

Gas Analysis

Received: 10/10/2019

This application is placed in file for record. It MAY or MAY NOT have been reviewed to be determined Administratively Complete

Inficon Micro GC Fusion F08904 R03RR2

	Sample Information
Sample Name	COG_Myox 21 State Com 1H_GC1-91619-38
Station Number	88522306
Lease Name	Myox 21 State Com 1H
Analysis For	COG Operating
Producer	COG Operating
Field Name	Basin
County/State	Eddy,NM
Frequency/Spot Sample	Monthly
Sampling Method	Fill Empty
Sample Deg F	100
Atmos Deg F	85
Flow Rate	2180.2712
Line PSIG	90
Date/Time Sampled	9-12-19
Cylinder Number	N/A
Cylinder Clean Date	N/A
Sampled By	Victor Urias
Analysis By	Pat Silvas
Verified/Calibration Date	9-16-19
Report Date	2019-09-16 15:12:30

Component Results

Component Name	Ret. Time	Peak Area	Norm%	PPMV	GPM (Dry) (Gal. / 1000 cu.ft.)
Nitrogen	22.840	9041.6	1.80561	18056.100	0.000
H2S	46.000	0.0	0.00000	0.000	0.000
Methane	23.620	303563.3	77.95038	779503.800	0.000
Carbon Dioxide	27.880	1294.2	0.21656	2165.600	0.000
Ethane	37.140	73887.1	11.34607	113460.700	3.044
Propane	78.480	44775.4	5.12220	51222.000	1.416
i-butane	28.860	44878.3	0.66744	6674.400	0.219
n-Butane	30.460	113325.8	1.62387	16238.700	0.514
i-pentane	35.580	31846.4	0.38713	3871.300	0.142
n-Pentane	37.700	35662.3	0.42197	4219.700	0.153
Hexanes Plus	120.000	39560.0	0.45877	4587.700	0.200
Total:			100.00000	1000000.000	5.688

Results Summary

Result	Dry	Sat. (Base)
Total Raw Mole% (Dry)	98.56048	
Pressure Base (psia)	14.730	
Temperature Base	60.00	
Gross Heating Value (BTU / Ideal cu.ft.)	1250.5	1228.7
Gross Heating Value (BTU / Real cu.ft.)	1255.0	1233.6
Relative Density (G), Ideal	0.7292	0.7273
Relative Density (G), Real	0.7315	0.7299
Compressibility (Z) Factor	0.9964	0.9960

Atchafalaya Measurement, Inc.
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Inficon Micro GC Fusion F08904 R03RR2

Sample Information	
Sample Name	COG__Myox 21 State Com 9H__GC2-82119-08
Station Number	88522307
Lease Name	Myox 21 State Com 9H
Analysis For	COG Operating
Producer	COG Operating
Field Name	Basin
County/State	Lea,nM
Frequency/Spot Sample	Monthly
Sampling Method	Fill Empty
Sample Deg F	127
Atmos Deg F	N/A
Flow Rate	N/A
Line PSIG	75
Date/Time Sampled	8-16-19
Cylinder Number	N/A
Cylinder Clean Date	N/A
Sampled By	James Hill
Analysis By	Pat Silvas
Verified/Calibration Date	8-19-19
Report Date	2019-08-21 11:39:00

Component Results

Component Name	Ret. Time	Peak Area	Norm%	PPMV	GPM (Dry) (Gal. / 1000 cu.ft.)
Nitrogen	23.080	29232.2	2.13092	21309.200	0.000
H2S	0.000	0.0	0.00000	0.000	0.000
Methane	23.840	805802.4	76.69842	766984.200	0.000
Carbon Dioxide	27.780	49142.3	3.03235	30323.500	0.000
Ethane	36.960	174112.8	10.06363	100636.300	2.700
Propane	77.080	106606.5	4.67966	46796.600	1.294
i-butane	28.760	41446.9	0.52846	5284.600	0.174
n-Butane	30.260	114309.7	1.39548	13954.800	0.441
i-pentane	34.840	34586.1	0.35301	3530.100	0.130
n-Pentane	36.580	41609.8	0.41082	4108.200	0.149
Hexanes Plus	120.000	78106.0	0.70725	7072.500	0.308
Total:			100.00000	1000000.000	5.196

Results Summary

Result	Dry	Sat. (Base)
Total Raw Mole% (Dry)	103.50018	
Pressure Base (psia)	14.730	
Temperature Base	60.00	
Gross Heating Value (BTU / Ideal cu.ft.)	1202.8	1181.9
Gross Heating Value (BTU / Real cu.ft.)	1207.2	1186.6
Relative Density (G), Ideal	0.7476	0.7455
Relative Density (G), Real	0.7500	0.7481
Compressibility (Z) Factor	0.9964	0.9960