

Natural Gas Analysis Report

SAN JUAN DIVISION

Sample Information

30-045-24038

Sample Information	
Sample Name	TWIN MOUNDS 1E BH
TECH	Tim Doering
GC Serial	GC1008B621
Report Date	2015-07-22 08:31:24

Component Results

Component Name	Norm%	Gross HV (Dry) (BTU / Ideal cu.ft.)	Relative Gas Density (Dry)	GPM (Dry) (Gal. / 1000 cu.ft.)	
Nitrogen	3.8285	0.0	0.03703	0.422	
Oxygen	0.0189	0.0	0.00021	0.002	
Methane	94.1838	953.5	0.52168	15.997	
Carbon Dioxide	0.0000	0.0	0.00000	0.000	
Ethane	0.9522	16.9	0.00989	0.255	
Propane	0.1350	3.4	0.00206	0.037	
I-Butane	0.0864	2.8	0.00173	0.028	
N-Butane	0.1469	4.8	0.00295	0.046	
I-Pentane	0.0675	2.7	0.00168	0.025	
N-Pentane	0.1172	4.7	0.00292	0.043	
Hexanes	0.1668	8.0	0.00496	0.069	
Heptanes	0.1191	6.6	0.00412	0.055	
Octanes	0.1350	8.5	0.00532	0.069	
Nonanes	0.0427	3.0	0.00189	0.024	
Hydrogen Sulfide	0.0000	0.0	0.00000	0.000	
Water	0.0000	0.0	0.00000	0.000	
Total:	100.0000	1014.8	0.59644	17.072	

Results Summary

Result	Dry	Sat.
Total Normalized Mole%	100.0000	100.0000
Pressure Base (psia)	14.730	
Flowing Temperature (Deg. F)	70.0	
Flowing Pressure (psia)	25.0	
Gross Heating Value (BTU / Real cu.ft.)	1016.9	999.6
Relative Density (G), Real	0.5975	0.5981
Compressibility (Z) Factor	0.9979	0.9975
Total GPM	17.072	16.880

Natural Gas Analysis Report

SAN JUAN DIVISION

Sample Information

Sample Information	
Sample Name	TWIN MOUNDS 1E CASING
TECH	Tim Doering
GC Serial	GC1008B621
Report Date	2015-07-22 08:25:31

Component Results

Component Name	Norm%	Gross HV (Dry) (BTU / Ideal cu.ft.)	Relative Gas Density (Dry)	GPM (Dry) (Gal. / 1000 cu.ft.)	
Nitrogen	0.6622	0.0	0.00640	0.073	
Oxygen	0.0108	0.0	0.00012	0.001	
Methane	76.5909	775.4	0.42424	13.040	
Carbon Dioxide	0.8018	0.0	0.01218	0.137	
Ethane	9.9729	176.9	0.10354	2.679	
Propane	5.6880	143.4	0.08660	1.574	
I-Butane	0.9383	30.6	0.01883	0.308	
N-Butane	1.8835	61.6	0.03780	0.596	
I-Pentane	0.8381	33.6	0.02088	0.308	
N-Pentane	0.8990	36.1	0.02239	0.327	
Hexanes	0.4785	22.8	0.01424	0.198	
Heptanes	0.2849	15.7	0.00986	0.132	
Octanes	0.7585	47.5	0.02992	0.390	
Nonanes	0.1926	13.5	0.00853	0.109	
Hydrogen Sulfide	0.0000	0.0	0.00000	0.000	
Water	0.0000	0.0	0.00000	0.000	
Total:	100.0000	1357.1	0.79552	19.872	

Results Summary

Result	Dry	Sat.	
Total Normalized Mole%	100.0000	100.0000	
Pressure Base (psia)	14.730		
Flowing Temperature (Deg. F)	70.0		
Flowing Pressure (psia)	50.0		
Gross Heating Value (BTU / Real cu.ft.)	1363.3	1340.1	
Relative Density (G), Real	0.7988	0.7961	
Compressibility (Z) Factor	0.9955	0.9951	
Total GPM	19.872	19.635	

Natural Gas Analysis Report

SAN JUAN DIVISION

Sample Information

Sample Information	
Sample Name	TWIN MOUNDS 1E TUBING
TECH	Tim Doering
GC Serial	GC1008B621
Report Date	2015-07-22 08:17:48

Component Results

Component Name	Norm%	Gross HV (Dry) (BTU / Ideal cu.ft.)	Relative Gas Density (Dry)	GPM (Dry) (Gal. / 1000 cu.ft.)
Nitrogen	0.5844	0.0	0.00565	0.065
Oxygen	0.0049	0.0	0.00005	0.000
Methane	77.8379	788.0	0.43114	13.248
Carbon Dioxide	1.1434	0.0	0.01737	0.196
Ethane	10.3960	184.4	0.10793	2.791
Propane	5.2719	133.0	0.08026	1.458
I-Butane	0.7730	25.2	0.01551	0.254
N-Butane	1.4099	46.1	0.02829	0.446
I-Pentane	0.4706	18.9	0.01172	0.173
N-Pentane	0.4628	18.6	0.01153	0.168
Hexanes	0.3384	16.1	0.01007	0.140
Heptanes	0.3024	16.7	0.01046	0.140
Octanes	0.7934	49.7	0.03129	0.408
Nonanes	0.2110	14.8	0.00934	0.119
Hydrogen Sulfide	0.0000	0.0	0.00000	0.000
Water	0.0000	0.0	0.00000	0.000
Total:	100.0000	1311.4	0.77065	19.607

Results Summary

Result	Dry	Sat.
Total Normalized Mole%	100.0000	100.0000
Pressure Base (psia)	14.730	
Flowing Temperature (Deg. F)	70.0	
Flowing Pressure (psia)	50.0	
Gross Heating Value (BTU / Real cu.ft.)	1316.9	1294.5
Relative Density (G), Real	0.7736	0.7713
Compressibility (Z) Factor	0.9958	0.9954
Total GPM	19.607	19.373



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
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OIL CONS. DIV DIST. 3

AUG 03 2015

BRADENHEAD TEST REPORT

(submit 1 copy to above address)

Date of Test 7/21/15 Operator XTO Energy API #30-0 4524038
Property Name Twin Mound Well No. 1E Location: Unit H Section 25 Township 30N Range 14W
Well Status (Shut-In or Producing) Initial PSI: Tubing 5 Intermediate N/A Casing 35 Bradenhead 38

OPEN BRADENHEAD AND INTERMEDIATE TO ATMOSPHERE INDIVIDUALLY FOR 15 MINUTES EACH

Testing	PRESSURE			INTERM	
	Bradenhead				
	BH	Int	Csg	Int	Csg
TIME					
5 min	0		36		
10 min	0		37		
15 min	0		38		
20 min	0		39		
25 min	0		40		
30 min	0		40		

	FLOW CHARACTERISTICS	
	BRADENHEAD	INTERMEDIATE
Steady Flow	☒	
Surges		
Down to Nothing		
Nothing		
Gas	☒	
Gas & Water		
Water		

If bradenhead flowed water, check all of the descriptions that apply below:

CLEAR _____ FRESH _____ SALTY _____ SULFUR _____ BLACK _____

5 MINUTE SHUT-IN PRESSURE

BRADENHEAD 3

INTERMEDIATE _____

REMARKS:

Gas analysis test taken on 7/22/15

By Ken Durham
SR Production Foreman
(Position)

Witness _____

E-mail address _____