DRILL STEM TEST REPORT

Ritchie Exploration

8100 E 22nd St. #700
Wichita Ks, 67278

ATTN: Terry

19/27s/22w

S. Riegel

Job Ticket: 42322 **DST#: 1**

Test Start: 2011.12.27 @ 05:35:37

GENERAL INFORMATION:

Formation: **Cherokee**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:28:52
Time Test Ended: 12:36:52

Test Type: Conventional Bottom Hole (Initial)
Tester: Mike slemp
Unit No: 53

Interval: 4959.00 ft (KB) To 5000.00 ft (KB) (TVD)
Total Depth: 5000.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

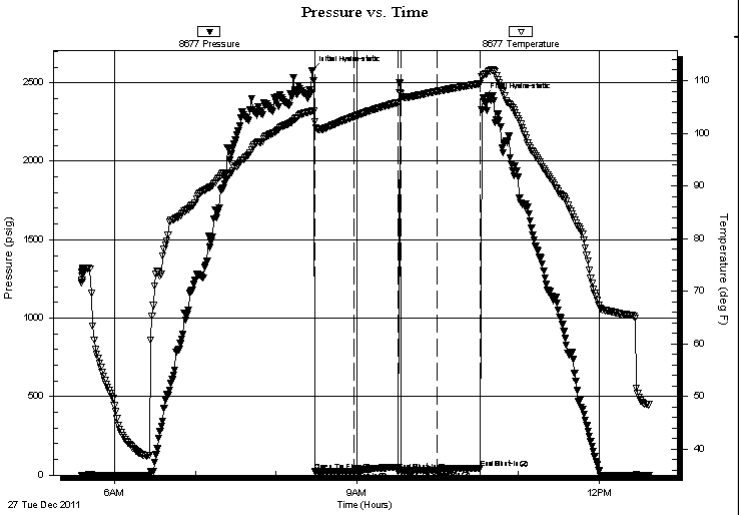
Reference Elevations: 2440.00 ft (KB)
2429.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8677 **Inside**

Press@RunDepth: 29.52 psig @ 4961.00 ft (KB)
Start Date: 2011.12.27 End Date: 2011.12.27
Start Time: 05:35:38 End Time: 12:36:52

Capacity: 8000.00 psig
Last Calib.: 2011.12.27
Time On Btm: 2011.12.27 @ 08:26:52
Time Off Btm: 2011.12.27 @ 10:33:52

TEST COMMENT: IF- Weak surface blow died at 25 min
ISI- No blow back
FF- No blow , Flushed tool- Weak surface blow died at 5 min
FSI- No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2579.29	104.28	Initial Hydro-static
2	22.34	102.22	Open To Flow (1)
31	24.02	103.17	Shut-In(1)
64	23.81	105.86	End Shut-In(1)
66	27.43	107.53	Open To Flow (2)
93	29.52	107.96	Shut-In(2)
125	42.38	109.43	End Shut-In(2)
127	2403.40	111.04	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	100%mud	0.05

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

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19/27s/22w

S. Riegel

Job Ticket: 42322 **DST#: 1**

Test Start: 2011.12.27 @ 05:35:37

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	84.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.20 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4200.00 ppm				
Filter Cake:	inches				

Recovery Information

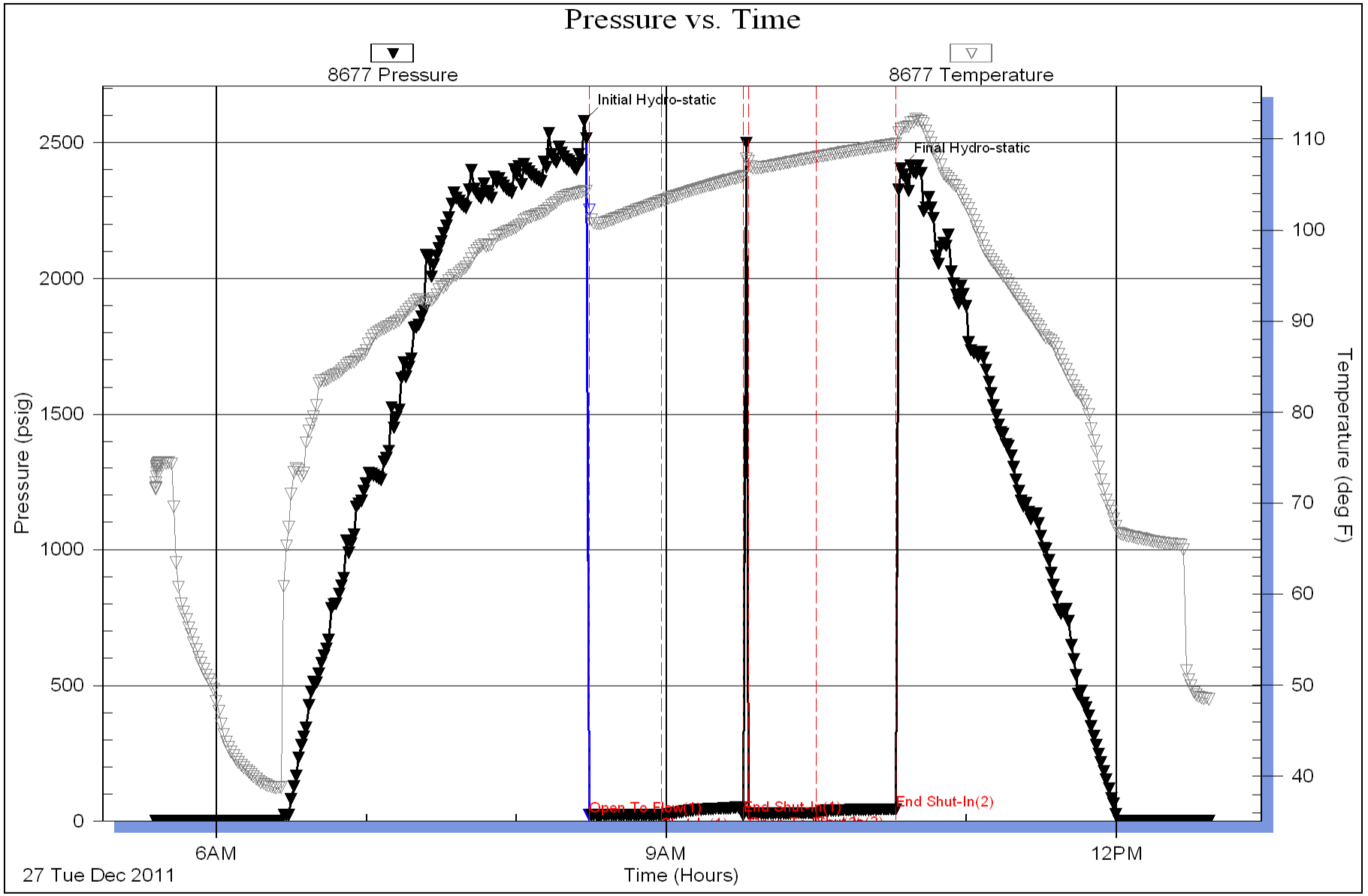
Recovery Table

Length ft	Description	Volume bbl
10.00	100%mud	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8677 **Inside** Ritchie Exploration S. Riegel DST Test Number: 1



Trilobite Testing, Inc Ref. No: 42322 Printed: 2011.12.28 @ 08:16:07

DRILL STEM TEST REPORT

Ritchie Exploration

8100 E 22nd St. #700
Wichita Ks, 67278

ATTN: Terry

19/27s/22w

S. Riegel

Job Ticket: 42323 **DST#: 2**

Test Start: 2011.12.27 @ 23:10:22

GENERAL INFORMATION:

Formation: **Morrow, Miss**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:06:22
Time Test Ended: 08:04:07

Test Type: Conventional Bottom Hole (Initial)
Tester: Mike Slemp
Unit No: 53

Interval: 4993.00 ft (KB) To 5060.00 ft (KB) (TVD)
Total Depth: 5060.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

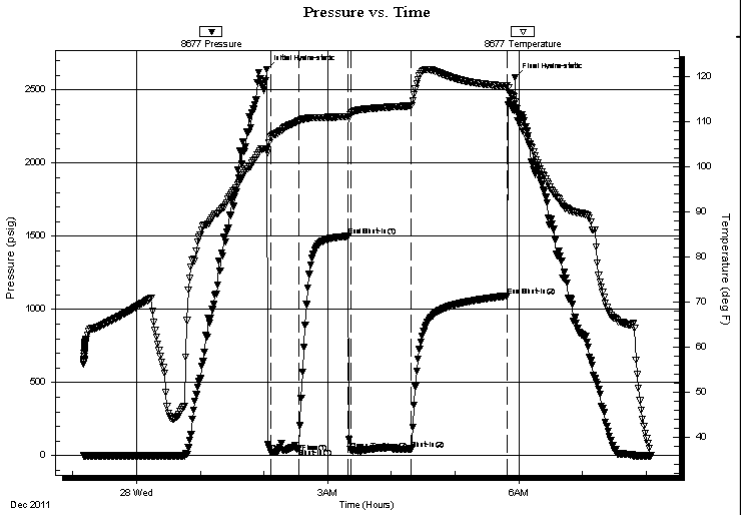
Reference Elevations: 2440.00 ft (KB)
2429.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8677 **Inside**

Press@RunDepth: 47.24 psig @ 4995.00 ft (KB)
Start Date: 2011.12.27 End Date: 2011.12.28
Start Time: 23:10:23 End Time: 08:04:07

Capacity: 8000.00 psig
Last Calib.: 2011.12.28
Time On Btm: 2011.12.28 @ 02:02:37
Time Off Btm: 2011.12.28 @ 05:56:22

TEST COMMENT: IF- BOB in 3 min
ISI- No blow back
FF- BOB ASAO GTS in 2 min
FSI- No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2640.47	103.80	Initial Hydro-static
4	25.92	106.48	Open To Flow (1)
30	51.16	110.02	Shut-In(1)
77	1500.30	111.07	End Shut-In(1)
79	40.18	111.47	Open To Flow (2)
137	47.24	113.45	Shut-In(2)
227	1093.31	117.85	End Shut-In(2)
234	2585.87	114.23	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	100%mud	0.30

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	5.00	7.26
Last Gas Rate	0.13	28.00	15.87
Max. Gas Rate	0.13	30.00	16.62

DRILL STEM TEST REPORT

FLUID SUMMARY

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ATTN: Terry

19/27s/22w

S. Riegel

Job Ticket: 42323 **DST#: 2**

Test Start: 2011.12.27 @ 23:10:22

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	49.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.20 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4500.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	100%mud	0.295

Total Length: 60.00 ft Total Volume: 0.295 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

DRILL STEM TEST REPORT

GAS RATES

Ritchie Exploration

8100 E 22nd St. #700
Wichita Ks, 67278

ATTN: Terry

19/27s/22w

S. Riegel

Job Ticket: 42323 **DST#: 2**

Test Start: 2011.12.27 @ 23:10:22

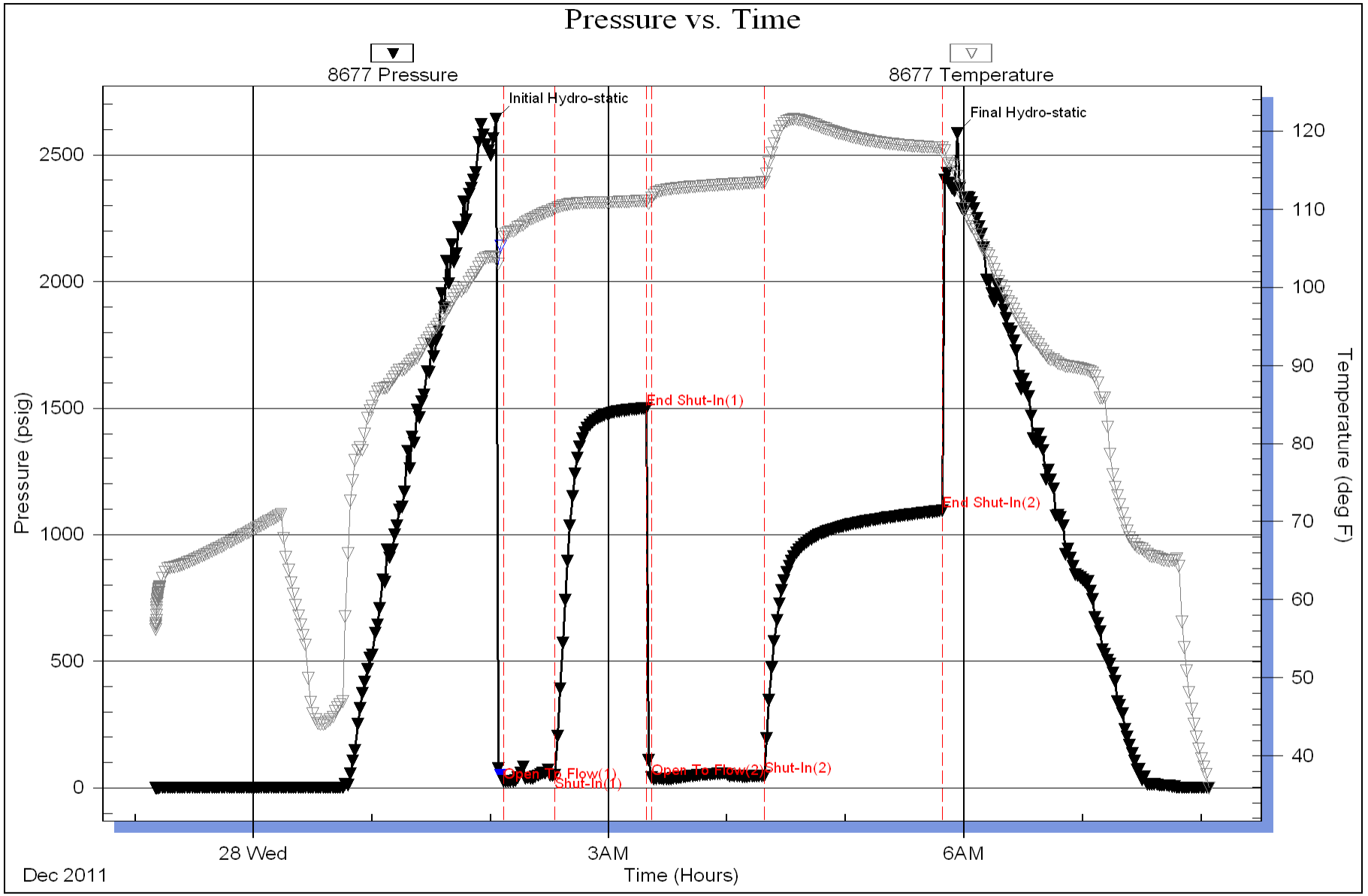
Gas Rates Information

Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	10	0.13	5.00	7.26
2	20	0.13	14.00	10.63
2	30	0.13	25.00	14.75
2	40	0.13	30.00	16.62
2	50	0.13	28.00	15.87
2	60	0.13	28.00	15.87

Serial #: 8677 **Inside** Ritchie Exploration S. Riegel DST Test Number: 2



Trilobite Testing, Inc Ref. No: 42323 Printed: 2011.12.28 @ 09:26:33

NATURAL GAS ANALYSIS REPORT
GPA 2145-09

Sampled by:
Trilobite Testing, Inc.
Hays, Kansas
Scott City, Kansas
Phone: 800-728-5369
Fax: 785-625-5620

Analyzed by:
Caraway Analytical, Inc
P. O. Box 2137
Liberal, Kansas 67905
Phone: 620-482-2371
Fax: 620-626-7108

Lab Number: 20120005
Analyzed: 01/03/12
Sample From: S RIEGEL 1
Pressure:
Producer: RITCHIE EXPLORATION
Temperature:
Date:
Location: 19-27-22
Time:
County: FORD
Sampler:
State: KANSAS
Source: DST 2 2ND FLOW
Formation: MORR/MISS

		Mole %	GPM
Helium	He:	0.647	0.000
Hydrogen	H2:	0.000	0.000
Oxygen	O2:	0.000	0.000
Nitrogen	N2:	12.293	0.000
Carbon Dioxide	CO2:	0.089	0.000
Methane	C1:	78.863	0.000
Ethane	C2:	4.049	1.518
Propane	C3:	2.008	0.753
Iso Butane	iC4:	0.419	0.128
Normal Butane	nC4:	0.727	0.231
Iso Pentane	iC5:	0.229	0.063
Normal Pentane	nC5:	0.261	0.072
Hexanes Plus	C6+:	0.415	0.095
	TOTAL:	100.000	2.861
	Z Fact:	0.9998	
	SP.GR.:	0.6795	
	BTU (SAT):	999.4 @ 14.73 psia	
	BTU (DRY):	1017.0 @ 14.73 psia	

OCTANE RATING: 110.1

COMMENTS:

0.000