



DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson oil Co.Inc.**

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

29-9s-31w Thomas,KS

Hockersmith-Robben #1-29

Start Date: 2012.08.12 @ 09:40:00

End Date: 2012.08.12 @ 15:16:00

Job Ticket #: 47398 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.08.16 @ 15:16:09

Downing-Nelson oil Co.Inc.

Hockersmith-Robben #1-29

29-9s-31w Thomas,KS

DST # 1

LKC-H,I,J

2012.08.12



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson oil Co.Inc.

Hockersmith-Robben #1-29

PO Box 1019
Hays KS 67601

29-9s-31w Thomas,KS

ATTN: Ron Nelson

Job Ticket: 47398

DST#: 1

Test Start: 2012.08.12 @ 09:40:00

GENERAL INFORMATION:

Formation: **LKC-H,I,J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:39:30

Time Test Ended: 15:16:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Chuck Kreuzer Jr.

Unit No: 61

Interval: 4208.00 ft (KB) To 4300.00 ft (KB) (TVD)

Reference Elevations: 3043.00 ft (KB)

Total Depth: 4300.00 ft (KB) (TVD)

3038.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8791

Inside

Press @ Run Depth: 25.49 psig @ 4211.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.08.12

End Date:

2012.08.12

Last Calib.:

2012.08.12

Start Time:

09:40:05

End Time:

15:15:59

Time On Btm:

2012.08.12 @ 11:14:30

Time Off Btm:

2012.08.12 @ 13:43:00

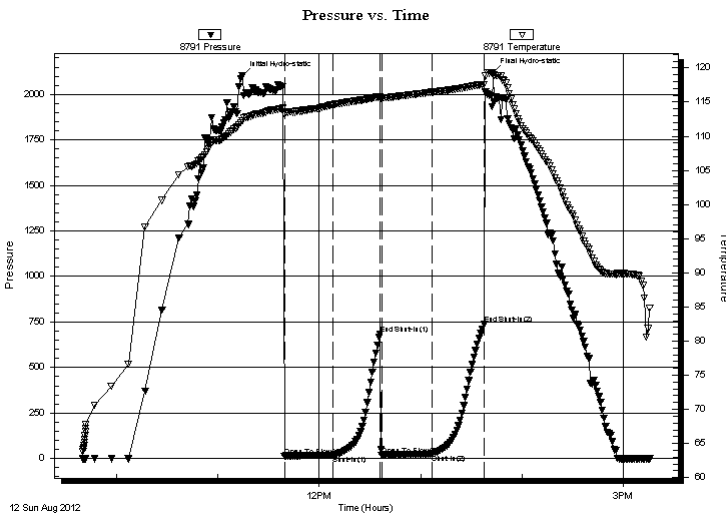
TEST COMMENT: IF: Weak blow , Started at 1 in. Died to 3/4 in.

IS!: No blow back.

FF: Weak blow , Built to 2 in.

FS!: No blow back.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2102.29	112.27	Initial Hydro-static
25	13.41	113.24	Open To Flow (1)
54	18.62	114.63	Shut-In(1)
82	682.72	115.83	End Shut-In(1)
83	16.24	115.64	Open To Flow (2)
113	25.49	116.46	Shut-In(2)
143	736.16	117.61	End Shut-In(2)
149	2120.87	119.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	OCMW 30%O 20%W 50%M	0.42

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson oil Co.Inc.

Hockersmith-Robben #1-29

PO Box 1019
Hays KS 67601

29-9s-31w Thomas,KS

Job Ticket: 47398

DST#: 1

ATTN: Ron Nelson

Test Start: 2012.08.12 @ 09:40:00

Tool Information

Drill Pipe:	Length: 4206.00 ft	Diameter: 3.80 inches	Volume: 59.00 bbl	Tool Weight: 2600.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 59.00 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4208.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	90.00 ft			
Tool Length:	110.00 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			4193.00	
Hydraulic tool	5.00			4198.00	
Packer	5.00			4203.00	20.00 Bottom Of Top Packer
Packer	5.00			4208.00	
Stubb	1.00			4209.00	
Perforations	1.00			4210.00	
Change Over Sub	1.00			4211.00	
Recorder	0.00	8791	Inside	4211.00	
Recorder	0.00	8673	Outside	4211.00	
Blank Spacing	63.00			4274.00	
Change Over Sub	1.00			4275.00	
Perforations	20.00			4295.00	
Bullnose	3.00			4298.00	90.00 Bottom Packers & Anchor

Total Tool Length: 110.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson oil Co.Inc.

Hockersmith-Robben #1-29

PO Box 1019
Hays KS 67601

29-9s-31w Thomas,KS

Job Ticket: 47398 **DST#: 1**

ATTN: Ron Nelson

Test Start: 2012.08.12 @ 09:40:00

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: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.97 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 800.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	OCMW 30%O 20%W 50%M	0.421

Total Length: 30.00 ft Total Volume: 0.421 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

Serial #: 8791

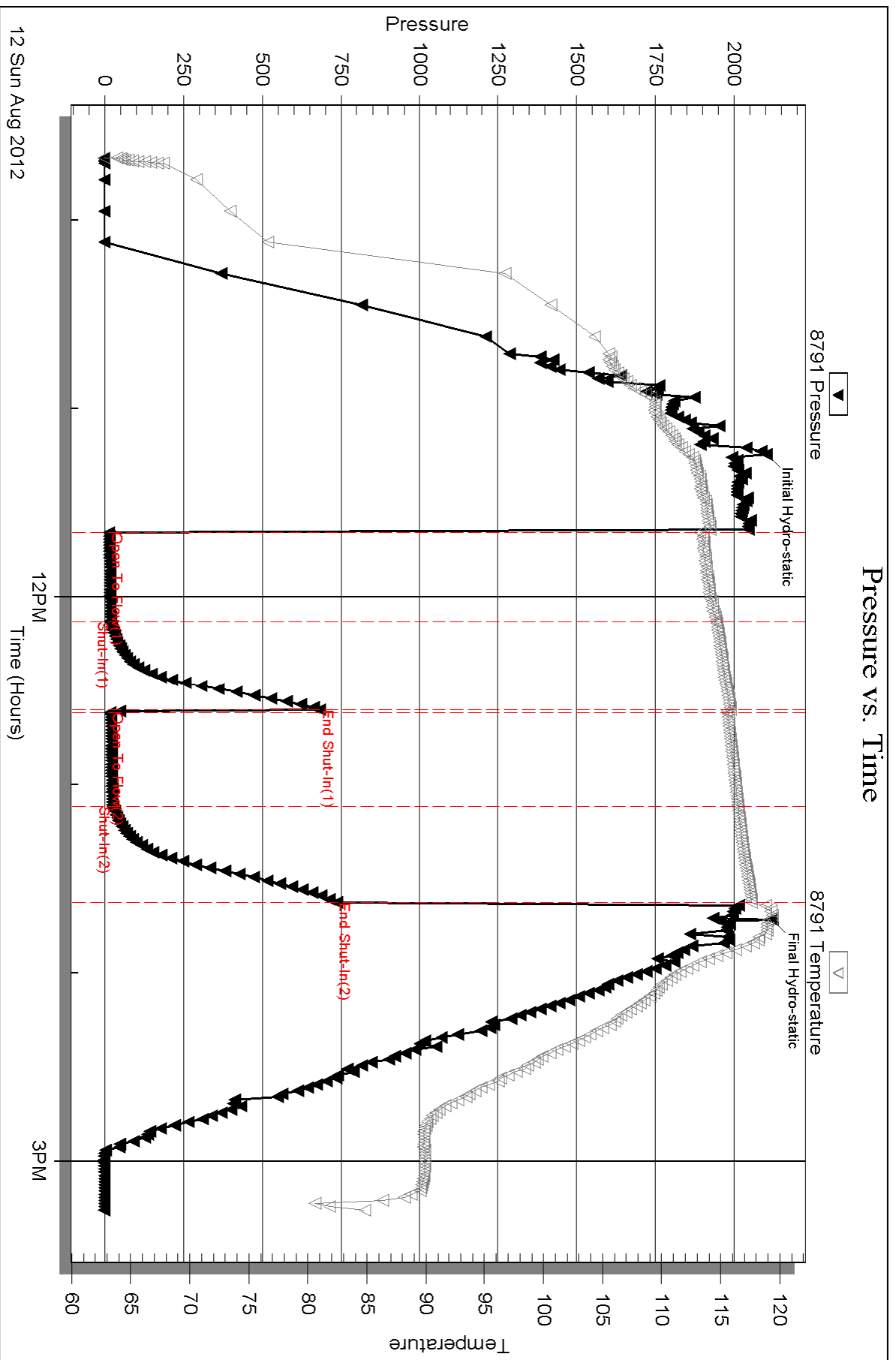
Inside

Downing-Nelson Oil Co. Inc.

29-95-31w Thomas, KS

DST Test Number: 1

Pressure vs. Time

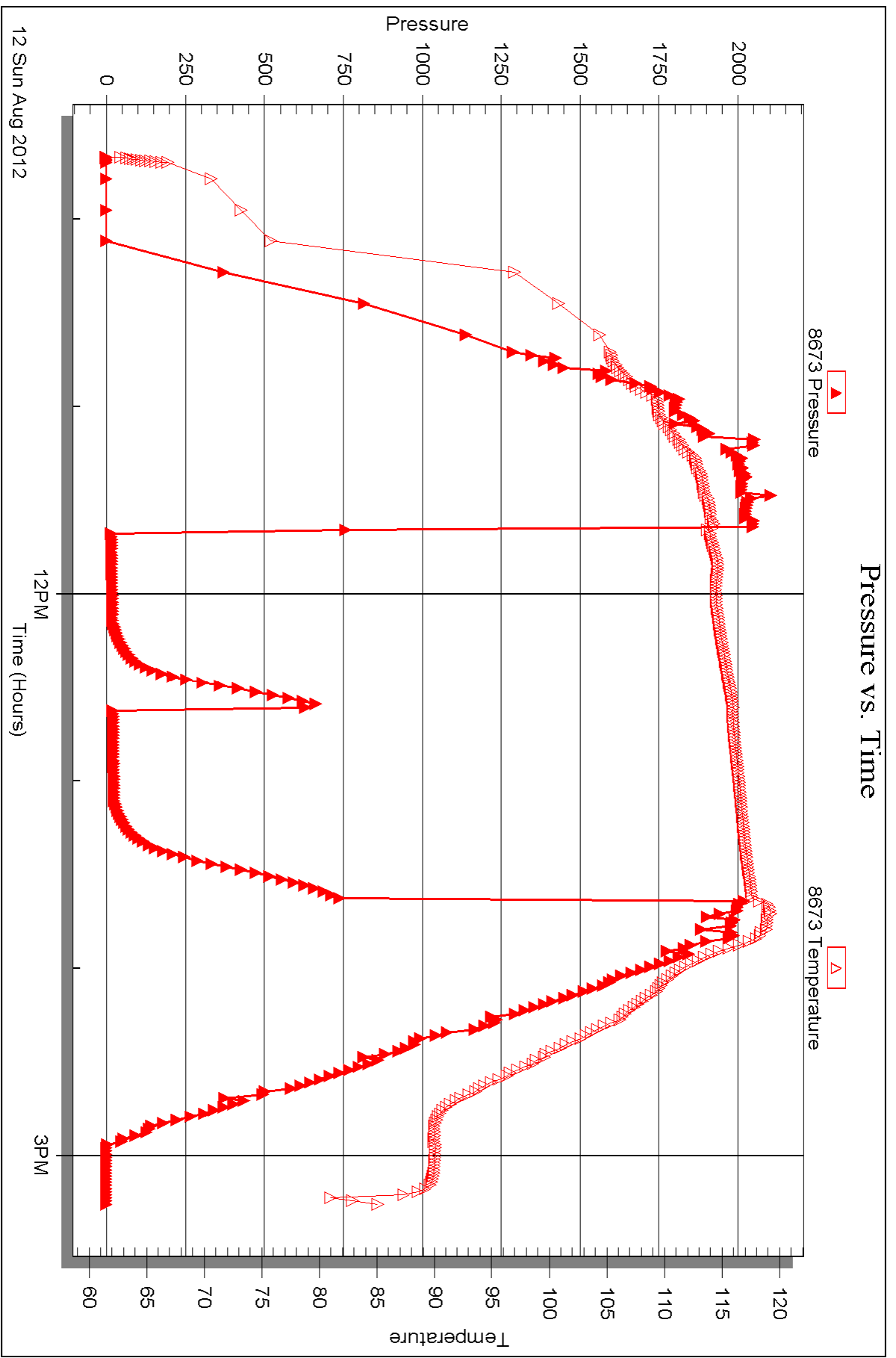


Serial #: 8673

Outside Dow nung-Nelson oil Co. Inc.

29-95-31w Thomas, KS

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 47398

Printed: 2012.08.16 @ 15:16:12



DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson oil Co.Inc.**

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

29-9s-31w Thomas,KS

Hockersmith-Robben #1-29

Start Date: 2012.08.12 @ 01:00:00

End Date: 2012.08.12 @ 09:36:30

Job Ticket #: 47399 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.08.16 @ 15:15:14

Downing-Nelson oil Co.Inc.

Hockersmith-Robben #1-29

29-9s-31w Thomas,KS

DST # 2

LKC-L

2012.08.12



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson oil Co.Inc.

Hockersmith-Robben #1-29

PO Box 1019
Hays KS 67601

29-9s-31w Thomas,KS

ATTN: Ron Nelson

Job Ticket: 47399

DST#: 2

Test Start: 2012.08.12 @ 01:00:00

GENERAL INFORMATION:

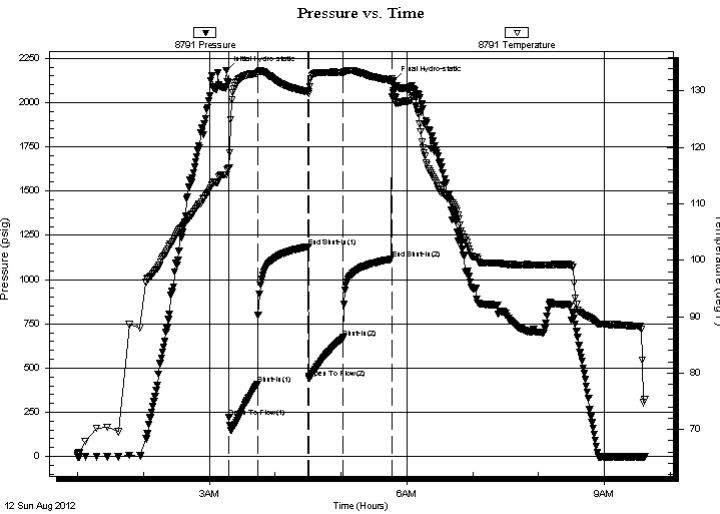
Formation: **LKC-L**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 03:18:00
 Time Test Ended: 09:36:30
 Interval: **4330.00 ft (KB) To 4354.00 ft (KB) (TVD)**
 Total Depth: 4354.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Chuck Kreuzer Jr.
 Unit No: 61
 Reference Elevations: 3043.00 ft (KB)
 3038.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8791

Inside

Press @ Run Depth: 671.66 psig @ 4331.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.08.12 End Date: 2012.08.12 Last Calib.: 2012.08.13
 Start Time: 01:00:05 End Time: 09:36:30 Time On Btm: 2012.08.12 @ 03:15:30
 Time Off Btm: 2012.08.12 @ 05:48:00

TEST COMMENT: IF: Strong blow , Built to B.O.B in 1 min.
 IS: Bled off, strong Blow back. Built to B.O.B in 4 1/2 mins.
 FF: Strong blow , Built to B.O.B in 30 sec. Gas to surface 20 mins. into FF
 FS: Bled off, Strong blow back. Built to B.O.B in 5 mins.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2181.30	115.18	Initial Hydro-static
3	222.58	116.35	Open To Flow (1)
29	409.16	133.13	Shut-In(1)
75	1185.41	129.87	End Shut-In(1)
76	441.87	129.46	Open To Flow (2)
107	671.66	133.32	Shut-In(2)
151	1115.47	131.82	End Shut-In(2)
153	2125.68	130.08	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	HMCO-25% m75% o	1.74
1798.00	go-25% g75% o	25.22
0.00	GTS	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Dow ning-Nelson oil Co.Inc.

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

Hockersmith-Robben #1-29

29-9s-31w Thomas,KS

Job Ticket: 47399

DST#: 2

Test Start: 2012.08.12 @ 01:00:00

GENERAL INFORMATION:

Formation: **LKC-L**

Deviated: **No Whipstock:** ft (KB)

Time Tool Opened: 03:18:00

Time Test Ended: 09:36:30

Test Type: **Conventional Bottom Hole (Reset)**

Tester: **Chuck Kreutzer Jr.**

Unit No: 61

Interval: 4330.00 ft (KB) To 4354.00 ft (KB) (TVD)

Total Depth: 4354.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: **Fair**

Reference Elevations: 3043.00 ft (KB)

3038.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8673 Outside

Press @ Run Depth: psig @ 4331.00 ft (KB)

Start Date: 2012.08.12

End Date: 2012.08.12

Start Time: 01:00:05

End Time: 09:36:30

Capacity: 8000.00 psig

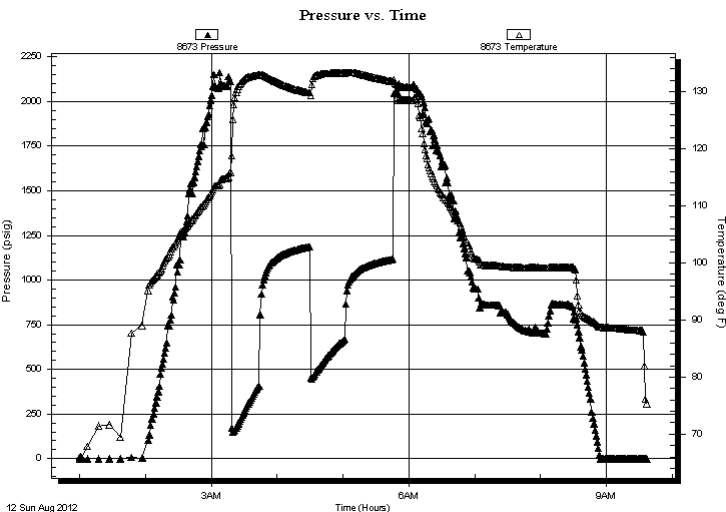
Last Calib.: 2012.08.13

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Strong blow , Built to B.O.B in 1 min.
 IS: Bled off, strong Blow back. Built to B.O.B in 4 1/2 mins.
 FF: Strong blow , Built to B.O.B in 30 sec. Gas to surface 20 mins. into FF
 FS: Bled off, Strong blow back. Built to B.O.B in 5 mins.

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
124.00	HMCO-25% m75% o	1.74
1798.00	go-25% g75% o	25.22
0.00	GTS	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson oil Co.Inc.

Hockersmith-Robben #1-29

PO Box 1019
Hays KS 67601

29-9s-31w Thomas,KS

ATTN: Ron Nelson

Job Ticket: 47399

DST#: 2

Test Start: 2012.08.12 @ 01:00:00

Tool Information

Drill Pipe:	Length: 4331.00 ft	Diameter: 3.80 inches	Volume: 60.75 bbl	Tool Weight: 2600.00 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: 60000.00 lb
			<u>Total Volume: 60.75 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	4330.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	24.00 ft			
Tool Length:	44.00 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			4315.00	
Hydraulic tool	5.00			4320.00	
Packer	5.00			4325.00	20.00 Bottom Of Top Packer
Packer	5.00			4330.00	
Stubb	1.00			4331.00	
Recorder	0.00	8791	Inside	4331.00	
Recorder	0.00	8673	Outside	4331.00	
Perforations	20.00			4351.00	
Bullnose	3.00			4354.00	24.00 Bottom Packers & Anchor
Total Tool Length:	44.00				



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DRILL STEM TEST REPORT

FLUID SUMMARY

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Hockersmith-Robben #1-29

PO Box 1019
Hays KS 67601

29-9s-31w Thomas,KS

Job Ticket: 47399 **DST#: 2**

ATTN: Ron Nelson

Test Start: 2012.08.12 @ 01:00:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 38 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 53.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.96 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 800.00 ppm		
Filter Cake: 2.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	HMCO-25% <i>m</i> 75% <i>o</i>	1.739
1798.00	go-25% <i>g</i> 75% <i>o</i>	25.221
0.00	GTS	0.000

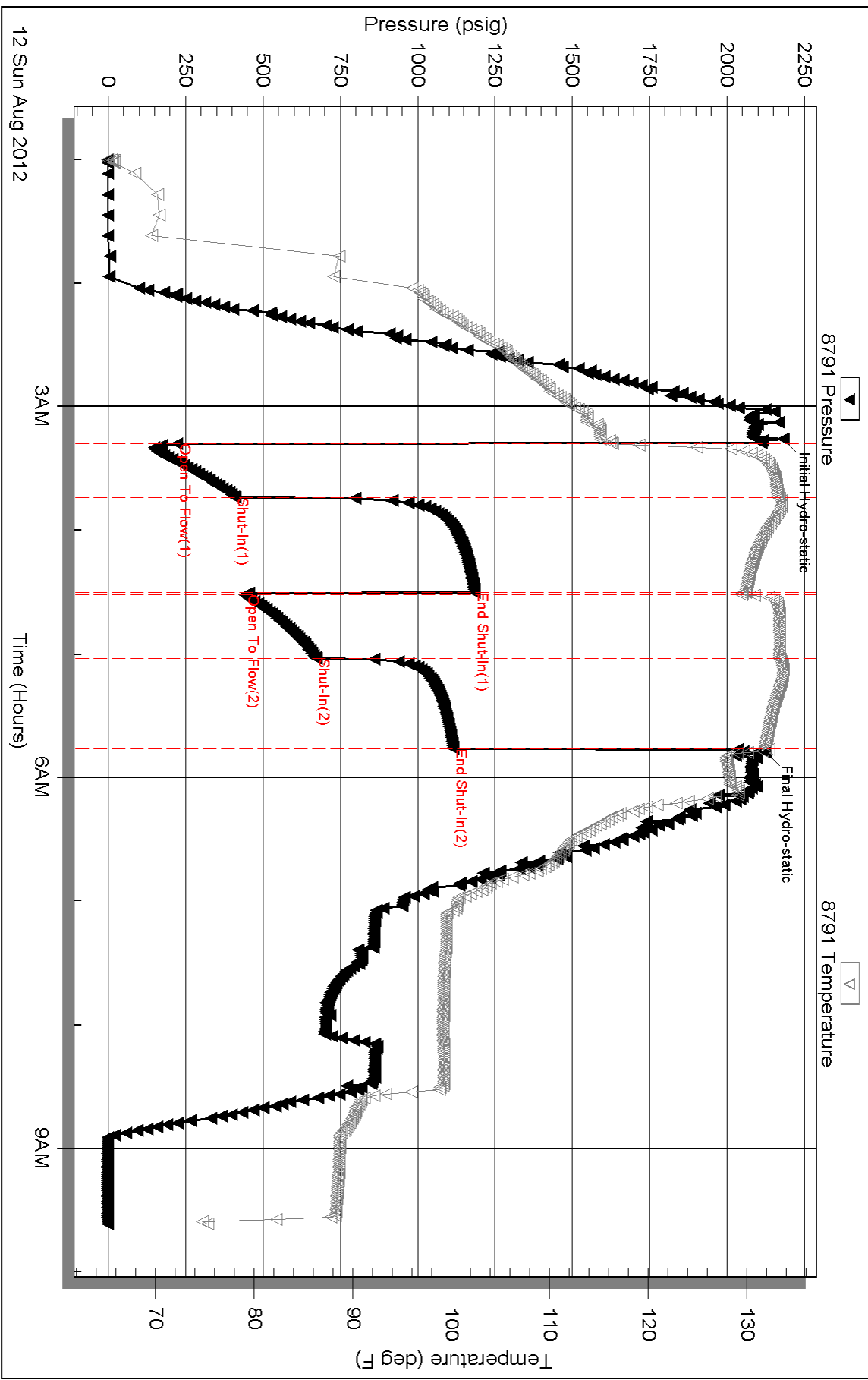
Total Length: 1922.00 ft Total Volume: 26.960 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: Gravity-40*@80=38*

Pressure vs. Time

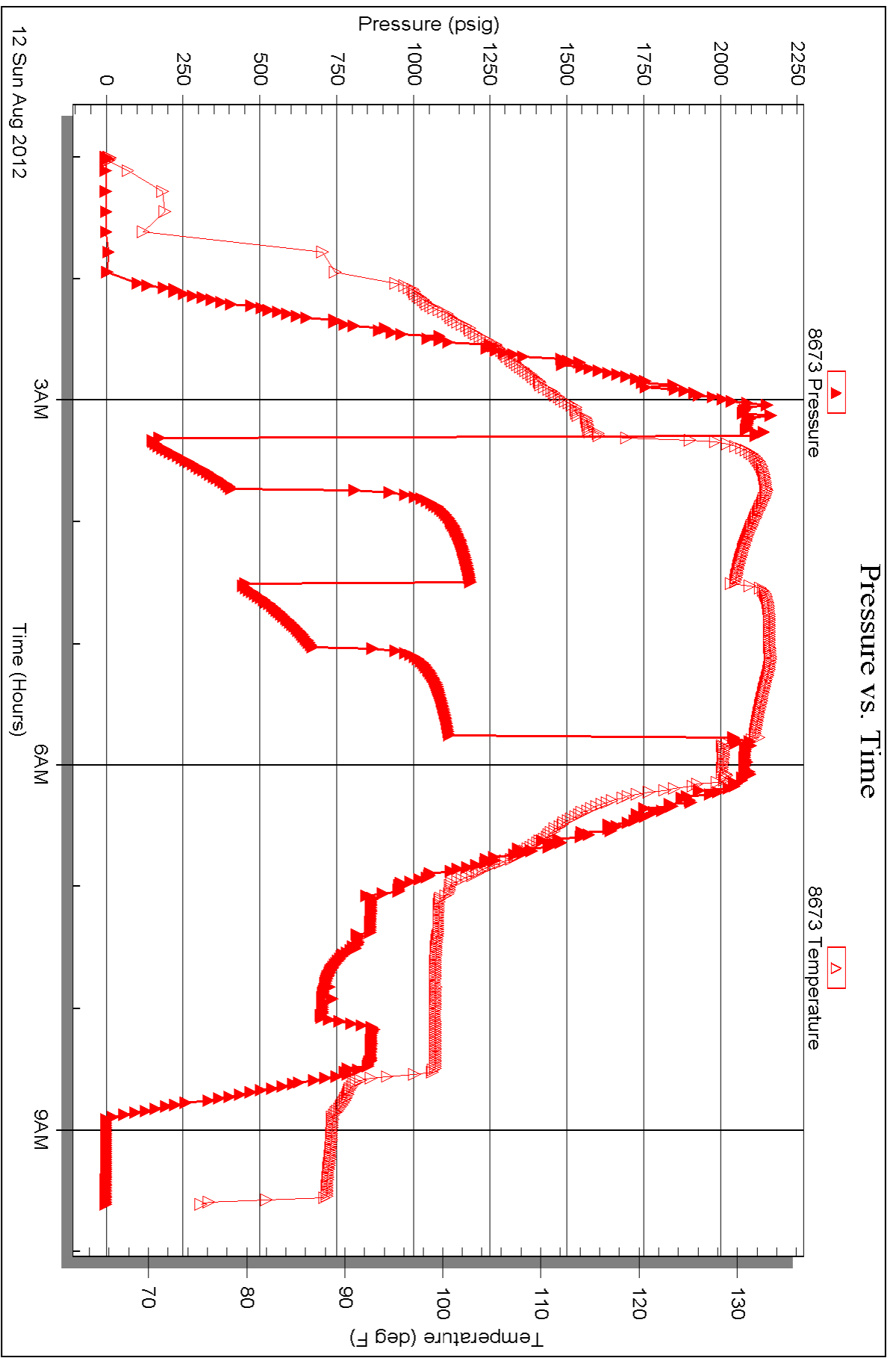


Serial #: 8673

Outside Dow nting-Nelson oil Co. Inc.

29-95-31w Thomas, KS

DST Test Number: 2





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47398

Well Name & No. Hockersmith - Robben #1-29 Test No. 1 Date 8-11-12
 Company Downing - Nelson Oil Co. Inc. Elevation 3038 KB 3038 GL
 Address P.O. Box 1019 Hays KS 67601
 Co. Rep / Geo. Ron Nelson Rig Discovery #1
 Location: Sec. 29 Twp. 9 Rge. 31W Co. Thomas State Ks

Interval Tested 4208 4300 Zone Tested L1C - H, E, J
 Anchor Length 92 Drill Pipe Run 4206 Mud Wt. 8.9
 Top Packer Depth 4203 Drill Collars Run 0 Vis 53
 Bottom Packer Depth 4208 Wt. Pipe Run 0 WL 8.0
 Total Depth 4300 Chlorides 800 ppm System LCM 1 1/2 #

Blow Description IF: weak blow started at 1 in died to 3/4 in.
IST: No blow back
FF: ~~weak~~ weak blow, built to 2 in.
FST: No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>OCMW</u>		<u>30</u>	<u>20</u>	<u>50</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 30 BHT 116 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2102 Test 1250 T-On Location 4:30
 (B) First Initial Flow 13 Jars _____ T-Started 9:40
 (C) First Final Flow 19 Safety Joint _____ T-Open 11:39
 (D) Initial Shut-In 683 Circ Sub _____ T-Pulled 13:50
 (E) Second Initial Flow 16 Hourly Standby _____ T-Out 15:16
 (F) Second Final Flow 25 Mileage 50x2 = 100x1.55 155
 (G) Final Shut-In 736 Sampler _____
 (H) Final Hydrostatic 2121 Straddle _____
 Shale Packer _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Sub Total 1405

Comments ONLY Had row out for short trial

Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1405
 MP/DST Disc't _____

Approved By _____ Our Representative [Signature]

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 of 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.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47399

Well Name & No. Hocker Smith - Robben #1-29 Test No. 2 Date 8-12-2012
 Company Downing - Nelson oil co. Inc. Elevation 3043 KB 3038 GL
 Address P.O. Box 1019 Hays Ks 67601
 Co. Rep / Geo. Ron Nelson Rig Discovery #1
 Location: Sec. 29 Twp. 9 Rge. 31w Co. Thomas State Ks.

Interval Tested 4330 4354 Zone Tested LKC-L
 Anchor Length 24 Drill Pipe Run 4331 Mud Wt. 8.9
 Top Packer Depth 4325 Drill Collars Run -0 Vis 53
 Bottom Packer Depth 4330 Wt. Pipe Run -0- WL 8.0
 Total Depth 4354 Chlorides 800 ppm System LCM 1/2 #

Blow Description IF: Strong blow, Built to B.O.B in 1 min.
ISS: Bled off: Strong blow back built to B.O.B in 4 1/2 mins.

FF: Strong blow, Built to B.O.B in 30 sec. (Gas to surface 20 mins into. ~~FF: Strong blow~~)

FSI: Bled off; Strong blow back built to B.O.B in 5 mins.

Rec	Feet of	%gas	%oil	%water	%mud
<u>200300</u>	<u>gas in pipe 2432</u>				
<u>1798</u>	<u>go</u>	<u>25</u>	<u>75</u>		
<u>124</u>	<u>Hmco -</u>		<u>75</u>		<u>25</u>

Rec Total 1922 BHT 138 Gravity 38 API RW @ ° F Chlorides ppm

(A) Initial Hydrostatic <u>2181</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>00137</u>
(B) First Initial Flow <u>223</u>	<input type="checkbox"/> Jars	T-Started <u>1:00</u>
(C) First Final Flow <u>409</u>	<input type="checkbox"/> Safety Joint	T-Open <u>3:18</u>
(D) Initial Shut-In <u>1185</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>5:45</u>
(E) Second Initial Flow <u>442</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>9:36</u>
(F) Second Final Flow <u>672</u>	<input checked="" type="checkbox"/> Mileage <u>50x2 = 100 x 1.55 = 310</u>	Comments <u>Loaded tools at 8:14</u>
(G) Final Shut-In <u>1115</u>	<input type="checkbox"/> Sampler	<u>at 22:20</u>
(H) Final Hydrostatic <u>2126</u>	<input type="checkbox"/> Straddle	<u>X2 Done back to load tools</u>
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>800</u>
Final Shut-In <u>45</u>	<input checked="" type="checkbox"/> Day Standby <u>1 Day 11 hrs.</u>	Total <u>2360</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1560</u>	

Approved By _____ Our Representative Chris Meyer

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.