

Natural Gas Analysis Report SAN JUAN DIVISION

Sample Information

30-045-23048

Sample Information	
Sample Name	BEAVERLODGE 2A BH
TECH	Tim Doering
GC Serial	GC1008B621
Operator	XTO
Report Date	2017-06-15 10:09:25

Component Results

Component Name	Raw Amount	Norm%	Gross HV (Dry) (BTU / Ideal cu.ft.)	Relative Gas Density (Dry)	GPM (Dry) (Gal / 1000 cu.ft.)
Nitrogen	1.0820	1.0484	0.0	0.01014	0.116
Oxygen	0.0110	0.0107	0.0	0.00012	0.001
Methane	84.5060	81.8786	828.9	0.45353	13.922
Carbon Dioxide	0.4680	0.4534	0.0	0.00689	0.078
Ethane	10.2930	9.9730	176.9	0.10354	2.675
Propane	4.3640	4.2283	106.6	0.06438	1.168
I-Butane	0.8670	0.8400	27.4	0.01686	0.276
N-Butane	0.9570	0.9272	30.3	0.01861	0.293
I-Pentane	0.3100	0.3004	12.0	0.00748	0.110
N-Pentane	0.2110	0.2044	8.2	0.00509	0.074
Hexanes	0.1400	0.1356	6.5	0.00403	0.056
Heptanes	0.0000	0.0000	0.0	0.00000	0.000
Octanes	0.0000	0.0000	0.0	0.00000	0.000
Nonanes	0.0000	0.0000	0.0	0.00000	0.000
Hydrogen Sulfide	0.0000	0.0000	0.0	0.00000	0.000
Water	0.0000	0.0000	0.0	0.00000	0.000
Total:	103.2090	100.0000	1196.8	0.69066	18.768

Results Summary

Result	Dry	Sat.
Total Normalized Mole%	100.0000	100.0000
Pressure Base (psia)	14.730	
Flowing Temperature (Deg. F)	76.0	
Flowing Pressure (psia)	160.0	
Gross Heating Value (BTU / Real cu.ft.)	1200.7	1180.2
Relative Density (G), Real	0.6926	0.6916
Compressibility (Z) Factor	0.9968	0.9964
Total GPM	18.768	18.549

Natural Gas Analysis Report SAN JUAN DIVISION

Sample Information

Sample Information	
Sample Name	BEAVERLODGE 2A TUBING
TECH	Tim Doering
GC Serial	GC1008B621
Operator	XTO
Report Date	2017-06-15 10:00:05

Component Results

Component Name	Raw Amount	Norm%	Gross HV (Dry) (BTU / Ideal cu.ft.)	Relative Gas Density (Dry)	GPM (Dry) (Gal. / 1000 cu.ft.)
Nitrogen	0.1710	0.1647	0.0	0.00159	0.018
Oxygen	0.0070	0.0067	0.0	0.00007	0.001
Methane	85.9910	82.8086	838.3	0.45868	14.080
Carbon Dioxide	0.0000	0.0000	0.0	0.00000	0.000
Ethane	10.6260	10.2328	181.5	0.10624	2.745
Propane	4.5230	4.3556	109.8	0.06631	1.204
I-Butane	0.9030	0.8696	28.3	0.01745	0.285
N-Butane	0.9630	0.9274	30.3	0.01861	0.293
I-Pentane	0.3130	0.3014	12.1	0.00751	0.111
N-Pentane	0.2090	0.2013	8.1	0.00501	0.073
Hexanes	0.1370	0.1319	6.3	0.00392	0.054
Heptanes	0.0000	0.0000	0.0	0.00000	0.000
Octanes	0.0000	0.0000	0.0	0.00000	0.000
Nonanes	0.0000	0.0000	0.0	0.00000	0.000
Hydrogen Sulfide	0.0000	0.0000	0.0	0.00000	0.000
Water	0.0000	0.0000	0.0	0.00000	0.000
Total:	103.8430	100.0000	1214.8	0.68540	18.864

Results Summary

Result	Dry	Sat.
Total Normalized Mole%	100.0000	100.0000
Pressure Base (psia)	14.730	
Flowing Temperature (Deg. F)	76.0	
Flowing Pressure (psia)	300.0	
Gross Heating Value (BTU / Real cu.ft.)	1218.7	1198.0
Relative Density (G), Real	0.6873	0.6865
Compressibility (Z) Factor	0.9968	0.9964
Total GPM	18.864	18.643

Natural Gas Analysis Report SAN JUAN DIVISION

Sample Information

Sample Information	
Sample Name	BEAVERLODGE 2A CASING
TECH	Tim Doering
GC Serial	GC1008B621
Operator	XTO
Report Date	2017-06-15 10:05:30

Component Results

Component Name	Raw Amount	Norm%	Gross HV (Dry) (BTU / Ideal cu.ft.)	Relative Gas Density (Dry)	GPM (Dry) (Gal. / 1000 cu.ft.)
Nitrogen	1.0840	1.0476	0.0	0.01013	0.116
Oxygen	0.0160	0.0155	0.0	0.00017	0.001
Methane	84.2520	81.4208	824.3	0.45099	13.845
Carbon Dioxide	0.4700	0.4542	0.0	0.00690	0.078
Ethane	10.3190	9.9723	176.9	0.10353	2.675
Propane	4.5050	4.3536	109.8	0.06628	1.203
I-Butane	0.9470	0.9152	29.8	0.01837	0.300
N-Butane	1.0770	1.0408	34.0	0.02089	0.329
I-Pentane	0.3730	0.3605	14.5	0.00898	0.132
N-Pentane	0.2570	0.2484	10.0	0.00619	0.090
Hexanes	0.1770	0.1711	8.2	0.00509	0.071
Heptanes	0.0000	0.0000	0.0	0.00000	0.000
Octanes	0.0000	0.0000	0.0	0.00000	0.000
Nonanes	0.0000	0.0000	0.0	0.00000	0.000
Hydrogen Sulfide	0.0000	0.0000	0.0	0.00000	0.000
Water	0.0000	0.0000	0.0	0.00000	0.000
Total:	103.4770	100.0000	1207.4	0.69752	18.840

Results Summary

Result	Dry	Sat.
Total Normalized Mole%	100.0000	100.0000
Pressure Base (psia)	14.730	
Flowing Temperature (Deg. F)	76.0	
Flowing Pressure (psia)	300.0	
Gross Heating Value (BTU / Real cu.ft.)	1211.3	1190.7
Relative Density (G), Real	0.6995	0.6985
Compressibility (Z) Factor	0.9968	0.9964
Total GPM	18.840	18.619