

DRILL STEM TEST REPORT

Prepared For: **Northern Lights Oil Co.**

PO Box 164
Andover, ks 67002

ATTN: Kurt Smith

22-16s-42w Greeley

Cattle Co -2

Start Date: 2005.01.10 @ 16:30:15

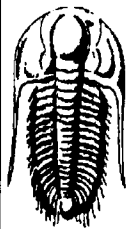
End Date: 2005.01.11 @ 00:44:05

Job Ticket #: 20454 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Northern Lights Oil Co.

Cattle Co -2

PO Box 164
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22-16s-42w Greeley

Job Ticket: 20454

DST#: 1

ATTN: Kurt Smith

Test Start: 2005.01.10 @ 16:30:15

GENERAL INFORMATION:

Formation: **Up-Morr. sand**

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

Time Tool Opened: 18:46:05

Time Test Ended: 00:44:05

Test Type: Conventional Bottom Hole

Tester: Brandon Turley

Unit No: 18

Interval: **4970.00 ft (KB) To 5020.00 ft (KB) (TVD)**

Reference Elevations: 3836.00 ft (KB)

Total Depth: 5020.00 ft (KB) (TVD)

3826.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 6772

Inside

Press@RunDepth: 640.36 psig @ 5021.00 ft (KB)

Capacity: 7000.00 psig

Start Date: 2005.01.10

End Date:

2005.01.11

Last Calib.: 1899.12.30

Start Time: 16:30:15

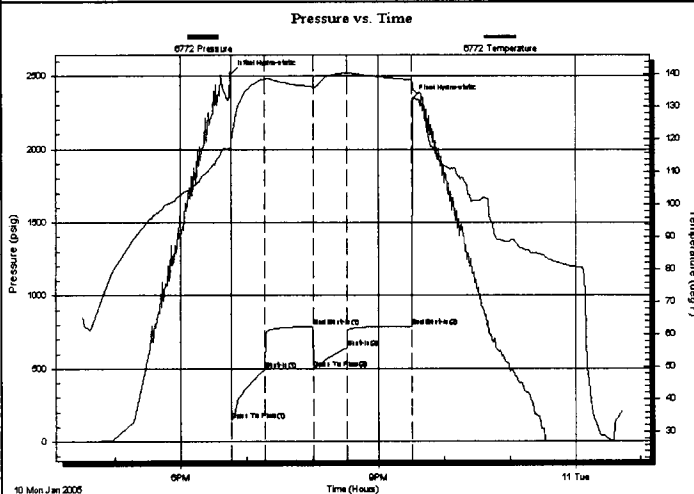
End Time:

00:44:05

Time On Btm: 2005.01.10 @ 18:45:35

Time Off Btm: 2005.01.10 @ 21:31:35

TEST COMMENT: IF: 1/4 blow BOB in 3 1/2 min.
IS: Weak surface blow built to 1 1/4 in 45 min.
FF: 1/4 blow BOB in 7 min.
FS: Surface blow built to 5 1/2 in 60 min.



PRESSURE SUMMARY

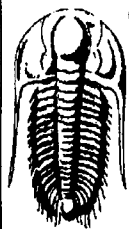
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2517.54	117.40	Initial Hydro-static
1	146.61	116.72	Open To Flow (1)
31	490.41	138.55	Shut-In(1)
75	786.79	136.01	End Shut-In(1)
76	497.32	135.95	Open To Flow (2)
106	640.36	140.34	Shut-In(2)
166	788.41	138.31	End Shut-In(2)
167	2343.77	136.00	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
578.00	mcw 90%w 10%m	2.84
543.00	gmcw oil spots 10%g 80%w 10%m	7.62
543.00	gcm oil spots 30%g 70%m	7.62

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Northern Lights Oil Co.

Cattle Co -2

PO Box 164
Andover, ks 67002

22-16s-42w Greeley

Job Ticket: 20454

DST#: 1

ATTN: Kurt Smith

Test Start: 2005.01.10 @ 16:30:15

Tool Information

Drill Pipe:	Length: 4437.00 ft	Diameter: 3.80 inches	Volume: 62.24 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: 25000.00 lb
Drill Collar:	Length: 578.00 ft	Diameter: 2.25 inches	Volume: 2.84 bbl	Weight to Pull Loose: 104000.0 lb
			<u>Total Volume: 65.08 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 82000.00 lb
Depth to Top Packer:	5020.00 ft			Final 84000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	50.00 ft			
Tool Length:	78.00 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			4993.00	
Shut In Tool	5.00			4998.00	
Hydraulic tool	5.00			5003.00	
Jars	5.00			5008.00	
Safety Joint	3.00			5011.00	
Packer	5.00		Fluid	5016.00	28.00 Bottom Of Top Packer
Packer	4.00			5020.00	
Stubb	1.00			5021.00	
Recorder	0.00	6772	Inside	5021.00	
Perforations	11.00			5032.00	
Change Over Sub	1.00			5033.00	
Drill Pipe	31.00			5064.00	
Change Over Sub	1.00			5065.00	
Recorder	0.00	10248	Inside	5065.00	
Bullnose	5.00			5070.00	50.00 Bottom Packers & Anchor

Total Tool Length: 78.00



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TESTING, INC

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FLUID SUMMARY

Northern Lights Oil Co.

Cattle Co -2

PO Box 164
Andover, ks 67002

22-16s-42w Greeley

Job Ticket: 20454

DST#: 1

ATTN: Kurt Smith

Test Start: 2005.01.10 @ 16:30:15

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

29000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.97 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
578.00	mcw 90%w 10%m	2.843
543.00	gmcw oil spots 10%g 80%w 10%m	7.617
543.00	gcm oil spots 30%g 70%m	7.617

Total Length: 1664.00 ft

Total Volume: 18.077 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6772

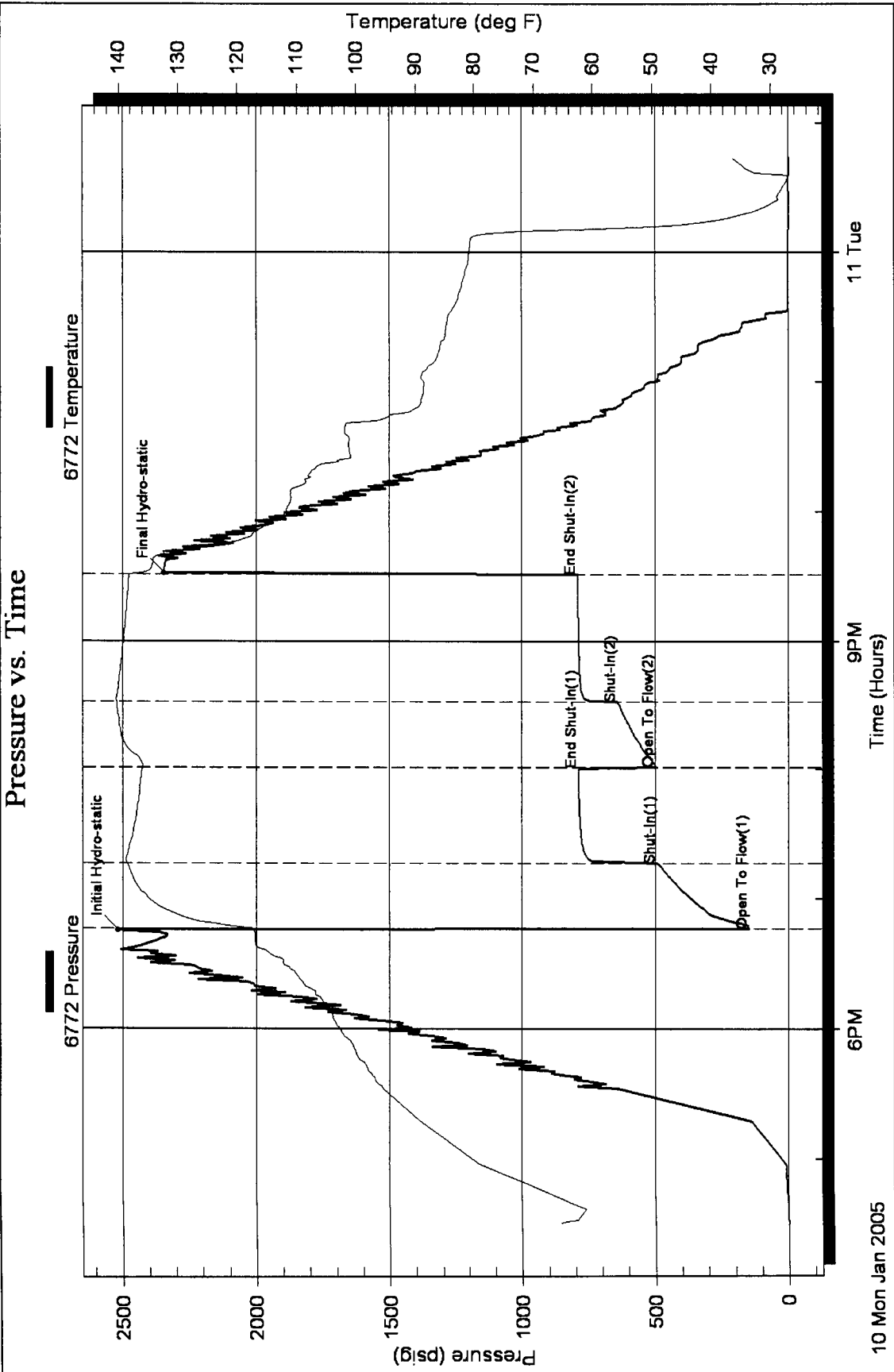
Inside

Northern Lights Oil Co.

22-16s-42w Greeley

DST Test Number: 1

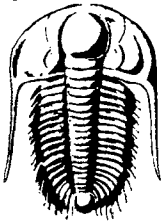
Pressure vs. Time



Triobite Testing, Inc

Ref. No: 20454

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TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

INV
7104

No 20454

05/03

Test Ticket

Well Name & No. Cattle Co - 2 Test No. 1 Date 1-10-05
 Company Northern Lights Oil Zone Tested 4p - Morr. 5900
 Address P.O. Box 164 Andover, KS 67002 Elevation 3836 KB 3826 GL
 Co. Rep / Geo. Kurt Smith Cont. Murfin 14 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 22 Twp. 16S Rge. 42W Co. Greeley State KS
 No. of Copies Norm Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 38 4970 5020 Initial Str Wt./Lbs. 82000 Unseated Str Wt./Lbs. 84000
 Anchor Length _____ 50 Wt. Set Lbs. 25000 Wt. Pulled Loose/Lbs. 104000
 Top Packer Depth _____ 4965 Tool Weight 1500
 Bottom Packer Depth _____ 4970 Hole Size 7 7/8" ✓ Rubber Size 6 3/4" ✓
 Total Depth _____ 5020 Wt. Pipe Run _____ Drill Collar Run 578
 Mud Wt. 9.1 LCM 2 Vis. 56 WL 10 Drill Pipe Size 4 1/2 X H Ft. Run 4437

Blow Description IF: 1/2 blow BOB in 3 1/2 min.
IS: weak surface blow built to 1 1/4 in 45 min.
FF: 1/2 blow BOB in 7 min.
FS: surface blow built to 5 1/2 in 60 min.

Recovery - Total Feet	GIP	Ft. in DC	Ft. in DP
<u>1664</u>	<u>94</u>	<u>578</u>	<u>1086</u>
Rec. <u>543</u>	Feet of <u>9cm</u> oil spots <u>30</u>	%gas _____ %oil _____ %water <u>70</u>	%mud _____
Rec. <u>543</u>	Feet of <u>9mcw</u> oil spots <u>10</u>	%gas _____ %oil <u>80</u>	%water <u>10</u> %mud _____
Rec. <u>578</u>	Feet of <u>mcw</u>	%gas _____ %oil <u>90</u>	%water <u>10</u> %mud _____
Rec. _____	Feet of _____	%gas _____ %oil _____	%water _____ %mud _____
Rec. _____	Feet of _____	%gas _____ %oil _____	%water _____ %mud _____

BHT 140 °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API
 RW .40 @ 45 °F Chlorides 29000 ppm Recovery 29000 Chlorides 2800 ppm System

	AK-1	Alpine	Recorder No.	Test
(A) Initial Hydrostatic Mud	<u>2517</u>	PSI	<u>6772</u>	<u>X 1100.00</u>
(B) First Initial Flow Pressure	<u>146</u>	PSI	(depth) <u>4971</u>	Elec. Rec. <u>X</u>
(C) First Final Flow Pressure	<u>490</u>	PSI	Recorder No. <u>10248</u>	Jars <u>X 200.00</u>
(D) Initial Shut-In Pressure	<u>786</u>	PSI	(depth) <u>5019</u>	Safety Jt. <u>X 50.00</u>
(E) Second Initial Flow Pressure	<u>497</u>	PSI	Recorder No. _____	Circ Sub <u>X N/C</u>
(F) Second Final Flow Pressure	<u>640</u>	PSI	(depth) _____	Sampler _____
(G) Final Shut-In Pressure	<u>788</u>	PSI	Initial Opening <u>30</u>	Straddle _____
(Q) Final Hydrostatic Mud	<u>2343</u>	PSI	Initial Shut-In <u>45</u>	Ext. Packer _____

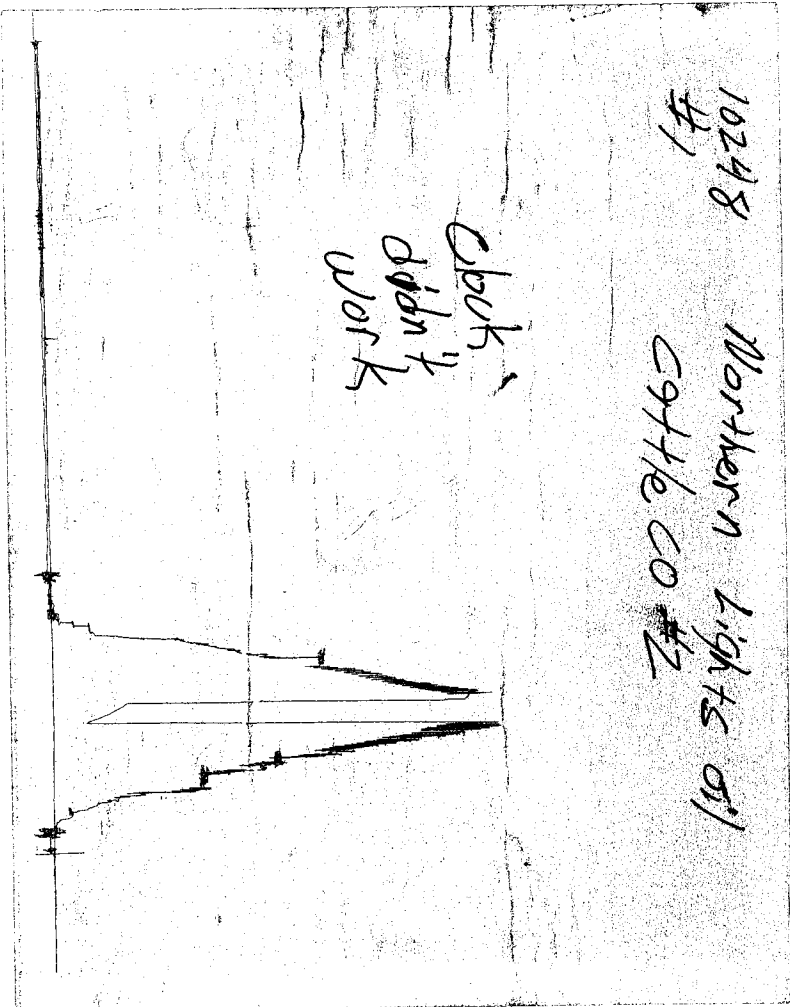
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Approved By _____
 Our Representative [Signature]

Final Flow	<u>30</u>	Shale Packer _____
Final Shut-In	<u>60</u>	Mileage <u>146 \$ 146.00</u>
T-On Location	<u>1310</u>	Sub Total: <u>1494</u>
T-Started	<u>1630</u>	Std. By <u>1/2 45</u>
T-Open	<u>1845</u>	Other _____
T-Pulled	<u>2130</u>	Total: _____
T-Out	<u>0045</u>	

CHART PAGE

This is a photocopy of the actual AK-1 recorder chart



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