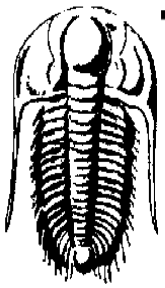


TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Baird Oil**

PO Box 428
Logan KS 67646

ATTN: Richard Bell

Velma Lowery #2-34

34 3s 22w Norton KS

Start Date: 2013.10.04 @ 21:20:00
End Date: 2013.10.05 @ 04:20:00
Job Ticket #: 53577 DST #: 1

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

Printed: 2013.10.08 @ 16:15:57

DRILL STEM TEST REPORT

Baird Oil

PO Box 428
Logan KS 67646

ATTN: Richard Bell

34 3s 22w Norton KS

Velma Lowery #2-34

Job Ticket: 53577 **DST#: 1**

Test Start: 2013.10.04 @ 21:20:00

GENERAL INFORMATION:

Formation: **LKC-A**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 22:59:30
Time Test Ended: 04:20:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Chuck Kreutzer jr
Unit No: 61

Interval: 3557.00 ft (KB) To 3580.00 ft (KB) (TVD)
Total Depth: 3580.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

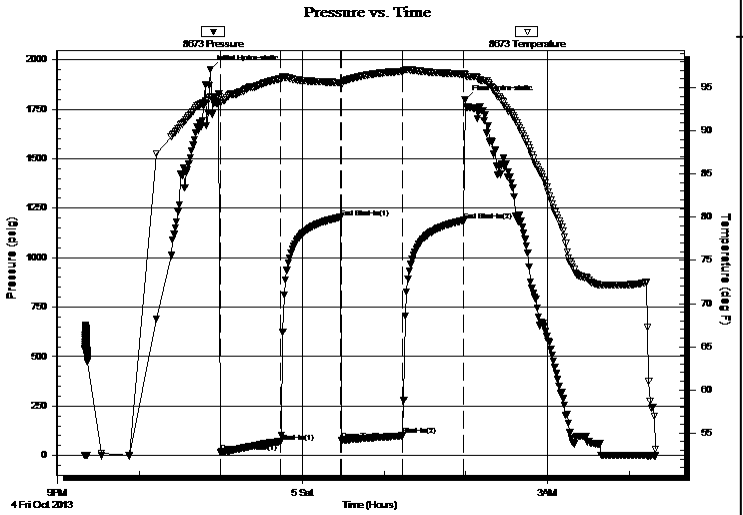
Reference Elevations: 2325.00 ft (KB)
2315.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8673 **Inside**

Press@RunDepth: 100.11 psig @ 3559.00 ft (KB)
Start Date: 2013.10.04 End Date: 2013.10.05
Start Time: 21:20:01 End Time: 04:20:00

Capacity: 8000.00 psig
Last Calib.: 2013.10.05
Time On Btm: 2013.10.04 @ 22:52:30
Time Off Btm: 2013.10.05 @ 01:59:30

TEST COMMENT: IF: Weak Surface blow , Built to 5 in. over 45 mins
ISI: No blow back
FF: No blow
FSI: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1951.13	93.94	Initial Hydro-static
7	16.09	93.19	Open To Flow (1)
51	69.95	96.00	Shut-In(1)
95	1203.71	95.61	End Shut-In(1)
96	76.63	95.21	Open To Flow (2)
141	100.11	96.88	Shut-In(2)
186	1188.06	96.58	End Shut-In(2)
187	1797.73	96.49	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	mcw -40 %m60%w	0.59
2.00	oil	0.03

Gas Rates

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

DRILL STEM TEST REPORT

Baird Oil

PO Box 428
Logan KS 67646

ATTN: Richard Bell

34 3s 22w Norton KS

Velma Lowery #2-34

Job Ticket: 53577 **DST#: 1**

Test Start: 2013.10.04 @ 21:20:00

GENERAL INFORMATION:

Formation: **LKC-A**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 22:59:30
Time Test Ended: 04:20:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Chuck Kreutzer jr
Unit No: 61

Interval: 3557.00 ft (KB) To 3580.00 ft (KB) (TVD)
Total Depth: 3580.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

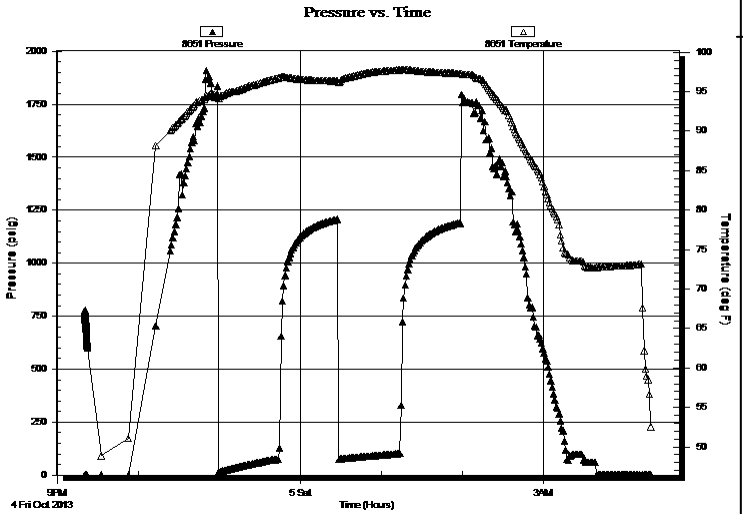
Reference Elevations: 2325.00 ft (KB)
2315.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8651 **Outside**

Press@RunDepth: psig @ 3559.00 ft (KB)
Start Date: 2013.10.04 End Date: 2013.10.05
Start Time: 21:20:01 End Time: 04:20:00

Capacity: 8000.00 psig
Last Calib.: 2013.10.05
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Weak Surface blow , Built to 5 in. over 45 mins
ISI: No blow back
FF: No blow
FSI: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
120.00	mcw -40 %m60%w	0.59
2.00	oil	0.03

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Baird Oil

PO Box 428
Logan KS 67646

ATTN: Richard Bell

34 3s 22w Norton KS

Velma Lowery #2-34

Job Ticket: 53577 **DST#: 1**

Test Start: 2013.10.04 @ 21:20:00

Tool Information

Drill Pipe:	Length:	3449.00 ft	Diameter:	3.80	inches	Volume:	48.38	bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00	inches	Volume:	0.00	bbl	
Drill Collar:	Length:	120.00 ft	Diameter:	2.25	inches	Volume:	0.59	bbl	
						Total Volume:	48.97	bbl	

Drill Pipe Above KB:	32.00 ft
Depth to Top Packer:	3557.00 ft
Depth to Bottom Packer:	ft
Interval between Packers:	23.00 ft
Tool Length:	43.00 ft
Number of Packers:	2
Diameter:	6.75 inches

Tool Weight:		2000.00 lb
Weight set on Packer:		25000.00 lb
Weight to Pull Loose:		70000.00 lb
Tool Chased		2.00 ft
String Weight:	Initial	64000.00 lb
	Final	66000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3542.00		
Hydraulic tool	5.00			3547.00		
Packer	5.00			3552.00	20.00	Bottom Of Top Packer
Packer	5.00			3557.00		
Stubb	1.00			3558.00		
Perforations	1.00			3559.00		
Recorder	0.00	8673	Inside	3559.00		
Recorder	0.00	8651	Outside	3559.00		
Perforations	18.00			3577.00		
Bullnose	3.00			3580.00	23.00	Bottom Packers & Anchor
Total Tool Length:	**43.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Baird Oil

PO Box 428
Logan KS 67646

ATTN: Richard Bell

34 3s 22w Norton KS

Velma Lowery #2-34

Job Ticket: 53577 **DST#: 1**

Test Start: 2013.10.04 @ 21:20:00

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:	20000 ppm
Viscosity:	53.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.99 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1500.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	mcw -40 %m60%w	0.590
2.00	oil	0.028

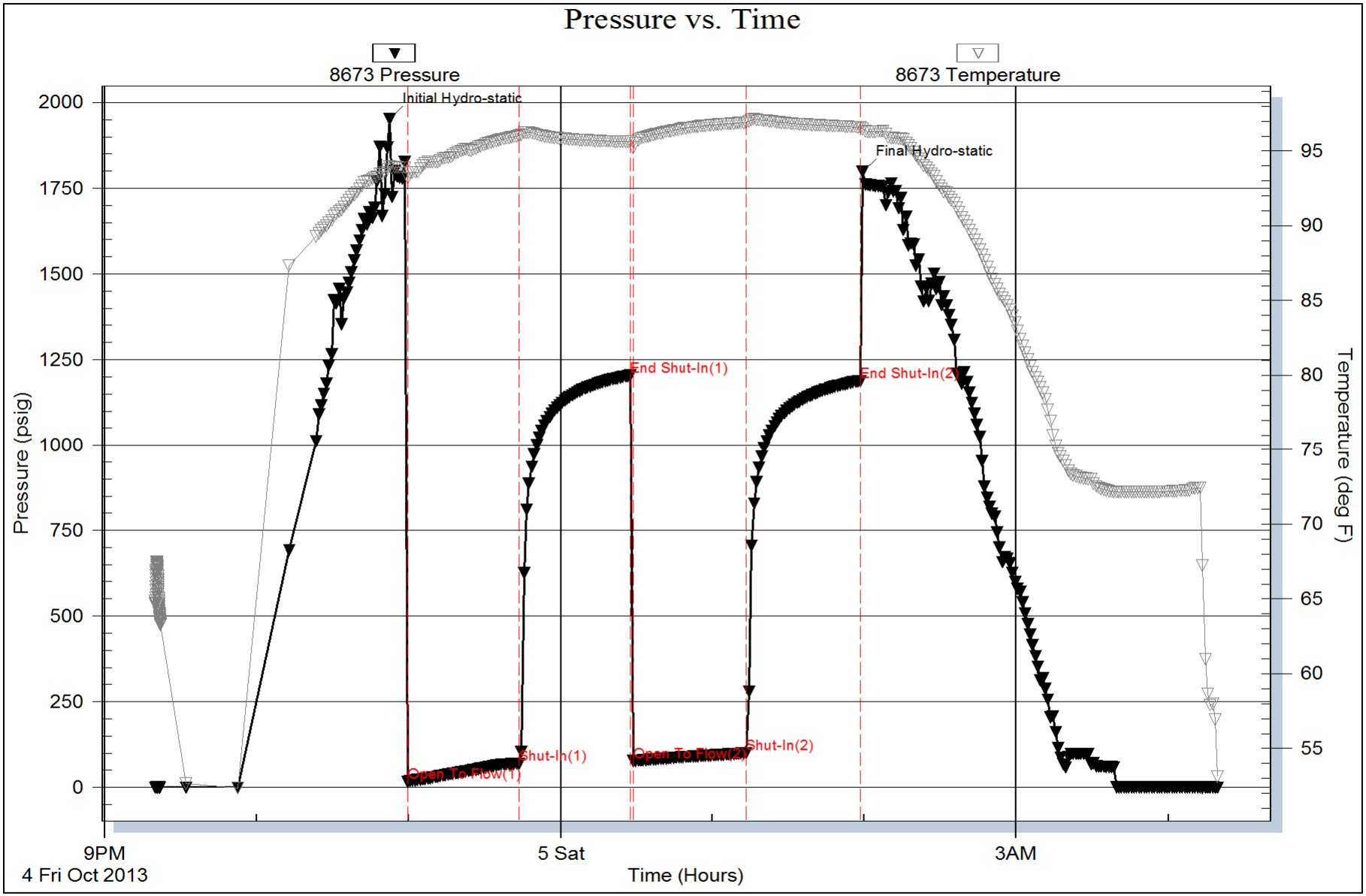
Total Length: 122.00 ft Total Volume: 0.618 bbl

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

Laboratory Name: Laboratory Location:

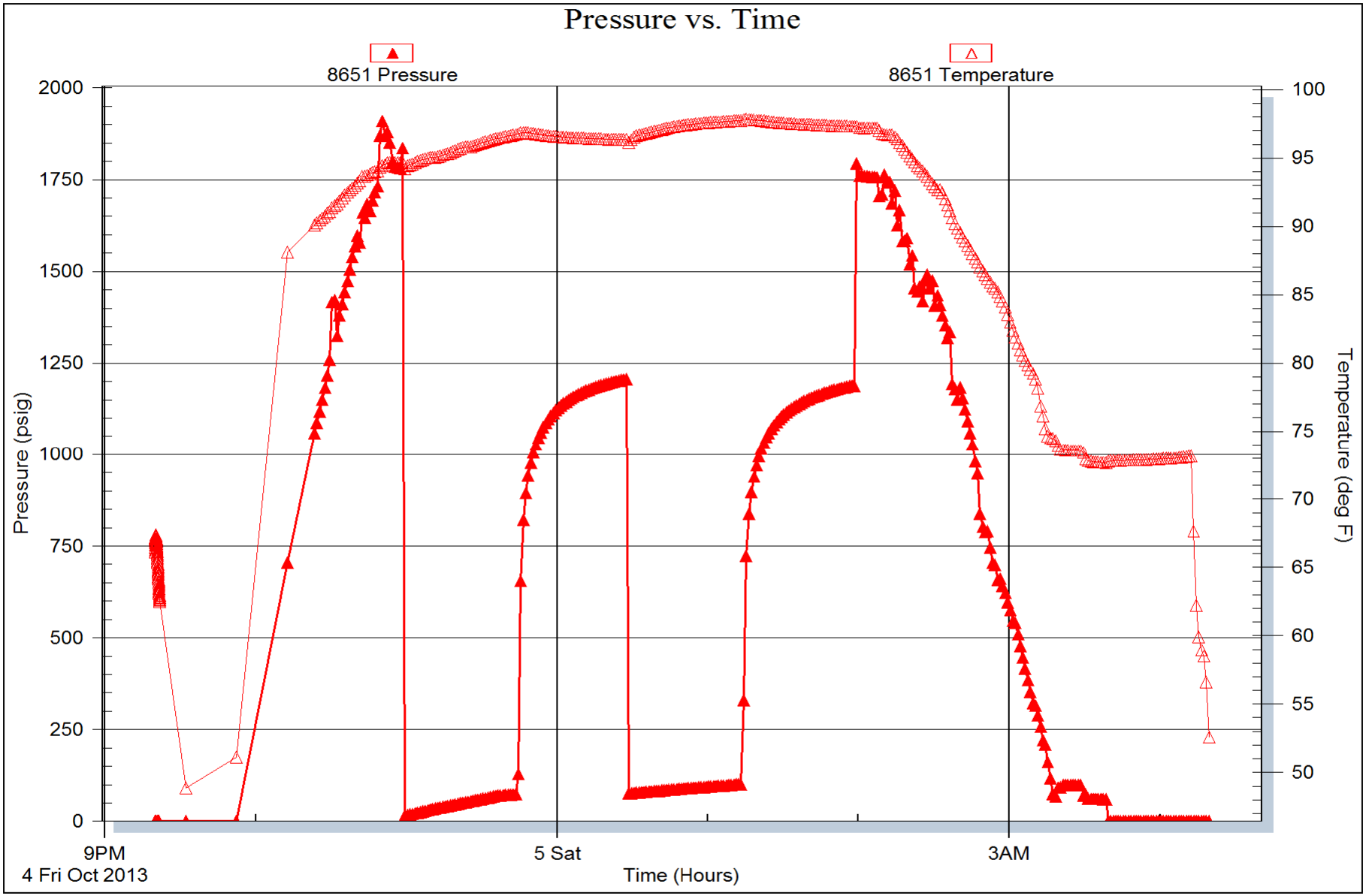
Recovery Comments:

Serial #: 8673 **Inside** Baird Oil Velma Low ery #2-34 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 53577 Printed: 2013.10.08 @ 16:15:59

Serial #: 8651 **Outside** Baird Oil Velma Low ery #2-34 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 53577 Printed: 2013.10.08 @ 16:15:59

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 53577

Well Name & No. Velma Lowry # 2-34 Test No. 1 Date 10-4-2013

Company Baird Oil Comp. Elevation 2325 KB 2315 GL

Address 113 W Main P.O Box 428 Logan Ks 67646

Co. Rep / Geo. Richard Bell Rig WW #12

Location: Sec. 34 Twp. 3S Rge. 22W Co. Norton State Ks

Interval Tested 3557 3580 Zone Tested LKC-A

Anchor Length 23 Drill Pipe Run 3449 Mud Wt. 9.3

Top Packer Depth 3548 Drill Collars Run 120 Vis 53

Bottom Packer Depth 3557 Wt. Pipe Run -0- WL 9.0

Total Depth 3580 Chlorides 1600 ppm System LCM .5#

Blow Description IF: Weak blow Built to 5 in. over 45 mins.

ISI: No blow back

FF: No blow

FSI: No blow back

Rec 2	Feet of oil	%gas	100 %oil	%water	%mud
Rec 120	Feet of mcw	%gas	%oil	60 %water	40 %mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 122 BHT 97 Gravity ____ API RW ____ @ ____ °F Chlorides ____ ppm

(A) Initial Hydrostatic	1951	☑ Test 1150	T-On Location 10-4 19:00
(B) First Initial Flow	16	☐ Jars	T-Started 21:20
(C) First Final Flow	70	☐ Safety Joint	T-Open 22:54
(D) Initial Shut-In	1204	☐ Circ Sub	T-Pulled 2:00
(E) Second Initial Flow	77	☐ Hourly Standby	T-Out 10-5 4:20
(F) Second Final Flow	100	☑ Mileage 40X2=80X1.55X124X2=248	Comments Loaded tools on 10-6-2
(G) Final Shut-In	1188	248	10:30 AM
(H) Final Hydrostatic	1798	☐ Sampler	Motel in Norton
		☐ Straddle	☐ Ruined Shale Packer
Initial Open	45	☐ Shale Packer	☐ Ruined Packer
Initial Shut-In	45	☐ Extra Packer	☐ Extra Copies
Final Flow	45	☐ Extra Recorder	Sub Total 800
Final Shut-In	45	☑ Day Standby 1d 6.25h	Total 2198
		☐ Accessibility	MP/DST Disc't
		Sub Total 1398	

Approved By ____ Our Representative [signature]