



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

Analysis No: GW180003
Cust No: 33050-10375

Well/Lease Information

Customer Name: GREAT WESTERN DRILLING
Well Name: J.E. DECKER #1A; TBG
County/State: SAN JUAN NM
Location:
Field:
Formation: BLANCO MV
Cust. Stn. No.: 90542
API 30-045-23080

Source: TUBING
Well Flowing: Y
Pressure: 115 PSIG
Flow Temp: 67 DEG. F
Ambient Temp: 45 DEG. F
Flow Rate: 113 MCF/D
Sample Method: Purge & Fill
Sample Date: 11/15/2018
Sample Time: 11.15 AM
Sampled By: CULLAN KELLER
Sampled by (CO): GREAT WESTERN

Heat Trace: N
Remarks:

NMOC
DEC 04 2018
DISTRICT III

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1293	0.1320	0.0140	0.00	0.0013
CO2	1.8562	1.8953	0.3180	0.00	0.0282
Methane	83.4869	85.2467	14.1970	843.22	0.4624
Ethane	8.3108	8.4860	2.2290	147.08	0.0863
Propane	3.3285	3.3987	0.9200	83.75	0.0507
Iso-Butane	0.6545	0.6683	0.2150	21.28	0.0131
N-Butane	0.8763	0.8948	0.2770	28.59	0.0176
I-Pentane	0.3302	0.3372	0.1210	13.21	0.0082
N-Pentane	0.2447	0.2499	0.0890	9.81	0.0061
Hexane Plus	0.7826	0.7991	0.3500	41.25	0.0259
Total	100.0000	102.1080	18.7300	1188.19	0.6998

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0033
BTU/CU.FT IDEAL: 1190.9
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1194.9
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1174.1
DRY BTU @ 15.025: 1218.8
REAL SPECIFIC GRAVITY: 0.7018

CYLINDER #: 6060
CYLINDER PRESSURE: 76 PSIG
ANALYSIS DATE: 11/26/2018
ANALYSIS TIME: 09:30:41 AM
ANALYSIS RUN BY: DAWN BLASSINGAME

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: 11/27/2018

GC Method: C6+ Gas



GREAT WESTERN DRILLING
WELL ANALYSIS COMPARISON

Lease: J.E. DECKER #1A; TBG
Stn. No.: 90542
Mtr. No.: API 30-045-23080

TUBING
BLANCO MV

11/27/2018
33050-10375

Smpl Date:	11/15/2018	10/27/2017
Test Date:	11/26/2018	10/27/2017
Run No:	GW180003	GW170042
Nitrogen:	0.1293	0.1254
CO2:	1.8562	1.8091
Methane:	83.4869	83.5097
Ethane:	8.3108	8.2268
Propane:	3.3285	3.4142
I-Butane:	0.6545	0.6860
N-Butane:	0.8763	0.8919
I-Pentane:	0.3302	0.3296
N-Pentane:	0.2447	0.2471
Hexane+:	0.7826	0.7602
BTU:	1194.9	1196.2
GPM:	18.7300	18.7330
SPG:	0.7018	0.7019



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

Analysis No: GW180002
Cust No: 33050-10380

Well/Lease Information

Customer Name: GREAT WESTERN DRILLING
Well Name: J.E. DECKER #1A; CSG
County/State: SAN JUAN NM
Location:
Field:
Formation: BLANCO MV
Cust. Stn. No.: 90542
API 30-045-23080

Source: CASING
Well Flowing: Y
Pressure: 115 PSIG
Flow Temp: 67 DEG. F
Ambient Temp: 45 DEG. F
Flow Rate: 113 MCF/D
Sample Method: Purge & Fill
Sample Date: 11/15/2018
Sample Time: 11.29 AM
Sampled By: CULLAN KELLER
Sampled by (CO): GREAT WESTERN

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1570	0.1603	0.0170	0.00	0.0015
CO2	1.8156	1.8535	0.3110	0.00	0.0276
Methane	83.4805	85.2219	14.1960	843.15	0.4624
Ethane	8.3353	8.5092	2.2360	147.51	0.0865
Propane	3.3668	3.4370	0.9300	84.71	0.0513
Iso-Butane	0.6691	0.6831	0.2200	21.76	0.0134
N-Butane	0.8914	0.9100	0.2820	29.08	0.0179
I-Pentane	0.3380	0.3450	0.1240	13.52	0.0084
N-Pentane	0.2492	0.2544	0.0910	9.99	0.0062
Hexane Plus	0.6971	0.7116	0.3120	36.74	0.0231
Total	100.0000	102.0860	18.7190	1186.47	0.6983

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0033
BTU/CU.FT IDEAL: 1189.2
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1193.2
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1172.4
DRY BTU @ 15.025: 1217.1
REAL SPECIFIC GRAVITY: 0.7003

CYLINDER #: 4112
CYLINDER PRESSURE: 112 PSIG
ANALYSIS DATE: 11/26/2018
ANALYSIS TIME: 09:14:24 AM
ANALYSIS RUN BY: DAWN BLASSINGAME

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: 11/27/2018

GC Method: C6+ Gas



GREAT WESTERN DRILLING
WELL ANALYSIS COMPARISON

Lease: J.E. DECKER #1A; CSG
Stn. No.: 90542
Mtr. No.: API 30-045-23080

CASING
BLANCO MV

11/27/2018
33050-10380

Smpl Date:	11/15/2018	10/27/2017
Test Date:	11/26/2018	10/27/2017
Run No:	GW180002	GW170041
Nitrogen:	0.1570	0.1230
CO2:	1.8156	1.7995
Methane:	83.4805	83.7269
Ethane:	8.3353	8.1810
Propane:	3.3668	3.3569
I-Butane:	0.6691	0.6774
N-Butane:	0.8914	0.8833
I-Pentane:	0.3380	0.3313
N-Pentane:	0.2492	0.2461
Hexane+:	0.6971	0.6746
BTU:	1193.2	1191.0
GPM:	18.7190	18.6960
SPG:	0.7003	0.6983



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

Analysis No: GW180001
Cust No: 33050-10220

Well/Lease Information

Customer Name: GREAT WESTERN DRILLING
Well Name: J.E. DECKER #1A; BHD
County/State: SAN JUAN NM
Location:
Field:
Formation: BLANCO MV
Cust. Stn. No.: 90542
API 30-045-23080

Source: BRADENHEAD
Well Flowing: Y
Pressure: 115 PSIG
Flow Temp: 67 DEG. F
Ambient Temp: 45 DEG. F
Flow Rate: 113 MCF/D
Sample Method: Purge & Fill
Sample Date: 11/15/2018
Sample Time: 11.39 AM
Sampled By: CULLAN KELLER
Sampled by (CO): GREAT WESTERN

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1280	0.1278	0.0140	0.00	0.0012
CO2	1.7197	1.7167	0.2940	0.00	0.0261
Methane	84.1357	83.9865	14.3060	849.77	0.4660
Ethane	8.1993	8.1848	2.1990	145.10	0.0851
Propane	3.3382	3.3323	0.9220	83.99	0.0508
Iso-Butane	0.6616	0.6604	0.2170	21.51	0.0133
N-Butane	0.8578	0.8563	0.2710	27.98	0.0172
I-Pentane	0.3048	0.3043	0.1120	12.19	0.0076
N-Pentane	0.2167	0.2163	0.0790	8.69	0.0054
Hexane Plus	0.4382	0.4374	0.1960	23.10	0.0145
Total	100.0000	99.8228	18.6100	1172.34	0.6873

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0032
BTU/CU.FT IDEAL: 1175.1
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1178.7
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1158.2
DRY BTU @ 15.025: 1202.3
REAL SPECIFIC GRAVITY: 0.6892

CYLINDER #: 4081
CYLINDER PRESSURE: 114 PSIG
ANALYSIS DATE: 11/26/2018
ANALYSIS TIME: 09:53:37 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: 11/27/2018

GC Method: C6+ Gas



GREAT WESTERN DRILLING
WELL ANALYSIS COMPARISON

Lease: J.E. DECKER #1A; BHD
Stn. No.: 90542
Mtr. No.: API 30-045-23080

BRADENHEAD
BLANCO MV

11/27/2018
33050-10220

Smpl Date:	11/15/2018	10/23/2017	02/05/2015
Test Date:	11/26/2018	10/23/2017	02/05/2015
Run No:	GW180001	GW170032	GW150007
Nitrogen:	0.1280	0.1554	0.1330
CO2:	1.7197	1.7581	1.2860
Methane:	84.1357	83.6625	84.4112
Ethane:	8.1993	8.1439	8.2059
Propane:	3.3382	3.3283	3.3850
I-Butane:	0.6616	0.6700	0.6640
N-Butane:	0.8578	0.8740	0.8540
I-Pentane:	0.3048	0.3341	0.3170
N-Pentane:	0.2167	0.2503	0.2270
Hexane+:	0.4382	0.8234	0.5170
BTU:	1178.7	1196.7	1188.0
GPM:	18.6100	18.7280	18.6410
SPG:	0.6892	0.7017	0.6882