

**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Phillips Exploration**

1601 Sagebrush
Wichita, KS 67230

ATTN: Jim Phillips

34-9s-24w Graham KS

Herman Tr 4-34

Start Date: 2010.06.26 @ 22:16:07

End Date: 2010.06.27 @ 04:11:01

Job Ticket #: 38957 DST #: 1

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
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Phillips Exploration

Herman Tr 4-34

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DST # 1

36-70

2010.06.26



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Job Ticket: 38957 DST#: 1

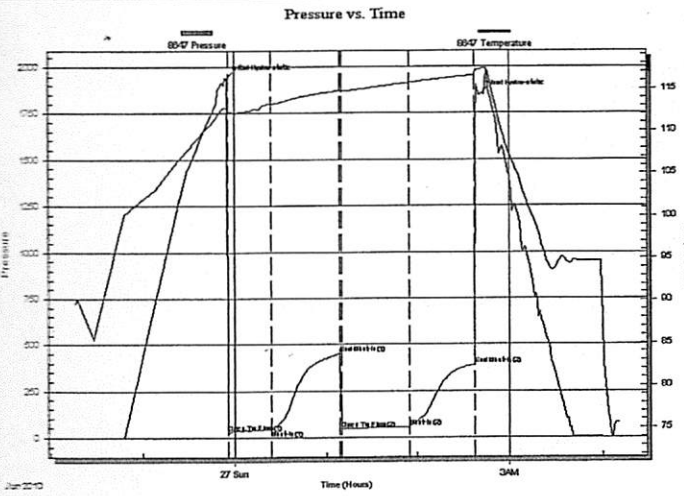
Test Start: 2010.06.26 @ 22:16:07

GENERAL INFORMATION:

Formation: 35-70
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 23:55:32
 Time Test Ended: 04:11:01
 Interval: 3840.00 ft (KB) To 3890.00 ft (KB) (TVD)
 Total Depth: 3890.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition:
 Test Type: Conventional Bottom Hole
 Tester: Brian Fairbank
 Unit No: 41
 Reference Elevations: 2505.00 ft (KB)
 2500.00 ft (CF)
 KB to GRVCF: 5.00 ft

Serial #: 8647 Inside
 Press@RunDepth: 54.97 psig @ 3849.00 ft (KB)
 Start Date: 2010.06.26 End Date: 2010.06.27
 Start Time: 22:16:07 End Time: 04:11:01
 Capacity: 8000.00 psig
 Last Calib.: 2010.06.27
 Time On Btm: 2010.06.26 @ 23:54:32
 Time Off Btm: 2010.06.27 @ 02:41:01

TEST COMMENT: IFP - weak to fair blow 1/2" - 5 1/2"
 ISI - no blow back
 FFP - no blow 4 min. - 4"
 FSI - no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1935.82	112.76	Initial Hydro-static
1	29.01	112.33	Open To Flow (1)
30	42.53	113.13	Shut-In(1)
75	452.72	114.78	End Shut-In(1)
76	44.18	114.70	Open To Flow (2)
120	54.97	115.72	Shut-In(2)
163	390.61	116.58	End Shut-In(2)
167	1847.82	117.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	SOCWM 5%O, 25%W, 70%M	0.07
64.00	HOCM 30%O, 70%M	0.76
1.00	MCO 65%O, 35%M	0.01

Gas Rates

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



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TOOL DIAGRAM

Phillips Exploration

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Job Ticket: 38957

DST#: 1

ATTN: Jim Phillips

Test Start: 2010.06.26 @ 22:16:07

Tool Information

Drill Pipe:	Length: 3805.00 ft	Diameter: 3.80 inches	Volume: 53.37 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 55000.00 lb
			Total Volume: 53.52 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3840.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	50.00 ft			
Tool Length:	72.00 ft			
Number of Packers:	2	Diameter:	6.75 inches	

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3823.00	
Hydraulic tool	5.00			3828.00	
Safety Joint	2.00			3830.00	
Packer	5.00			3835.00	22.00 Bottom Of Top Packer
Packer	5.00			3840.00	
Stubb	1.00			3841.00	
Perforations	7.00			3848.00	
Change Over Sub	1.00			3849.00	
Recorder	0.00	8647	inside	3849.00	
Recorder	0.00	8371	Outside	3849.00	
Blank Spacing	32.00			3881.00	
Change Over Sub	1.00			3882.00	
Perforations	5.00			3887.00	
Bullnose	3.00			3890.00	50.00 Bottom Packers & Anchor

Total Tool Length: 72.00



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FLUID SUMMARY

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DST#: 1

ATTN: Jim Phillips

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Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 51.00 sec/qt
Water Loss: 8.75 in³
Resistivity: ohm.m
Salinity: 1800.00 ppm
Filter Cake: inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: 31000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	SOCVM 5%O, 25%W, 70%M	0.074
64.00	HOCM 30%O, 70%M	0.761
1.00	MCO 65%O, 35%M	0.014

Total Length: 80.00 ft Total Volume: 0.849 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .246 @ 74F = 31000 chlorides

