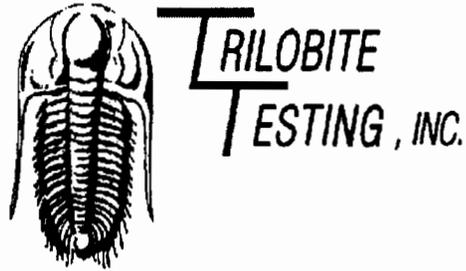


15-063-21563

20-14s-30w



DRILL STEM TEST REPORT

Prepared For: **Shields Oil Producers**

P O Box 709
Russell KS. 67665

ATTN: Todd Morgenstern

20-14S-30W Gove KS

Sharp A #3

Start Date: 2002.01.22 @ 14:10:49

End Date: 2002.01.22 @ 21:15:34

Job Ticket #: 15033 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

Shields Oil Producers

Sharp A #3

P O Box 709
Russell KS. 67665

20-14S-30W Gove KS

Job Ticket: 15033 **DST#: 1**

ATTN: Todd Morgenstern

Test Start: 2002.01.22 @ 14:10:49

GENERAL INFORMATION:

Formation: **Myrick Station**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:53:04

Time Test Ended: 21:15:34

Test Type: Conventional Bottom Hole

Tester: Rod Steinbrink

Unit No: 22

Interval: **4461.00 ft (KB) To 4489.00 ft (KB) (TVD)**

Reference Elevations: 2892.00 ft (KB)

Total Depth: 4489.00 ft (KB) (TVD)

2887.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 3030

Inside

Press@RunDepth: 196.93 psig @ 4462.01 ft (KB)

Capacity: 7000.00 psig

Start Date: 2002.01.22 End Date: 2002.01.22

Last Calib.: 1899.12.30

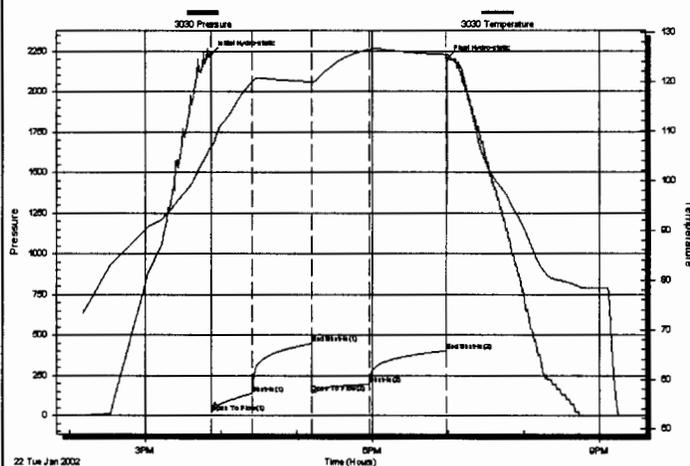
Start Time: 14:10:54 End Time: 21:15:33

Time On Btm: 2002.01.22 @ 15:52:49

Time Off Btm: 2002.01.22 @ 18:59:03

TEST COMMENT: IF; Fair blow off btm in 13 mins
IS; Weak intermitten blow thru
FF; Weak to fair built to 10"
FSI; Weak intermitten blow thru

Pressure vs. Time



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2228.75 | 106.97 | Initial Hydro-static |
| 1 | 19.55 | 107.02 | Open To Flow (1) |
| 33 | 138.85 | 120.02 | Shut-In(1) |
| 80 | 447.17 | 119.96 | End Shut-In(1) |
| 80 | 142.78 | 119.95 | Open To Flow (2) |
| 126 | 196.93 | 126.55 | Shut-In(2) |
| 186 | 403.31 | 125.39 | End Shut-In(2) |
| 187 | 2201.76 | 125.41 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-----------------------------------|--------------|
| 240.00 | GIP | 1.83 |
| 20.00 | CGO 15%gas 85%oil | 0.15 |
| 240.00 | SGMWCO 10%gas 55%oil 20%w tr 15%n | 2.40 |
| 180.00 | Wtr | 2.52 |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Shields Oil Producers

Sharp A #3

P O Box 709
Russell KS. 67665

20-14S-30W Gove KS

Job Ticket: 15033

DST#: 1

ATTN: Todd Morgenstern

Test Start: 2002.01.22 @ 14:10:49

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4042.00 ft | Diameter: 3.80 inches | Volume: 56.70 bbl | Tool Weight: 1800.00 lb |
| Heavy Wt. Pipe: | Length: 410.00 ft | Diameter: 2.80 inches | Volume: 3.12 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: 90000.00 lb |
| | | | <u>Total Volume: 59.82 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 11.00 ft | | | String Weight: Initial 66000.00 lb |
| Depth to Top Packer: | 4461.00 ft | | | Final 68000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 23.02 ft | | | |
| Tool Length: | 43.02 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| S.I. Tool | 5.00 | | | 4446.00 | |
| HMV | 5.00 | | | 4451.00 | |
| Packer | 5.00 | | | 4456.00 | 20.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 4461.00 | |
| Stubb | 1.00 | | | 4462.00 | |
| Recorder | 0.01 | 3030 | Inside | 4462.01 | |
| Perforations | 22.00 | | | 4484.01 | |
| Recorder | 0.01 | 13371 | Outside | 4484.02 | 23.02 Bottom Packers & Anchor |

Total Tool Length: 43.02



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Shields Oil Producers

Sharp A #3

P O Box 709
Russell KS. 67665

20-14S-30W Gove KS

Job Ticket: 15033 **DST#: 1**

ATTN: Todd Morgenstern

Test Start: 2002.01.22 @ 14:10:49

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 48.00 sec/qt
Water Loss: 8.77 in³
Resistivity: ohm.m
Salinity: 2200.00 ppm
Filter Cake: inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: 40000 ppm

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------------------------------|---------------|
| 240.00 | GIP | 1.828 |
| 20.00 | CGO 15%gas 85%oil | 0.152 |
| 240.00 | SGMWCO 10%gas 55%oil 20%w tr 15%mud | 2.405 |
| 180.00 | Wtr | 2.525 |

Total Length: 680.00 ft Total Volume: 6.910 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: RW .26 @ 50 deg =

Serial #: 3030

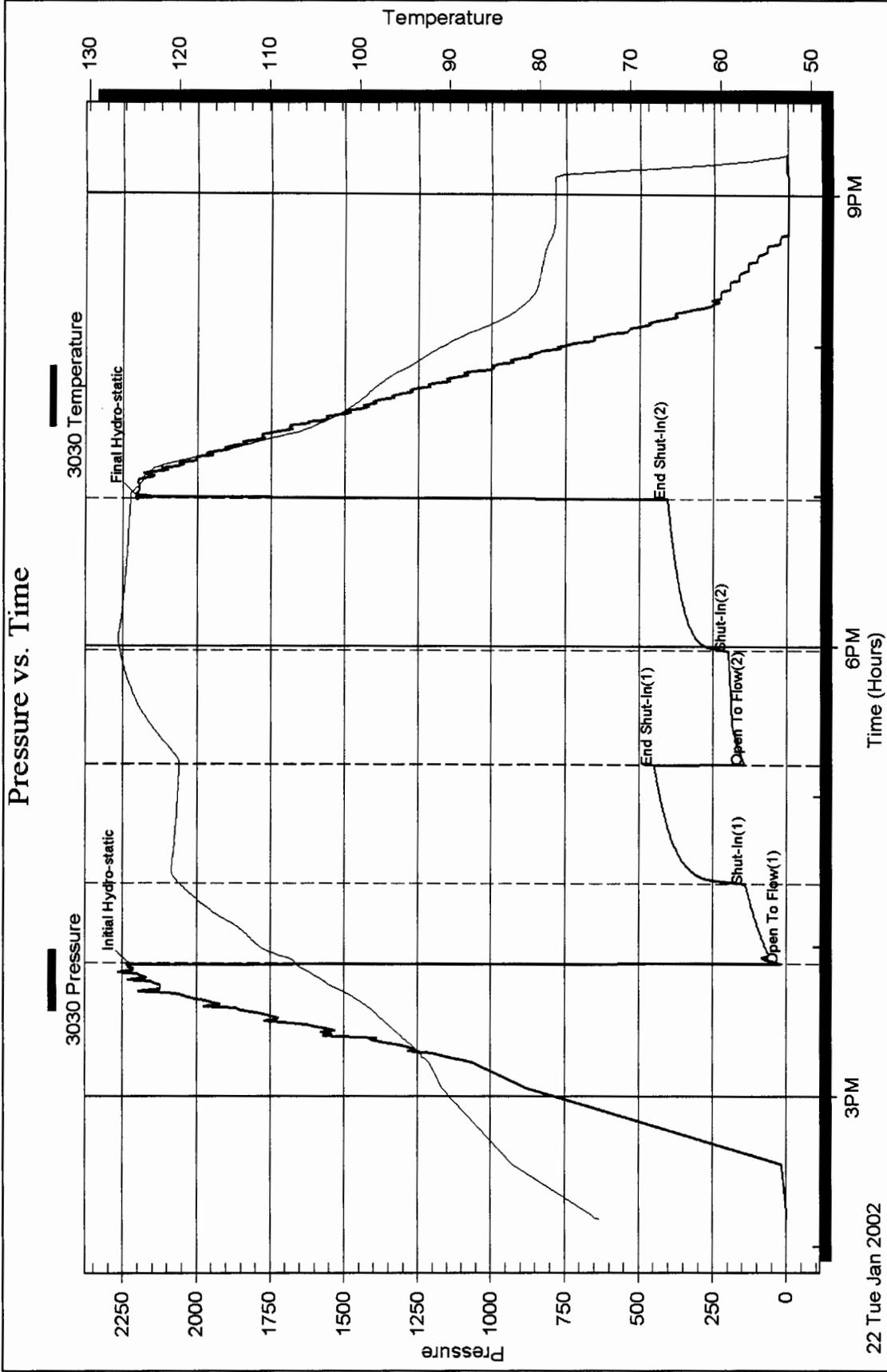
Inside

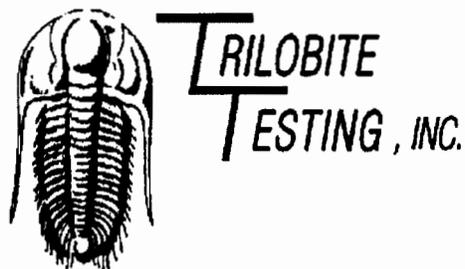
Shields Oil Producers

20-14S-30W Cove KS

DST Test Number: 1

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Shields Oil Producers**

P O Box 709
Russell KS. 67665

ATTN: Todd Morgenstern

20-14S-30W Gove KS

Sharp A#3

Start Date: 2002.01.23 @ 15:10:59

End Date: 2002.01.23 @ 21:03:59

Job Ticket #: 15034 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

Shields Oil Producers

P O Box 709
Russell KS. 67665

ATTN: Todd Morgenstern

Sharp A #3

20-14S-30W Gove KS

Job Ticket: 15034 **DST#: 2**

Test Start: 2002.01.23 @ 15:10:59

GENERAL INFORMATION:

Formation: **Johnson**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 16:42:44
 Time Test Ended: 21:03:59

Test Type: Conventional Bottom Hole
 Tester: Rod Steinbrink
 Unit No: 22

Interval: **4511.00 ft (KB) To 4593.00 ft (KB) (TVD)**
 Total Depth: 4493.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2892.00 ft (KB)
 2887.00 ft (CF)
 KB to GR/CF: 5.00 ft

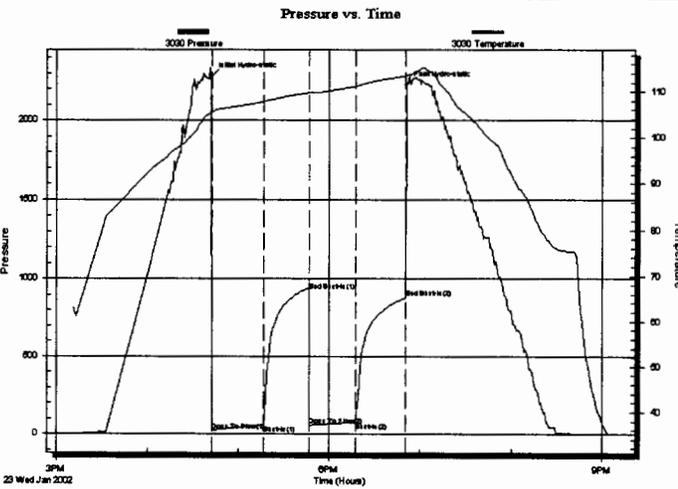
Serial #: 3030

Inside

Press@RunDepth: 77.37 psig @ 4512.00 ft (KB)
 Start Date: 2002.01.23 End Date: 2002.01.23
 Start Time: 15:11:04 End Time: 21:03:58

Capacity: 7000.00 psig
 Last Calib.: 1899.12.30
 Time On Btm: 2002.01.23 @ 16:42:29
 Time Off Btm: 2002.01.23 @ 18:50:59

TEST COMMENT: IF; Weak 1/4" blow decreasing thru
 FF; No return blow



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2280.40 | 105.47 | Initial Hydro-static |
| 1 | 23.67 | 105.53 | Open To Flow (1) |
| 35 | 55.86 | 107.84 | Shut-In(1) |
| 65 | 921.79 | 109.81 | End Shut-In(1) |
| 65 | 57.12 | 109.82 | Open To Flow (2) |
| 95 | 77.37 | 111.22 | Shut-In(2) |
| 128 | 879.36 | 113.45 | End Shut-In(2) |
| 129 | 2225.27 | 113.48 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 75.00 | Mud | 0.57 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Shields Oil Producers

Sharp A #3

P O Box 709
Russell KS. 67665

20-14S-30W Gove KS

Job Ticket: 15034

DST#: 2

ATTN: Todd Morgenstern

Test Start: 2002.01.23 @ 15:10:59

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4162.00 ft | Diameter: 3.80 inches | Volume: 58.38 bbl | Tool Weight: 1800.00 lb |
| Heavy Wt. Pipe: | Length: 347.00 ft | Diameter: 2.80 inches | Volume: 2.64 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: 120000.0 lb |
| | | | <u>Total Volume: 61.02 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 18.00 ft | | | String Weight: Initial 64000.00 lb |
| Depth to Top Packer: | 4511.00 ft | | | Final 64000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 82.00 ft | | | |
| Tool Length: | 102.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| S.I. Tool | 5.00 | | | 4496.00 | |
| HMV | 5.00 | | | 4501.00 | |
| Packer | 5.00 | | | 4506.00 | 20.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 4511.00 | |
| Stubb | 1.00 | | | 4512.00 | |
| Recorder | 0.00 | 3030 | Inside | 4512.00 | |
| Perforations | 11.00 | | | 4523.00 | |
| C.O. Sub | 1.00 | | | 4524.00 | |
| Anchor | 63.00 | | | 4587.00 | |
| C.O. Sub | 1.00 | | | 4588.00 | |
| Recorder | 0.00 | 13371 | Outside | 4588.00 | |
| Bullnose | 5.00 | | | 4593.00 | 82.00 Bottom Packers & Anchor |

Total Tool Length: 102.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Shields Oil Producers

Sharp A #3

P O Box 709
Russell KS. 67665

20-14S-30W Gove KS

Job Ticket: 15034

DST#: 2

ATTN: Todd Morgenstern

Test Start: 2002.01.23 @ 15:10:59

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length: ft

Water Salinity: ppm

Viscosity: 47.00 sec/qt

Cushion Volume: bbl

Water Loss: 9.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 3000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 75.00 | Mud | 0.571 |

Total Length: 75.00 ft

Total Volume: 0.571 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

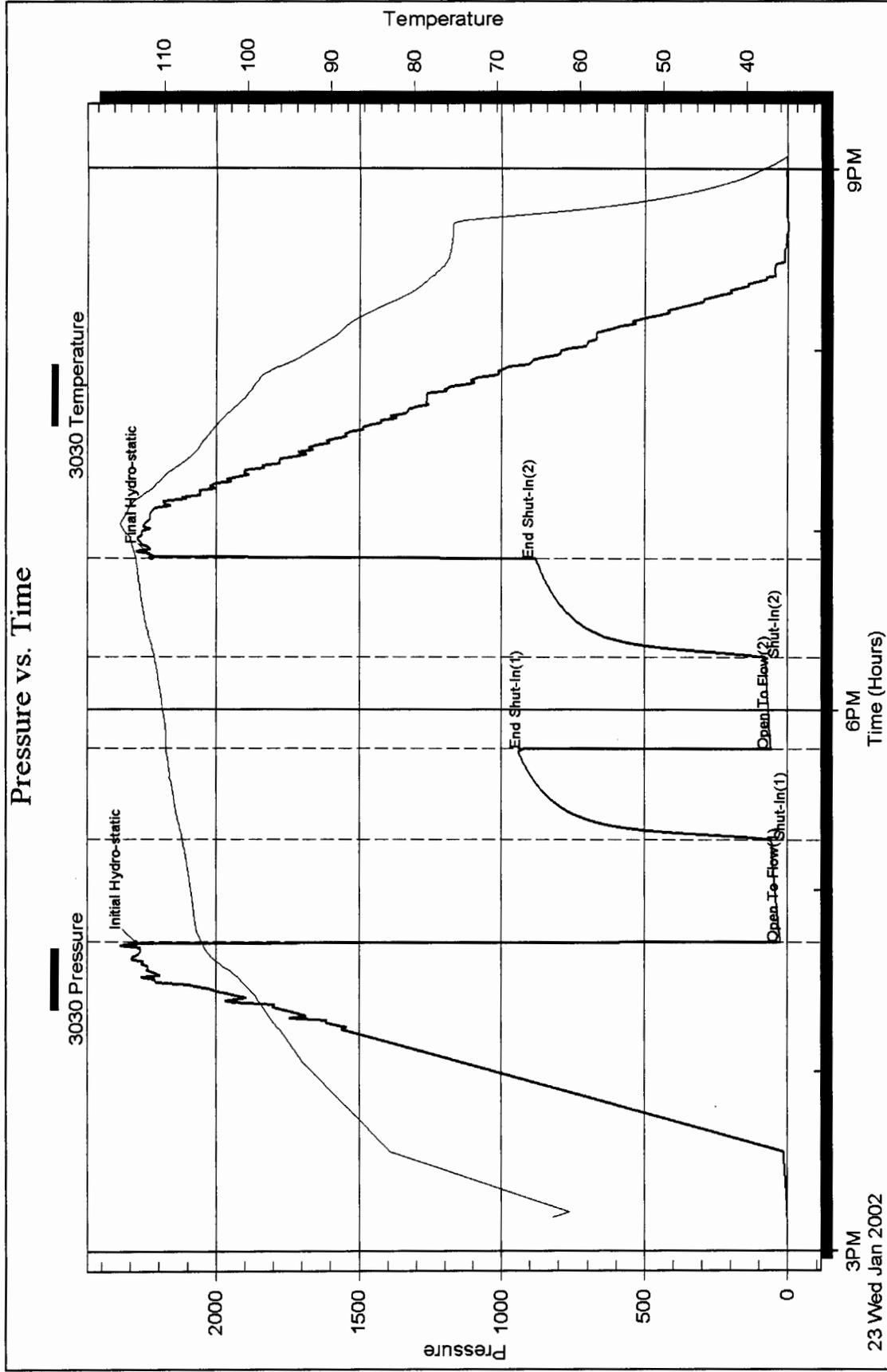
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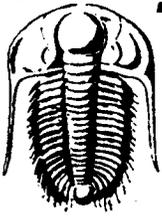
Inside

Shields Oil Producers

20-14S-30W Gove KS

DST Test Number: 2





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 15033

Test Ticket

Well Name & No. Sharp A #3 Test No. 1 Date 1-22-02
 Company Shields Oil Producers Zone Tested Myrik Station
 Address P.O. Box 709 Russell KS. 67665 Elevation 2892 KB 2887 GL
 Co. Rep / Geo. Todd Moganstern Cont. Shields #2 Est. Ft. of Pay Por. %
 Location: Sec. 20 Twp. 14^S Rge. 30^W Co. Gove State KS.
 No. of Copies Distribution Sheet (Y, N) Turnkey (Y, N) Evaluation (Y, N)

Interval Tested 4461 - 4489 Initial Str Wt./Lbs. 66,000 Unseated Str Wt./Lbs. 68,000
 Anchor Length 28' Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 90,000
 Top Packer Depth 4456 Tool Weight 1,800
 Bottom Packer Depth 4461 Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 4489 Wt. Pipe Run 410' Drill Collar Run
 Mud Wt. 9.4 LCM Vis. 48 WL 8.8 Drill Pipe Size 4 1/2" XH Ft. Run 4042'
 Blow Description IF: Fair blow off bttm in 13 mins

ISI: Weak intermitten blow thru.

FF: Weak to fair built to 10"

FSI: Weak intermitten blow thru.

Recovery — Total Feet 440' GIP 240' Ft. in DC Ft. in DP 30' / WP 410'
 Rec. 20' Feet Of CGO 15 %gas 85 %oil %water %mud
 Rec. Feet Of %gas %oil %water %mud
 Rec. 240' Feet Of SG MCO & W 10 %gas 55 %oil 20 %water 15 %mud
 Rec. Feet Of %gas %oil %water %mud
 Rec. 180' Feet Of Water %gas %oil 100 %water %mud
 BHT 125° °F Gravity 34 °API @ 40° °F Corrected Gravity 36 °API
 RW 26.3 @ 50 °F Chlorides 40,000 ppm Recovery Chlorides 2,200 ppm System

| | AK-1 | Alpine | PSI | Recorder No. | T-On Location |
|----------------------------------|------|-------------|-----|---------------------------|--------------------------------|
| (A) Initial Hydrostatic Mud | | <u>2240</u> | | <u>3030</u> | <u>1245</u> |
| (B) First Initial Flow Pressure | | <u>19</u> | | (depth) <u>4462</u> | T-Started <u>1410</u> |
| (C) First Final Flow Pressure | | <u>138</u> | | Recorder No. <u>13371</u> | T-Open <u>1553</u> |
| (D) Initial Shut-In Pressure | | <u>447</u> | | (depth) <u>4484</u> | T-Pulled <u>1858</u> |
| (E) Second Initial Flow Pressure | | <u>142</u> | | Recorder No. <u> </u> | T-Out <u>2115</u> |
| (F) Second Final Flow Pressure | | <u>196</u> | | (depth) <u> </u> | T-Off Location <u>2215</u> |
| (G) Final Shut-in Pressure | | <u>403</u> | | Initial Opening <u>30</u> | Test <u>X</u> <u>800</u> |
| (Q) Final Hydrostatic Mud | | <u>2209</u> | | Initial Shut-in <u>45</u> | Jars <u> </u> |
| | | | | Final Flow <u>45</u> | Safety Joint <u> </u> |
| | | | | Final Shut-in <u>60</u> | Straddle <u> </u> |
| | | | | | Circ. Sub <u>X</u> <u>N/C</u> |
| | | | | | Sampler <u> </u> |
| | | | | | Extra Packer <u> </u> |
| | | | | | Elec. Rec. <u>X</u> <u>150</u> |
| | | | | | Mileage <u>40</u> |
| | | | | | Other <u> </u> |
| | | | | | TOTAL PRICE \$ <u>990</u> |

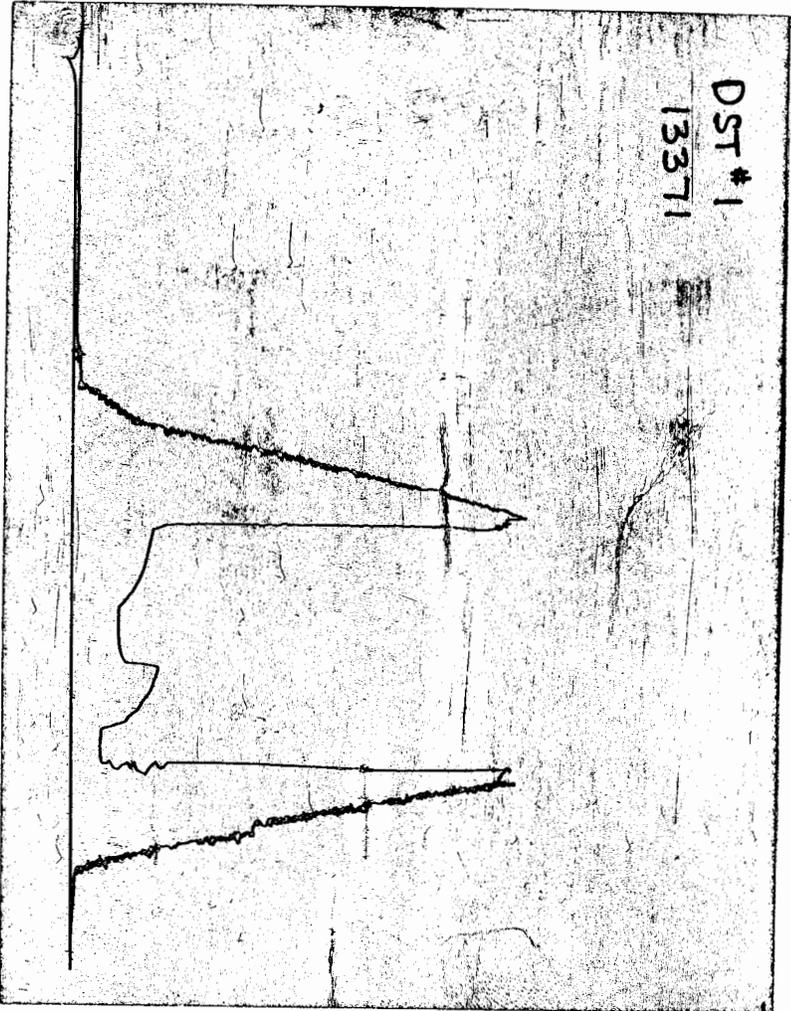
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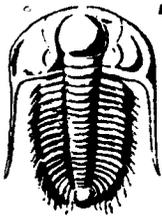
Approved By Todd Moganstern
Our Representative Rod Steinbrink

8:30

CHART PAGE

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





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 15034

Test Ticket

Well Name & No. Sharp A #3 Test No. 2 Date 1-23-02
 Company Shields Oil Producers Zone Tested Johnson
 Address P.O. Box 109 Russell KS 67665 Elevation 2892 KB 2887 GL
 Co. Rep / Geo. Todd Morgenstern Cont. Shields #2 Est. Ft. of Pay Por. %
 Location: Sec. 20 Twp. 14^s Rge. 30^w Co. Gove State KS
 No. of Copies Distribution Sheet (Y, N) Turnkey (Y, N) Evaluation (Y, N)

Interval Tested 4511 - 4593 Initial Str Wt./Lbs. 64,000 Unseated Str Wt./Lbs. 64,000
 Anchor Length 82' Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 120,000
 Top Packer Depth 4506 Tool Weight 2,000
 Bottom Packer Depth 4511 Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 4593 Wt. Pipe Run 347' Drill Collar Run
 Mud Wt. 9.5 LCM Vis. 47 WL 9.6 Drill Pipe Size 4 1/2" XH Ft. Run 4162'
 Blow Description IF: Weak 1/4" blow decreasing thru

FF: No return blow

Recovery — Total Feet 75' GIP Ft. in DC Ft. in DP WP 75'
 Rec. Feet Of %gas %oil %water %mud
 Rec. 75' Feet Of Mud %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 113° °F Gravity °API D@ °F Corrected Gravity °API
 RW @ °F Chlorides ppm Recovery Chlorides 3,000 ppm System

| | AK-1 | Alpine | | | |
|----------------------------------|------|-------------|-----|---------------------------|----------------------------|
| (A) Initial Hydrostatic Mud | | <u>2280</u> | PSI | Recorder No. <u>3030</u> | T-On Location <u>1430</u> |
| (B) First Initial Flow Pressure | | <u>23</u> | PSI | (depth) <u>4512</u> | T-Started <u>1510</u> |
| (C) First Final Flow Pressure | | <u>55</u> | PSI | Recorder No. <u>13371</u> | T-Open <u>1642</u> |
| (D) Initial Shut-In Pressure | | <u>942</u> | PSI | (depth) <u>4588</u> | T-Pulled <u>1850</u> |
| (E) Second Initial Flow Pressure | | <u>57</u> | PSI | Recorder No. <u> </u> | T-Out <u>2103</u> |
| (F) Second Final Flow Pressure | | <u>77</u> | PSI | (depth) <u> </u> | T-Off Location <u>2130</u> |
| (G) Final Shut-in Pressure | | <u>878</u> | PSI | Initial Opening <u>30</u> | Test <u>X 800</u> |
| (Q) Final Hydrostatic Mud | | <u>2266</u> | PSI | Initial Shut-in <u>30</u> | Jars <u> </u> |
| | | | | Final Flow <u>30</u> | Safety Joint <u> </u> |
| | | | | Final Shut-in <u>30</u> | Straddle <u> </u> |

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Approved By

Our Representative Rod Steinbrink

Circ. Sub X N/C
 Sampler
 Extra Packer
 Elec. Rec. X 150
 Mileage 40
 Other
 TOTAL PRICE \$ 990

CHART PAGE

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

