

DRILL STEM TEST REPORT

Prepared For: **RJ Patrick Operating CO**

PO Box 1157
Liberal KS 67905

ATTN: Marvin T. Harvey

1 33S19W Comanche KS

Jacob Colter #3-1

Start Date: 2006.07.28 @ 02:09:52

End Date: 2006.07.28 @ 13:21:22

Job Ticket #: 24146 DST #: 1

15-033-21461-00-00

Trilobite Testing, Inc
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**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

RJ Patrick Operating CO

PO Box 1157
Liberal KS 67905

ATTN: Marvin T. Harvey

Jacob Colter #3-1

1 33S19W Comanche KS

Job Ticket: 24146

DST#: 1

Test Start: 2006.07.28 @ 02:09:52

GENERAL INFORMATION:

Formation: **Viola**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 05:33:22

Time Test Ended: 13:21:22

Test Type: **Conventional Bottom Hole**

Tester: **Gerald Adams**

Unit No: **36**

Interval: **5918.00 ft (KB) To 6003.00 ft (KB) (TVD)**

Total Depth: **6003.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **2063.00 ft (KB)**

2050.00 ft (CF)

KB to GR/CF: **13.00 ft**

Serial #: 6799 **Inside**

Press@RunDepth: **266.28 psig @ 5920.00 ft (KB)**

Start Date: **2006.07.28**

End Date: **2006.07.28**

Start Time: **02:09:57**

End Time: **13:21:22**

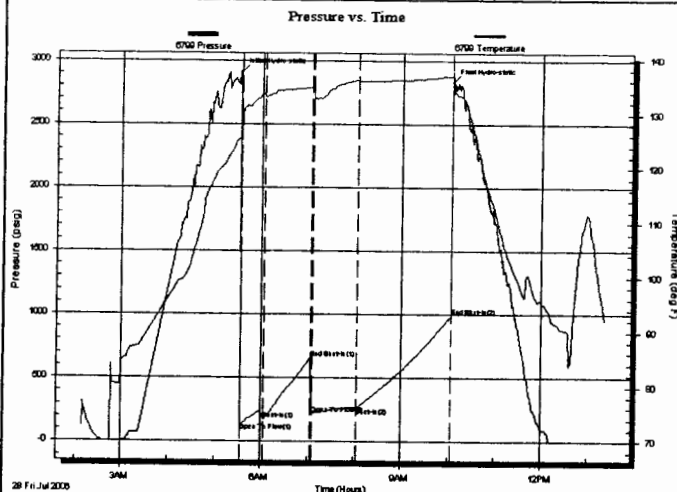
Capacity: **7000.00 psig**

Last Calib.: **2006.07.28**

Time On Btm: **2006.07.28 @ 05:32:37**

Time Off Btm: **2006.07.28 @ 10:04:06**

TEST COMMENT: IF Strong blow BOB in 10 min
ISI Strong blow BOB in 3 min after 10 min bleed off
FF Strong blow . BOB in 1 min GTS in 24 min TSTM (caught gas sample)
FSI Strong blow BOB in 4 min



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2908.36	125.71	Initial Hydro-static
1	80.15	126.07	Open To Flow (1)
31	172.44	133.47	Shut-In(1)
91	656.28	134.86	End Shut-In(1)
93	214.46	133.45	Open To Flow(2)
151	266.28	136.22	Shut-In(2)
272	986.41	137.04	End Shut-In(2)
272	2826.74	137.86	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
240.00	SGCWM 4%G 56%W 40%M	1.75
300.00	SGCM 4%G 96%M	4.21
0.00	5359' GIP	0.00
0.00	RW= .043 @ 102 deg. 126000 ppm	0.00
0.00		0.00

Gas Rates

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

RJ Patrick Operating CO

Jacob Colter #3-1

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1 33S19W Comanche KS

Job Ticket: 24146

DST#: 1

ATTN: Marvin T. Harvey

Test Start: 2006.07.28 @ 02:09:52

Tool Information

Drill Pipe:	Length: 5722.00 ft	Diameter: 3.80 inches	Volume: 80.26 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 177.00 ft	Diameter: 2.25 inches	Volume: 0.87 bbl	Weight to Pull Loose: 90000.00 lb
		Total Volume:	81.13 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 78000.00 lb
Depth to Top Packer:	5918.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	85.00 ft			
Tool Length:	113.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			5895.00	
Hydraulic tool	5.00			5900.00	
Jars	5.00			5905.00	
Safety Joint	3.00			5908.00	
Packer	5.00			5913.00	28.00 Bottom Of Top Packer
Packer	5.00			5918.00	
Stubb	1.00			5919.00	
Change Over Sub	1.00			5920.00	
Recorder	0.00	6799	Inside	5920.00	
Blank Spacing	58.00			5978.00	
Change Over Sub	1.00			5979.00	
Perforations	21.00			6000.00	
Recorder	0.00	13400	Outside	6000.00	
Bullnose	3.00			6003.00	85.00 Bottom Packers & Anchor

Total Tool Length: 113.00



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FLUID SUMMARY

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DST#: 1

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Test Start: 2006.07.28 @ 02:09:52

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: 8.76 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
240.00	SGCWM 4%G 56%W 40%M	1.754
300.00	SGCM 4%G 96%M	4.208
0.00	5359' GIP	0.000
0.00	RW= .043 @ 102 deg. 126000 ppm	0.000
0.00		0.000

Total Length: 540.00 ft

Total Volume: 5.962 bbl

Num Fluid Samples: 0

Num Gas Bombs: 1

Serial #: GA-1

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments:

Pressure vs. Time

