

Atchafalaya Measurement, Inc.

416 East Main Street

Artesia, NM 88210 575-746-3481

Sample Information

Sample Information	
Sample Name	Marathon__Harroun Federal Com 1__GC1-31318-14
Station Number	7780023
Lease Name	Harroun Federal Com 1
Analysis for	Marathon Oil
Producer	Marathon Oil
Field Name	Carlsbad
County	Eddy
State	NM
Frequency	Quarterly
Sample Deg F	74.7
Atmos Deg F	60
Flow Rate	0
LinePSIG	61.6
Date Sampled	3-12-18
Sampled By	Travis Williams
Analysis By	Pat Silvas
Report Date	2018-03-13 15:46:56

Component Results

Component Name	Ret. Time	Peak Area	Norm%	PPMV	GPM (Dry) (Gal. / 1000 cu.ft.)
Nitrogen	22.060	6411.0	1.27106	12710.600	0.140
H2S	46.000	0.0	0.00025	2.500	0.000
Methane	22.840	368536.8	93.95228	939522.800	15.959
Carbon Dioxide	26.620	6754.0	1.12202	11220.200	0.192
Ethane	37.860	16985.0	2.58940	25894.000	0.694
Propane	80.700	5232.3	0.59424	5942.400	0.164
i-Butane	28.840	5437.8	0.08029	802.900	0.026
n-Butane	30.480	8442.9	0.12011	1201.100	0.038
i-Pentane	35.520	3475.3	0.04194	419.400	0.015
n-Pentane	37.600	2884.5	0.03388	338.800	0.012
Hexanes Plus	120.000	16896.0	0.19453	1945.300	0.085
Total:			100.00000	1000000.000	17.326

Results Summary

Result	Dry	Sat. (Base)
Total Raw Mole% (Dry)	99.27625	
Total Amount PPM (Mole/Vol.)	1000000.000	
Pressure Base (psia)	14.730	
Temperature Base	60.0	
Gross Heating Value (BTU / Ideal cu.ft.)	1031.6	1013.7
Gross Heating Value (BTU / Real cu.ft.)	1033.9	1016.3
Relative Density (G), Ideal	0.5978	0.5983
Relative Density (G), Real	0.5989	0.5996
Compressibility (Z) Factor	0.9978	0.9974