

DRILL STEM TEST REPORT

Prepared For: **Sam Gary Associates**

1670 Broadway Ste 3300
Denver CO 80202

ATTN: John Rakowski

5 19S 10S Rice KS

Mooney et al 1-5

Start Date: 2006.08.14 @ 02:15:51

End Date: 2006.08.14 @ 07:32:51

Job Ticket #: 26858 DST #: 1

KCC
DEC 04 2006
CONFIDENTIAL

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Sam Gary Associates
 1670 Broadway Ste 3300
 Denver CO 80202
 ATTN: John Rakowski

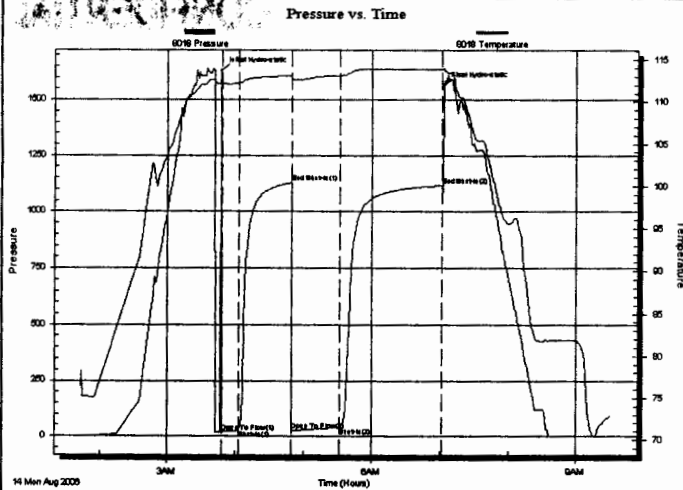
Mooney et al
5 19S 10S Rice KS
 Job Ticket: 26858 **DST#: 1**
 Test Start: 2006.08.14 @ 02:15:51

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:17:21
 Time Test Ended: 07:32:51
 Interval: **3337.00 ft (KB) To 3355.00 ft (KB) (TVD)**
 Total Depth: 3355.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole
 Tester: Tyson Flax
 Unit No: 31
 Reference Elevations: 1763.00 ft (KB)
 1757.00 ft (CF)
 KB to GR/CF: 6.00 ft

Serial #: 8018 Inside
 Press@RunDepth: 39.68 psig @ 3338.00 ft (KB) Capacity: 7000.00 psig
 Start Date: 2006.08.14 End Date: 2006.08.14 Last Calib.: 2006.08.14
 Start Time: 01:42:56 End Time: 09:30:50 Time On Btrm: 2006.08.14 @ 03:47:51
 Time Off Btrm: 2006.08.14 @ 07:02:51

TEST COMMENT: FFP No blow
 ISI No blow back
 FFP Weak surface blow died in 3 min
 FSI No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1628.65	112.85	Initial Hydro-static
1	19.08	112.37	Open To Flow (1)
15	25.00	112.24	Shut-In(1)
62	1128.52	113.13	End Shut-In(1)
62	26.57	112.75	Open To Flow (2)
104	39.68	113.14	Shut-In(2)
194	1116.89	113.92	End Shut-In(2)
195	1562.82	114.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
16.00	CO	0.08
45.00	SOCM 10%O 90%M	0.22

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Sam Gary Associates

Mooney et al

1670 Broadway Ste 3300
Denver CO 80202

5 19S 10S Rice KS

Job Ticket: 26858

DST#: 1

ATTN: John Rakowski

Test Start: 2006.08.14 @ 02:15:51

Tool Information

Drill Pipe:	Length: 3094.00 ft	Diameter: 3.00 inches	Volume: 27.05 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 60.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose: 48000.00 lb
			<u>Total Volume: 28.24 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3337.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	18.00 ft			
Tool Length:	47.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3309.00	
Shut In Tool	5.00			3314.00	
Hydraulic tool	5.00			3319.00	
Jars	5.00			3324.00	
Safety Joint	3.00			3327.00	
Packer	5.00			3332.00	29.00 Bottom Of Top Packer
Packer	5.00			3337.00	
Stubb	1.00			3338.00	
Recorder	0.00	8018	Inside	3338.00	
Perforations	14.00			3352.00	
Recorder	0.00	11084	Outside	3352.00	
Bullnose	3.00			3355.00	18.00 Bottom Packers & Anchor
Total Tool Length:	47.00				



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Mooney et al
5 19S 10S Rice KS
Job Ticket: 26858 **DST#: 1**
Test Start: 2006.08.14 @ 02:15:51

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: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.37 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
16.00	CO	0.079
45.00	SOCM 10%O 90%M	0.221

Total Length: 61.00 ft Total Volume: 0.300 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Serial #: 8018

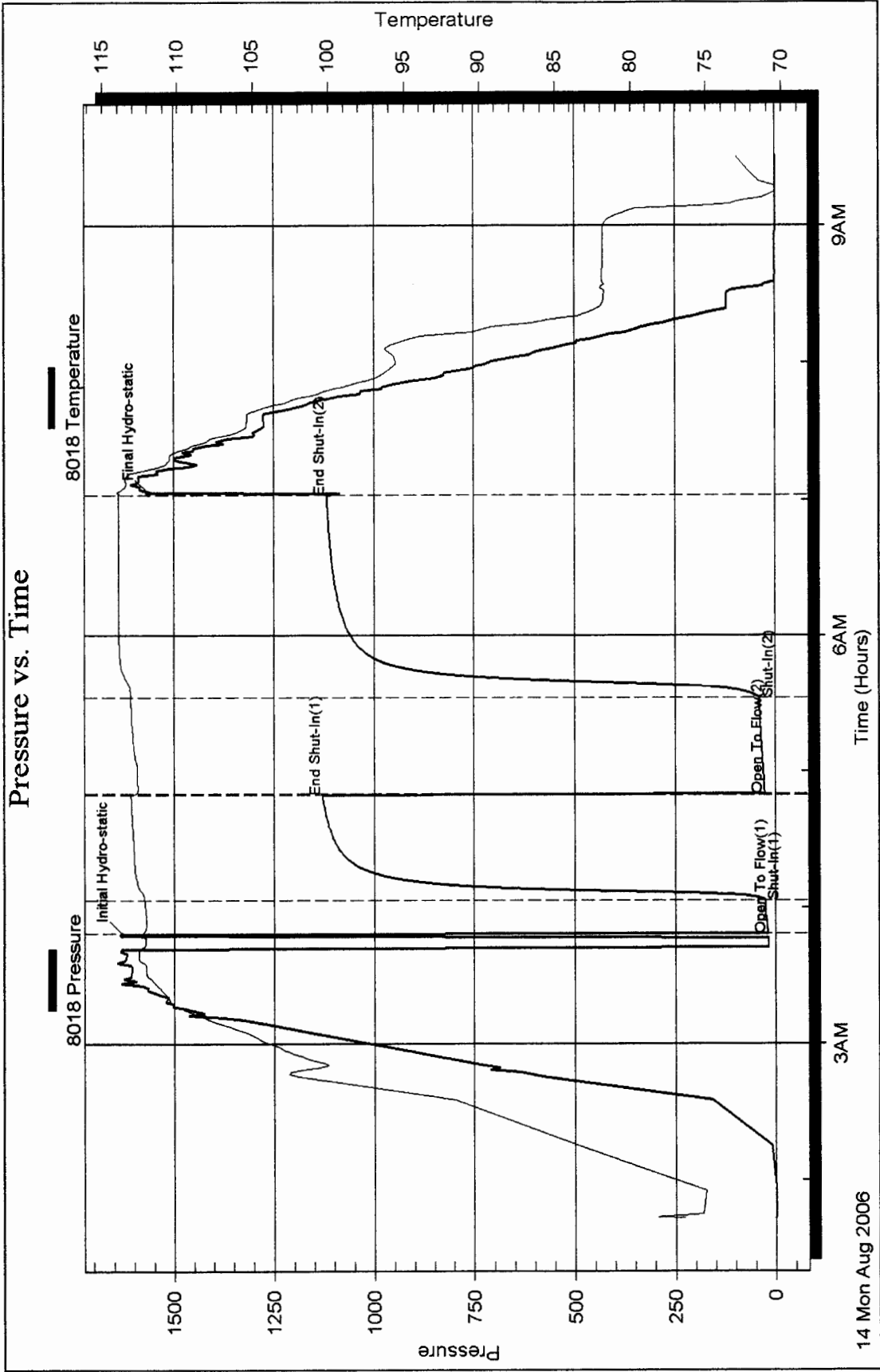
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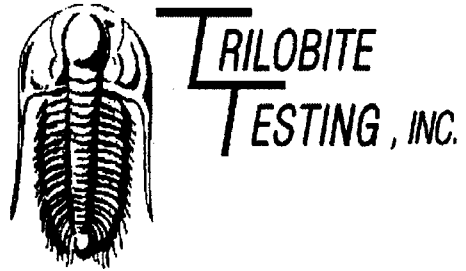
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DST Test Number: 1

Pressure vs. Time





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ATTN: John Rakowski

5 19S 10S Rice KS

Mooney et al

Start Date: 2006.08.15 @ 07:56:49

End Date: 2006.08.15 @ 19:15:19

Job Ticket #: 24926 DST #: 2

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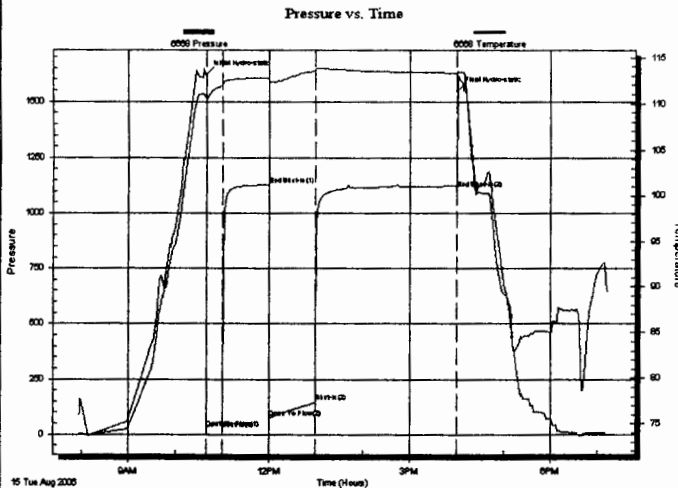
Mooney et al
5 19S 10S Rice KS
 Job Ticket: 24926 **DST#: 2**
 Test Start: 2006.08.15 @ 07:56:49

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Straddle
 Time Tool Opened: 10:39:19
 Tester: Les Adams
 Time Test Ended: 19:15:19
 Unit No: 30
 Interval: **3338.00 ft (KB) To 3365.00 ft (KB) (TVD)**
 Reference Elevations: 1763.00 ft (KB)
 Total Depth: 3450.00 ft (KB) (TVD) 1757.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 6.00 ft

Serial #: 6668 **Inside**
 Press@RunDepth: 147.24 psig @ 3339.00 ft (KB) Capacity: 7000.00 psig
 Start Date: 2006.08.15 End Date: 2006.08.15 Last Calib.: 2006.08.15
 Start Time: 07:56:50 End Time: 19:15:19 Time On Btm: 2006.08.15 @ 10:39:04
 Time Off Btm: 2006.08.15 @ 16:00:49

TEST COMMENT: IF Fair blow Building slowly to 9" in bucket
 ISI Weak surface blow back Dead in 4 min
 FF Strong blow BOB in 47 min
 FSI No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1621.02	110.67	Initial Hydro-static
1	30.96	110.39	Open To Flow (1)
21	61.83	111.98	Shut-in(1)
80	1127.29	112.80	End Shut-in(1)
81	74.67	112.47	Open To Flow (2)
140	147.24	113.52	Shut-in(2)
322	1111.51	113.31	End Shut-in(2)
322	1548.74	113.39	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GCOM 10%G 40%O 50%M	0.36
180.00	GCOM 10%G 40%O 50%M	1.10
90.00	Free Oil 100%	0.66
0.00		0.00

Gas Rates

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



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TOOL DIAGRAM

Sam Gary Associates

Mooney et al

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Denver CO 80202

5 19S 10S Rice KS

Job Ticket: 24926

DST#: 2

ATTN: John Rakowski

Test Start: 2006.08.15 @ 07:56:49

Tool Information

Drill Pipe:	Length: 3147.00 ft	Diameter: 2.75 inches	Volume: 23.12 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 122.00 ft	Diameter: 2.50 inches	Volume: 0.74 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 60.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose: 48000.00 lb
			<u>Total Volume: 24.16 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3338.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	3365.00 ft			
Interval between Packers:	27.00 ft			
Tool Length:	141.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3310.00	
Shut In Tool	5.00			3315.00	
Hydraulic tool	5.00			3320.00	
Jars	5.00			3325.00	
Safety Joint	3.00			3328.00	
Packer	5.00			3333.00	29.00 Bottom Of Top Packer
Packer	5.00			3338.00	
Stubb	1.00			3339.00	
Recorder	0.00	6668	Inside	3339.00	
Anchor	21.00			3360.00	
Recorder	0.00	10330	Outside	3360.00	
Blank Off Sub	5.00			3365.00	27.00 Tool Interval
Packer	0.00			3365.00	
Stubb	1.00			3366.00	
Perforations	8.00			3374.00	
Change Over Sub	1.00			3375.00	
Blank Spacing	61.00			3436.00	
Change Over Sub	1.00			3437.00	
Perforations	10.00			3447.00	
Recorder	0.00	13266	Outside	3447.00	
Bullnose	3.00			3450.00	85.00 Bottom Packers & Anchor

Total Tool Length: 141.00



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DST#: 2

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Test Start: 2006.08.15 @ 07:56:49

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: 9.98 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 8500.00 ppm			
Filter Cake: 0.20 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GCOM 10%G 40%O 50%M	0.364
180.00	GCOM 10%G 40%O 50%M	1.098
90.00	Free Oil 100%	0.661
0.00		0.000

Total Length: 330.00 ft Total Volume: 2.123 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:

Serial #: 6668

Inside

Sam Gary Associates

5 19S 10S Rice KS

DST Test Number: 2

