



DRILL STEM TEST REPORT

Prepared For: **Palmer Oil Inc.**

PO Box 399
Garden City, KS 67846

ATTN: Kevin Timson

Brookover #4-6

4-25s-32w Finney,KS

Start Date: 2014.04.30 @ 01:41:00

End Date: 2014.04.30 @ 08:23:39

Job Ticket #: 56523 DST #: 1

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

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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Palmer Oil Inc.

PO Box 399
Garden City, KS 67846

ATTN: Kevin Timson

4-25s-32w Finney, KS

Brookover #4-6

Job Ticket: 56523

DST#: 1

Test Start: 2014.04.30 @ 01:41:00

GENERAL INFORMATION:

Formation: **Morrow**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:11:10

Time Test Ended: 08:23:39

Test Type: Conventional Bottom Hole (Initial)

Tester: Cornelio Landa III

Unit No: 62

Interval: 4774.00 ft (KB) To 4861.00 ft (KB) (TVD)

Reference Elevations: 2958.00 ft (KB)

Total Depth: 4861.00 ft (KB) (TVD)

2945.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 13.00 ft

Serial #: 8645 Outside

Press@RunDepth: 28.30 psig @ 4777.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.30

End Date:

2014.04.30

Last Calib.: 2014.04.30

Start Time: 01:41:02

End Time:

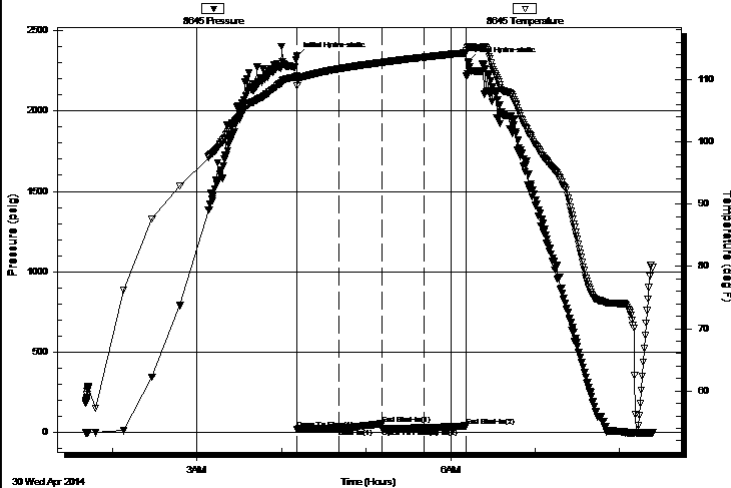
08:23:40

Time On Btm: 2014.04.30 @ 04:11:00

Time Off Btm: 2014.04.30 @ 06:12:20

TEST COMMENT: IF: 1/2" Blow
IS: No return
FF: No Blow
FS: No Return

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2341.16	110.66	Initial Hydro-static
1	20.46	109.01	Open To Flow (1)
30	24.75	111.77	Shut-In(1)
61	54.04	112.78	End Shut-In(1)
61	26.82	112.76	Open To Flow (2)
90	28.30	113.61	Shut-In(2)
120	40.36	114.32	End Shut-In(2)
122	2309.03	115.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud 100m	0.02

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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Palmer Oil Inc.

PO Box 399
Garden City, KS 67846

ATTN: Kevin Timson

4-25s-32w Finney, KS

Brookover #4-6

Job Ticket: 56523

DST#: 1

Test Start: 2014.04.30 @ 01:41:00

GENERAL INFORMATION:

Formation: **Morrow**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:11:10

Time Test Ended: 08:23:39

Test Type: Conventional Bottom Hole (Initial)

Tester: Cornelio Landa III

Unit No: 62

Interval: 4774.00 ft (KB) To 4861.00 ft (KB) (TVD)

Total Depth: 4861.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2958.00 ft (KB)

2945.00 ft (CF)

KB to GR/CF: 13.00 ft

Serial #: 8357 Inside

Press@RunDepth: psig @ 4777.00 ft (KB)

Start Date: 2014.04.30

End Date:

2014.04.30

Start Time: 01:41:02

End Time:

08:25:19

Capacity: 8000.00 psig

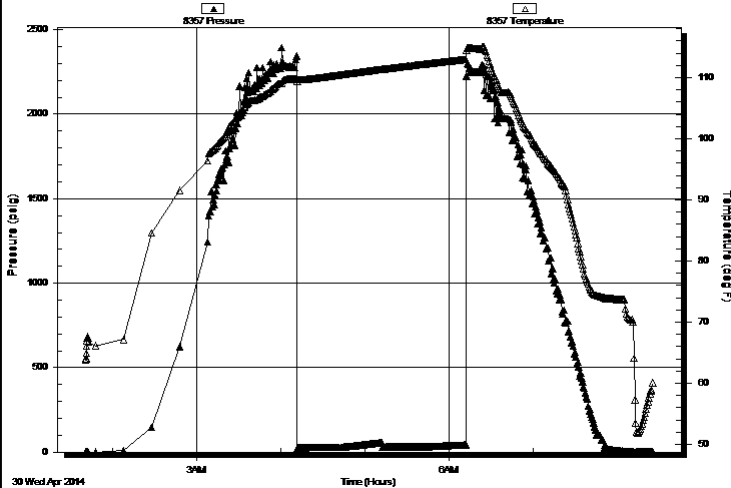
Last Calib.: 2014.04.30

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: 1/2" Blow
IS: No return
FF: No Blow
FS: No Return

Pressure vs. Time



PRESSURE SUMMARY

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

Length (ft)	Description	Volume (bbl)
5.00	Mud 100m	0.02

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Palmer Oil Inc.

4-25s-32w Finney,KS

PO Box 399
Garden City, KS 67846

Brookover #4-6

Job Ticket: 56523

DST#: 1

ATTN: Kevin Timson

Test Start: 2014.04.30 @ 01:41:00

Tool Information

Drill Pipe:	Length:	4582.00 ft	Diameter:	3.80 inches	Volume:	64.27 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:	22000.00 lb
Drill Collar:	Length:	180.00 ft	Diameter:	2.25 inches	Volume:	0.89 bbl	Weight to Pull Loose:	10000.00 lb
					Total Volume:	65.16 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	15.00 ft					String Weight: Initial	70000.00 lb	
Depth to Top Packer:	4774.00 ft					Final	70000.00 lb	
Depth to Bottom Packer:	ft							
Interval between Packers:	87.00 ft							
Tool Length:	114.00 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			4748.00		
Shut In Tool	5.00			4753.00		
Hydraulic tool	5.00			4758.00		
Jars	5.00			4763.00		
Safety Joint	2.00			4765.00		
Packer	5.00			4770.00	27.00	Bottom Of Top Packer
Packer	4.00			4774.00		
Stubb	1.00			4775.00		
Perforations	1.00			4776.00		
Change Over Sub	1.00			4777.00		
Recorder	0.00	8357	Inside	4777.00		
Recorder	0.00	8645	Outside	4777.00		
Drill Pipe	63.00			4840.00		
Change Over Sub	1.00			4841.00		
Perforations	17.00			4858.00		
Bullnose	3.00			4861.00	87.00	Bottom Packers & Anchor
Total Tool Length:	114.00					



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Palmer Oil Inc.

4-25s-32w Finney,KS

PO Box 399
Garden City, KS 67846

Brookover #4-6

Job Ticket: 56523

DST#: 1

ATTN: Kevin Timson

Test Start: 2014.04.30 @ 01:41:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 50.00 sec/qt

Water Loss: 8.37 in³

Resistivity: 0.00 ohm.m

Salinity: 3300.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud 100m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

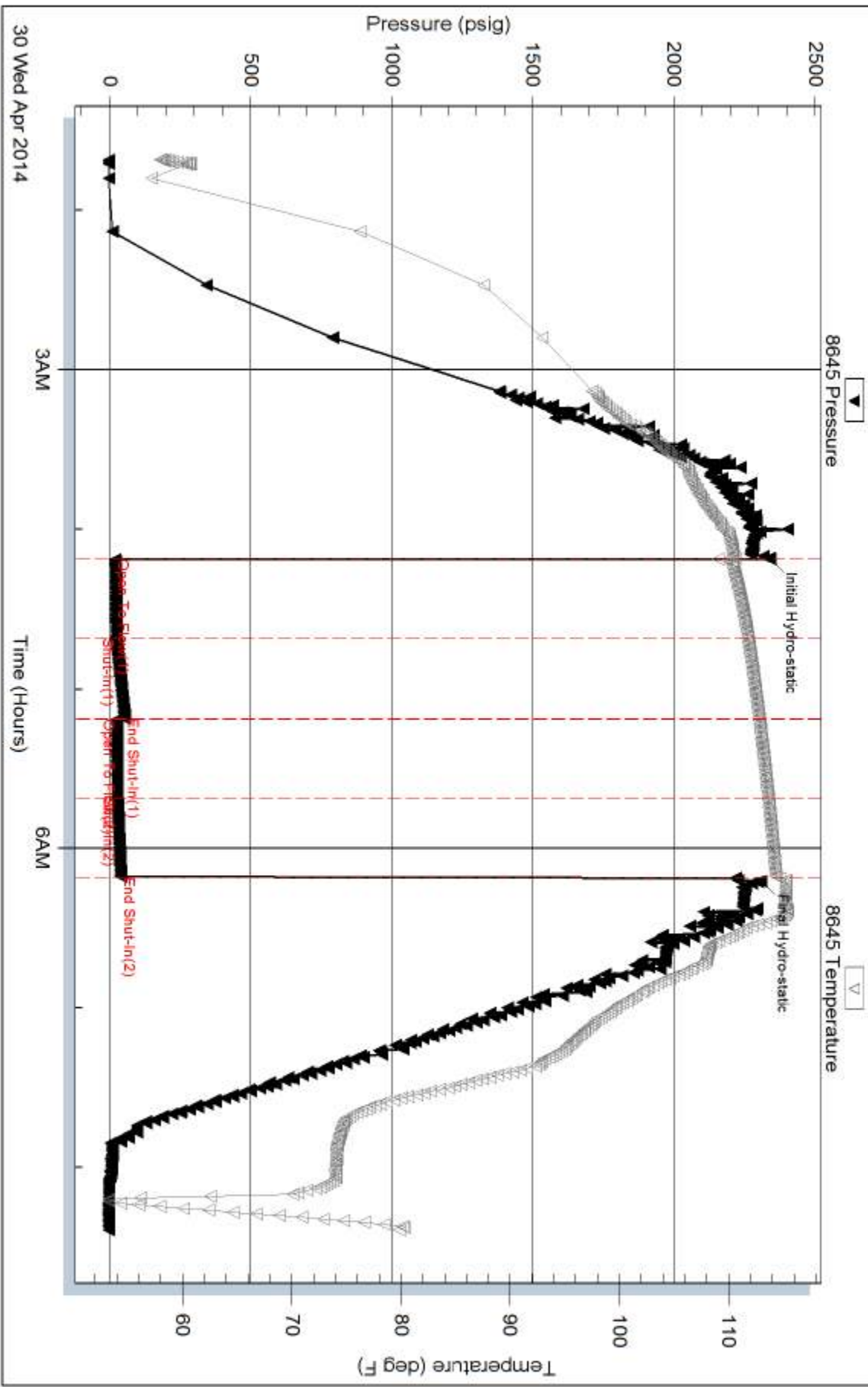
Serial #: 8645

Outside Palmer Oil Inc.

Brookover #4-6

DST Test Number: 1

Pressure vs. Time



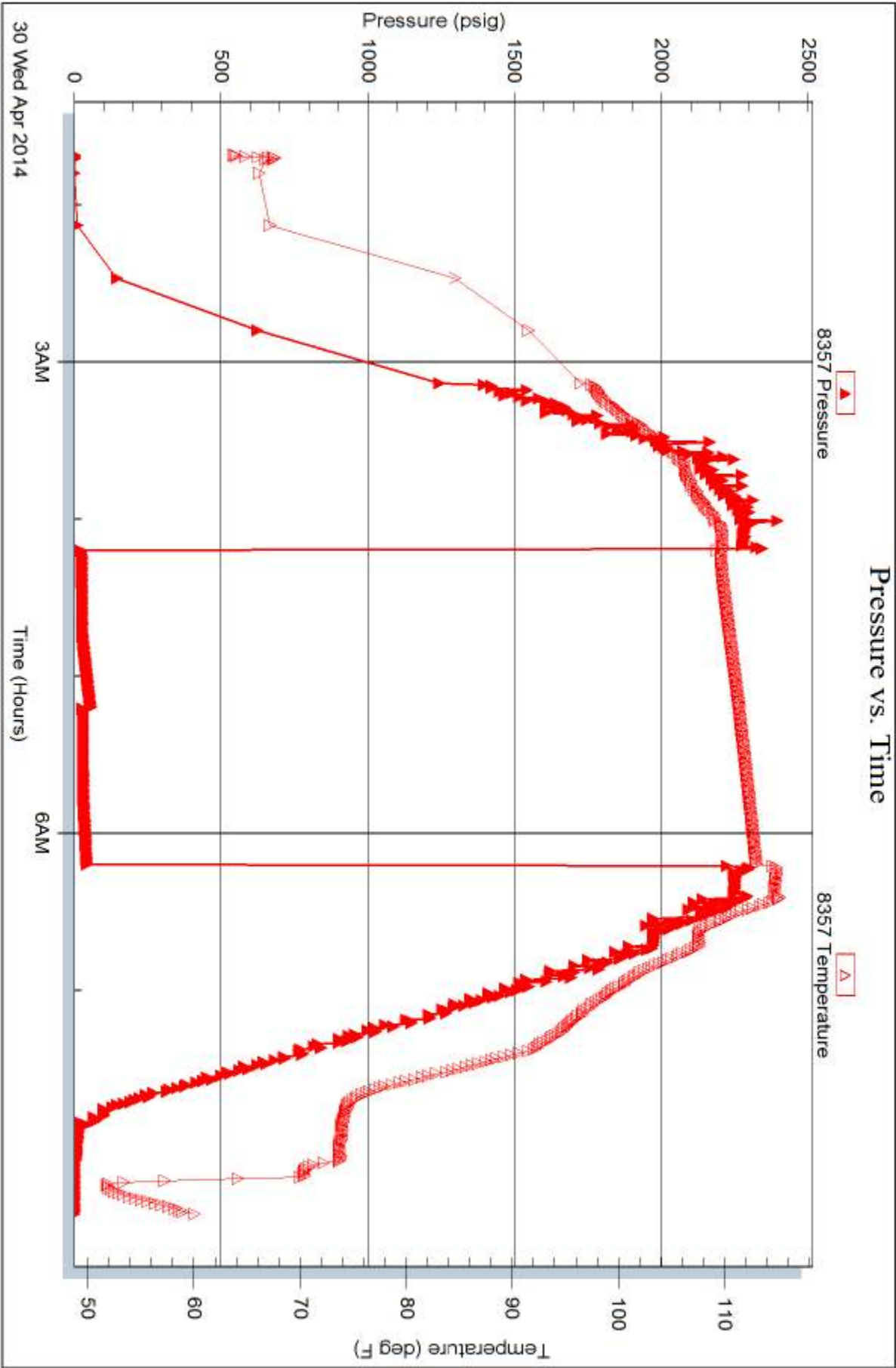
Serial #: 8357

Inside

Palmer Oil Inc.

Brookover #4-6

DST Test Number: 1





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **56523**

Well Name & No. Brookover ~~2945~~ #4-6 Test No. 1 Date 4-30-14
 Company Palmer Oil Co. Inc. Elevation 2958 KB 2945 GL
 Address 3118 N. Cummings Rd. - Garden City, KS 67846
 Co. Rep / Geo. Kevin Timson Rig Duke #9
 Location: Sec. 4 Twp. 25-S Rge. 32-W Co. Finney State Ks

Interval Tested 4774-4861 Zone Tested Morrow
 Anchor Length 87' Drill Pipe Run 4582' Mud Wt. 9.3
 Top Packer Depth 4770 Drill Collars Run 180' Vis 50
 Bottom Packer Depth 4774 Wt. Pipe Run Ø WL 8.4
 Total Depth 4861 Chlorides 3300 ppm System LCM #2

Blow Description IF: 1/2 in Blow

ISI: No Return

FF: No Blow

FSD: No Return

Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>5</u>	Feet of <u>mud</u>	%gas	%oil	%water	<u>100</u> %mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 115 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2341</u>	☒ Test <u>1250</u>	T-On Location <u>01:00</u>
(B) First Initial Flow <u>20</u>	☒ Jars <u>250</u>	T-Started <u>01:41</u>
(C) First Final Flow <u>25</u>	☒ Safety Joint <u>75</u>	T-Open <u>04:11</u>
(D) Initial Shut-In <u>54</u>	☒ Circ Sub <u>N/C</u>	T-Pulled <u>06:11</u>
(E) Second Initial Flow <u>27</u>	☐ Hourly Standby	T-Out <u>08:23</u>
(F) Second Final Flow <u>28</u>	☒ Mileage <u>114 R-TX2</u>	Comments <u>loaded 5-1-14</u>
(G) Final Shut-In <u>40</u>	☐ Sampler <u>353.40</u>	<u>on loc @ 7:45-</u>
(H) Final Hydrostatic <u>2309</u>	☐ Straddle	☐ Ruined Shale Packer

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30

☐ Shale Packer
☐ Extra Packer
☐ Extra Recorder
☐ Day Standby
☐ Accessibility
 Sub Total 1928.40
☐ Ruined Packer
☐ Extra Copies
 Sub Total 0
 Total 1928.40
 MP/DST Disc't

Approved By

Our Representative

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