



## DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co Inc**

PO Box 1019  
Hays KS 67601

ATTN: Al Downing

### **Saxton Family #2-19**

#### **19-20s-20w Pawnee,KS**

Start Date: 2012.06.28 @ 17:10:00

End Date: 2012.06.28 @ 22:48:24

Job Ticket #: 45912                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.07.06 @ 09:48:47



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

**19-20s-20w Pawnee,KS**

PO Box 1019  
Hays KS 67601

**Saxton Family #2-19**

Job Ticket: 45912

**DST#: 1**

ATTN: Al Dow ning

Test Start: 2012.06.28 @ 17:10:00

## GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:02:25

Time Test Ended: 22:48:24

Test Type: Conventional Bottom Hole (Initial)

Tester: Will MacLean

Unit No: 40

**Interval: 4272.00 ft (KB) To 4311.00 ft (KB) (TVD)**

Reference Elevations: 2172.00 ft (KB)

Total Depth: 4311.00 ft (KB) (TVD)

2164.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

**Serial #: 8360**

**Inside**

Press @ Run Depth: 25.74 psig @ 4273.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.06.28

End Date:

2012.06.28

Last Calib.:

2012.06.28

Start Time:

17:10:00

End Time:

22:48:24

Time On Btm:

2012.06.28 @ 19:02:10

Time Off Btm:

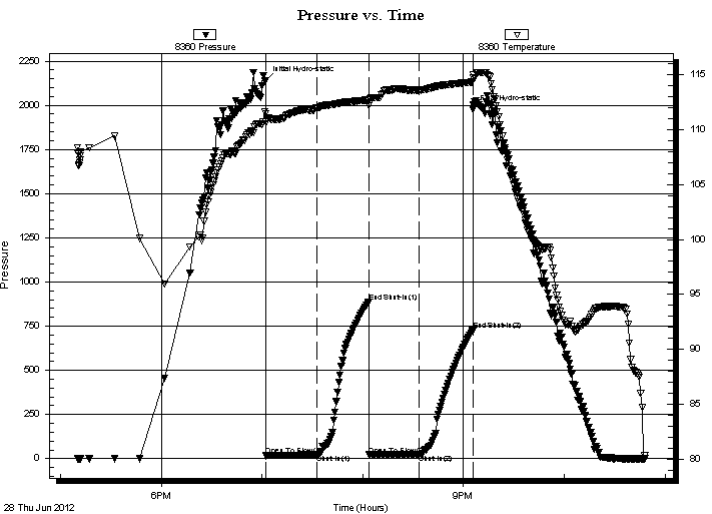
2012.06.28 @ 21:05:40

**TEST COMMENT:** IF- 1/4" Blow Died back to Weak Surface Blow

IS- No Blow

FF- Weak Surface Blow Died in 2 min

FS- No Blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2141.66	111.47	Initial Hydro-static
1	17.55	110.68	Open To Flow (1)
31	22.42	111.98	Shut-In(1)
62	887.75	112.69	End Shut-In(1)
62	22.86	112.16	Open To Flow (2)
92	25.74	113.59	Shut-In(2)
124	725.80	114.33	End Shut-In(2)
124	1977.23	114.97	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	100% m with Few Oil Spots	0.05

## Gas Rates

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



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# DRILL STEM TEST REPORT

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**19-20s-20w Pawnee,KS**

PO Box 1019  
Hays KS 67601

**Saxton Family #2-19**

ATTN: Al Dow ning

Job Ticket: 45912 **DST#: 1**

Test Start: 2012.06.28 @ 17:10:00

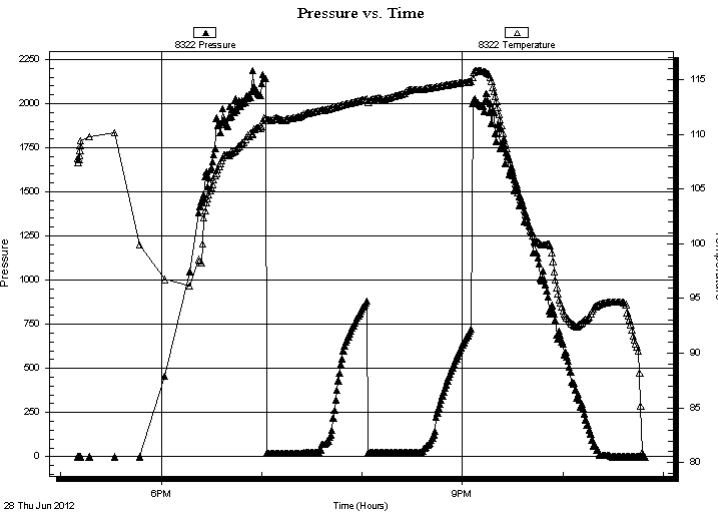
## GENERAL INFORMATION:

Formation: **Mississippi**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 19:02:25  
Time Test Ended: 22:48:24  
Interval: **4272.00 ft (KB) To 4311.00 ft (KB) (TVD)**  
Total Depth: 4311.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Will MacLean  
Unit No: 40  
Reference Elevations: 2172.00 ft (KB)  
2164.00 ft (CF)  
KB to GR/CF: 8.00 ft

## Serial #: 8322 Outside

Press @RunDepth: psig @ 4273.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2012.06.28 End Date: 2012.06.28 Last Calib.: 2012.06.28  
Start Time: 17:10:05 End Time: 22:48:44 Time On Btm:  
Time Off Btm:

TEST COMMENT: IF- 1/4" Blow Died back to Weak Surface Blow  
IS- No Blow  
FF- Weak Surface Blow Died in 2 min  
FS- No Blow



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	100% m with Few Oil Spots	0.05

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Downing-Nelson Oil Co Inc

**19-20s-20w Pawnee,KS**

PO Box 1019  
Hays KS 67601

**Saxton Family #2-19**

Job Ticket: 45912

**DST#: 1**

ATTN: Al Downing

Test Start: 2012.06.28 @ 17:10:00

## Tool Information

Drill Pipe:	Length: 4228.00 ft	Diameter: 3.80 inches	Volume: 59.31 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 26000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 16000.00 lb
			<u>Total Volume: 59.46 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4272.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	39.00 ft			
Tool Length:	59.00 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			4253.00	
Shut In Tool	5.00			4258.00	
Hydraulic tool	5.00			4263.00	
Packer	5.00			4268.00	20.00 Bottom Of Top Packer
Packer	4.00			4272.00	
Stubb	1.00			4273.00	
Recorder	0.00	8360	Inside	4273.00	
Recorder	0.00	8322	Outside	4273.00	
Perforations	2.00			4275.00	
Change Over Sub	1.00			4276.00	
Drill Pipe	31.00			4307.00	
Change Over Sub	1.00			4308.00	
Bullnose	3.00			4311.00	39.00 Bottom Packers & Anchor

**Total Tool Length: 59.00**



**TRILOBITE  
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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Dow ning-Nelson Oil Co Inc

**19-20s-20w Pawnee,KS**

PO Box 1019  
Hays KS 67601

**Saxton Family #2-19**

Job Ticket: 45912

**DST#: 1**

ATTN: Al Dow ning

Test Start: 2012.06.28 @ 17:10:00

## 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: 49.00 sec/qt

Cushion Volume:

bbf

Water Loss: 10.77 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5800.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbf
10.00	100% m with Few Oil Spots	0.049

Total Length: 10.00 ft      Total Volume: 0.049 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

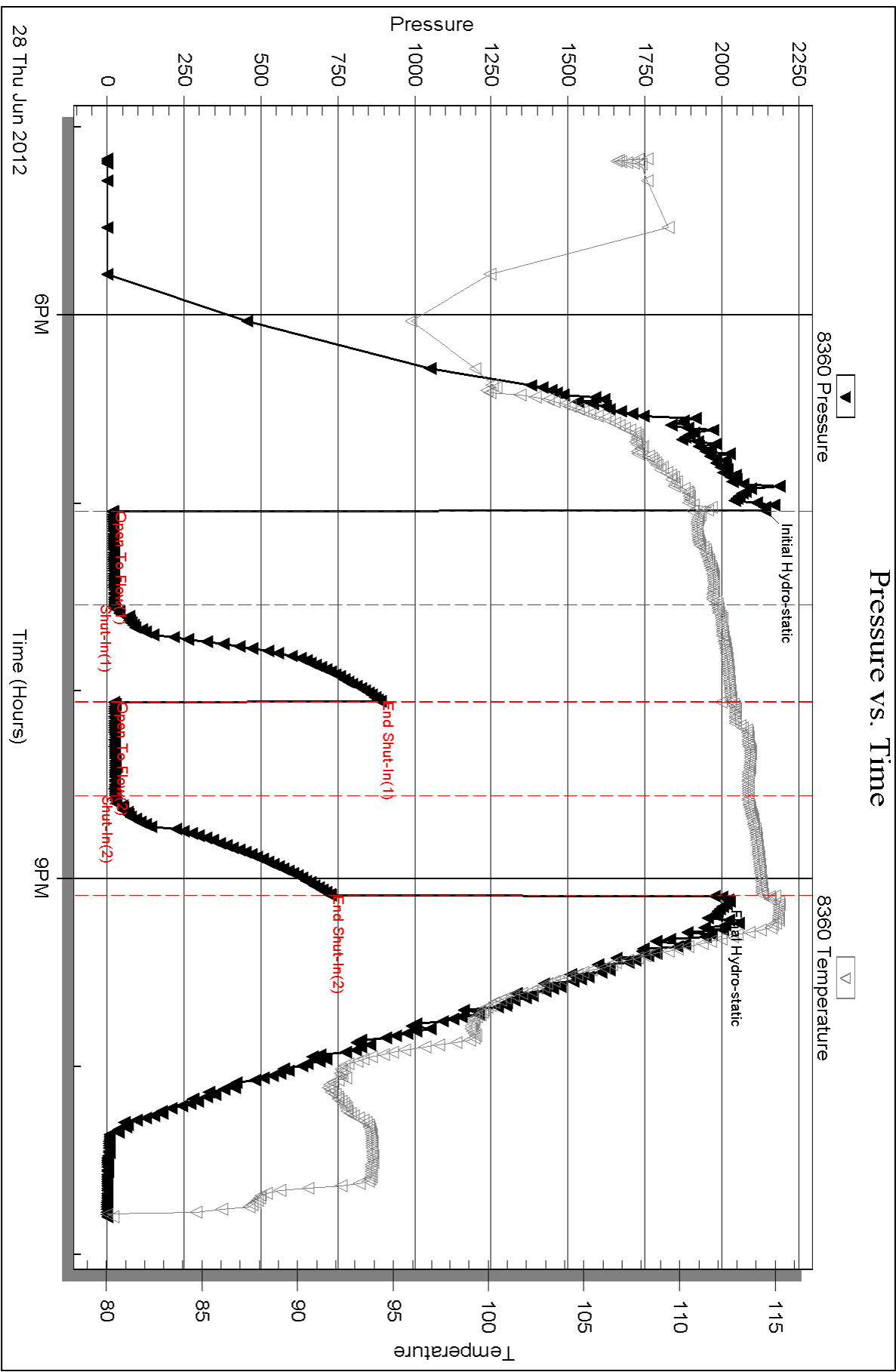
Serial #: 8360

Inside

Dow n/g-nelson Oil Co Inc

Saxton Family #2-19

DST Test Number: 1

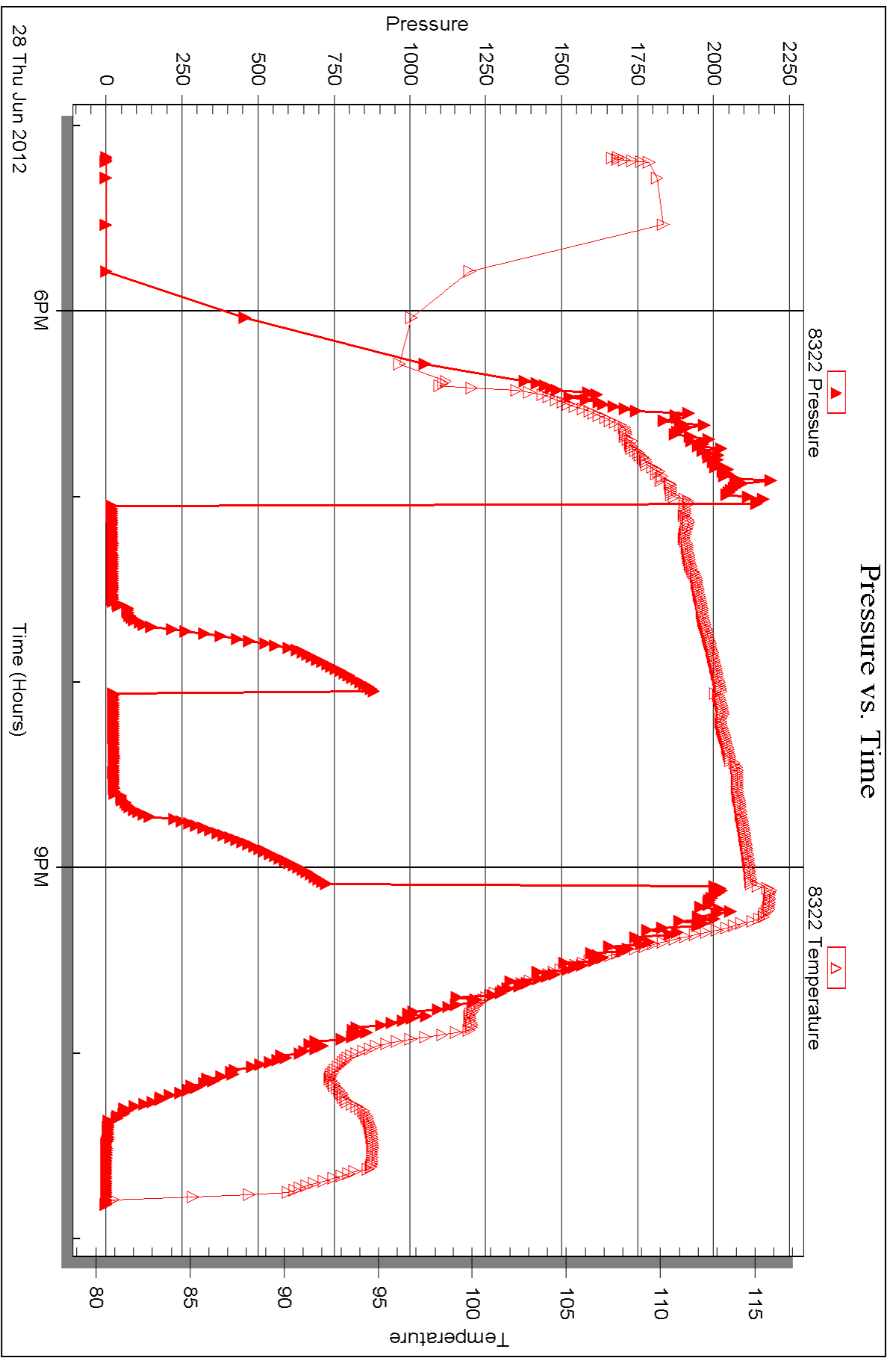


Serial #: 8322

Outside Dow n/ing-Nelson Oil Co Inc

Saxton Family #2-19

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co Inc**

PO Box 1019  
Hays KS 67601

ATTN: Al Downing

### **Saxton Family #2-19**

#### **19-20s-20w Pawnee,KS**

Start Date: 2012.06.29 @ 04:15:58

End Date: 2012.06.29 @ 10:51:58

Job Ticket #: 47409                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.07.06 @ 09:47:47





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TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

**19-20s-20w Pawnee,KS**

PO Box 1019  
Hays KS 67601

**Saxton Family #2-19**

ATTN: Al Dow ning

Job Ticket: 47409

**DST#: 2**

Test Start: 2012.06.29 @ 04:15:58

## GENERAL INFORMATION:

Formation: **Miss (2)**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:01:58

Time Test Ended: 10:51:58

Test Type: Conventional Bottom Hole (Reset)

Tester: Brian Fairbank

Unit No: 41

**Interval: 4271.00 ft (KB) To 4320.00 ft (KB) (TVD)**

Reference Elevations: 2172.00 ft (KB)

Total Depth: 4320.00 ft (KB) (TVD)

2164.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

**Serial #: 6752 Inside**

Press @RunDepth: 57.97 psig @ 4275.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.06.29

End Date:

2012.06.29

Last Calib.:

2012.06.29

Start Time: 04:15:59

End Time:

10:51:58

Time On Btm:

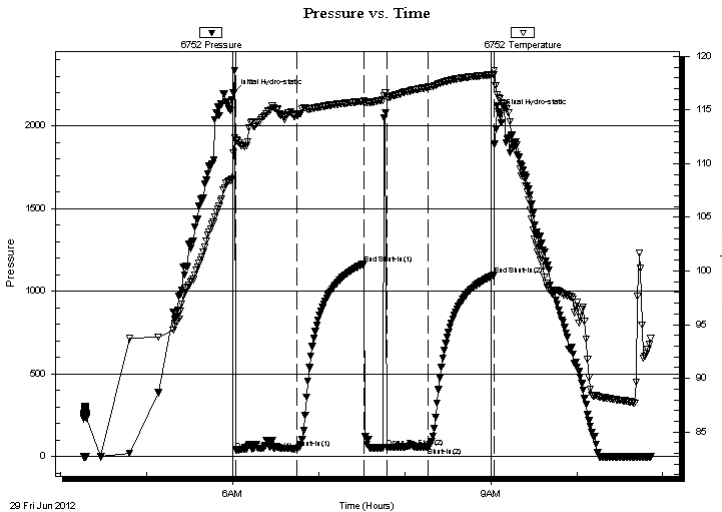
2012.06.29 @ 06:00:28

Time Off Btm:

2012.06.29 @ 09:05:58

**TEST COMMENT:** IFP - weak blow throughout 1/2" - 1 1/2"  
ISI - no blow back  
FFP - no blow - flush - sur blow throughout  
FSI - no blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2198.30	111.00	Initial Hydro-static
2	39.28	112.08	Open To Flow (1)
45	47.26	114.47	Shut-In(1)
91	1166.10	115.83	End Shut-In(1)
107	56.53	116.25	Open To Flow (2)
136	57.97	117.13	Shut-In(2)
182	1097.25	118.32	End Shut-In(2)
186	2073.80	116.13	Final Hydro-static

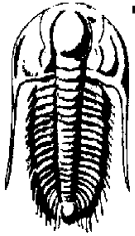
## Recovery

Length (ft)	Description	Volume (bbl)
65.00	SOCM 10%O, 90%M	0.63

\* Recovery from multiple tests

## Gas Rates

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



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# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

**19-20s-20w Pawnee,KS**

PO Box 1019  
Hays KS 67601

**Saxton Family #2-19**

Job Ticket: 47409 **DST#: 2**

ATTN: Al Dow ning

Test Start: 2012.06.29 @ 04:15:58

## GENERAL INFORMATION:

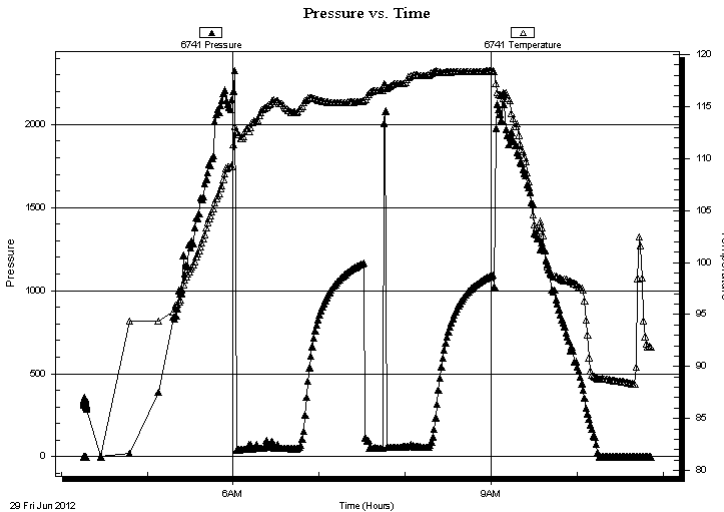
Formation: <b>Miss (2)</b>				Test Type: Conventional Bottom Hole (Reset)
Deviated: No Whipstock:	ft (KB)			Tester: Brian Fairbank
Time Tool Opened: 06:01:58				Unit No: 41
Time Test Ended: 10:51:58				
<b>Interval: 4271.00 ft (KB) To 4320.00 ft (KB) (TVD)</b>			Reference Elevations: 2172.00 ft (KB)	
Total Depth: 4320.00 ft (KB) (TVD)			2164.00 ft (CF)	
Hole Diameter: 7.88 inches	Hole Condition: Good		KB to GR/CF: 8.00 ft	

**Serial #: 6741 Outside**

Press @RunDepth: psig @ 4275.00 ft (KB)	Capacity: 8000.00 psig	
Start Date: 2012.06.29	End Date: 2012.06.29	Last Calib.: 2012.06.29
Start Time: 04:15:43	End Time: 10:51:42	Time On Btm:
		Time Off Btm:

**TEST COMMENT:** IFP - weak blow throughout 1/2" - 1 1/2"  
 ISI - no blow back  
 FFP - no blow - flush - sur blow throughout  
 FSI - no blow back

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
65.00	SOCM 10%O, 90%M	0.63

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Dow ning-Nelson Oil Co Inc

**19-20s-20w Pawnee,KS**

PO Box 1019  
Hays KS 67601

**Saxton Family #2-19**

Job Ticket: 47409

**DST#: 2**

ATTN: Al Dow ning

Test Start: 2012.06.29 @ 04:15:58

## Tool Information

Drill Pipe:	Length: 4226.00 ft	Diameter: 3.80 inches	Volume: 59.28 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 72000.00 lb
			Total Volume: 59.43 bbl	Tool Chased 10.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4271.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval betw een Packers:	49.00 ft			
Tool Length:	69.00 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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Shut In Tool	5.00			4256.00	
Hydraulic tool	5.00			4261.00	
Packer	5.00			4266.00	20.00 Bottom Of Top Packer
Packer	5.00			4271.00	
Stubb	1.00			4272.00	
Perforations	2.00			4274.00	
Change Over Sub	1.00			4275.00	
Recorder	0.00	6752	Inside	4275.00	
Recorder	0.00	6741	Outside	4275.00	
Blank Spacing	31.00			4306.00	
Change Over Sub	1.00			4307.00	
Perforations	10.00			4317.00	
Bullnose	3.00			4320.00	49.00 Bottom Packers & Anchor

**Total Tool Length: 69.00**



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Dow ning-Nelson Oil Co Inc

**19-20s-20w Pawnee,KS**

PO Box 1019  
Hays KS 67601

**Saxton Family #2-19**

Job Ticket: 47409

**DST#: 2**

ATTN: Al Dow ning

Test Start: 2012.06.29 @ 04:15:58

**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:

bbbl

Water Loss: 10.76 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5800.00 ppm

Filter Cake: inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
65.00	SOCM 10%O, 90%M	0.629

Total Length: 65.00 ft      Total Volume: 0.629 bbl

Num Fluid Samples: 0

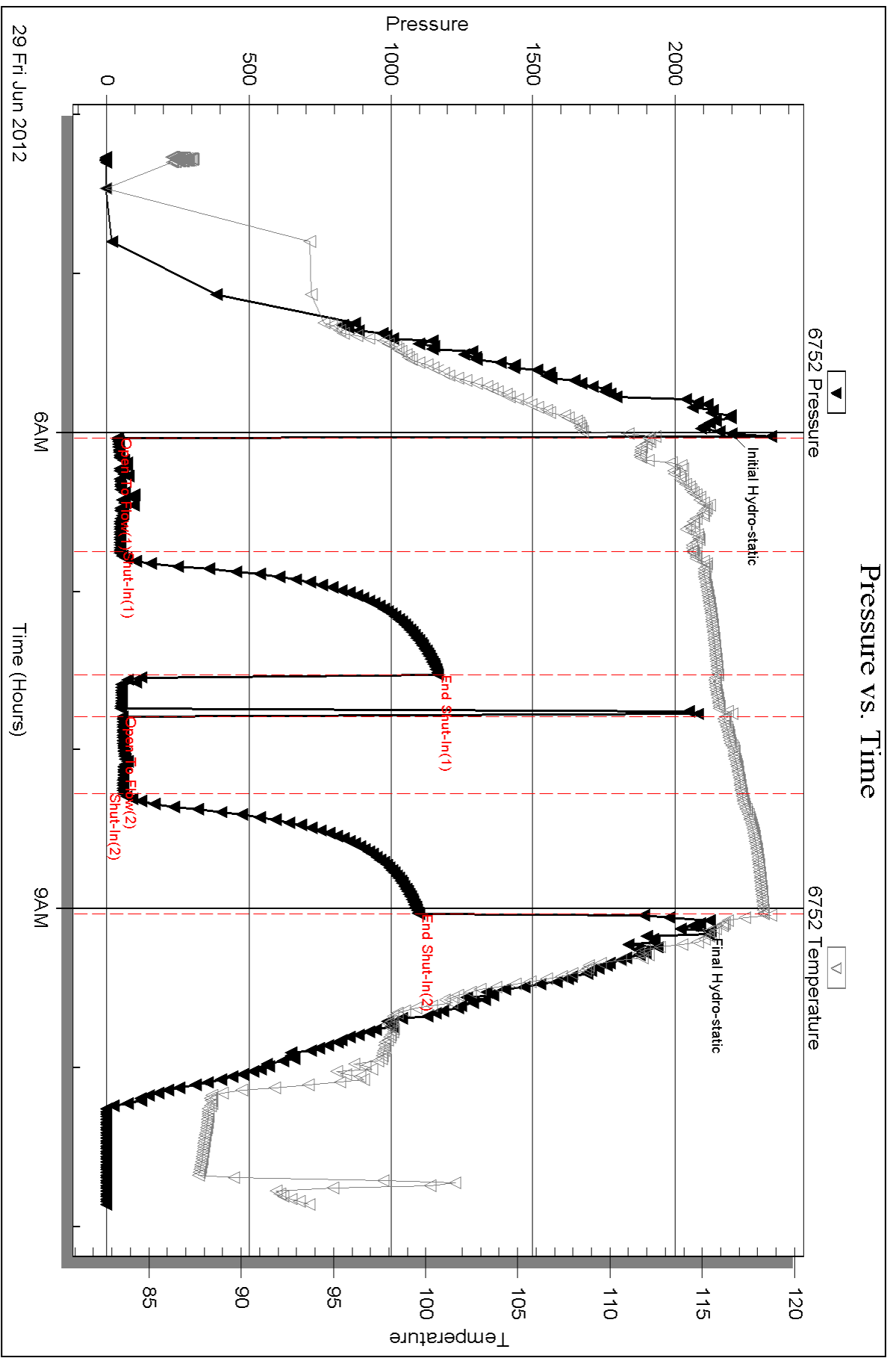
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

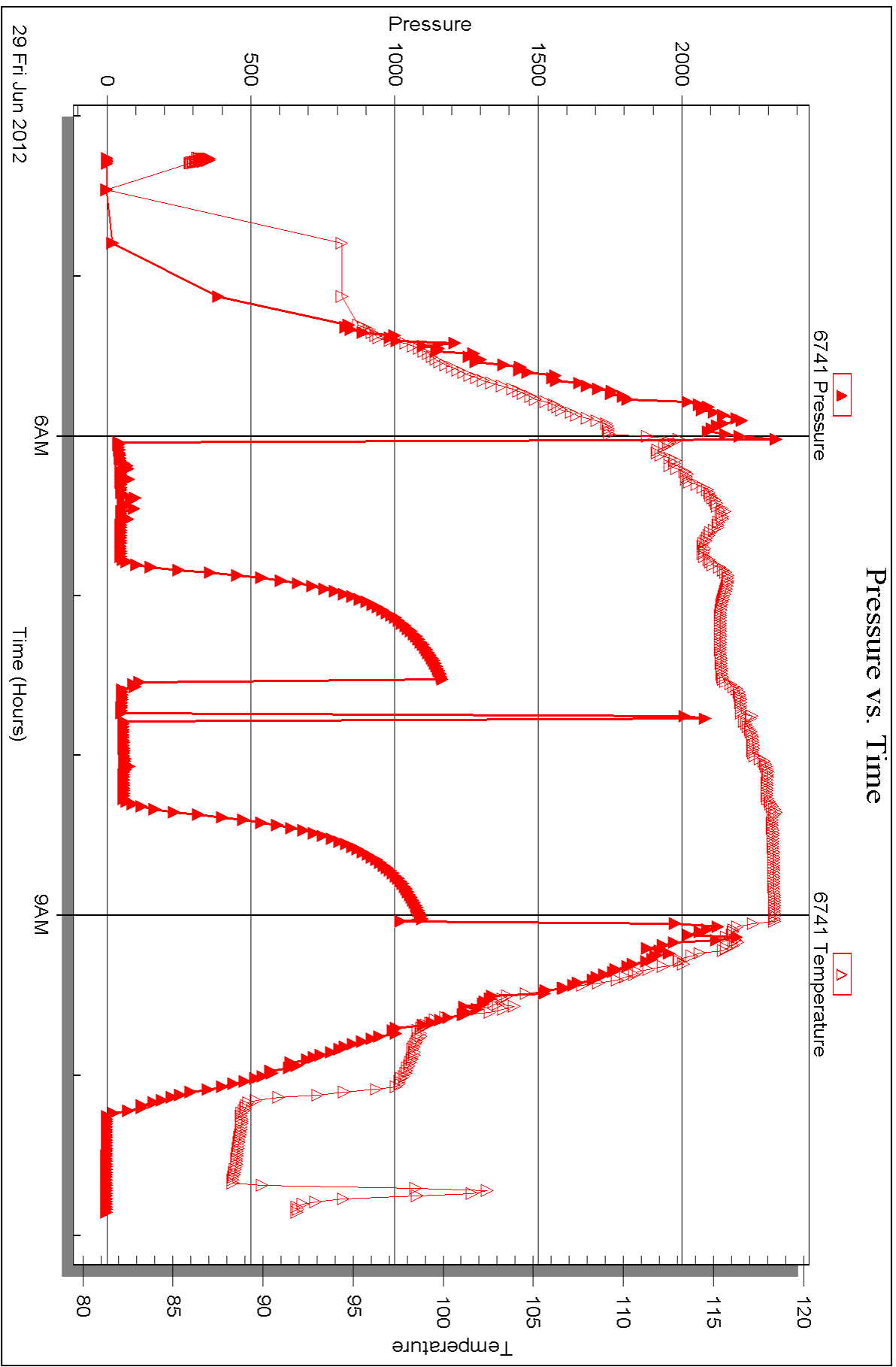


Serial #: 6741

Outside Dow n/ing-Nelson Oil Co Inc

Saxton Family #2-19

DST Test Number: 2





## DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co Inc**

PO Box 1019  
Hays KS 67601

ATTN: Al Downing

### **Saxton Family #2-19**

#### **19-20s-20w Pawnee,KS**

Start Date: 2012.06.29 @ 17:08:13

End Date: 2012.06.30 @ 00:05:13

Job Ticket #: 47410                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.07.06 @ 09:47:04



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

**19-20s-20w Pawnee,KS**

PO Box 1019  
Hays KS 67601

**Saxton Family #2-19**

Job Ticket: 47410

**DST#: 3**

ATTN: Al Dow ning

Test Start: 2012.06.29 @ 17:08:13

## GENERAL INFORMATION:

Formation: **Miss (3)**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:08:13

Time Test Ended: 00:05:13

Test Type: Conventional Bottom Hole (Reset)

Tester: Brian Fairbank

Unit No: 41

**Interval: 4271.00 ft (KB) To 4326.00 ft (KB) (TVD)**

Reference Elevations: 2172.00 ft (KB)

Total Depth: 4326.00 ft (KB) (TVD)

2164.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

**Serial #: 6752 Inside**

Press @RunDepth: 97.39 psig @ 4276.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.06.29

End Date:

2012.06.30

Last Calib.: 2012.06.30

Start Time: 17:08:14

End Time:

00:05:13

Time On Btm: 2012.06.29 @ 19:06:43

Time Off Btm: 2012.06.29 @ 22:10:43

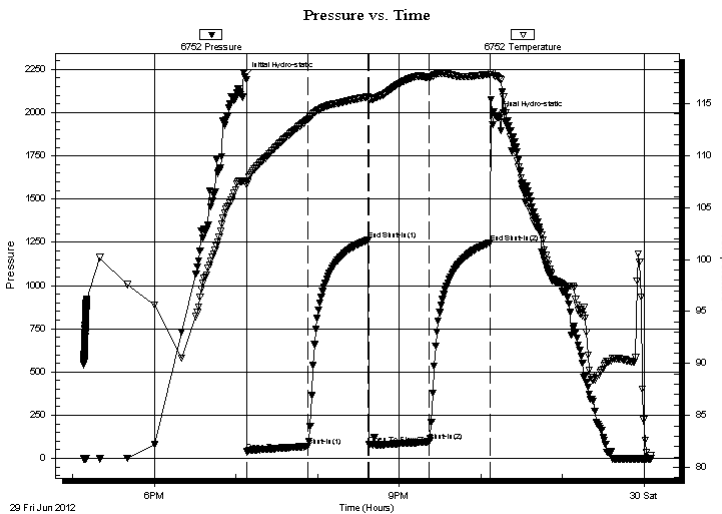
**TEST COMMENT:** IFP - weak to fair blow 1/2" - 4 1/2"

ISI - no blow back

FFP - no blow 5 min - 3"

FSI - no blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2205.89	107.51	Initial Hydro-static
2	40.02	107.22	Open To Flow (1)
46	68.93	113.43	Shut-In(1)
91	1263.31	115.64	End Shut-In(1)
91	82.97	115.42	Open To Flow (2)
136	97.39	117.55	Shut-In(2)
180	1248.18	117.81	End Shut-In(2)
184	1984.12	117.63	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
139.00	VSOCM 3%O, 97%M	1.67
1.00	HOCM 30%O, 70%M	0.01

## Gas Rates

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

\* Recovery from multiple tests





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TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

**19-20s-20w Pawnee,KS**

PO Box 1019  
Hays KS 67601

**Saxton Family #2-19**

ATTN: Al Dow ning

Job Ticket: 47410

**DST#: 3**

Test Start: 2012.06.29 @ 17:08:13

## GENERAL INFORMATION:

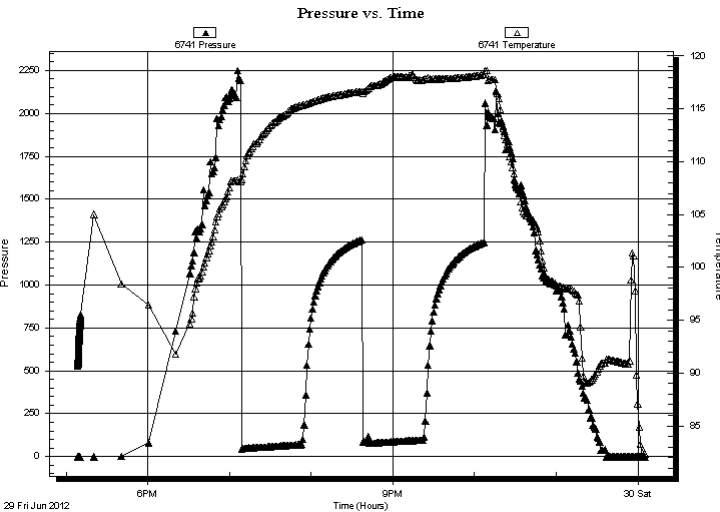
Formation: **Miss (3)**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 19:08:13  
 Time Test Ended: 00:05:13  
 Interval: **4271.00 ft (KB) To 4326.00 ft (KB) (TVD)**  
 Total Depth: 4326.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Brian Fairbank  
 Unit No: 41  
 Reference Elevations: 2172.00 ft (KB)  
 2164.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 6741**

**Outside**

Press @ Run Depth: psig @ 4276.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.06.29 End Date: 2012.06.30 Last Calib.: 2012.06.30  
 Start Time: 17:08:29 End Time: 00:05:28 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** IFP - weak to fair blow 1/2" - 4 1/2"  
 ISI - no blow back  
 FFP - no blow 5 min - 3"  
 FSI - no blow back



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
139.00	VSOCM 3%O, 97%M	1.67
1.00	HOCM 30%O, 70%M	0.01

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Downing-Nelson Oil Co Inc

**19-20s-20w Pawnee,KS**

PO Box 1019  
Hays KS 67601

**Saxton Family #2-19**

Job Ticket: 47410

**DST#: 3**

ATTN: Al Downing

Test Start: 2012.06.29 @ 17:08:13

## Tool Information

Drill Pipe:	Length: 4226.00 ft	Diameter: 3.80 inches	Volume: 59.28 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 59.43 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4271.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	55.00 ft			
Tool Length:	75.00 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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Shut In Tool	5.00			4256.00	
Hydraulic tool	5.00			4261.00	
Packer	5.00			4266.00	20.00 Bottom Of Top Packer
Packer	5.00			4271.00	
Stubb	1.00			4272.00	
Perforations	3.00			4275.00	
Change Over Sub	1.00			4276.00	
Recorder	0.00	6752	Inside	4276.00	
Recorder	0.00	6741	Outside	4276.00	
Blank Spacing	31.00			4307.00	
Change Over Sub	1.00			4308.00	
Perforations	15.00			4323.00	
Bullnose	3.00			4326.00	55.00 Bottom Packers & Anchor

**Total Tool Length: 75.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Dow ning-Nelson Oil Co Inc

**19-20s-20w Pawnee,KS**

PO Box 1019  
Hays KS 67601

**Saxton Family #2-19**

Job Ticket: 47410

**DST#: 3**

ATTN: Al Dow ning

Test Start: 2012.06.29 @ 17:08:13

## 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: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 19.97 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
139.00	VSOCM 3%O, 97%M	1.667
1.00	HOCM 30%O, 70%M	0.014

Total Length: 140.00 ft

Total Volume: 1.691 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6752

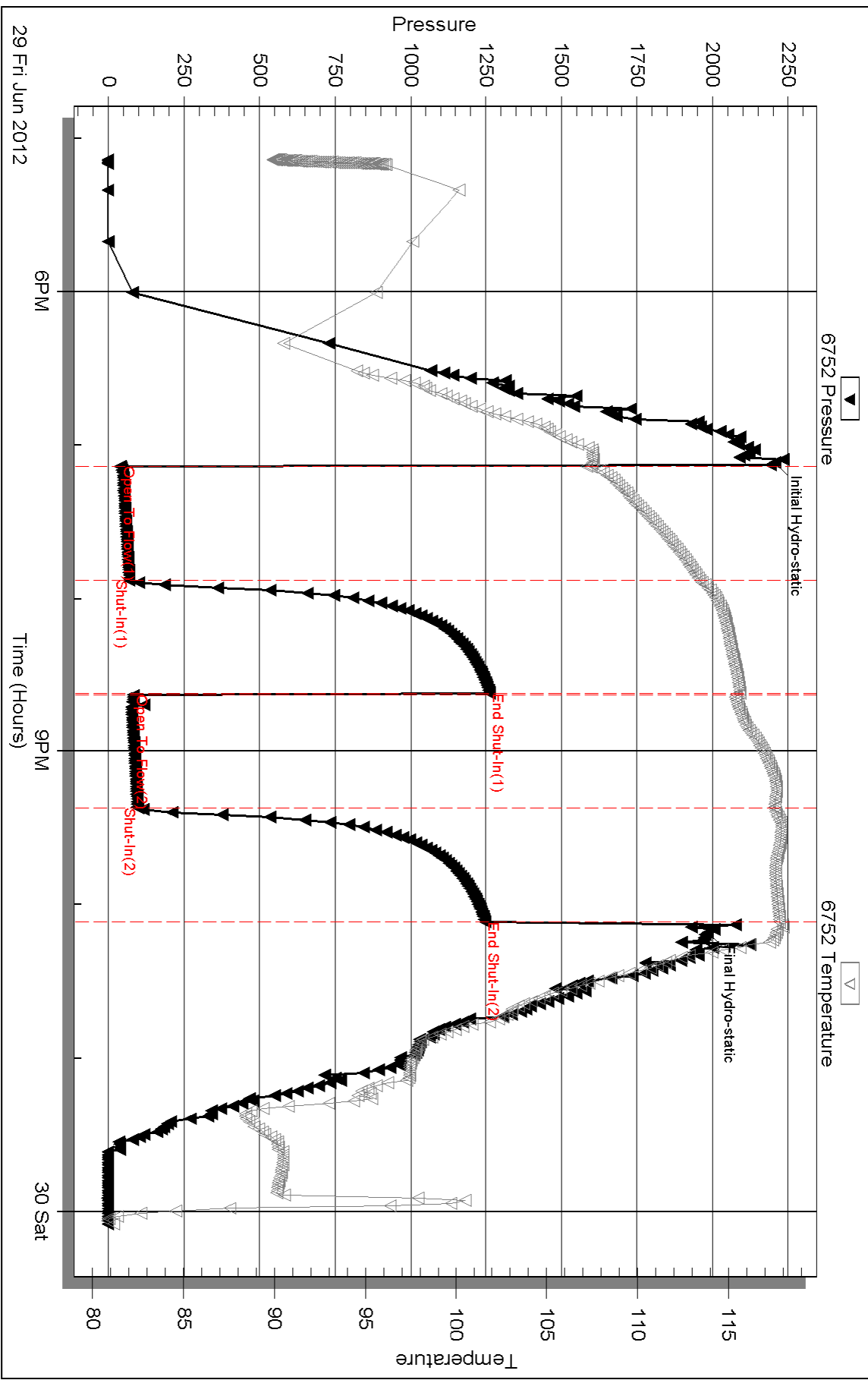
Inside

Dow nung-Nelson Oil Co Inc

Saxton Family #2-19

DST Test Number: 3

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 47410

Printed: 2012.07.06 @ 09:47:06

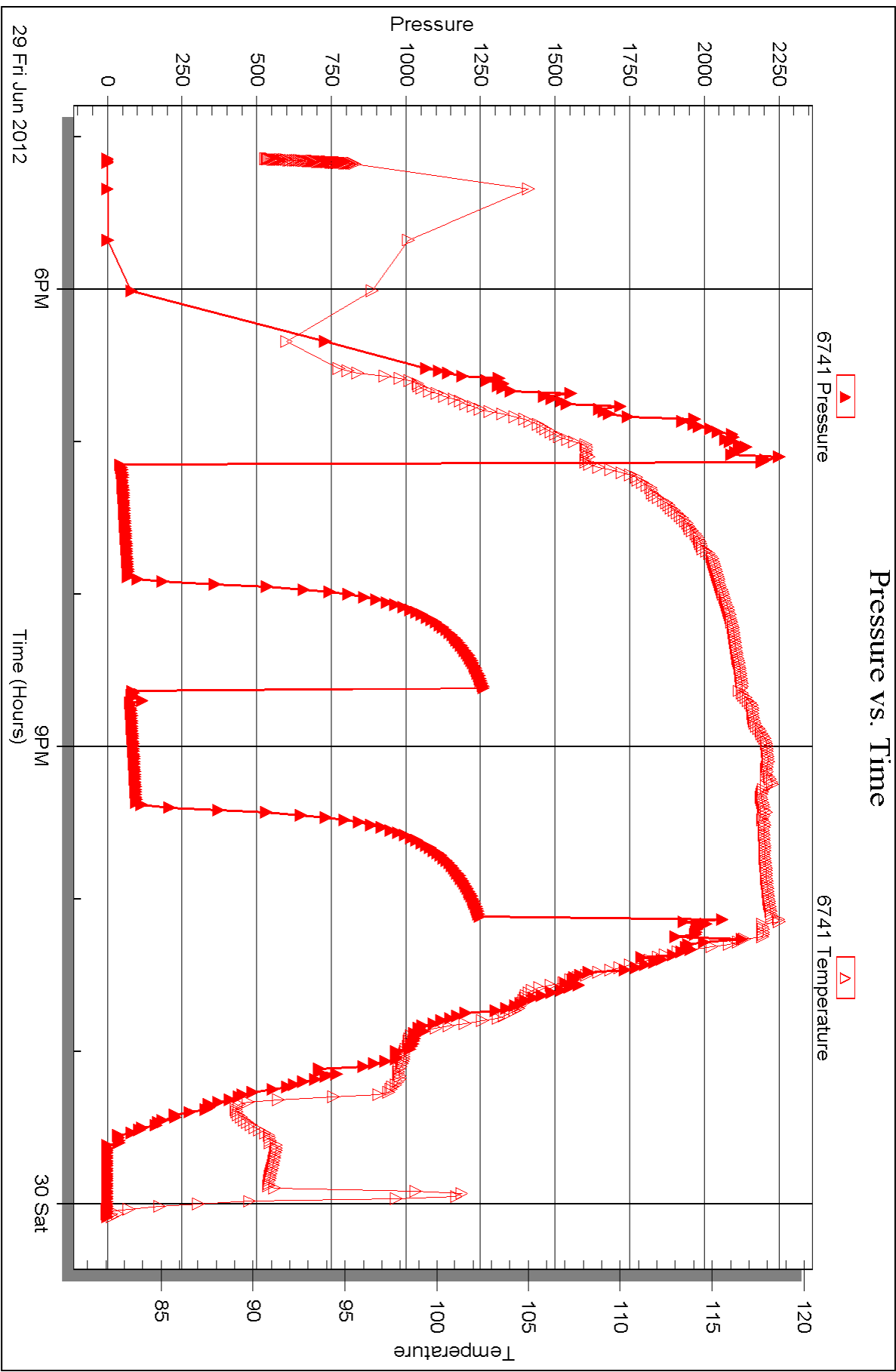
Serial #: 6741

Outside

Dow nting-Nelson Oil Co Inc

Saxton Family #2-19

DST Test Number: 3





## DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co Inc**

PO Box 1019  
Hays KS 67601

ATTN: Al Downing

### **Saxton Family #2-19**

#### **19-20s-20w Pawnee,KS**

Start Date: 2012.06.30 @ 06:49:43

End Date: 2012.06.30 @ 12:18:13

Job Ticket #: 47411                      DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.07.06 @ 09:46:24



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

**19-20s-20w Pawnee,KS**

PO Box 1019  
Hays KS 67601

**Saxton Family #2-19**

ATTN: Al Dow ning

Job Ticket: 47411

**DST#: 4**

Test Start: 2012.06.30 @ 06:49:43

## GENERAL INFORMATION:

Formation: **Miss (4)**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:41:43

Time Test Ended: 12:18:13

Test Type: Conventional Bottom Hole (Reset)

Tester: Brian Fairbank

Unit No: 41

**Interval: 4271.00 ft (KB) To 4333.00 ft (KB) (TVD)**

Reference Elevations: 2172.00 ft (KB)

Total Depth: 4333.00 ft (KB) (TVD)

2164.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

**Serial #: 6752**

**Inside**

Press @ Run Depth: 1121.18 psig @ 4278.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.06.30

End Date: 2012.06.30

Last Calib.: 2012.06.30

Start Time: 06:49:44

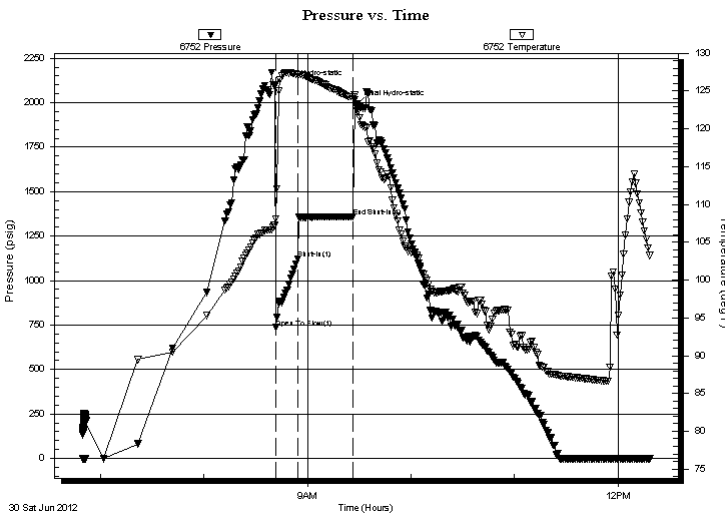
End Time: 12:18:13

Time On Btm: 2012.06.30 @ 08:40:43

Time Off Btm: 2012.06.30 @ 09:28:43

TEST COMMENT: IFP - BOB 30 sec  
ISI - no blow back  
TIME - 15-30

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2099.36	107.21	Initial Hydro-static
1	735.51	108.12	Open To Flow (1)
14	1121.18	127.21	Shut-In(1)
46	1356.88	124.22	End Shut-In(1)
48	1987.91	122.41	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1305.00	MW 95%W, 5%M	18.02
525.00	WM 40%W, 60%M	7.36
220.00	DRL MUD 100%	3.09

## Gas Rates

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

\* Recovery from multiple tests



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

**19-20s-20w Pawnee,KS**

PO Box 1019  
Hays KS 67601

**Saxton Family #2-19**

Job Ticket: 47411

**DST#: 4**

ATTN: Al Dow ning

Test Start: 2012.06.30 @ 06:49:43

### GENERAL INFORMATION:

Formation: **Miss (4)**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:41:43

Time Test Ended: 12:18:13

Test Type: Conventional Bottom Hole (Reset)

Tester: Brian Fairbank

Unit No: 41

**Interval: 4271.00 ft (KB) To 4333.00 ft (KB) (TVD)**

Reference Elevations: 2172.00 ft (KB)

Total Depth: 4333.00 ft (KB) (TVD)

2164.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

**Serial #: 6741 Outside**

Press @RunDepth: psig @ 4278.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.06.30 End Date: 2012.06.30

Last Calib.: 2012.06.30

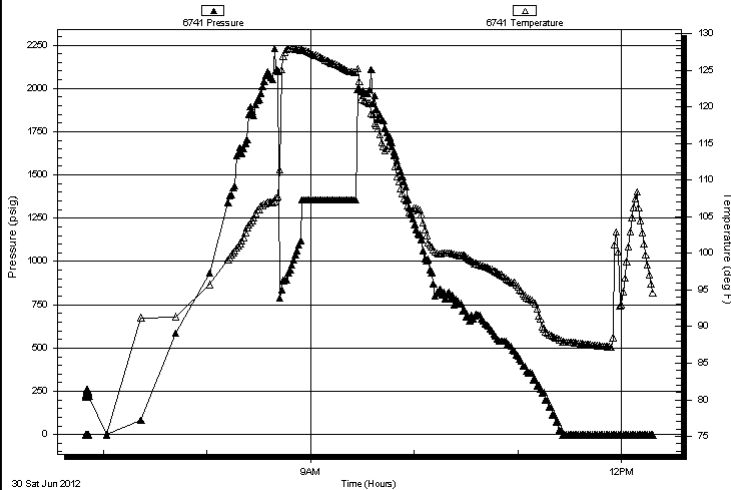
Start Time: 06:49:33 End Time: 12:18:02

Time On Btm:

Time Off Btm:

TEST COMMENT: IFP - BOB 30 sec  
ISI - no blow back  
TIME - 15-30

Pressure vs. Time



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
1305.00	MW 95%W, 5%M	18.02
525.00	WM 40%W, 60%M	7.36
220.00	DRL MUD 100%	3.09

### Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Dow ning-Nelson Oil Co Inc

**19-20s-20w Pawnee,KS**

PO Box 1019  
Hays KS 67601

**Saxton Family #2-19**

Job Ticket: 47411

**DST#: 4**

ATTN: Al Dow ning

Test Start: 2012.06.30 @ 06:49:43

## Tool Information

Drill Pipe:	Length: 4226.00 ft	Diameter: 3.80 inches	Volume: 59.28 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 59.43 bbl</u>	Tool Chased 5.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4271.00 ft			Final 75000.00 lb
Depth to Bottom Packer:	ft			
Interval betw een Packers:	62.00 ft			
Tool Length:	82.00 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			4256.00	
Hydraulic tool	5.00			4261.00	
Packer	5.00			4266.00	20.00 Bottom Of Top Packer
Packer	5.00			4271.00	
Stubb	1.00			4272.00	
Perforations	5.00			4277.00	
Change Over Sub	1.00			4278.00	
Recorder	0.00	6752	Inside	4278.00	
Recorder	0.00	6741	Outside	4278.00	
Blank Spacing	31.00			4309.00	
Change Over Sub	1.00			4310.00	
Perforations	20.00			4330.00	
Bullnose	3.00			4333.00	62.00 Bottom Packers & Anchor

**Total Tool Length: 82.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Dow ning-Nelson Oil Co Inc

**19-20s-20w Pawnee,KS**

PO Box 1019  
Hays KS 67601

**Saxton Family #2-19**

Job Ticket: 47411

**DST#: 4**

ATTN: Al Dow ning

Test Start: 2012.06.30 @ 06:49:43

## 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:

40000 ppm

Viscosity: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 19.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
1305.00	MW 95%W, 5%M	18.023
525.00	WM 40%W, 60%M	7.364
220.00	DRL MUD 100%	3.086

Total Length: 2050.00 ft

Total Volume: 28.473 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

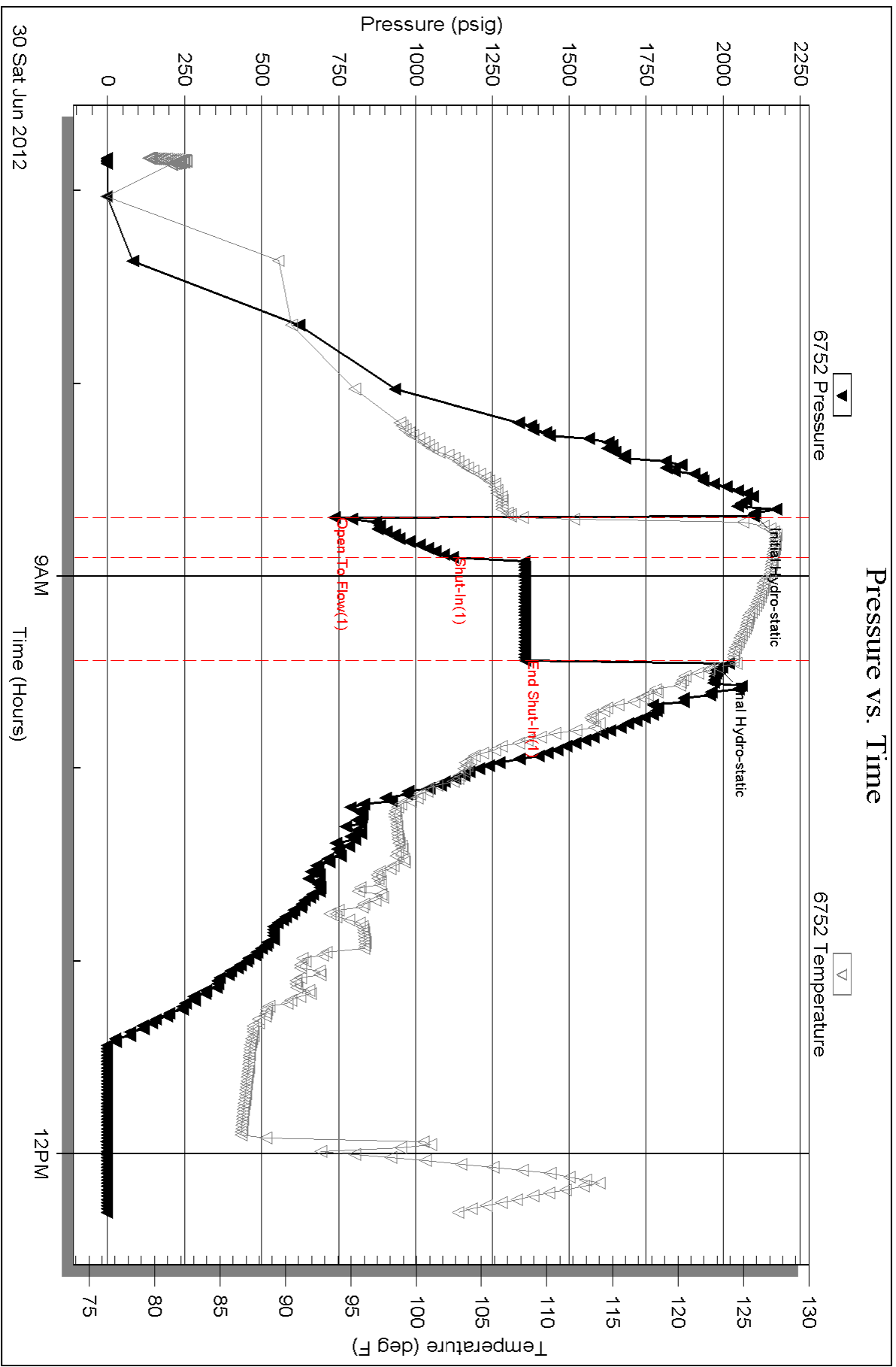
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Inside

Dow nung-Nelson Oil Co Inc

Saxton Family #2-19

DST Test Number: 4



Triobite Testing, Inc

Ref. No: 47411

Printed: 2012.07.06 @ 09:46:26

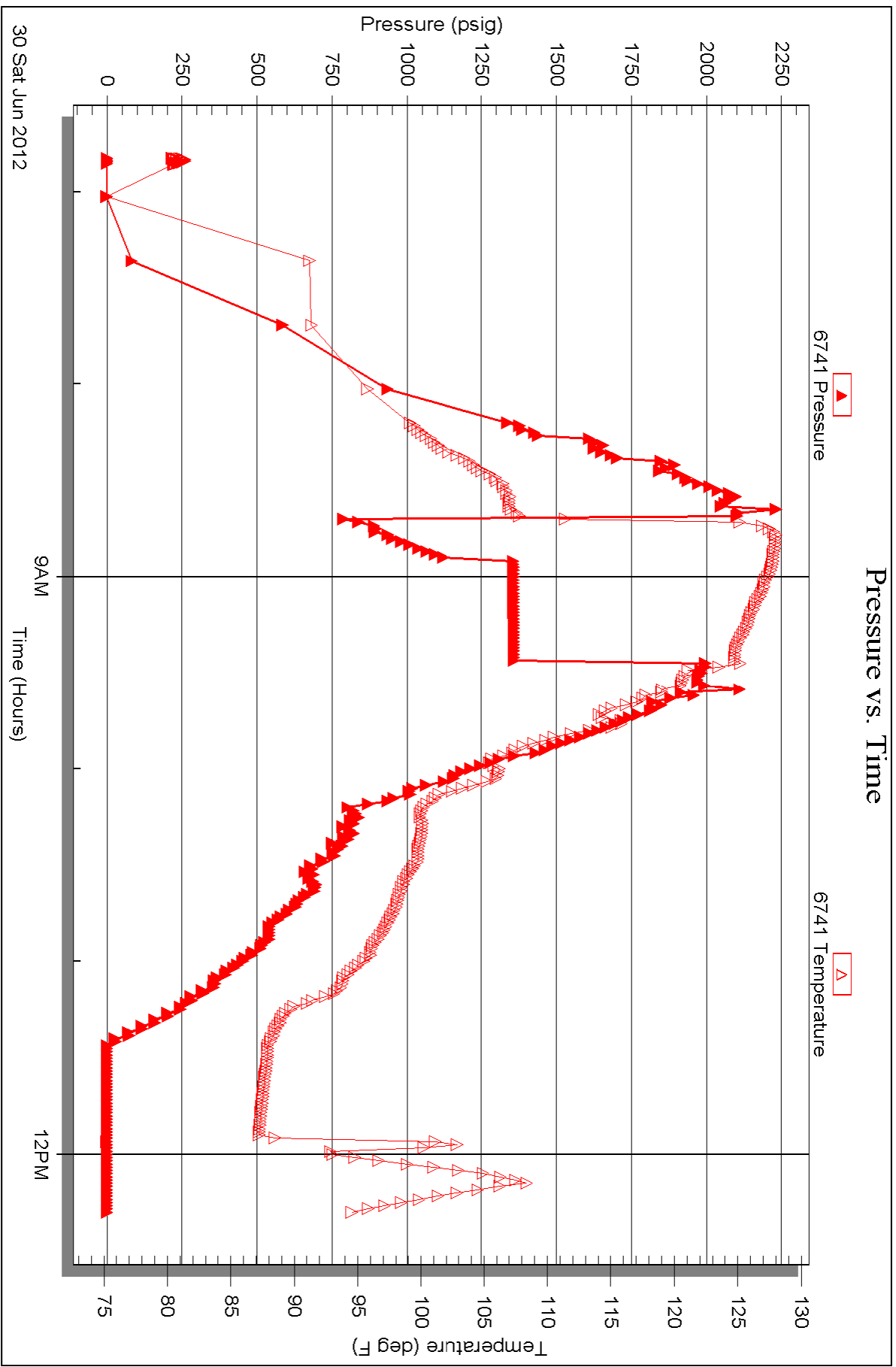
Serial #: 6741

Outside

Dow nung-Nelson Oil Co Inc

Saxton Family #2-19

DST Test Number: 4





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 45912

Well Name & No. Saxton Family #2-19 Test No. DST #1 Date 6-28-12  
 Company Downing-Nelson Oil Co. Inc Elevation 2172 KB 2164 GL  
 Address P.O. Box 1019 Hays KS 67601  
 Co. Rep / Geo. AL Downing Rig Discovery Rig #4  
 Location: Sec. 19 Twp. 20S Rge. 20W Co. Pawnee State KS

Interval Tested 4272-4311 Zone Tested Mississippi  
 Anchor Length 39 Drill Pipe Run 4228 Mud Wt. 9.2  
 Top Packer Depth 4268 Drill Collars Run 30 Vis 49  
 Bottom Packer Depth 4272 Wt. Pipe Run 0 WL 10.8  
 Total Depth 4311 Chlorides 5800 ppm System LCM 216

Blow Description IF- 1/4" Blow Died back to Weak Surface Blow  
ISI- No Blow  
EF- Weak Surface Blow Died in 2 min  
FSI- No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>Mud with Few Oil Spots</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 10 BHT 111 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>2141</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>16:30</u>
(B) First Initial Flow <u>17</u>	<input type="checkbox"/> Jars	T-Started <u>17:10</u>
(C) First Final Flow <u>22</u>	<input type="checkbox"/> Safety Joint	T-Open <u>19:02</u>
(D) Initial Shut-In <u>887</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>21:05</u>
(E) Second Initial Flow <u>22</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>22:48</u>
(F) Second Final Flow <u>25</u>	<input checked="" type="checkbox"/> Mileage <u>190 R/T</u> 113rt	Comments _____
(G) Final Shut-In <u>725</u>	<input type="checkbox"/> Sampler	175.15 _____
(H) Final Hydrostatic <u>1977</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> 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

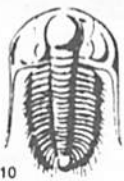
Sub Total 1425.15

Sub Total 1425.15

MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Will Moran

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# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 47409

Well Name & No. Sexton Family 2-19 Test No. 2 Date 6-29-12  
 Company DNOC Elevation 2172 KB 2164 GL  
 Address \_\_\_\_\_  
 Co. Rep / Geo. Al Downing Rig Discovery 4  
 Location: Sec. 19 Twp. 20 Rge. 20 Co. Powder State Ks

Interval Tested 4271-4320 Zone Tested M-30(2)  
 Anchor Length 49 Drill Pipe Run 4226 Mud Wt. 9.2  
 Top Packer Depth 4266 Drill Collars Run 31 Vis 49  
 Bottom Packer Depth 4271 Wt. Pipe Run — WL 10.8  
 Total Depth 4320 Chlorides 5800 ppm System LCM \_\_\_\_\_

Blow Description IIFP - weak blow throughout 1/2" - 1 1/2"  
IST - no blow back  
FFP - no blow - flush - sur blow throughout  
FSI - no blow back

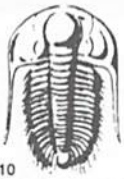
Rec	Feet of	%gas	%oil	%water	%mud
<u>65</u>	<u>SOCM</u>	<u>10</u>		<u>90</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 65 BHT 118 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2198  Test 1250 T-On Location 0358  
 (B) First Initial Flow 39  Jars T-Started 0415  
 (C) First Final Flow 47  Safety Joint T-Open 0602  
 (D) Initial Shut-In 1166  Circ Sub T-Pulled 0902  
 (E) Second Initial Flow 57  Hourly Standby T-Out 1052  
 (F) Second Final Flow 58  Mileage 113 RT 175.15 Comments 10' fill on bottom  
 (G) Final Shut-In 1097  Sampler  
 (H) Final Hydrostatic 2084  Straddle  Ruined Shale Packer  
 Shale Packer  Ruined Packer  
 Extra Packer  Extra Copies  
 Extra Recorder Sub Total 0  
 Day Standby Total 1425.15  
 Accessibility MP/DST Disc't \_\_\_\_\_  
 Sub Total 1425.15

Approved By \_\_\_\_\_ Our Representative Brian Farber

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# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 47410

Well Name & No. Sexton Family 2-19 Test No. 3 Date 6-29-12  
 Company DNOC Elevation 2172 KB 2164 GL  
 Address \_\_\_\_\_  
 Co. Rep / Geo. Gater Rig Discovery 4  
 Location: Sec. 19 Twp. 20 Rge. 20 Co. Pawnee State K

Interval Tested 4271-4326 Zone Tested Miss (3)  
 Anchor Length 55 Drill Pipe Run 4226 Mud Wt. 9.2  
 Top Packer Depth 4266 Drill Collars Run 31 Vis 65  
 Bottom Packer Depth 4271 Wt. Pipe Run \_\_\_\_\_ WL 20  
 Total Depth 4326 Chlorides 8000 ppm System LCM \_\_\_\_\_  
 Blow Description IFP - weak to fair blow 1/2" - 4 1/2"  
ISI - no blow back  
FFP - no blow 5 min - 3"  
FSI - no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>HOCM</u>	<u>30</u>		<u>70</u>	
<u>139</u>	<u>USOCM</u>	<u>3</u>		<u>97</u>	
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____

Rec Total 140 BHT 118 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2206  Test 1250 T-On Location 1605  
 (B) First Initial Flow 40  Jars T-Started 1708  
 (C) First Final Flow 69  Safety Joint T-Open 1908  
 (D) Initial Shut-In 1263  Circ Sub T-Pulled 2208  
 (E) Second Initial Flow 83  Hourly Standby T-Out 2406  
 (F) Second Final Flow 97  Mileage 175.15 Comments 2' fill on bottom  
 (G) Final Shut-In 1248  Sampler  Ruined Shale Packer  
 (H) Final Hydrostatic 1984  Straddle  Ruined Packer  
 Shale Packer  Extra Copies  
 Extra Packer  Extra Recorder  
 Extra Recorder Sub Total 0  
 Day Standby Total 1425.15  
 Accessibility MP/DST Disc't \_\_\_\_\_  
 Sub Total 1425.15

Approved By \_\_\_\_\_ Our Representative Brian Fairbank

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# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 47411

Well Name & No. Sexton Family 2-19 Test No. 04 Date 6-30-12  
 Company DNOC Elevation 2172 KB 2164 GL  
 Address \_\_\_\_\_  
 Co. Rep / Geo. Gator Rig Discovery 4  
 Location: Sec. 19 Twp. 20 Rge. 20 Co. Pawnee State Ks

Interval Tested 4271-4333 Zone Tested Miss (4)  
 Anchor Length 62 Drill Pipe Run 4226 Mud Wt. 9.2  
 Top Packer Depth 4266 Drill Collars Run 31 Vis 65  
 Bottom Packer Depth 4271 Wt. Pipe Run — WL 20  
 Total Depth 4333 Chlorides 8000 ppm System LCM \_\_\_\_\_  
 Blow Description IFP- BOB 30 sec  
ISI- no blow back  
FFP-  
FST-

Rec	Feet of	%gas	%oil	%water	%mud
<u>220</u>	<u>dnl mud</u>			<u>100</u>	
<u>525</u>	<u>WM</u>		<u>40</u>	<u>60</u>	
<u>1305</u>	<u>MW</u>		<u>95</u>	<u>5</u>	
_____	_____				
_____	_____				

Rec Total 2050 BHT 124 Gravity \_\_\_\_\_ API RW .148 @ 92 °F Chlorides 40,000 ppm

(A) Initial Hydrostatic <u>2099</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>0546</u>
(B) First Initial Flow <u>736</u>	<input type="checkbox"/> Jars _____	T-Started <u>0649</u>
(C) First Final Flow <u>1121</u>	<input type="checkbox"/> Safety Joint _____	T-Open <u>0841</u>
(D) Initial Shut-In <u>1357</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>0926</u>
(E) Second Initial Flow <u>—</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>1218</u>
(F) Second Final Flow <u>—</u>	<input checked="" type="checkbox"/> Mileage 175.15	Comments <u>5' fill on bottom</u>
(G) Final Shut-In <u>—</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1988</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>15</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>—</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>—</u>	<input type="checkbox"/> Day Standby _____	Total <u>1425.15</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1425.15</u>	

Approved By \_\_\_\_\_ Our Representative Brian Farbank  
 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 opinions 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.