

NATURAL GAS ANALYSIS REPORT

Sampled by:
 Trilobite Testing, L. L. C.
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 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: 20013639	Analyzed: 08/15/01
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Sample From: 2-Bar 1-20 DST 1	Pressure:
Producer: Hummon Corp	Temperature:

Date: 20-33-15	Location: 20-33-15
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Time:	County:	Barber
Sampler:	State:	Kansas
Source:	Formation:	Drum

	Mole %	GPM
Helium	He: 0.257	0.000
Hydrogen	H2: 0.000	0.000
Oxygen	O2: 0.000	0.000
Nitrogen	N2: 5.050	0.000
Carbon Dioxide	CO2: 0.074	0.000
Methane	C1: 83.891	0.000
Ethane	C2: 6.164	1.649
Propane	C3: 2.650	0.730
Iso Butane	iC4: 0.291	0.095
Normal Butane	nC4: 0.750	0.236
Iso Pentane	iC5: 0.183	0.067
Normal Pentane	nC5: 0.214	0.078
Hexanes Plus	C6+: 0.476	0.208

TOTAL: 100.000 3.063

Z Fact: 0.9974

SP.GR.: 0.6674

BTU (SAT): 1083.5 @ 14.73 psia

BTU (DRY): 1102.7 @ 14.73 psia

OCTANE RATING: 119.3

COMMENTS:

0.000

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Analyzed by:
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Lab Number:	20013790	Analyzed:	08/21/01
Sample From:	Z-Bar 1-20 DST 4	Pressure:	
Producer:	Hummon Corp	Temperature:	
Date:	08/16/01	Location:	20-33-15
Time:		County:	Barber
Sampler:	Lanny	State:	Kansas
Source:		Formation:	Viola

	Mole %	GPM
Helium	He: 0.244	0.000
Hydrogen	H2: 0.021	0.000
Oxygen	O2: 0.000	0.000
Nitrogen	N2: 5.709	0.000
Carbon Dioxide	CO2: 0.073	0.000
Methane	C1: 78.820	0.000
Ethane	C2: 7.275	1.946
Propane	C3: 3.612	0.995
Iso Butane	iC4: 0.408	0.133
Normal Butane	nC4: 1.472	0.464
Iso Pentane	iC5: 0.357	0.131
Normal Pentane	nC5: 0.645	0.234
Hexanes Plus	C6+: 1.364	0.595

TOTAL: 100.000 4.498
 Z Fact: 0.9968
 SP.GR.: 0.7330
 BTU (SAT): 1172.9 @ 14.73 psia
 BTU (DRY): 1193.7 @ 14.73 psia
 OCTANE RATING: 116.1

COMMENTS:

0.000

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Lab Number:	20013791	Analyzed:	08/21/01
Sample From:	Z-Bar 1-20 DST 5	Pressure:	
Producer:	Hummon Corp	Temperature:	
Date:	08/18/01	Location:	20-33-15
Time:		County:	Barber
Sampler:	Lanny	State:	Kansas
Source:		Formation:	Simpson

	Mole %	GPM
Helium	He: 0.595	0.000
Hydrogen	H2: 0.020	0.000
Oxygen	O2: 0.000	0.000
Nitrogen	N2: 12.464	0.000
Carbon Dioxide	CO2: 0.024	0.000
Methane	C1: 67.735	0.000
Ethane	C2: 8.351	2.233
Propane	C3: 5.132	1.414
Iso Butane	iC4: 0.577	0.189
Normal Butane	nC4: 2.111	0.666
Iso Pentane	iC5: 0.439	0.161
Normal Pentane	nC5: 0.846	0.306
Hexanes Plus	C6+: 1.706	0.744
TOTAL:	100.000	5.713
Z Fact:	0.9965	
SP.GR.:	0.8057	
BTU (SAT):	1173.8 @ 14.73 psia	
BTU (DRY):	1194.6 @ 14.73 psia	
OCTANE RATING:	105.2	

 COMMENTS:

0.000