fill
Sample Date: 08/29/2018
Sample Time: 8.12 AM
Sampled By: DANIEL T.
Sampled by (CO): M&G DRILLING

Heat Trace:
Remarks:

NMOC
OCT 12 2018
DISTRICT III

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	3.3664	3.3327	0.3710	0.00	0.0326
CO2	0.0251	0.0248	0.0040	0.00	0.0004
Methane	82.9713	82.1404	14.1060	838.01	0.4596
Ethane	5.5090	5.4538	1.4780	97.49	0.0572
Propane	4.6004	4.5543	1.2710	115.75	0.0700
Iso-Butane	1.2202	1.2080	0.4000	39.68	0.0245
N-Butane	1.1864	1.1745	0.3750	38.70	0.0238
I-Pentane	0.4238	0.4196	0.1550	16.96	0.0106
N-Pentane	0.2721	0.2694	0.0990	10.91	0.0068
Hexane Plus	0.4253	0.4210	0.1900	22.42	0.0141
Total	100.0000	98.9985	18.4490	1179.92	0.6995

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0031
BTU/CU.FT IDEAL: 1182.6
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1186.3
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1165.7
DRY BTU @ 15.025: 1210.1
REAL SPECIFIC GRAVITY: 0.7014

CYLINDER #: 4224
CYLINDER PRESSURE: 45 PSIG
ANALYSIS DATE: 09/06/2018
ANALYSIS TIME: 11:52:29 AM
ANALYSIS RUN BY: PATRICIA KING

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: 09/11/2018

GC Method: C6+ Gas



M & G DRILLING CO., INC.
WELL ANALYSIS COMPARISON

Lease: GRAHAM #32; INTRM CSG
Stn. No.:
Mtr. No.:

INTERMEDIATE CASING

09/11/2018
50000-10100

Smpl Date: 08/29/2018
Test Date: 09/06/2018
Run No: MG180009

Nitrogen: 3.3664
CO2: 0.0251
Methane: 82.9713
Ethane: 5.5090
Propane: 4.6004
I-Butane: 1.2202
N-Butane: 1.1864
I-Pentane: 0.4238
N-Pentane: 0.2721
Hexane+: 0.4253

BTU: 1186.3
GPM: 18.4490
SPG: 0.7014



2030 Afton Place
Farmington, NM 87401
(505) 325-6622

Analysis No: MG180010
Cust No: 50000-10105

Well/Lease Information

Customer Name: M & G DRILLING CO., INC.
Well Name: GRAHAM #32; TBG
County/State: SAN JUAN NM
Location:
Field:
Formation:
Cust. Str. No.:

Source: TUBING
Well Flowing: Y
Pressure: 103 PSIG
Flow Temp: DEG. F
Ambient Temp: DEG. F
Flow Rate: 66 MCF/D
Sample Method: Purge & Fill
Sample Date: 08/29/2018
Sample Time: 7.58 AM
Sampled By: DANIEL T.
Sampled by (CO): M&G DRILLING

Heat Trace:
Remarks:

NMOC
OCT 12 2018
DISTRICT III

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1318	0.1295	0.0150	0.00	0.0013
CO2	0.6605	0.6489	0.1130	0.00	0.0100
Methane	90.4756	88.8909	15.3740	913.80	0.5011
Ethane	5.7463	5.6456	1.5400	101.69	0.0597
Propane	1.9952	1.9603	0.5510	50.20	0.0304
Iso-Butane	0.4118	0.4046	0.1350	13.39	0.0083
N-Butane	0.2537	0.2493	0.0800	8.28	0.0051
I-Pentane	0.0961	0.0944	0.0350	3.84	0.0024
N-Pentane	0.0489	0.0480	0.0180	1.96	0.0012
Hexane Plus	0.1801	0.1769	0.0810	9.49	0.0060
Total	100.0000	98.2484	17.9420	1102.66	0.6254

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0026
BTU/CU.FT IDEAL: 1105.2
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1108.1
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1088.8
DRY BTU @ 15.025: 1130.3
REAL SPECIFIC GRAVITY: 0.6268

CYLINDER #: 7057
CYLINDER PRESSURE: 32 PSIG
ANALYSIS DATE: 09/06/2018
ANALYSIS TIME: 01:29:50 PM
ANALYSIS RUN BY: PATRICIA KING

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: 09/11/2018

GC Method: C6+ Gas



M & G DRILLING CO., INC.
WELL ANALYSIS COMPARISON

Lease: GRAHAM #32; TBG
Stn. No.:
Mtr. No.:

TUBING

09/11/2018
50000-10105

Smpl Date: 08/29/2018
Test Date: 09/06/2018
Run No: MG180010

Nitrogen: 0.1318
CO2: 0.6605
Methane: 90.4756
Ethane: 5.7463
Propane: 1.9952
I-Butane: 0.4118
N-Butane: 0.2537
I-Pentane: 0.0961
N-Pentane: 0.0489
Hexane+: 0.1801

BTU: 1108.1
GPM: 17.9420
SPG: 0.6268