



DRILL STEM TEST REPORT

Prepared For: **Castelli Exploration Inc**

6908 NW 112th
Oklahoma City OK 73162

ATTN: Rick Popp

Whiteside Hales #2-6

6-24s-22w Hodgeman,KS

Start Date: 2014.01.04 @ 20:30:00

End Date: 2014.01.05 @ 07:28:15

Job Ticket #: 55374 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.01.08 @ 13:51:42



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Castelli Exploration Inc
6908 NW 112th
Oklahoma City OK 73162
ATTN: Rick Popp

6-24s-22w Hodgeman,KS
Whiteside Hales #2-6
Job Ticket: 55374 **DST#: 1**
Test Start: 2014.01.04 @ 20:30:00

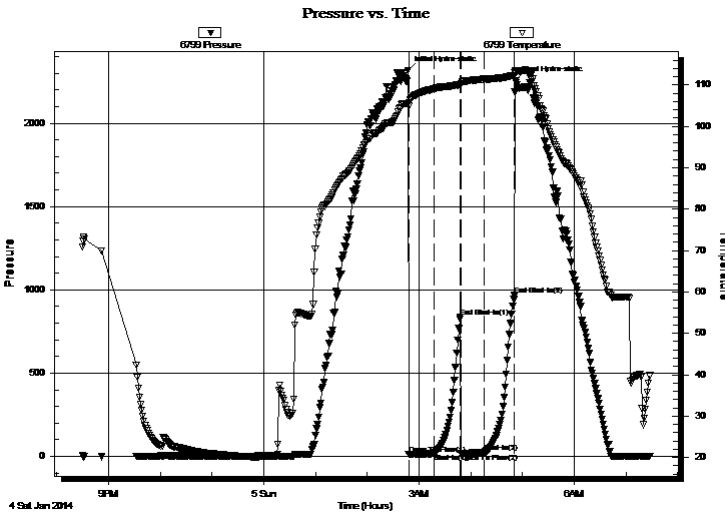
GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:47:45
Time Test Ended: 07:28:15
Interval: **4595.00 ft (KB) To 4617.00 ft (KB) (TVD)**
Total Depth: 4617.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: Cody Bloedorn
Unit No: 73
Reference Elevations: 2276.00 ft (KB)
2268.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6799 Inside
Press@RunDepth: 22.49 psig @ 4596.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.01.04 End Date: 2014.01.05 Last Calib.: 2014.01.05
Start Time: 20:30:05 End Time: 07:28:15 Time On Btm: 2014.01.05 @ 02:47:30
Time Off Btm: 2014.01.05 @ 04:51:45

TEST COMMENT: 30 - IF- 4 1/2" blow
30 - IS- No return
30 - FF- 1 1/4" blow
30 - FS- No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2316.88	105.58	Initial Hydro-static
1	13.01	104.86	Open To Flow (1)
30	16.63	109.11	Shut-In(1)
61	835.88	110.12	End Shut-In(1)
62	16.04	110.37	Open To Flow (2)
89	22.49	111.41	Shut-In(2)
124	969.38	112.34	End Shut-In(2)
125	2256.14	113.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	HOCM, 50%M, 50%O	0.63
5.00	Free oil, 100%O	0.07

Gas Rates

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



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6908 NW 112th
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ATTN: Rick Popp

6-24s-22w Hodgeman,KS
Whiteside Hales #2-6
Job Ticket: 55374 **DST#: 1**
Test Start: 2014.01.04 @ 20:30:00

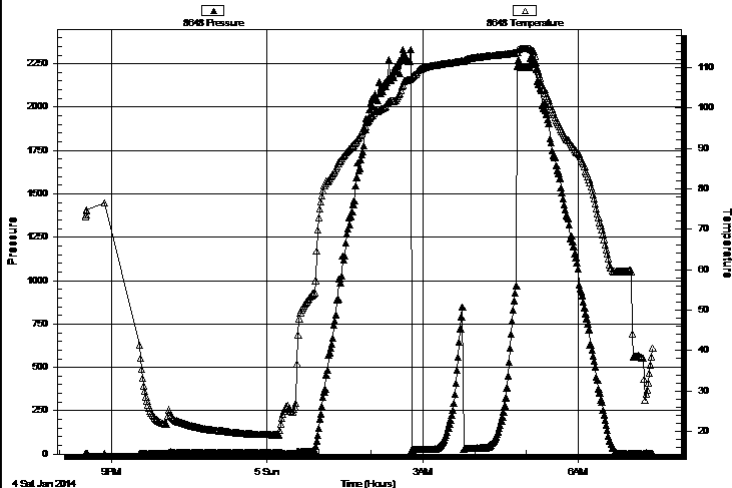
GENERAL INFORMATION:

Formation: Mississippi			
Deviated: No Whipstock:		ft (KB)	Test Type: Conventional Bottom Hole (Initial)
Time Tool Opened: 02:47:45			Tester: Cody Bloedorn
Time Test Ended: 07:28:15			Unit No: 73
Interval: 4595.00 ft (KB) To 4617.00 ft (KB) (TVD)			Reference Elevations: 2276.00 ft (KB)
Total Depth: 4617.00 ft (KB) (TVD)			2268.00 ft (CF)
Hole Diameter: 7.88 inches	Hole Condition: Fair		KB to GR/CF: 8.00 ft

Serial #: 8648	Outside				
Press@RunDepth:	psig @	4596.00 ft (KB)	Capacity:	8000.00 psig	
Start Date:	2014.01.04	End Date:	2014.01.05	Last Calib.:	2014.01.05
Start Time:	20:30:05	End Time:	07:26:00	Time On Btm:	
				Time Off Btm:	

TEST COMMENT: 30 - IF- 4 1/2" blow
30 - IS- No return
30 - FF- 1 1/4" blow
30 - FS- No return

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
45.00	HOCM, 50%M, 50%O	0.63
5.00	Free oil, 100%O	0.07

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Castelli Exploration Inc
6908 NW 112th
Oklahoma City OK 73162
ATTN: Rick Popp

6-24s-22w Hodgeman,KS
Whiteside Hales #2-6
Job Ticket: 55374 **DST#: 1**
Test Start: 2014.01.04 @ 20:30:00

Tool Information

Drill Pipe:	Length: 4598.00 ft	Diameter: 3.80 inches	Volume: 64.50 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: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 74000.00 lb
			<u>Total Volume: 64.50 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4595.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	51.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			4567.00	
Shut In Tool	5.00			4572.00	
Hydraulic tool	5.00			4577.00	
Jars	5.00			4582.00	
Safety Joint	3.00			4585.00	
Packer	5.00			4590.00	29.00 Bottom Of Top Packer
Packer	5.00			4595.00	
Stubb	1.00			4596.00	
Recorder	0.00	6799	Inside	4596.00	
Recorder	0.00	8648	Outside	4596.00	
Perforations	18.00			4614.00	
Bullnose	3.00			4617.00	22.00 Bottom Packers & Anchor

Total Tool Length: 51.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Castelli Exploration Inc
6908 NW 112th
Oklahoma City OK 73162
ATTN: Rick Popp

6-24s-22w Hodgeman,KS
Whiteside Hales #2-6
Job Ticket: 55374 **DST#: 1**
Test Start: 2014.01.04 @ 20:30:00

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:	ppm
Viscosity: 46.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.18 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 7500.00 ppm			
Filter Cake: inches			

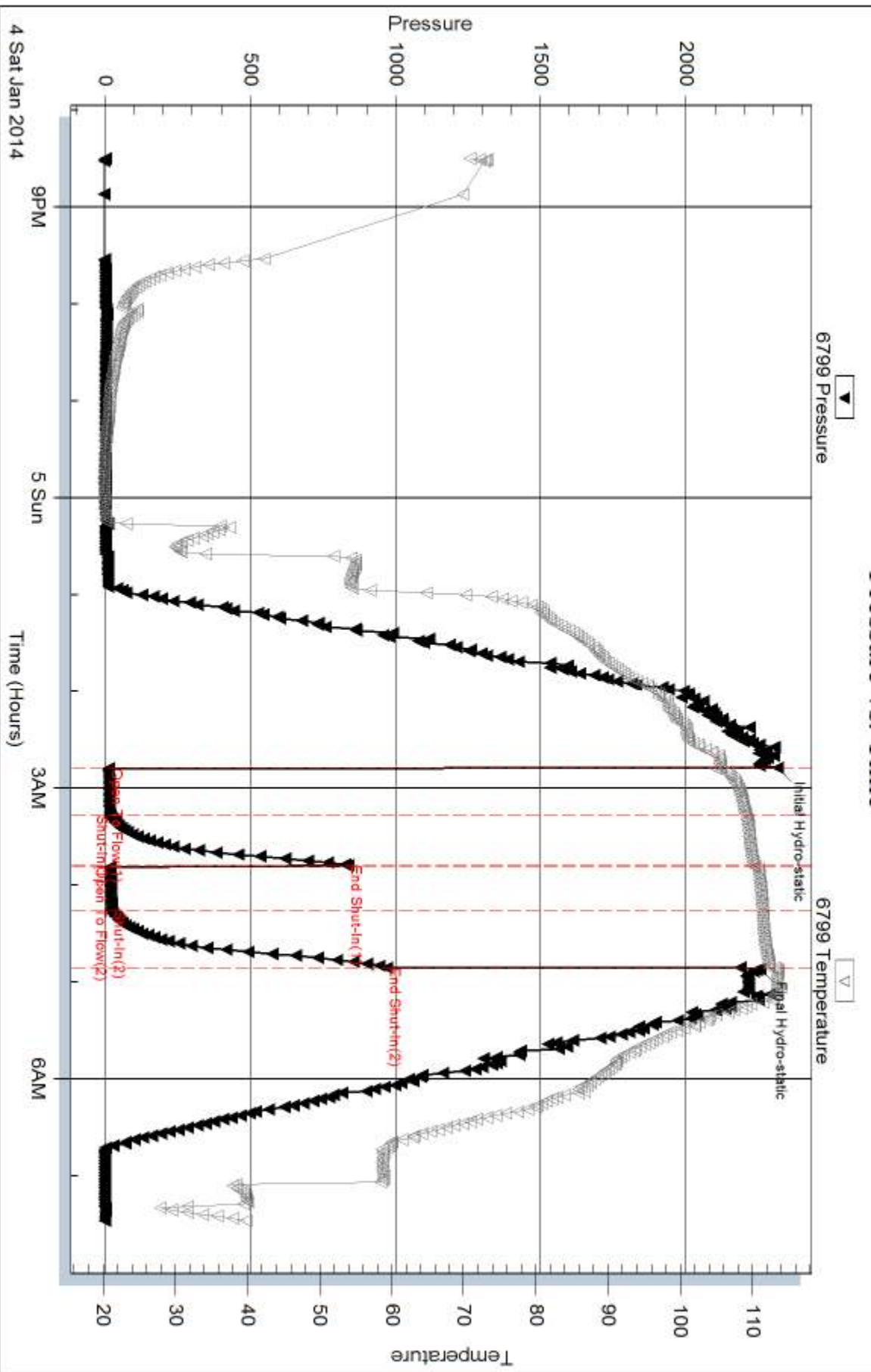
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	HOCM, 50%M, 50%O	0.631
5.00	Free oil, 100%O	0.070

Total Length: 50.00 ft Total Volume: 0.701 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time

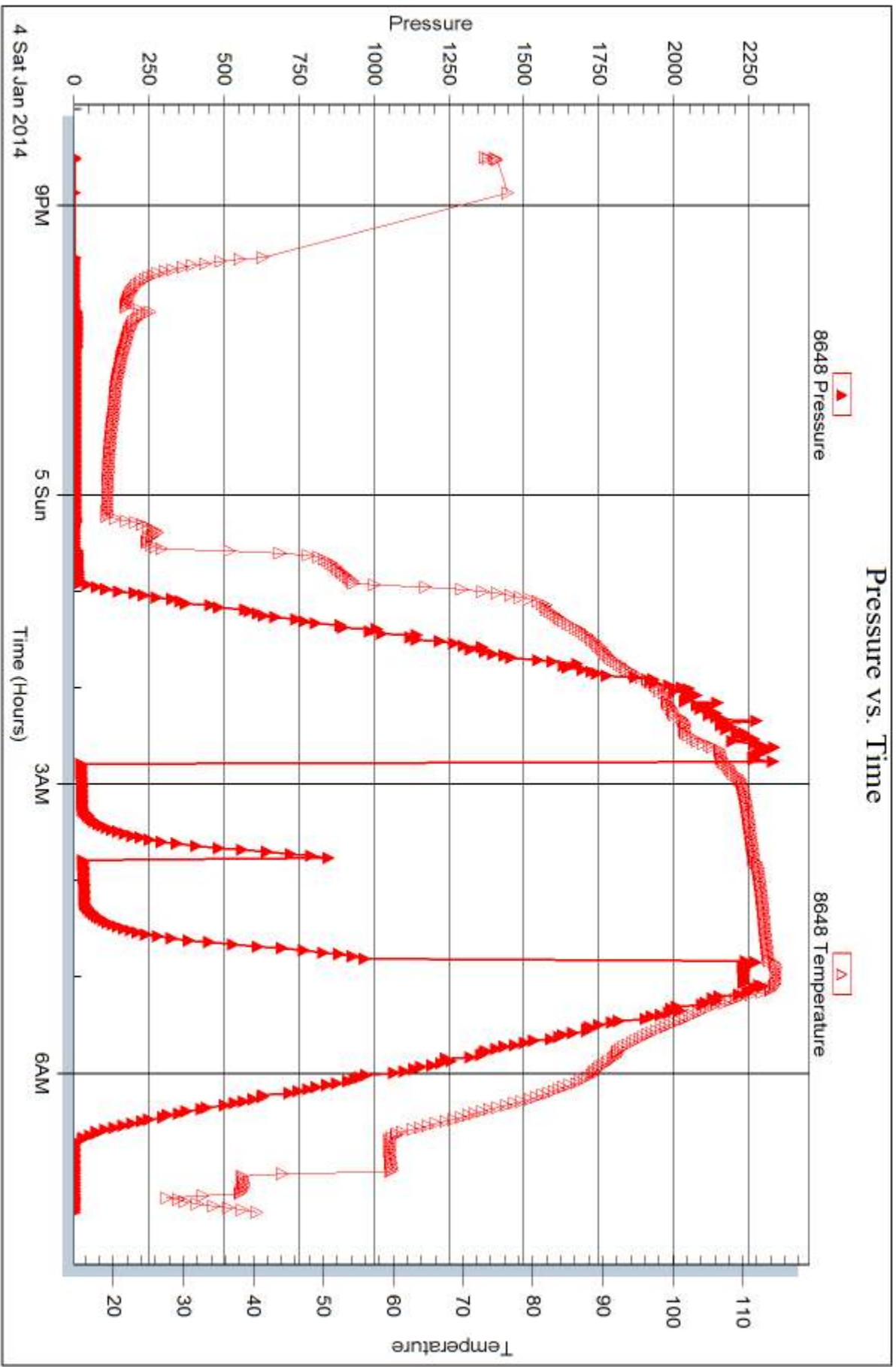


Serial #: 8648

Outside Castell Exploration Inc

Whiteside Hales #2-6

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 55374

Printed: 2014.01.08 @ 13:51:45



DRILL STEM TEST REPORT

Prepared For: **Castelli Exploration Inc**

6908 NW 112th
Oklahoma City OK 73162

ATTN: Rick Popp

Whiteside Hales #2-6

6-24s-22w Hodgeman,KS

Start Date: 2014.01.05 @ 16:44:00

End Date: 2014.01.06 @ 03:14:15

Job Ticket #: 55375 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.01.08 @ 13:51:14



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DRILL STEM TEST REPORT

Castelli Exploration Inc
6908 NW 112th
Oklahoma City OK 73162
ATTN: Rick Popp

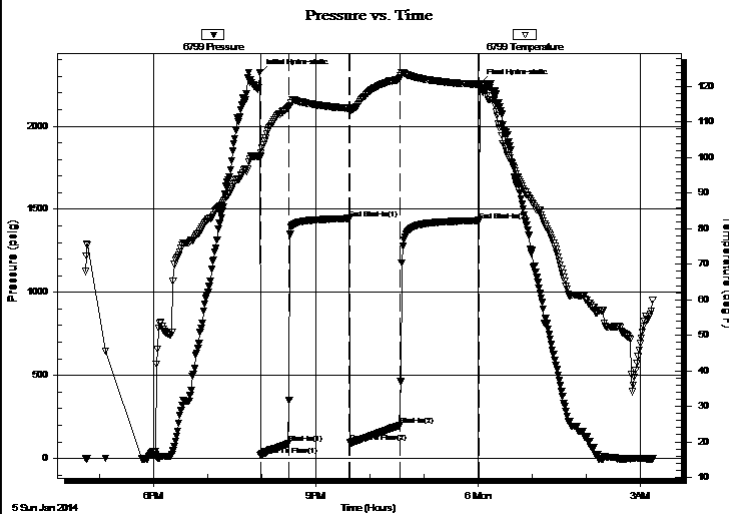
6-24s-22w Hodgeman,KS
Whiteside Hales #2-6
Job Ticket: 55375 **DST#: 2**
Test Start: 2014.01.05 @ 16:44:00

GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 19:58:15
Time Test Ended: 03:14:15
Interval: **4595.00 ft (KB) To 4630.00 ft (KB) (TVD)**
Total Depth: 4630.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Reference Elevations: 2276.00 ft (KB)
2268.00 ft (CF)
KB to GR/CF: 8.00 ft
Test Type: Conventional Bottom Hole (Reset)
Tester: Cody Bloedorn
Unit No: 73

Serial #: 6799 Inside
Press@RunDepth: 197.84 psig @ 4596.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.01.05 End Date: 2014.01.06 Last Calib.: 2014.01.06
Start Time: 16:44:05 End Time: 03:14:15 Time On Btm: 2014.01.05 @ 19:57:45
Time Off Btm: 2014.01.06 @ 00:02:30

TEST COMMENT: 30 - IF- 9" blow
60 - IS- Surface return
60 - FF- B.O.B. in 43 minutes
90 - FS- 1/2" return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2318.95	100.36	Initial Hydro-static
1	20.45	100.39	Open To Flow (1)
32	88.98	114.04	Shut-In(1)
100	1444.01	113.93	End Shut-In(1)
100	97.26	113.39	Open To Flow (2)
156	197.84	122.44	Shut-In(2)
244	1432.34	120.53	End Shut-In(2)
245	2256.37	120.75	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
248.00	MW, 50%M, 50%W	3.48
186.00	OCMW, 20%O, 40%W, 40%M	2.61
15.00	HOCM, 30%O, 70%M	0.21
30.00	Free oil	0.42

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Castelli Exploration Inc
6908 NW 112th
Oklahoma City OK 73162
ATTN: Rick Popp

6-24s-22w Hodgeman,KS
Whiteside Hales #2-6
Job Ticket: 55375 **DST#: 2**
Test Start: 2014.01.05 @ 16:44:00

Tool Information

Drill Pipe:	Length: 4598.00 ft	Diameter: 3.80 inches	Volume: 64.50 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: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 64.50 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4595.00 ft			Final 71000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	35.00 ft			
Tool Length:	64.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4567.00	
Shut In Tool	5.00			4572.00	
Hydraulic tool	5.00			4577.00	
Jars	5.00			4582.00	
Safety Joint	3.00			4585.00	
Packer	5.00			4590.00	29.00 Bottom Of Top Packer
Packer	5.00			4595.00	
Stubb	1.00			4596.00	
Recorder	0.00	6799	Inside	4596.00	
Recorder	0.00	8648	Outside	4596.00	
Perforations	31.00			4627.00	
Bullnose	3.00			4630.00	35.00 Bottom Packers & Anchor

Total Tool Length: 64.00



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FLUID SUMMARY

Castelli Exploration Inc

6-24s-22w Hodgeman,KS

6908 NW 112th
Oklahoma City OK 73162

Whiteside Hales #2-6

Job Ticket: 55375

DST#: 2

ATTN: Rick Popp

Test Start: 2014.01.05 @ 16:44:00

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:

ppm

Viscosity: 63.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7900.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
248.00	MW, 50%M, 50%W	3.479
186.00	OCMW, 20%O, 40%W, 40%M	2.609
15.00	HOCM, 30%O, 70%M	0.210
30.00	Free oil	0.421

Total Length: 479.00 ft

Total Volume: 6.719 bbl

Num Fluid Samples: 0

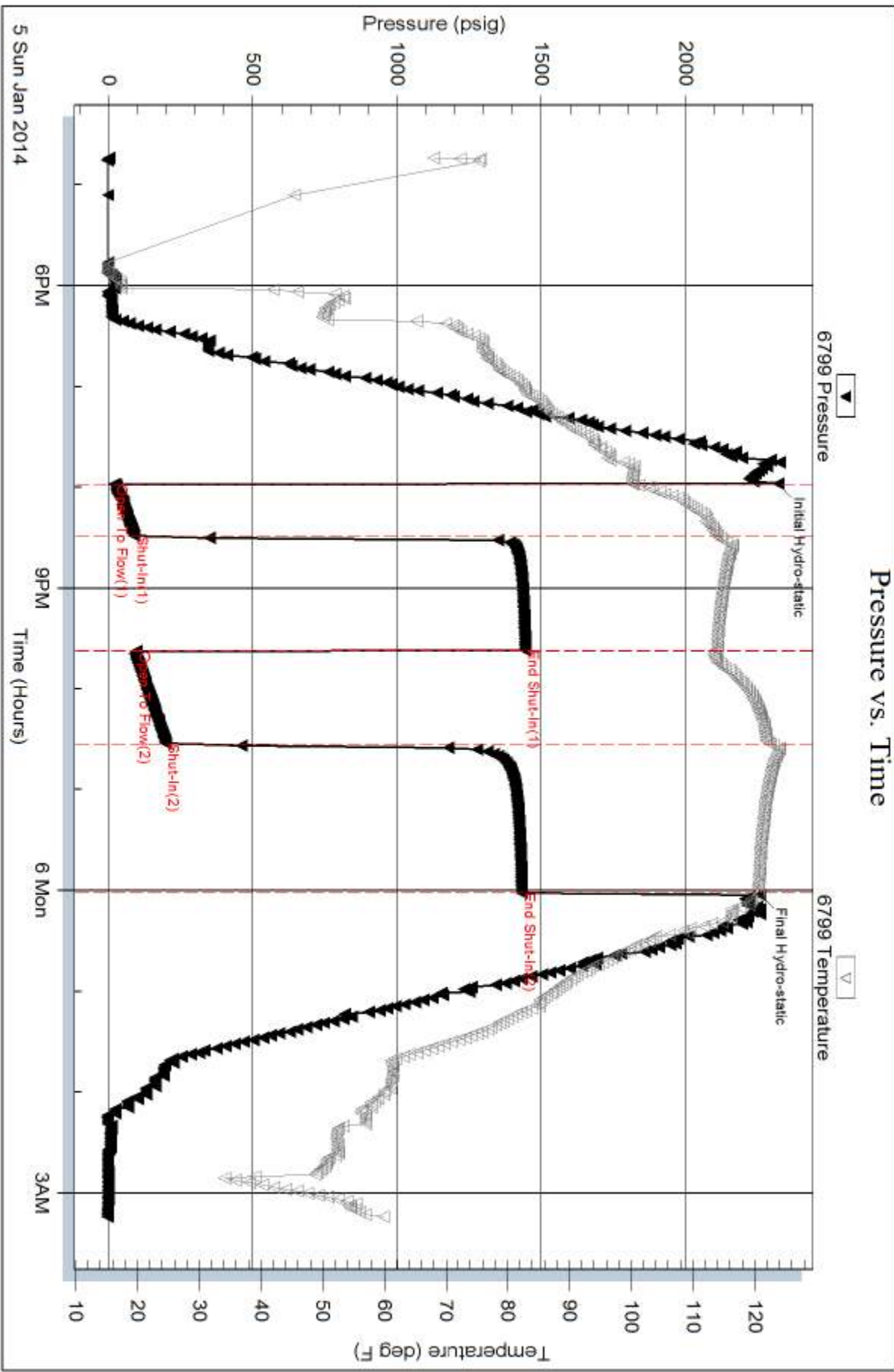
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



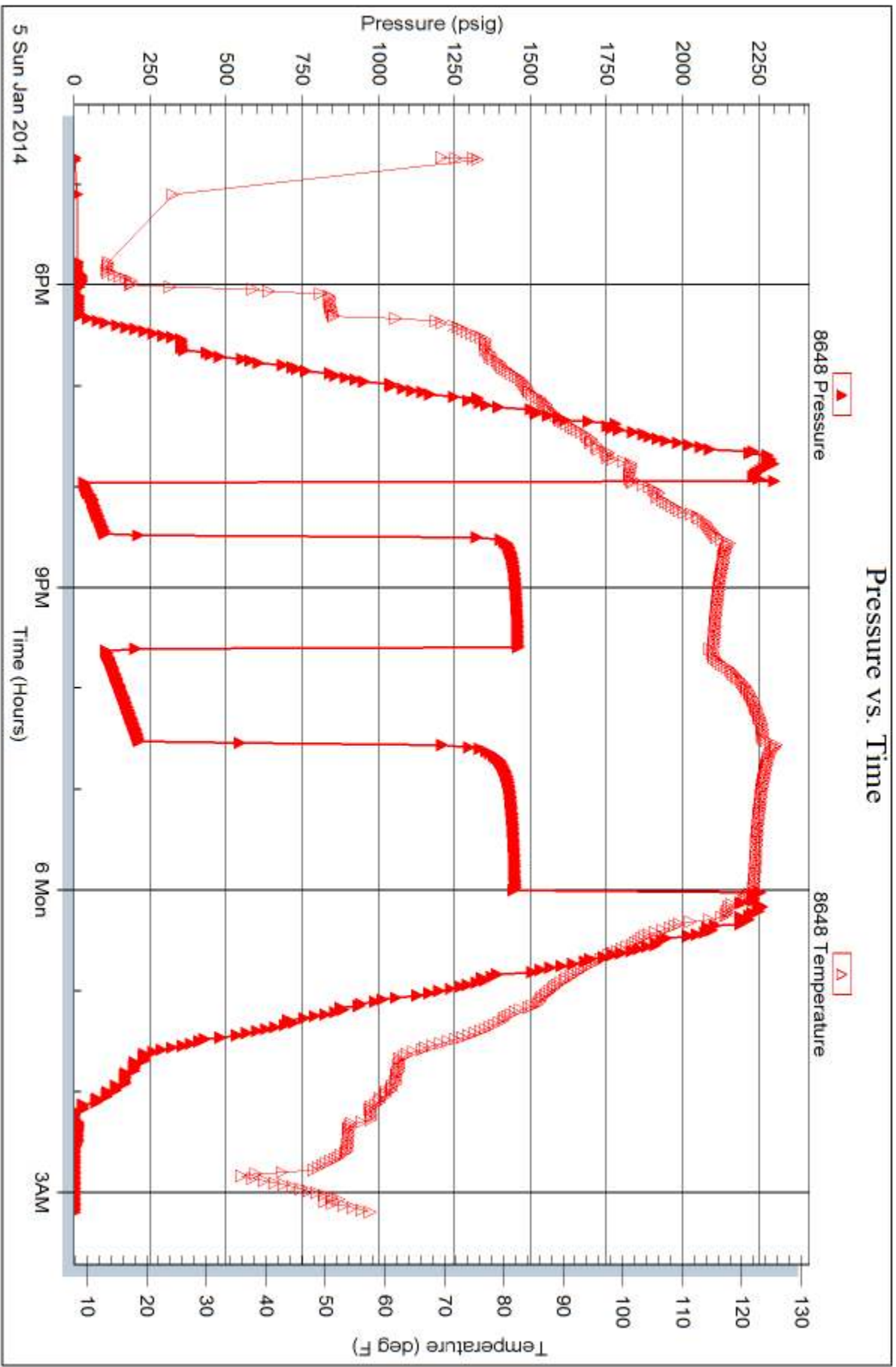
Serial #: 8648

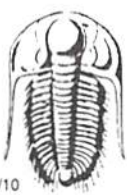
Outside

Castell Exploration Inc

Whiteside Hales #2-6

DST Test Number: 2





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **55374**

4/10

Well Name & No. Whiteside Hales 2-6 Test No. 1 Date 1-4-14
 Company Castelli Exploration INC Elevation 2276 KB 2268 GL
 Address 6908 NW 112th, Oklahoma City OK, 73162
 Co. Rep / Geo. Rick Pope Rig Duke #2
 Location: Sec. 6 Twp. 24S Rge. 22W Co. Hodgeman State KS

Interval Tested 4595 - 4617 Zone Tested Mississippi
 Anchor Length 22' Drill Pipe Run 4598' Mud Wt. 9.4
 Top Packer Depth 4590 Drill Collars Run - Vis 46
 Bottom Packer Depth 4595 Wt. Pipe Run - WL 9.2
 Total Depth 4617 Chlorides 7,500 ppm System LCM -

Blow Description IF- 4 1/2" blow
ISI- No return
FF- 1 1/4" blow
FSI- No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>45</u>	<u>HOCM</u>	<u>50</u>	<u>50</u>	<u>50</u>	<u>50</u>
<u>5</u>	<u>Free oil</u>	<u>100</u>	<u>100</u>		

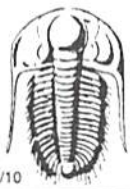
Rec Total 50' BHT 112° Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 2316 Test 1250 T-On Location 1949
 (B) First Initial Flow 13 Jars 250 T-Started 2030 8:30pm
 (C) First Final Flow 16 Safety Joint 75 T-Open 0248
 (D) Initial Shut-In 835 Circ Sub _____ T-Pulled 0448
 (E) Second Initial Flow 16 Hourly Standby 1h 100 T-Out 0723
 (F) Second Final Flow 22 Mileage 173RT 268.15 Comments _____
 (G) Final Shut-In 969 Sampler _____
 (H) Final Hydrostatic 2256 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____

Initial Open 30 Extra Packer _____ Extra Copies _____
 Initial Shut-In 30 Extra Recorder _____ Sub Total 0
 Final Flow 30 Day Standby _____ Total 1943.15
 Final Shut-In 30 Accessibility _____ MP/DST Disc't _____
 Sub Total 1943.15

Approved By _____ Our Representative Cody Bleh

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **55375**

Well Name & No. Whiteside Hales 2-6 Test No. 2 Date 1-5-14
 Company Castelli Exploration Inc Elevation 2276 KB 2268 GL
 Address 6908 NW 112th, Oklahoma City, OK 73162
 Co. Rep / Geo. Rick Pope Rig Duke #2
 Location: Sec. 6 Twp. 24s Rge. 22w Co. Hodgeman State KS

Interval Tested 4595 - 4630 Zone Tested Mississippi
 Anchor Length 35' Drill Pipe Run 4598 Mud Wt. 9.4
 Top Packer Depth 4590 Drill Collars Run — Vis 63
 Bottom Packer Depth 4595 Wt. Pipe Run — WL 8.8
 Total Depth 4630 Chlorides 7,900 ppm System LCM —

Blow Description ±F - 9" blow
ISI - Surface return
FF - B.O.B. in 43 minutes
FSI - 1/2" return

Rec	Feet of	%gas	%oil	%water	%mud
300	—				
248	MW			50	50
186	OCMW	20	40	40	
15	HO CM	30		70	
30	Free oil	100			

Rec Total 479' BHT 120° Gravity — API RW .3 @ 50° F Chlorides 32,000 ppm

(A) Initial Hydrostatic 2318 Test 1250 T-On Location 1551
 (B) First Initial Flow 20 Jars 250 T-Started 1644 4:44pm
 (C) First Final Flow 88 Safety Joint 75 T-Open 2000
 (D) Initial Shut-In 1444 Circ Sub — T-Pulled 0000
 (E) Second Initial Flow 97 Hourly Standby — T-Out 0307
 (F) Second Final Flow 197 Mileage 173RT 268.15
 (G) Final Shut-In 1432 Sampler —
 (H) Final Hydrostatic 2256 Straddle —

Ruined Shale Packer —
 Ruined Packer —
 Extra Packer —
 Extra Copies —
 Initial Open 30 Extra Recorder — Sub Total 0
 Initial Shut-In 60 Day Standby — Total 1843.15
 Final Flow 60 Accessibility — MP/DST Disc't —
 Final Shut-In 90 Sub Total 1843.15

Approved By — Our Representative Cody B...

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