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

Analysis No: DR190018
Cust No: 21300-10375

Well/Lease Information

Customer Name:	D.J.R.	Source:	TUBING
Well Name:	MARTIN WHITTAKER 024; TBG	Well Flowing:	Y
County/State:	RIO ARRIBA NM	Pressure:	48 PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:		Ambient Temp:	90 DEG. F
Formation:		Flow Rate:	MCF/D
Cust. Stn. No.:	API # 30-039-23364	Sample Method:	Purge & Fill
		Sample Date:	08/16/2019
		Sample Time:	2.20 PM
		Sampled By:	J. HARTER
Heat Trace:	N	Sampled by (CO):	COTTONWOOD
Remarks:			

Analysis

Component::	Mole%:	Unormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.3091	1.3256	0.1450	0.00	0.0127
CO2	0.1915	0.1939	0.0330	0.00	0.0029
Methane	56.2308	56.9384	9.5990	567.93	0.3115
Ethane	15.9164	16.1167	4.2860	281.67	0.1652
Propane	15.6496	15.8466	4.3410	393.76	0.2383
Iso-Butane	1.6516	1.6724	0.5440	53.71	0.0331
N-Butane	4.7436	4.8033	1.5060	154.75	0.0952
I-Pentane	1.1291	1.1433	0.4160	45.17	0.0281
N-Pentane	1.1236	1.1377	0.4100	45.04	0.0280
Hexane Plus	2.0547	2.0806	0.9230	108.30	0.0680
Total	100.0000	101.2585	22.2030	1650.34	0.9830

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

COMPRESSIBLITY FACTOR (1/Z):	1.0072	CYLINDER #:	6173
BTU/CU.FT IDEAL:	1654.2	CYLINDER PRESSURE:	31 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1666.0	ANALYIS DATE:	08/29/2019
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1637.0	ANALYIS TIME:	10:29:35 AM
DRY BTU @ 15.025:	1699.4	ANALYSIS RUN BY:	RICHARD WILSON
REAL SPECIFIC GRAVITY:	0.9896		

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: 08/30/2019**
GC Method: C6+ Gas

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

Analysis No: DR190017
Cust No: 21300-10370

Well/Lease Information

Customer Name:	D.J.R.	Source:	CASING
Well Name:	MARTIN WHITTAKER 024; CSG	Well Flowing:	Y
County/State:	RIO ARRIBA NM	Pressure:	48 PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:		Ambient Temp:	90 DEG. F
Formation:		Flow Rate:	MCF/D
Cust. Stn. No.:	API # 30-039-23364	Sample Method:	Purge & Fill
		Sample Date:	08/16/2019
		Sample Time:	2.25 PM
		Sampled By:	J. HARTER
Heat Trace:	N	Sampled by (CO):	COTTONWOOD
Remarks:			

Analysis

Component::	Mole%:	Unormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.2035	1.2171	0.1330	0.00	0.0116
CO2	0.3302	0.3339	0.0570	0.00	0.0050
Methane	67.6522	68.4161	11.5270	683.29	0.3747
Ethane	12.8944	13.0400	3.4660	228.19	0.1339
Propane	10.7264	10.8475	2.9700	269.89	0.1633
Iso-Butane	1.1278	1.1405	0.3710	36.67	0.0226
N-Butane	3.1887	3.2247	1.0100	104.02	0.0640
I-Pentane	0.7586	0.7672	0.2790	30.35	0.0189
N-Pentane	0.7742	0.7829	0.2820	31.04	0.0193
Hexane Plus	1.3440	1.3592	0.6020	70.84	0.0445
Total	100.0000	101.1291	20.6970	1454.30	0.8578

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

COMPRESSIBLITY FACTOR (1/Z):	1.0053	CYLINDER #:	6176
BTU/CU.FT IDEAL:	1457.7	CYLINDER PRESSURE:	48 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1465.3	ANALYIS DATE:	08/29/2019
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1439.8	ANALYIS TIME:	10:44:33 AM
DRY BTU @ 15.025:	1494.6	ANALYSIS RUN BY:	RICHARD WILSON
REAL SPECIFIC GRAVITY:	0.862		

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: 08/30/2019**
GC Method: C6+ Gas

2030 Afton Place
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Analysis No: DR190016
Cust No: 21300-10365

Well/Lease Information

Customer Name:	D.J.R.	Source:	BRADENHEAD
Well Name:	MARTIN WHITTAKER 024; BHD	Well Flowing:	Y
County/State:	RIO ARRIBA NM	Pressure:	27 PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:		Ambient Temp:	90 DEG. F
Formation:		Flow Rate:	MCF/D
Cust. Stn. No.:	API # 30-039-23364	Sample Method:	Purge & Fill
		Sample Date:	08/16/2019
		Sample Time:	2.30 PM
		Sampled By:	J. HARTER
Heat Trace:	N	Sampled by (CO):	COTTONWOOD
Remarks:			

Analysis

Component::	Mole%:	Unormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.2020	1.2025	0.1330	0.00	0.0116
CO2	0.2345	0.2346	0.0400	0.00	0.0036
Methane	77.6624	77.6952	13.2180	784.39	0.4302
Ethane	7.4858	7.4890	2.0100	132.48	0.0777
Propane	5.7596	5.7620	1.5930	144.92	0.0877
Iso-Butane	1.3494	1.3500	0.4430	43.88	0.0271
N-Butane	4.0144	4.0161	1.2710	130.96	0.0806
I-Pentane	0.9463	0.9467	0.3470	37.86	0.0236
N-Pentane	0.7202	0.7205	0.2620	28.87	0.0179
Hexane Plus	0.6254	0.6257	0.2800	32.97	0.0207
Total	100.0000	100.0423	19.5970	1336.32	0.7806

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

COMPRESSIBLITY FACTOR (1/Z):	1.0042	CYLINDER #:	6020
BTU/CU.FT IDEAL:	1339.4	CYLINDER PRESSURE:	24 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1345.1	ANALYIS DATE:	08/29/2019
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1321.7	ANALYIS TIME:	10:28:16 AM
DRY BTU @ 15.025:	1372.0	ANALYSIS RUN BY:	Celia Lobato
REAL SPECIFIC GRAVITY:	0.7836		

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: 08/30/2019**
GC Method: C6+ Gas