

DRILL STEM TEST REPORT

Prepared For: **H & C Oil Operating**

P O Box 86
Plainville Ks 67663

ATTN: Charles Ramsey

28-9-20-Rooks-Ks

Kern A #1

Start Date: 2004.01.19 @ 08:45:31

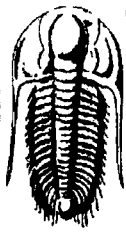
End Date: 2004.01.19 @ 14:10:01

Job Ticket #: 18231 . 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

H & C Oil Operating

P O Box 86
Plainville Ks 67663

ATTN: Charles Ramsey

Kern A #1

28-9-20-Rooks-Ks

Job Ticket: 18231

DST#: 1

Test Start: 2004.01.19 @ 08:45:31

GENERAL INFORMATION:

Formation: **Arbucke**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:54:31

Time Test Ended: 14:10:01

Test Type: Conventional Bottom Hole

Tester: Dan Bangle

Unit No: 21

Interval: **3840.00 ft (KB) To 3877.00 ft (KB) (TVD)**

Total Depth: 3877.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2306.00 ft (KB)

2298.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6770

Inside

Press@RunDepth: 22.16 psig @ 3841.00 ft (KB)

Start Date: 2004.01.19

End Date:

2004.01.19

Start Time: 08:45:32

End Time:

14:10:01

Capacity: 7000.00 psig

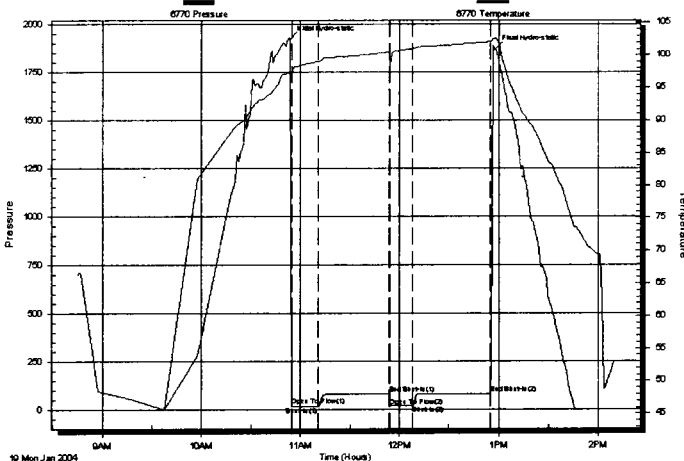
Last Calib.: 2004.01.19

Time On Btm: 2004.01.19 @ 10:53:31

Time Off Btm: 2004.01.19 @ 12:57:31

TEST COMMENT: IF-Strong BOB in 4 min
FF-Strong BOB in 20 sec
Times-15-45-15-45

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1924.18	97.25	Initial Hydro-static
1	19.28	96.88	Open To Flow (1)
18	17.09	99.05	Shut-In(1)
60	79.12	100.45	End Shut-In(1)
61	18.76	98.48	Open To Flow (2)
75	22.16	101.03	Shut-In(2)
122	79.73	102.07	End Shut-In(2)
124	1870.23	102.56	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	Gsy mud w/oil spots	0.42
0.00	680 GIP	0.00

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

H & C Oil Operating

Kern A #1

P O Box 86
Plainville Ks 67663

28-9-20-Rooks-Ks

Job Ticket: 18231

DST#: 1

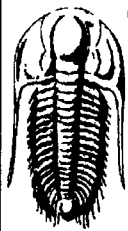
ATTN: Charles Ramsey

Test Start: 2004.01.19 @ 08:45:31

Tool Information

Drill Pipe:	Length: 3827.00 ft	Diameter: 3.80 inches	Volume: 53.68 bbl	Tool Weight:	2800.00 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: 53.68 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial	49000.00 lb
Depth to Top Packer:	3840.00 ft			Final	49000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	37.00 ft				
Tool Length:	58.00 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			3820.00	
Shut In Tool	5.00			3825.00	
Hydraulic tool	5.00			3830.00	
Packer	5.00			3835.00	21.00 Bottom Of Top Packer
Packer	5.00			3840.00	
Stubb	1.00			3841.00	
Recorder	0.00	6770	Inside	3841.00	
Perforations	33.00			3874.00	
Recorder	0.00	13254	Outside	3874.00	
Bullnose	3.00			3877.00	37.00 Bottom Packers & Anchor
Total Tool Length:	58.00				



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

H & C Oil Operating

Kern A #1

P O Box 86
Plainville Ks 67663

28-9-20-Rooks-Ks

Job Ticket: 18231

DST#: 1

ATTN: Charles Ramsey

Test Start: 2004.01.19 @ 08:45:31

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: 47.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	Gsy mud w/oil spots	0.421
0.00	680 GIP	0.000

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:

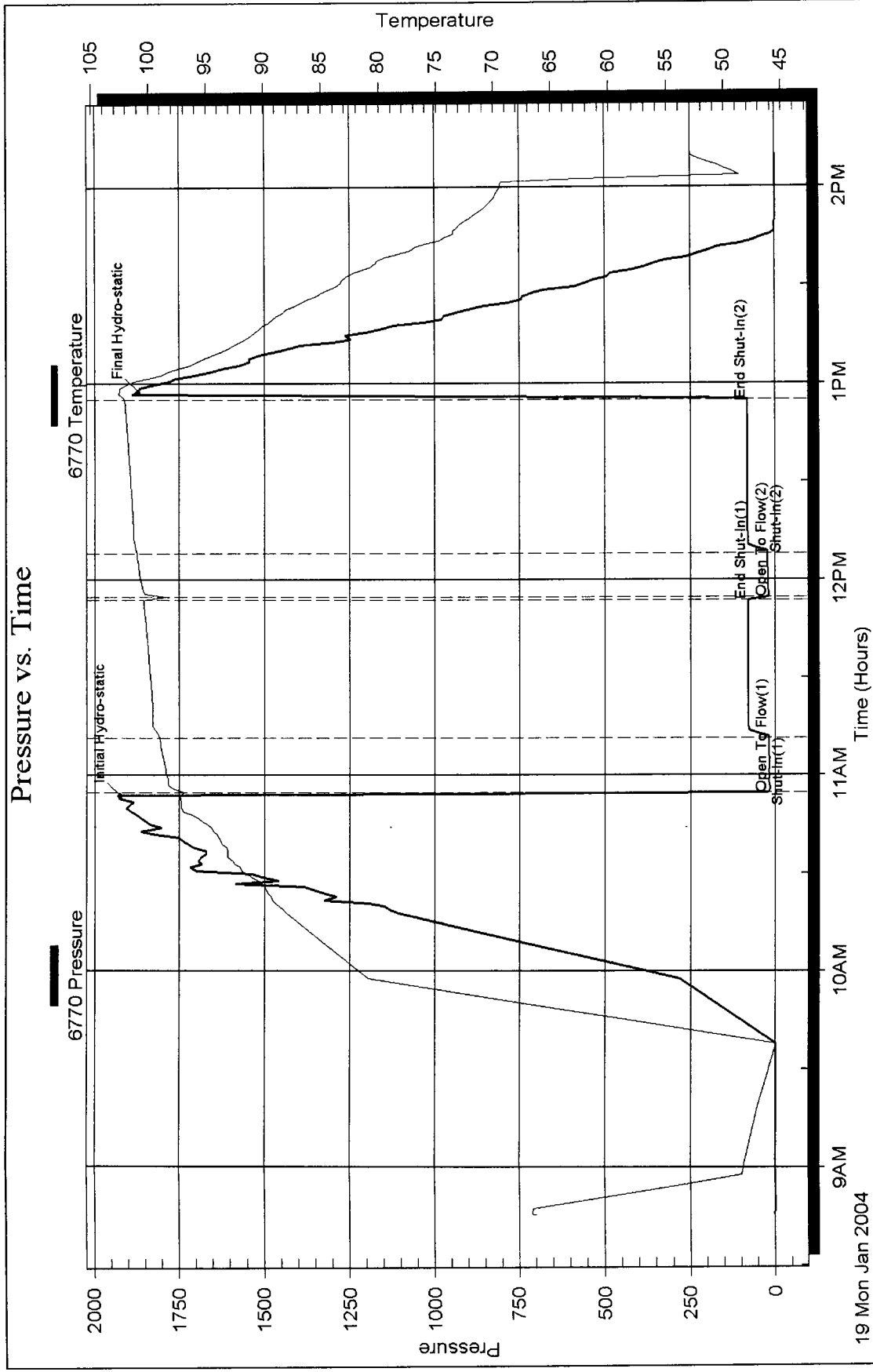
Serial #: 6770

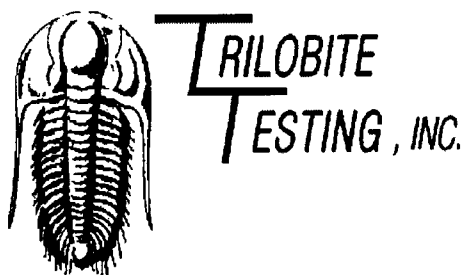
Inside

H & C Oil Operating

28-9-20-Rooks-Ks

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **H & C Oil Operating**

P O Box 86
Plainville Ks 67663

ATTN: Charles Ramsey

28-9-20-Rooks-Ks

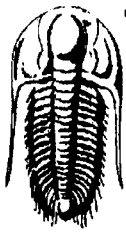
Kern A #1

Start Date: 2004.01.19 @ 20:35:12

End Date: 2004.01.20 @ 01:31:12

Job Ticket #: 18232 DST #: 2

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

H & C Oil Operating

P O Box 86
Plainville Ks 67663

ATTN: Charles Ramsey

Kern A #1

28-9-20-Rooks-Ks

Job Ticket: 18232

DST#: 2

Test Start: 2004.01.19 @ 20:35:12

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:26:12

Time Test Ended: 01:31:12

Test Type: Conventional Bottom Hole

Tester: Dan Bangle

Unit No: 21

Interval: **3840.00 ft (KB) To 3880.00 ft (KB) (TVD)**

Total Depth: 3880.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2306.00 ft (KB)

2298.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6770

Inside

Press@RunDepth: 32.90 psig @ 3841.00 ft (KB)

Start Date: 2004.01.19 End Date:

Start Time: 20:35:13

End Time:

2004.01.20

01:31:12

Capacity: 7000.00 psig

Last Calib.: 2004.01.20

Time On Btm: 2004.01.19 @ 22:20:12

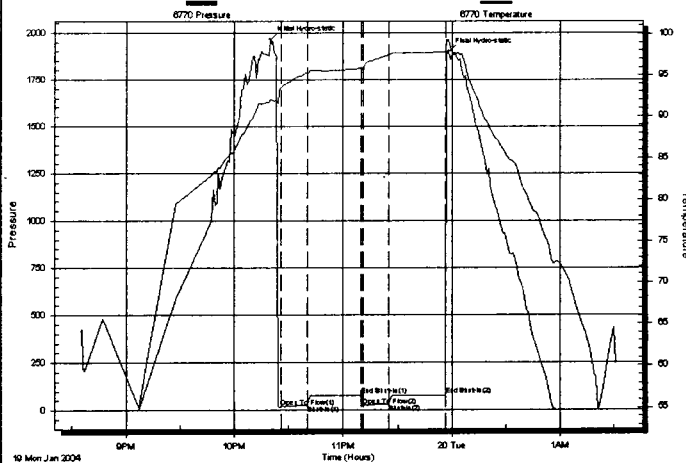
Time Off Btm: 2004.01.19 @ 23:58:12

TEST COMMENT: IF-Strong BOB in 1 min 45 sec

FF-Strong BOB in 10 sec

Times-15-30-15-30

Pressure vs. Time



PRESSURE SUMMARY

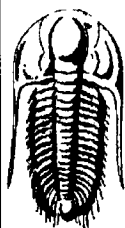
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1963.91	92.01	Initial Hydro-static
6	17.29	93.56	Open To Flow (1)
21	27.38	95.29	Shut-In (1)
50	78.43	95.82	End Shut-In (1)
51	24.25	95.52	Open To Flow (2)
65	32.90	97.45	Shut-In (2)
97	78.80	97.85	End Shut-In (2)
98	1899.34	99.26	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	Dm	0.63
0.00	865 GIP	0.00

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

H & C Oil Operating

Kern A #1

P O Box 86
Plainville Ks 67663

28-9-20-Rooks-Ks

Job Ticket: 18232

DST#: 2

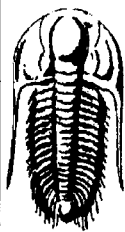
ATTN: Charles Ramsey

Test Start: 2004.01.19 @ 20:35:12

Tool Information

Drill Pipe:	Length: 3827.00 ft	Diameter: 3.80 inches	Volume: 53.68 bbl	Tool Weight: 2800.00 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: 70000.00 lb
			<u>Total Volume: 53.68 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 49000.00 lb
Depth to Top Packer:	3840.00 ft			Final 49000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	40.00 ft			
Tool Length:	61.00 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			3820.00	
Shut In Tool	5.00			3825.00	
Hydraulic tool	5.00			3830.00	
Packer	5.00			3835.00	21.00 Bottom Of Top Packer
Packer	5.00			3840.00	
Stubb	1.00			3841.00	
Recorder	0.00	6770	Inside	3841.00	
Perforations	36.00			3877.00	
Recorder	0.00	13254	Outside	3877.00	
Bullnose	3.00			3880.00	40.00 Bottom Packers & Anchor
Total Tool Length:		61.00			



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

H & C Oil Operating

Kern A #1

P O Box 86
Plainville Ks 67663

28-9-20-Rooks-Ks

Job Ticket: 18232

DST#: 2

ATTN: Charles Ramsey

Test Start: 2004.01.19 @ 20:35:12

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: 44.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	Dm	0.631
0.00	865 GIP	0.000

Total Length: 45.00 ft

Total Volume: 0.631 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

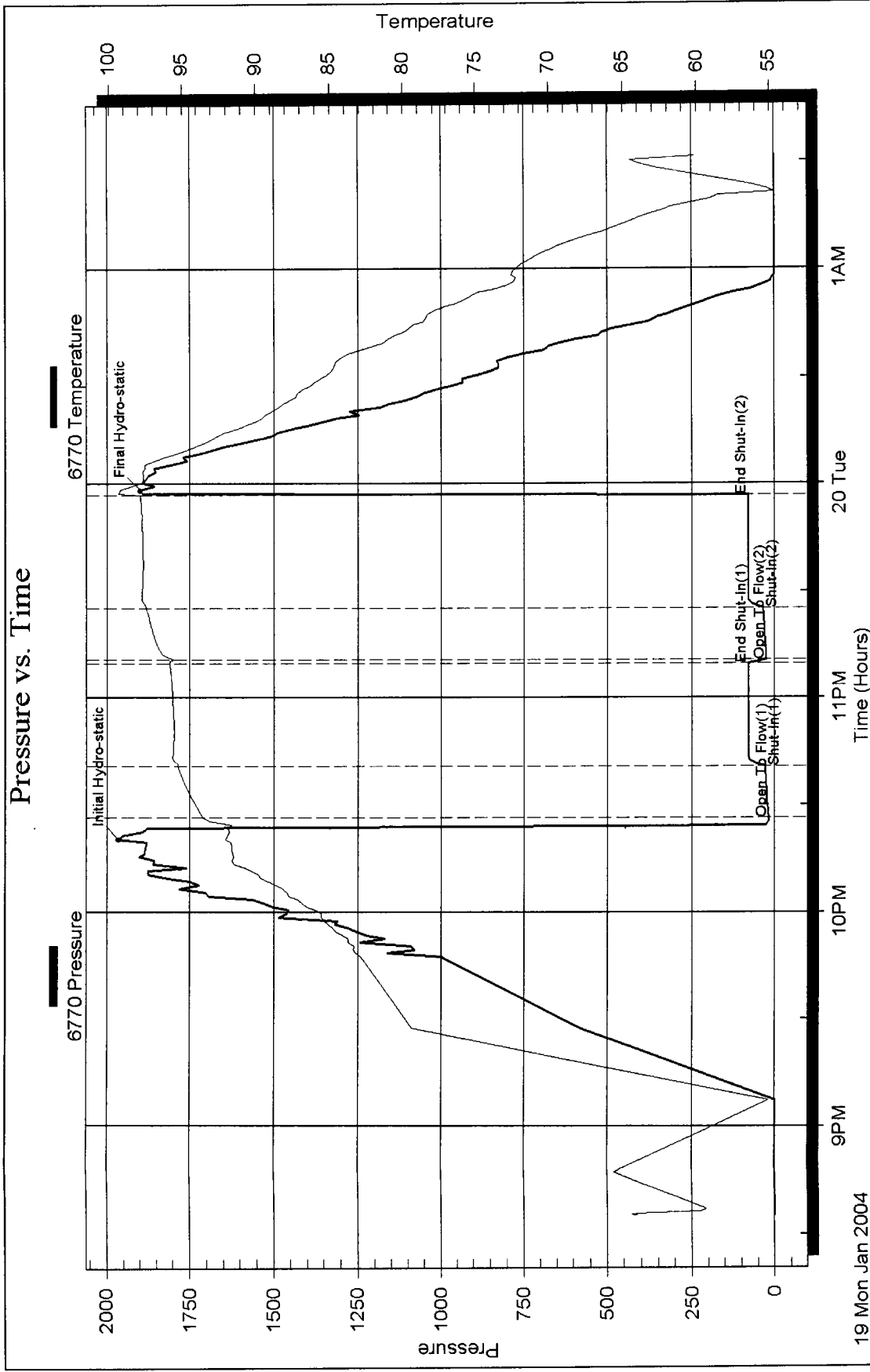
Serial #: 6770

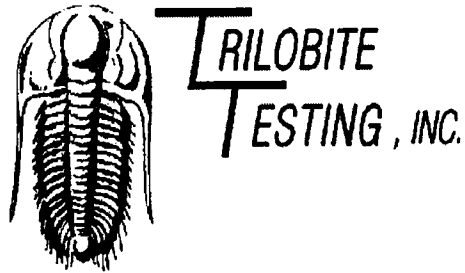
Inside

H & C Oil Operating

28-9-20-Rooks-Ks

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **H & C Oil Operating**

P O Box 86
Plainville Ks 67663

ATTN: Charles Ramsey

28-9-20-Rooks-Ks

Kern A #1

Start Date: 2004.01.20 @ 11:15:55

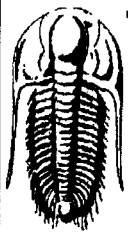
End Date: 2004.01.20 @ 16:44:25

Job Ticket #: 18233 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

H & C Oil Operating

P O Box 86
Plainville Ks 67663

ATTN: Charles Ramsey

Kern A #1

28-9-20-Rooks-Ks

Job Ticket: 18233

DST#: 3

Test Start: 2004.01.20 @ 11:15:55

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:32:55

Time Test Ended: 16:44:25

Test Type: Conventional Straddle

Tester: Dan Bangle

Unit No: 21

Interval: **3881.00 ft (KB) To 3896.00 ft (KB) (TVD)**

Total Depth: 3915.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2306.00 ft (KB)

2298.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6770 Inside

Press@RunDepth: 756.11 psig @ 3882.00 ft (KB)

Start Date: 2004.01.20

End Date:

2004.01.20

Start Time: 11:15:56

End Time:

16:44:25

Capacity: 7000.00 psig

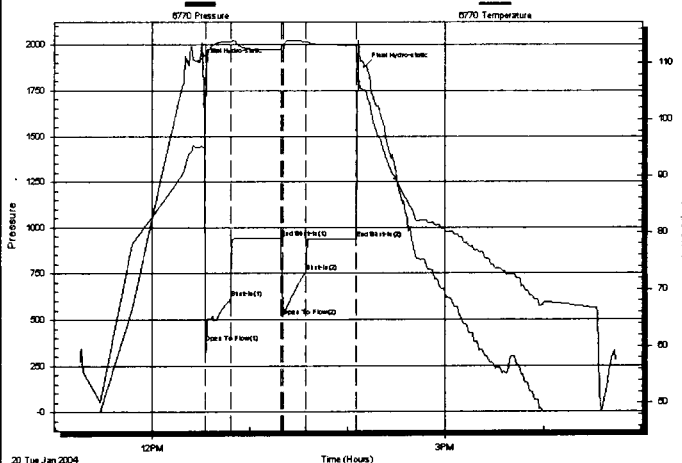
Last Calib.: 2004.01.20

Time On Btm: 2004.01.20 @ 12:28:25

Time Off Btm: 2004.01.20 @ 14:10:25

TEST COMMENT: IF-Strong BOB in 30 sec
FF-Strong BOB in 1 min
Times-15-30-15-30

Pressure vs. Time



PRESSURE SUMMARY

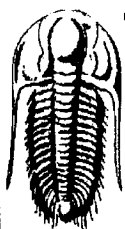
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1908.00	94.97	Initial Hydro-static
5	371.45	99.82	Open To Flow (1)
21	617.72	113.73	Shut-In (1)
51	939.79	112.32	End Shut-In (1)
52	518.00	111.57	Open To Flow (2)
66	756.11	113.75	Shut-In (2)
97	937.48	113.04	End Shut-In (2)
102	1878.41	105.20	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
420.00	Wtr	5.89
555.00	OCW 30%o 70%w	7.79
375.00	M%WCO 70%o 20%w 10%m	5.26
310.00	MCO 90%o 10%m	4.35
155.00	CO	2.17

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

H & C Oil Operating

Kern A #1

P O Box 86
Plainville Ks 67663

28-9-20-Rooks-Ks

Job Ticket: 18233

DST#: 3

ATTN: Charles Ramsey

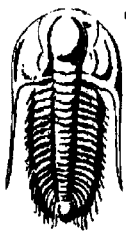
Test Start: 2004.01.20 @ 11:15:55

Tool Information

Drill Pipe:	Length:	3889.00 ft	Diameter:	3.80 inches	Volume:	54.55 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:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:	70000.00 lb
					Total Volume:	54.55 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		29.00 ft					String Weight: Initial	49000.00 lb
Depth to Top Packer:		3881.00 ft					Final	54000.00 lb
Depth to Bottom Packer:		3896.00 ft						
Interval between Packers:		15.00 ft						
Tool Length:		55.00 ft						
Number of Packers:		3	Diameter:	6.75 inches				
Tool Comments:								

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3861.00	
Shut In Tool	5.00			3866.00	
Hydraulic tool	5.00			3871.00	
Packer	5.00			3876.00	21.00 Bottom Of Top Packer
Packer	5.00			3881.00	
Stubb	1.00			3882.00	
Recorder	0.00	6770	Inside	3882.00	
Perforations	10.00			3892.00	
Recorder	0.00	13254	Outside	3892.00	
Blank Off Sub	1.00			3893.00	
Blank Spacing	3.00			3896.00	15.00 Tool Interval
Packer	2.00			3898.00	
Stubb	1.00			3899.00	
Perforations	13.00			3912.00	
Recorder	0.00	13248	Outside	3912.00	
Bullnose	3.00			3915.00	19.00 Bottom Packers & Anchor
Total Tool Length:	55.00				



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

H & C Oil Operating

Kern A #1

P O Box 86
Plainville Ks 67663

28-9-20-Rooks-Ks

Job Ticket: 18233

DST#: 3

ATTN: Charles Ramsey

Test Start: 2004.01.20 @ 11:15:55

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

28000 ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
420.00	Wtr	5.891
555.00	OCW 30%o 70%w	7.785
375.00	M%WCO 70%o 20%w 10%m	5.260
310.00	MCO 90%o 10%m	4.348
155.00	CO	2.174

Total Length: 1815.00 ft

Total Volume: 25.458 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

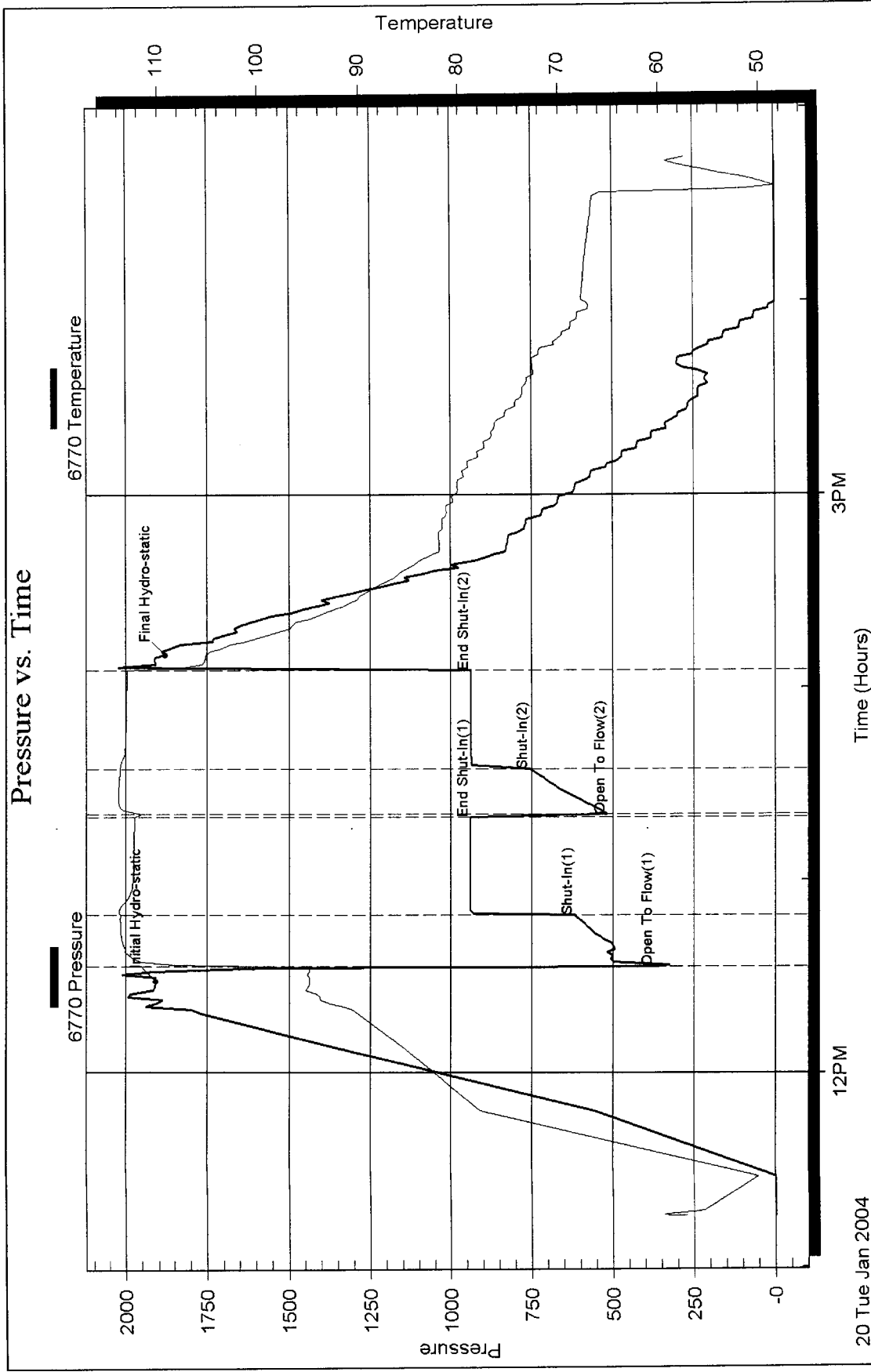
Serial #: 6770

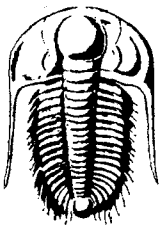
Inside

H & C Oil Operating

28-9-20-Rooks-Ks

DST Test Number: 3





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

INUV
6148

Nº 18231

05/03

Test Ticket

Well Name & No.	Kern A #1	Test No.	1	Date	1-19-04
Company	H & C Oil Operating	Zone Tested	Arbuckle		
Address	P.O. Box 84, Plainville, KS 67663	Elevation	2306 KB 2298	GL	
Co. Rep / Geo.	Ron Nelson	Cont.	Discovery #1	Est. Ft. of Pay	Por. %
Location: Sec.	28	Twp.	9	Rge.	20
		Co.	Rocks	State	KS
No. of Copies		Disbtribution Sheet (Y, N)		Turnkey (Y, N)	
		Evaluation (Y, N)			

Interval Tested 3840 — 3877 Initial Str Wt./Lbs. 49,000 Unseated Str Wt./Lbs. 19,000
Anchor Length 37 Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs 60,000
Top Packer Depth 3825 Tool Weight 4800
Bottom Packer Depth 3840 Hole Size 7 7/8" Rubber Size 6 3/4"
Total Depth 3877 Wt. Pipe Run _____ Drill Collar Run _____
Mud Wt. 9 LCM _____ Vis. 47 WL 8 Drill Pipe Size 4.5 XH Ft. Run 3827
Blow Description FF Strong - B.O.B. in 4 min.

FF. Strong - B.O.B. in 20 sec.

Recovery - Total Feet	<u>30</u>	GIP	<u>680</u>	Ft. in DC		Ft. in DP	<u>30</u>
Rec.	<u>30</u>	Feet of	<u>Gsy mud w/oil spots</u>	%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.		Feet of		%gas	%oil	%water	%mud
BHT	<u>102</u>	°F Gravity		°API D @		°F Corrected Gravity	
RW		@		°F	Chlorides	ppm Recovery	Chlorides <u>4,000</u> ppm System

(A) Initial Hydrostatic Mud	<u>1924</u> PSI	Recorder No.	<u>6770</u>	Test	
(B) First Initial Flow Pressure	<u>19</u> PSI	(depth)	<u>3841</u>	Elec. Rec.	<u>X</u>
(C) First Final Flow Pressure	<u>17</u> PSI	Recorder No.	<u>13254</u>	Jars	
(D) Initial Shut-In Pressure	<u>79</u> PSI	(depth)	<u>3874</u>	Safety Jt.	
(E) Second Initial Flow Pressure	<u>18</u> PSI	Recorder No.		Circ Sub	
(F) Second Final Flow Pressure	<u>22</u> PSI	(depth)		Sampler	
(G) Final Shut-In Pressure	<u>79</u> PSI	Initial Opening	<u>15</u>	Straddle	
(Q) Final Hydrostatic Mud	<u>1870</u> PSI	Initial Shut-In	<u>45</u>	Ext. Packer	

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.

Approved By

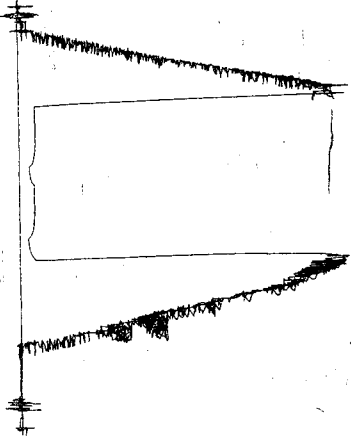
Our Representative

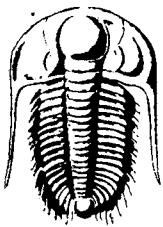
Final Flow	<u>15</u>	Shale Packer	
Final Shut-In	<u>45</u>	Mileage	<u>42</u>
T-On Location	<u>08:30</u>	Sub Total:	<u>919.70</u>
T-Started	<u>08:45</u>	Std. By	
T-Open	<u>10:55</u>	Other	
T-Pulled	<u>12:55</u>	Total:	
T-Out	<u>14:10</u>		

CHART PAGE

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

13254 H/





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

Nº 18232

05/03

Test Ticket

Well Name & No. <u>Kern A #1</u>	Test No. <u>2</u>	Date <u>1-19-04</u>
Company <u>H+C Oil Operating</u>	Zone Tested <u>Arbuckle</u>	
Address _____	Elevation <u>3306</u>	KB <u>2298</u> GL
Co. Rep / Geo. <u>Ron Nelson</u>	Cont. <u>Discovery #1</u>	Est. Ft. of Pay _____ Por. _____ %
Location: Sec. <u>28</u> Twp. <u>9</u> Rge. <u>20</u> Co. <u>Rocks</u> State <u>Ks</u>		
No. of Copies _____	Disbtribution Sheet (Y, N) _____	Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3840 — 3880 Initial Str Wt./Lbs. 49000 Unseated Str Wt./Lbs. 49000
 Anchor Length 40 Wt. Set Lbs. 25000 Wt. Pulled Loose/Lbs. 29000
 Top Packer Depth 3835 Tool Weight 2800
 Bottom Packer Depth 3840 Hole Size 7 7/8" Rubber Size 6 3/4"
 Total Depth 3880 Wt. Pipe Run _____ Drill Collar Run _____
 Mud Wt. 9.3 LCM _____ Vis. 44 WL 7.2 Drill Pipe Size 4.5XH Ft. Run 3827
 Blow Description F.F. Strong - B.O.B. in 1 min 45 sec

F.F. Strong - B.O.B. in 10 sec.

Recovery - Total Feet 45 GIP 865 Ft. in DC _____ Ft. in DP 45
 Rec. 45 Feet of D.M %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. _____ Feet of _____ %gas _____ %oil _____ %water _____ %mud _____
 BHT 97 °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery _____ Chlorides 5000 ppm System

AK-1	Alpine	Recorder No.	Test
(A) Initial Hydrostatic Mud	<u>1963</u> PSI	<u>6770</u>	
(B) First Initial Flow Pressure	<u>17</u> PSI	(depth) <u>3841</u>	Elec. Rec. <u>X</u>
(C) First Final Flow Pressure	<u>27</u> PSI	Recorder No. <u>13254</u>	Jars
(D) Initial Shut-In Pressure	<u>78</u> PSI	(depth) <u>3877</u>	Safety Jt.
(E) Second Initial Flow Pressure	<u>24</u> PSI	Recorder No. _____	Circ Sub
(F) Second Final Flow Pressure	<u>32</u> PSI	(depth) _____	Sampler
(G) Final Shut-In Pressure	<u>78</u> PSI	Initial Opening <u>15</u>	Straddle
(Q) Final Hydrostatic Mud	<u>1899</u> PSI	Initial Shut-In <u>30</u>	Ext. Packer
		Final Flow <u>15</u>	Shale Packer
		Final Shut-In <u>30</u>	Mileage <u>42</u>
		T-On Location <u>20:00</u>	Sub Total: <u>919.70</u>
		T-Started <u>20:35</u>	Std. By _____
		T-Open <u>22:23</u>	Other _____
		T-Pulled <u>23:53</u>	Total: _____
		T-Out <u>01:31</u>	

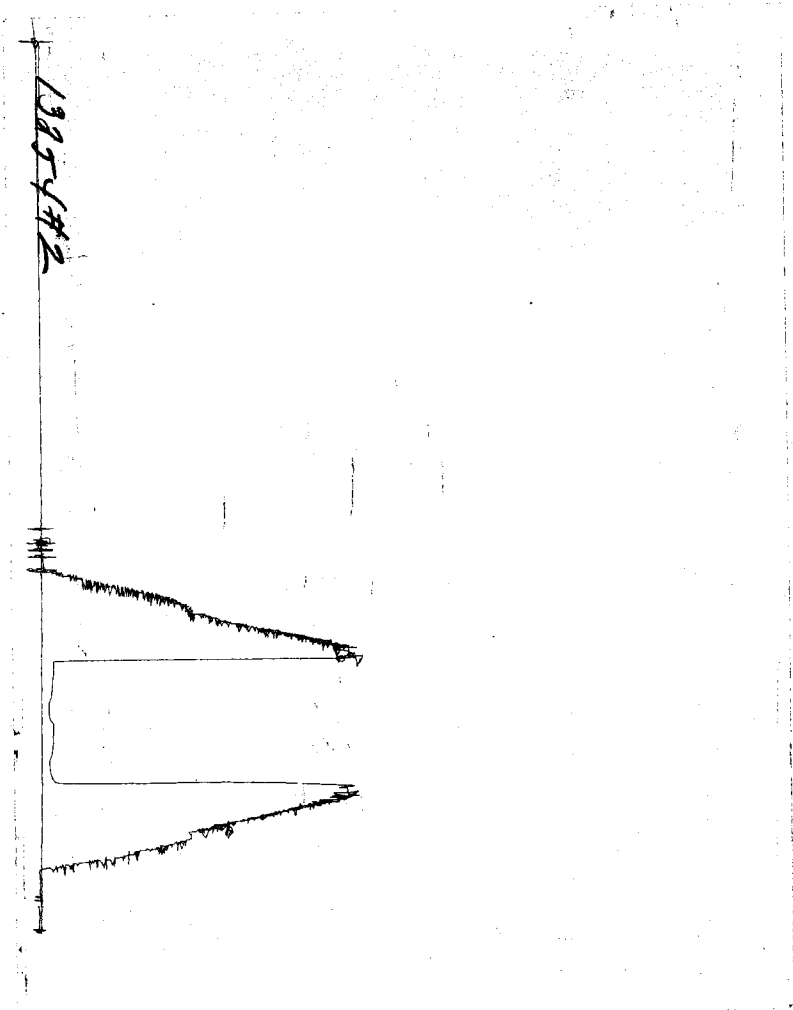
TRILOBITE TESTING INC. SHALL NOT BE LIABLE FOR DAMAGED OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

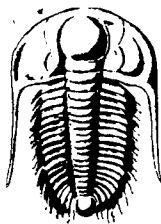
Approved By _____

Our Representative Dan Sample

CHART PAGE

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





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

Nº 18233

05/03

Test Ticket

Well Name & No.	Kern A #1	Test No.	3	Date	1-20-04
Company	H & C Oil Operating	Zone Tested	Archbuckle-Lower		
Address		Elevation	2306	KB	2298
Co. Rep / Geo.	Ron Nelson	Cont.	Discovery #1	Est. Ft. of Pay	Por. %
Location: Sec.	28	Twp.	9	Rge.	20
		Co.	Rocks	State	KS
No. of Copies		Disbtribution Sheet (Y, N)		Turnkey (Y, N)	
		Evaluation (Y, N)			

Interval Tested	3881 — 3896	Initial Str Wt./Lbs.	49,000	Unseated Str Wt./Lbs.	54,000
Anchor Length	15	Wt. Set Lbs.	25,000	Wt. Pulled Loose/Lbs.	79,000
Top Packer Depth	3881	Tool Weight	2500		
Bottom Packer Depth	3896	Hole Size	7 7/8"	Rubber Size	6 3/4"
Total Depth	3915	Wt. Pipe Run		Drill Collar Run	
Mud Wt.	9 LCM	Vis.	47	WL	8
		Drill Pipe Size	4.5XH	Ft. Run	3889
Blow Description	I.F. Strong - B.O.B. in 30 SEC				

F.F. Strong - B.O.B. in 1 min.

Recovery - Total Feet	1815	GIP		Ft. in DC		Ft. in DP	1815
Rec.	420	Feet of	WTR	%gas	%oil	%water	%mud
Rec.	555	Feet of	OCW	%gas	30	70	%water %mud
Rec.	375	Feet of	M+WCO	%gas	70	20	%water 10 %mud
Rec.	310	Feet of	MCO	%gas	90	%water	10 %mud
Rec.	155	Feet of	CO	%gas	100	%oil	%water %mud
BHT	113	°F Gravity		°API D @		°F Corrected Gravity	34
RW	120	@	78	°F	Chlorides	28,000 ppm	Recovery
					Chlorides	4000	ppm System

AK-1	Alpine				
(A) Initial Hydrostatic Mud	1908	PSI	Recorder No.	6770	Test
(B) First Initial Flow Pressure	371	PSI	(depth)	3882	Elec. Rec. X
(C) First Final Flow Pressure	617	PSI	Recorder No.	13254	Jars
(D) Initial Shut-In Pressure	939	PSI	(depth)	3892	Safety Jt.
(E) Second Initial Flow Pressure	518	PSI	Recorder No.	13248	Circ Sub
(F) Second Final Flow Pressure	756	PSI	(depth)	3910	Sampler
(G) Final Shut-In Pressure	937	PSI	Initial Opening	15	Straddle X
(Q) Final Hydrostatic Mud	1878	PSI	Initial Shut-In	30	Ext. Packer X
			Final Flow	15	Shale Packer
			Final Shut-In	30	Mileage 42
			T-On Location	10:15	Sub Total:
			T-Started	11:15	Std. By
			T-Open	12:35	Other
			T-Pulled	14:03	Total:
			T-Out	16:44	

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.

Approved By _____

Our Representative Dan Rangle

CHART PAGE

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

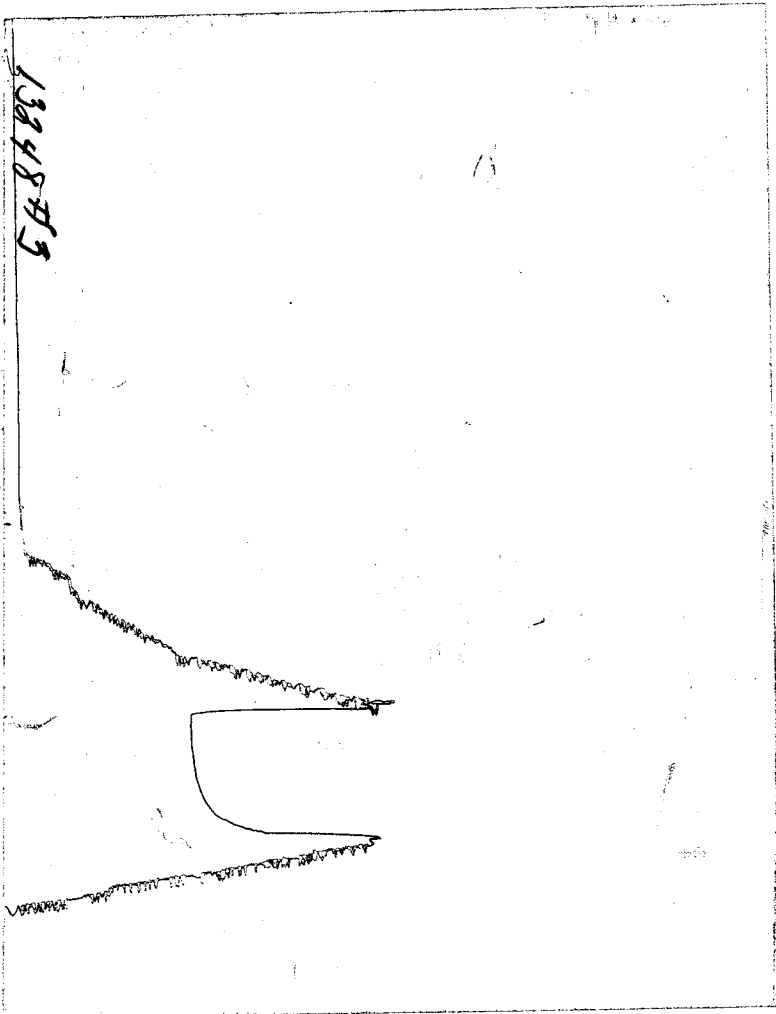


CHART PAGE

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

