

NATURAL GAS ANALYSIS REPORT

Sampled by:
Trilobite Testing, L. L. C.
Hays, Kansas
Scott City, Kansas
Phone: 800-728-5369
Fax: 913-625-5620

Analyzed by:
Caraway Analytical, Inc
P. O. Box 2137
Liberal, Kansas 67905
Phone: 316-624-5389
Fax: 316-626-7108

Lab Number:	982016	Analyzed:	06/04/98
Sample From:	Herd 34-13 DST 1	Pressure:	
Producer:	Samuel Gary Jr.	Temperature:	
Date:		Location:	34-32-19
Time:		County:	Comanche
Sampler:		State:	Kansas
Source:		Formation:	Swope

	Mole %	GPM
Helium	He: 0.169	0.000
Hydrogen	H2: 0.001	0.000
Oxygen	O2: 0.000	0.000
Nitrogen	N2: 7.263	0.000
Carbon Dioxide	CO2: 0.113	0.000
Methane	C1: 81.851	0.000
Ethane	C2: 4.714	1.261
Propane	C3: 3.237	0.892
Iso Butane	iC4: 0.417	0.136
Normal Butane	nC4: 1.060	0.334
Iso Pentane	iC5: 0.256	0.094
Normal Pentane	nC5: 0.299	0.108
Hexanes Plus	C6+: 0.620	0.270

TOTAL: 100.000 3.096
Z Fact: 0.9974
SP.GR.: 0.6893
BTU (SAT): 1080.0 @ 14.73 psia
BTU (DRY): 1099.1 @ 14.73 psia
OCTANE RATING: 116.3

COMMENTS:

0.000

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Lab Number:	982017	Analyzed:	06/04/98
Sample From:	Herd 34-13 DST 2	Pressure:	
Producer:	Samuel Gary Jr.	Temperature:	
Date:		Location:	34-32-19
Time:		County:	Comanche
Sampler:		State:	Kansas
Source:		Formation:	Ft. Scott

	Mole %	GPM
Helium	He: 0.095	0.000
Hydrogen	H2: 0.268	0.000
Oxygen	O2: 0.000	0.000
Nitrogen	N2: 2.173	0.000
Carbon Dioxide	CO2: 0.077	0.000
Methane	C1: 87.038	0.000
Ethane	C2: 4.235	1.133
Propane	C3: 2.936	0.809
Iso Butane	iC4: 0.401	0.131
Normal Butane	nC4: 1.183	0.373
Iso Pentane	iC5: 0.295	0.108
Normal Pentane	nC5: 0.370	0.134
Hexanes Plus	C6+: 0.929	0.405

TOTAL: 100.000 3.093
Z Fact: 0.9972
SP.GR.: 0.6737
BTU (SAT): 1140.4 @ 14.73 psia
BTU (DRY): 1160.6 @ 14.73 psia
OCTANE RATING: 122.4

COMMENTS:

0.000

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Lab Number:	982018	Analyzed:	06/04/98
Sample From:	Herd 34-13 DST 3	Pressure:	
Producer:	Samuel Gary Jr.	Temperature:	
Date:		Location:	34-32-19
Time:		County:	Comanche
Sampler:		State:	Kansas
Source:		Formation:	Miss

	Mole %	GPM
Helium	He: 0.082	0.000
Hydrogen	H2: 0.010	0.000
Oxygen	O2: 0.000	0.000
Nitrogen	N2: 1.019	0.000
Carbon Dioxide	CO2: 0.254	0.000
Methane	C1: 93.919	0.000
Ethane	C2: 2.906	0.777
Propane	C3: 0.789	0.217
Iso Butane	iC4: 0.191	0.062
Normal Butane	nC4: 0.342	0.108
Iso Pentane	iC5: 0.108	0.040
Normal Pentane	nC5: 0.112	0.041
Hexanes Plus	C6+: 0.268	0.117
TOTAL:	100.000	1.362
Z Fact:	0.9978	
SP.GR.:	0.6026	
BTU (SAT):	1046.1 @ 14.73 psia	
BTU (DRY):	1064.6 @ 14.73 psia	
OCTANE RATING:	126.5	

COMMENTS:

0.000