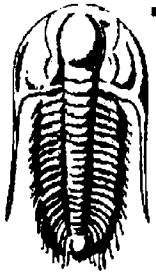


TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co.INC**

P.O.Box 372
Hays Ks 67601

ATTN: Ron Nelson

16-13s-21w

Keller-Keller 1-16

Start Date: 2004.05.18 @ 14:40:00
End Date: 2004.05.18 @ 20:23:15
Job Ticket #: 19543 DST #: 1

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

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.INC

P.O.Box 372
Hays Ks 67601

ATTN: Ron Nelson

Keller-Keller 1-16

16-13s-21w

Job Ticket: 19543 **DST#: 1**

Test Start: 2004.05.18 @ 14:40:00

GENERAL INFORMATION:

Formation: **Lansing K C E zone**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:06:50
Time Test Ended: 20:23:15

Test Type: Conventional Bottom Hole
Tester: Leroy Black
Unit No: 15

Interval: 3594.00 ft (KB) To 3609.00 ft (KB) (TVD)
Total Depth: 3609.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

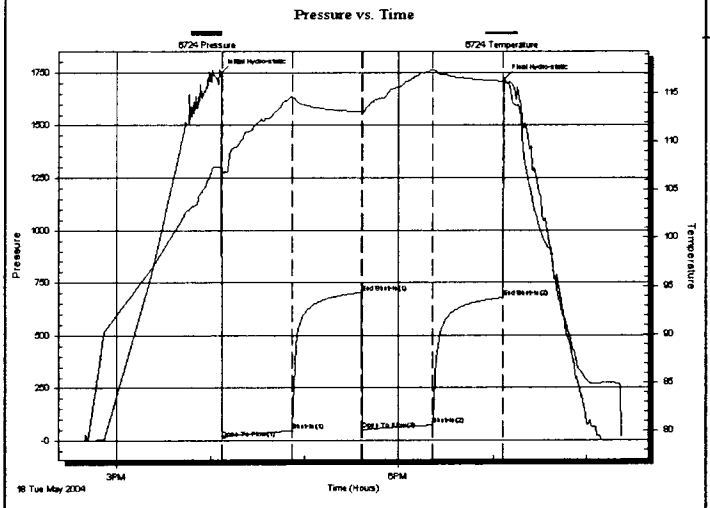
Reference Elevations: 2195.00 ft (KB)
2187.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6724 **Inside**

Press@RunDepth: 72.91 psig @ 3594.00 ft (KB)
Start Date: 2004.05.18 End Date: 2004.05.18
Start Time: 14:40:01 End Time: 20:23:15

Capacity: 7000.00 psig
Last Calib.: 1899.12.30
Time On Btm: 2004.05.18 @ 16:06:10
Time Off Btm: 2004.05.18 @ 19:07:15

TEST COMMENT: IF:Weak blow built to 6 inchs in 41mins.
IS:Bled off 2 mins no return.
FF:Weak blow built to 4 inchs in 43 mins.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1750.35	107.29	Initial Hydro-static
1	11.16	106.13	Open To Flow (1)
46	46.99	114.56	Shut-In(1)
90	702.71	113.09	End Shut-In(1)
91	50.31	112.92	Open To Flow (2)
136	72.91	117.36	Shut-In(2)
181	678.23	116.20	End Shut-In(2)
182	1719.12	116.08	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
125.00	Water cut mud	1.47

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing-Nelson Oil Co.INC

P.O.Box 372
Hays Ks 67601

ATTN: Ron Nelson

Keller-Keller 1-16

16-13s-21w

Job Ticket: 19543 **DST#:1**

Test Start: 2004.05.18 @ 14:40:00

Tool Information

Drill Pipe:	Length:	3570.00 ft	Diameter:	3.80 inches	Volume:	50.08 bbl	Tool Weight:		2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		28000.00 lb
Drill Collar:	Length:	31.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:		48000.00 lb
					Total Volume:	50.23 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		27.00 ft					String Weight:	Initial	42000.00 lb
Depth to Top Packer:		3594.00 ft						Final	43000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		15.00 ft							
Tool Length:		35.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Stubb	1.00			3575.00		
Shut In Tool	5.00			3580.00		
Hydraulic tool	5.00			3585.00		
Packer	5.00		Fluid	3590.00	20.00	Bottom Of Top Packer
Packer	4.00			3594.00		
Recorder	0.00	6724	Inside	3594.00		
Perforations	11.00			3605.00		
Recorder	0.00	13849	Outside	3605.00		
Bullnose	4.00			3609.00	15.00	Bottom Packers & Anchor
Total Tool Length:	**35.00**					

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co.INC

P.O.Box 372
Hays Ks 67601

ATTN: Ron Nelson

Keller-Keller 1-16

16-13s-21w

Job Ticket: 19543 **DST#: 1**

Test Start: 2004.05.18 @ 14:40:00

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:	85000 ppm
Viscosity:	52.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.97 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

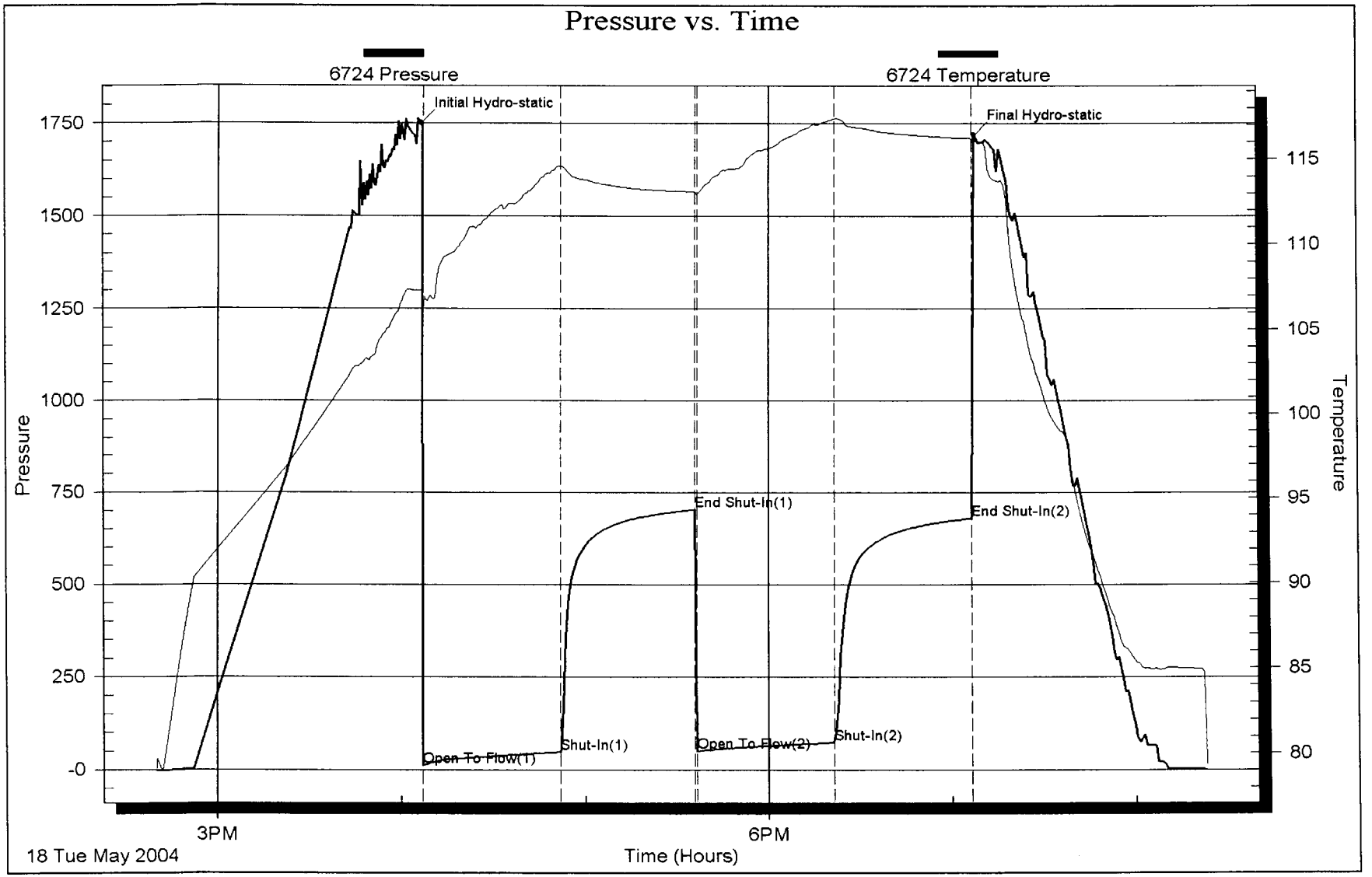
Length ft	Description	Volume bbl
125.00	Water cut mud	1.471

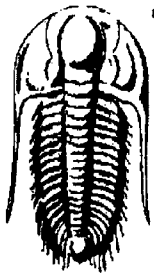
Total Length: 125.00 ft Total Volume: 1.471 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: RW .098 @ 66.5deg


Pressure vs. Time
6724 Pressure
6724 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
1750
1500
1250
1000
750
500
250
-0
Pressure
115
110
105
100
95
90
85
80
Temperature
3PM
6PM
18 Tue May 2004
Time (Hours)



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co.INC**

P.O.Box 372
Hays Ks 67601

ATTN: Ron Nelson

16-13s-21w

Keller-Keller 1-16

Start Date: 2004.05.20 @ 00:07:24
End Date: 2004.05.20 @ 06:56:24
Job Ticket #: 19544 DST #: 2

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

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.INC

P.O.Box 372
Hays Ks 67601

ATTN: Ron Nelson

Keller-Keller 1-16

16-13s-21w

Job Ticket: 19544 **DST#: 2**

Test Start: 2004.05.20 @ 00:07:24

GENERAL INFORMATION:

Formation: **Cherokee sand-Marman**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:39:04
Time Test Ended: 06:56:24

Test Type: Conventional Bottom Hole
Tester: Leroy
Unit No: 15

Interval: 3855.00 ft (KB) To 3919.00 ft (KB) (TVD)
Total Depth: 3919.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

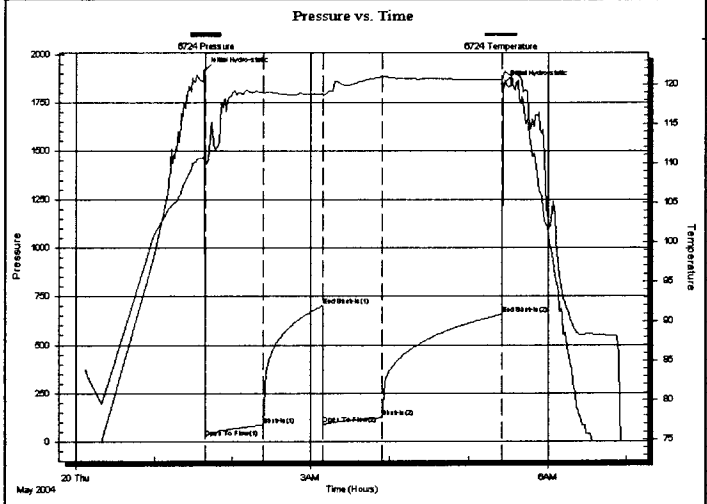
Reference Elevations: 2195.00 ft (KB)
2187.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6724 **Inside**

Press@RunDepth: 123.19 psig @ 3856.00 ft (KB)
Start Date: 2004.05.20 End Date: 2004.05.20
Start Time: 00:07:25 End Time: 06:56:24

Capacity: 7000.00 psig
Last Calib.: 1899.12.30
Time On Btm: 2004.05.20 @ 01:38:24
Time Off Btm:

TEST COMMENT: IF:Weak blow built to bottom bucket in 35mins.
IS:Bled off 2mins no return.
FF:Weak blow built to 4.5inchs in 43mins.
FS:Bled off no return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1914.98	110.86	Initial Hydro-static
1	22.57	110.43	Open To Flow (1)
46	86.99	118.88	Shut-In(1)
91	702.46	118.76	End Shut-In(1)
91	89.95	118.52	Open To Flow (2)
136	123.19	120.90	Shut-In(2)
227	657.08	120.62	End Shut-In(2)
227	1845.24	120.97	Initial Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
170.00	SL Oil spotted mud	2.10
60.00	Water cut mud	0.84

Gas Rates

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

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing-Nelson Oil Co.INC

P.O.Box 372
Hays Ks 67601

ATTN: Ron Nelson

Keller-Keller 1-16

16-13s-21w

Job Ticket: 19544 **DST#: 2**

Test Start: 2004.05.20 @ 00:07:24

Tool Information

Drill Pipe:	Length:	3818.00 ft	Diameter:	3.80 inches	Volume:	53.56 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:	28000.00 lb
Drill Collar:	Length:	31.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:	47000.00 lb
					Total Volume:	53.71 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		14.00 ft					String Weight: Initial	44000.00 lb
Depth to Top Packer:		3855.00 ft					Final	45000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		64.00 ft						
Tool Length:		84.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Stubb	1.00			3836.00		
Shut In Tool	5.00			3841.00		
Hydraulic tool	5.00			3846.00		
Packer	4.00			3850.00	20.00	Bottom Of Top Packer
Packer	5.00		Fluid	3855.00		
Stubb	1.00			3856.00		
Recorder	0.00	6724	Inside	3856.00		
Blank Spacing	33.00			3889.00		
Perforations	26.00			3915.00		
Recorder	0.00	13849	Outside	3915.00		
Bullnose	4.00			3919.00	64.00	Bottom Packers & Anchor
Total Tool Length:	**84.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co.INC

P.O.Box 372
Hays Ks 67601

ATTN: Ron Nelson

Keller-Keller 1-16

16-13s-21w

Job Ticket: 19544 **DST#: 2**

Test Start: 2004.05.20 @ 00:07:24

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:	8500 ppm
Viscosity:	52.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.79 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	6000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

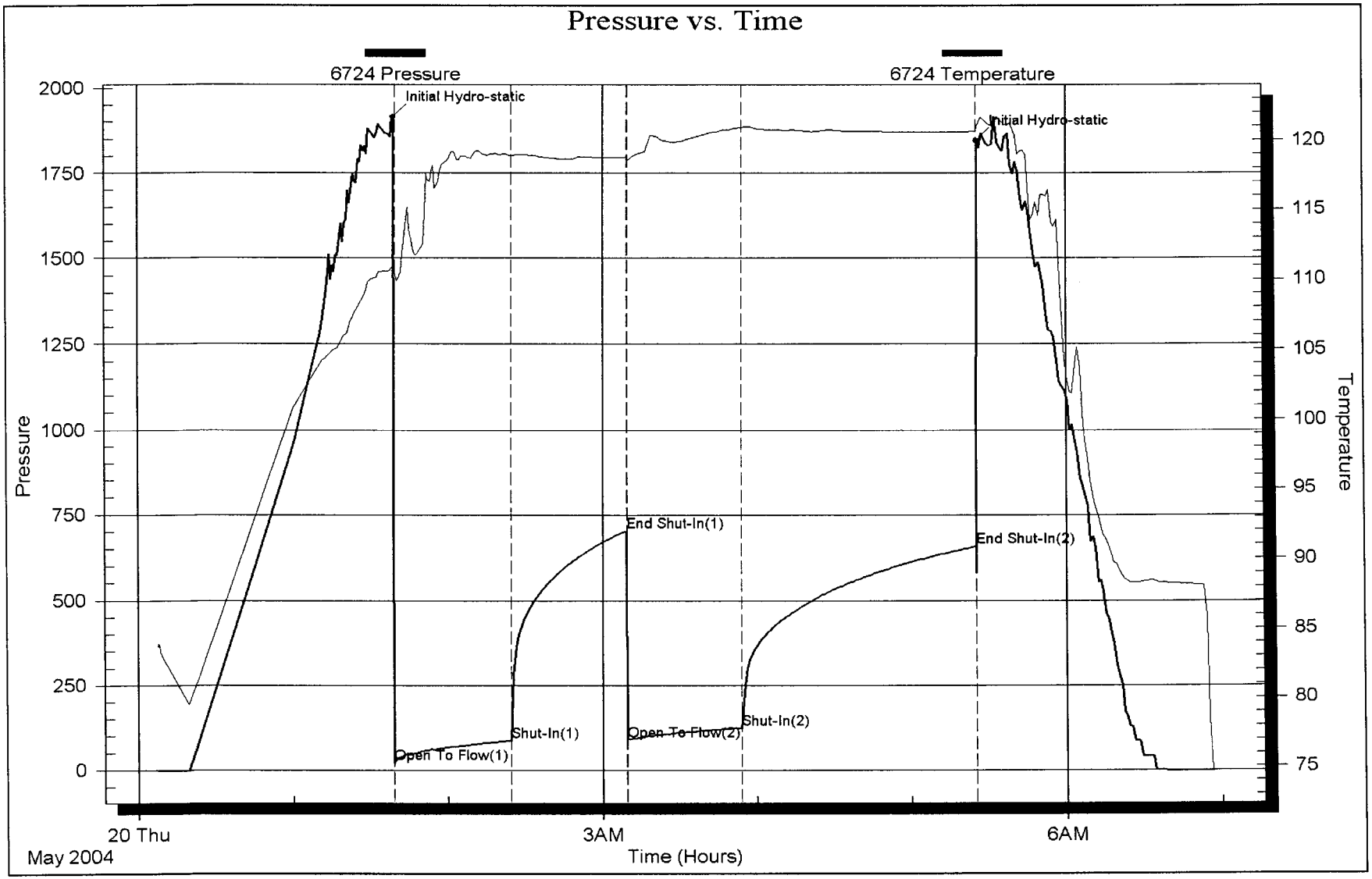
Length ft	Description	Volume bbl
170.00	SL Oil spotted mud	2.102
60.00	Water cut mud	0.842

Total Length: 230.00 ft Total Volume: 2.944 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: RW .80 @ 66.5deg


Pressure vs. Time
6724 Pressure
6724 Temperature
Initial Hydro-static
Initial Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(1)
Shut-In(2)
Open To Flow(1)
Open To Flow(2)
2000
1750
1500
1250
1000
750
500
250
0
Pressure
120
115
110
105
100
95
90
85
80
75
Temperature
20 Thu
May 2004
3AM
6AM
Time (Hours)

TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

INV 6424

No. 19543

05/03

Test Ticket

Well Name & No. Keller - Keller 1-16 Test No. 1 Date 5-18-04

Company Downing - Nelson Oil Co. Inc. Zone Tested Lansing KC E Zone

Address P.O. Box 372 Hays KS 67601 Elevation 2195 KB 2187 GL

Co. Rep / Geo. Ron Nelson Cont. Discovery #2 Est. Ft. of Pay _____ Por. _____ %

Location: Sec. 16 Twp. 13s Rge. 21w Co. Trego State KS

No. of Copies _____ Disbtribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3594-3609 Initial Str Wt./Lbs. 40,000 Unseated Str Wt/Lbs. 43,000

Anchor Length 15 Wt. Set Lbs. 28,000 Wt. Pulled Loose/Lbs. 48,000

Top Packer Depth 3589 Tool Weight 2000

Bottom Packer Depth 3594 Hole Size 7 7/8" X Rubber Size 6 3/4" X

Total Depth 3609 Wt. Pipe Run 0 Drill Collar Run 31

Mud Wt. 9.0 LCM Tr Vis. 52 WL 8.0 Drill Pipe Size 4½XH Ft. Run 3570

Blow Description IF: Weak Blow Built to 6 inches in 41 mins

IS: Died off 2 mins No Return

FF: Weak Blow Built to 4 inches in 43 mins

FS: Died off 2 mins No Return

Recovery - Total Feet 125 GIP _____ Ft. in DC 31 Ft. in DP 94

Rec. 125	Feet of Water Cut mud	%gas	%oil	60 %water	40 %mud	
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	

BHT 116 °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API

RW ~~.051~~ @ ~~66~~ °F Chlorides 85,000 ppm Recovery _____ Chlorides 4,000 ppm System

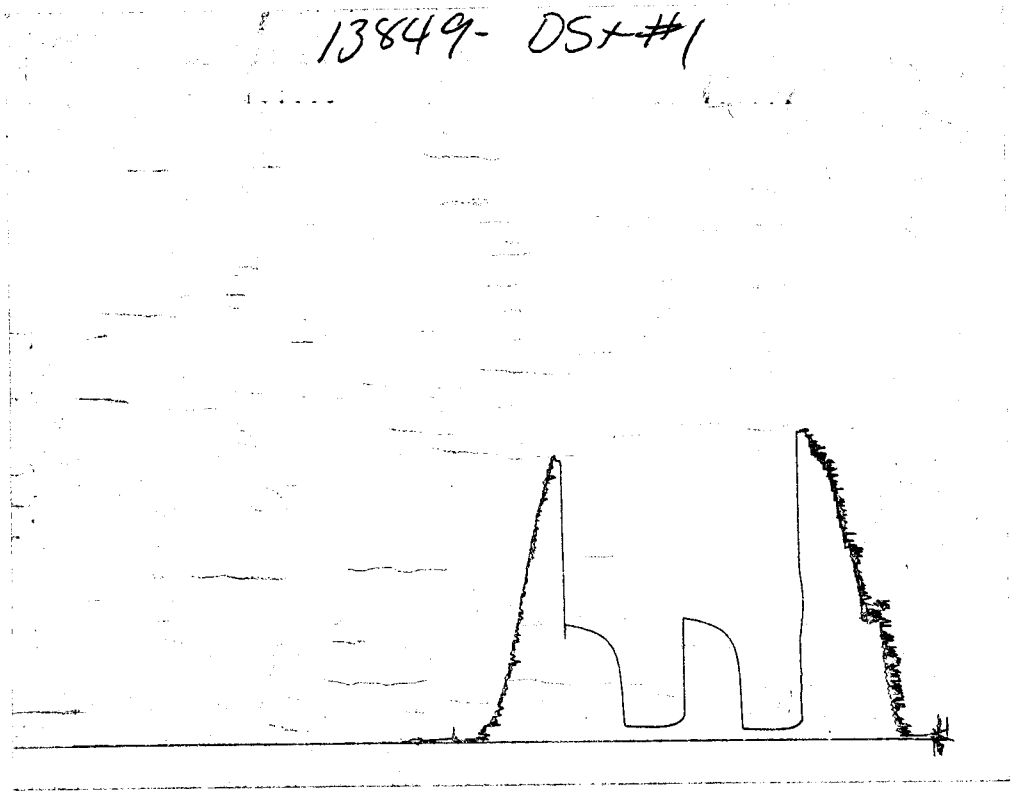
	AK-1	Alpine					
(A) Initital Hydrostatic Mud		1750	PSI	Recorder No.	6724	Test	700
(B) First Initial Flow Pressure		11	PSI	(depth)		Elec. Rec.	X 150
(C) First Final Flow Pressure		46	PSI	Recorder No.	13849	Jars	
(D) Initial Shut-In Pressure		702	PSI	(depth)	3605	Safety Jt.	
(E) Second Initial Flow Pressure		50	PSI	Recorder No.		Circ Sub	
(F) Second Final Flow Pressure		72	PSI	(depth)		Sampler	
(G) Final Shut-In Pressure		678	PSI	**Initial Opening**	~~30~~ 45	Straddle	
(Q) Final Hydrostatic Mud		1719	PSI	Initial Shut-In	45	Ext. Packer	
				Final Flow	45	Shale Packer	
				Final Shut-In	45	Mileage ~~40~~ 42	35.70
				T-On Location	13:45	Sub Total:	885.70
				T-Started	14:40	Std. By	
				T-Open	16:06	Other	
				T-Pulled	19:06	Total:	
				T-Out	20:23		

Approved By Ross D. Nelson

Our Representative Leon Black

CHART PAGE

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



TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

05/03

№ 19544

Test Ticket

Well Name & No. Keller-Keller 1-16 Test No. 2 Date 5-14-04

Company Downing-Nelson Oil Co. Inc. Zone Tested Cherokee Sand + Marmaton

Address P.O. Box 372 Hays KS 67601 Elevation 2195 KB 2187 GL

Co. Rep / Geo. Ron Nelson Cont. Discovery #2 Est. Ft. of Pay _____ Por. _____ %

Location: Sec. 16 Twp. 13s Rge. 21w Co. Trego State KS

No. of Copies _____ Disbtribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3855 - 3919 Initial Str Wt./Lbs. 44,000 Unseated Str Wt/Lbs. 45,000

Anchor Length 64 Wt. Set Lbs. 28000 Wt. Pulled Loose/Lbs. 47,000

Top Packer Depth 3850 Tool Weight 2500

Bottom Packer Depth 3855 Hole Size 7 7/8" X Rubber Size 6 3/4" X

Total Depth 3919 Wt. Pipe Run 0 Drill Collar Run 31

Mud Wt. 9.3 LCM tr Vis. 52 WL 8.8 Drill Pipe Size 4½ X H Ft. Run ~~3855~~ 3818

Blow Description IF: Weak Blow Bottom Bucket 35 mins

ISI Bled OFF 2 mins No Return

FF: Weak Blow Built to 4½ inches in 43 mins

FSI Bled off 2 mins No Return

Recovery - Total Feet 230 GIP _____ Ft. in DC 31 Ft. in DP 199

Rec. 170	Feet of SLO&I Spotted mud	%gas	%oil	%water	100	%mud
Rec. 60	Feet of Water Cut mud	%gas	%oil	70	%water	30 %mud
Rec. _____	Feet of _____	%gas	%oil	%water		%mud
Rec. _____	Feet of _____	%gas	%oil	%water		%mud
Rec. _____	Feet of _____	%gas	%oil	%water		%mud

BHT 120 °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API

RW .85 @ 65.5 °F Chlorides 8500 ppm Recovery _____ Chlorides 6,000 ppm System

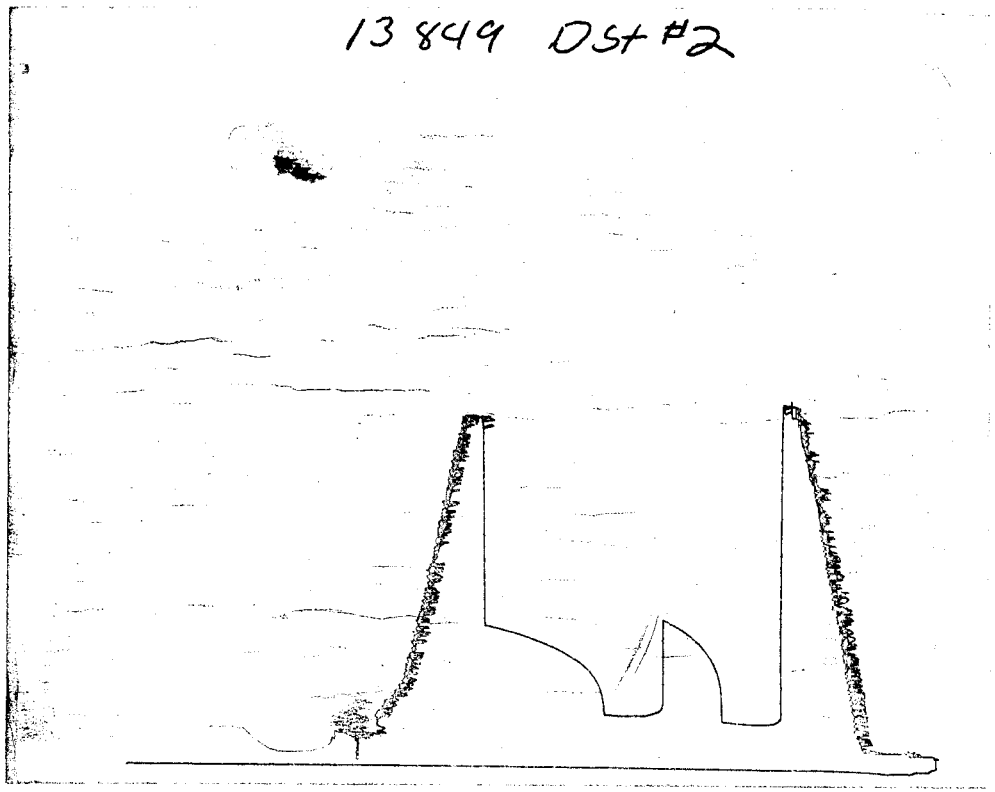
	AK-1	Alpine				
(A) Initital Hydrostatic Mud		1914 PSI	Recorder No.	6724	Test	
(B) First Initial Flow Pressure		22 PSI	(depth)		Elec. Rec.	X
(C) First Final Flow Pressure		86 PSI	Recorder No.	13849	Jars	
(D) Initial Shut-In Pressure		702 PSI	(depth)	3915	Safety Jt.	
(E) Second Initial Flow Pressure		89 PSI	Recorder No.		Circ Sub	
(F) Second Final Flow Pressure		123 PSI	(depth)		Sampler	
(G) Final Shut-In Pressure		657 PSI	**Initial Opening**	45	Straddle	
(Q) Final Hydrostatic Mud		1845 PSI	Initial Shut-In	45	Ext. Packer	
			Final Flow	45	Shale Packer	
			Final Shut-In	~~60~~ 90	Mileage	20
			T-On Location	22:45	Sub Total:	885.70
			T-Started	00:07	Std. By	
			T-Open	1:38	Other	
			T-Pulled	5:24	Total:	
			T-Out	6:56		

Approved By _____

Our Representative Larry D Lock

CHART PAGE

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



TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

05/03

№ 19545

Test Ticket

Well Name & No. Keller - Heller 1-16 Test No. 3 Date 5-20-04

Company ~~Downing~~ Downing-Nelson Oil Co, Inc. Zone Tested Lans + Lomcrete

Address P.O. Box 372 Hays, KS 67601 Elevation 2195 KB 2187 GL

Co. Rep / Geo. Ron Nelson Cont. _____ Est. Ft. of Pay _____ Por. _____ %

Location: Sec. 16 Twp. 13s Rge. 21w Co. Trego State KS

No. of Copies _____ Disbtribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3861-3956 Initial Str Wt./Lbs. 45,000 Unseated Str Wt/Lbs. 46,000

Anchor Length 77 Wt. Set Lbs. 28,000 Wt. Pulled Loose/Lbs. 56,000

Top Packer Depth 3876 Tool Weight 3000

Bottom Packer Depth 3881 Hole Size 7 7/8" X Rubber Size 6 3/4" X

Total Depth 4006 Wt. Pipe Run 0 Drill Collar Run 31

Mud Wt. 9.3 LCM Tr Vis. 53 WL 6.4 Drill Pipe Size 4 1/2 X H Ft. Run _____

Blow Description IF: Weak Blow Built to 10 inchs in 40 mins

IS: Bled off 2 mins NO Return

FF: Weak Blow Built to 5 inch's in 43 mins.

FS: Bled off 2 mins No Return

Recovery - Total Feet 190 GIP _____ Ft. in DC 31 Ft. in DP 159

Rec. 190 Feet of Mud Cut + water %gas _____ %oil _____ %water 30 %mud 70

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 _____

BHT 120 °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API

RW .273 @ 70. °F Chlorides 25000 ppm Recovery _____ Chlorides 6,000 ppm System

	AK-1	Alpine					
(A) Initital Hydrostatic Mud		1943	PSI	Recorder No.	6724	Test	700
(B) First Initial Flow Pressure		24	PSI	(depth)		Elec. Rec.	X 150
(C) First Final Flow Pressure		24	PSI	Recorder No.	13849	Jars	
(D) Initial Shut-In Pressure		568	PSI	(depth)		Safety Jt.	
(E) Second Initial Flow Pressure		75	PSI	Recorder No.		Circ Sub	
(F) Second Final Flow Pressure		101	PSI	(depth)		Sampler	
(G) Final Shut-In Pressure		475	PSI	**Initial Opening**	45	Straddle	X 250
(Q) Final Hydrostatic Mud		1927	PSI	Initial Shut-In	45	Ext. Packer	X 150
				Final Flow	45	Shale Packer	
				Final Shut-In	45	Mileage	20 35.70
				T-On Location	21:00	Sub Total:	1285.70
				T-Started	22:47	Std. By	
				T-Open	00:20	Other	
				T-Pulled	3:20	Total:	
				T-Out	5:05		

Approved By Tomare Winkler

Our Representative Leroy Black