

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:	982324	Analyzed:	06/19/98
Sample From:	1-X Silverston DST 1	Pressure:	
Producer:	Western Operating	Temperature:	
Date:		Location:	23-20-42
Time:		County:	Greeley
Sampler:		State:	Kansas
Source:		Formation:	Morrow

	Mole %	GPM
Helium	He: 1.398	0.000
Hydrogen	H2: 0.000	0.000
Oxygen	O2: 0.000	0.000
Nitrogen	N2: 45.313	0.000
Carbon Dioxide	CO2: 0.408	0.000
Methane	C1: 42.733	0.000
Ethane	C2: 5.389	1.441
Propane	C3: 2.825	0.778
Iso Butane	iC4: 0.346	0.113
Normal Butane	nC4: 0.625	0.197
Iso Pentane	iC5: 0.186	0.068
Normal Pentane	nC5: 0.178	0.064
Hexanes Plus	C6+: 0.599	0.261

TOTAL: 100.000 2.924
Z Fact: 0.9985
SP.GR.: 0.8315
BTU (SAT): 665.8 @ 14.73 psia
BTU (DRY): 677.6 @ 14.73 psia
OCTANE RATING: 65.1

COMMENTS:

0.000

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Lab Number:	982943	Analyzed:	07/30/98
Sample From:	Silverson 1-X Tubing	Pressure:	
Producer:	Western Operating	Temperature:	
Date:		Location:	23-20-42
Time:		County:	Greeley
Sampler:		State:	Kansas
Source:		Formation:	

	Mole %	GPM
Helium	He: 1.411	0.000
Hydrogen	H2: 0.000	0.000
Oxygen	O2: 0.000	0.000
Nitrogen	N2: 45.515	0.000
Carbon Dioxide	CO2: 0.443	0.000
Methane	C1: 42.895	0.000
Ethane	C2: 5.374	1.437
Propane	C3: 2.785	0.767
Iso Butane	iC4: 0.335	0.110
Normal Butane	nC4: 0.600	0.189
Iso Pentane	iC5: 0.169	0.062
Normal Pentane	nC5: 0.157	0.057
Hexanes Plus	C6+: 0.316	0.138

TOTAL: 100.000 2.760
 Z Fact: 0.9985
 SP.GR.: 0.8233
 BTU (SAT): 649.1 @ 14.73 psia
 BTU (DRY): 660.6 @ 14.73 psia
 OCTANE RATING: 65.2

COMMENTS: 0.000

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Lab Number:	982942	Analyzed:	07/30/98
Sample From:	Silverson 1-X Annulus	Pressure:	
Producer:	Western Operating	Temperature:	
Date:		Location:	23-20-42
Time:		County:	Greeley
Sampler:		State:	Kansas
Source:		Formation:	

		Mole %	GPM
Helium	He:	1.415	0.000
Hydrogen	H2:	0.000	0.000
Oxygen	O2:	0.000	0.000
Nitrogen	N2:	45.940	0.000
Carbon Dioxide	CO2:	0.483	0.000
Methane	C1:	42.430	0.000
Ethane	C2:	5.420	1.450
Propane	C3:	2.794	0.770
Iso Butane	iC4:	0.337	0.110
Normal Butane	nC4:	0.599	0.189
Iso Pentane	iC5:	0.165	0.060
Normal Pentane	nC5:	0.153	0.055
Hexanes Plus	C6+:	0.264	0.115
TOTAL:		100.000	2.750
Z Fact:		0.9985	
SP.GR.:		0.8242	
BTU (SAT):		642.6 @ 14.73 psia	
BTU (DRY):		654.0 @ 14.73 psia	
OCTANE RATING:		64.6	

COMMENTS:

0.000