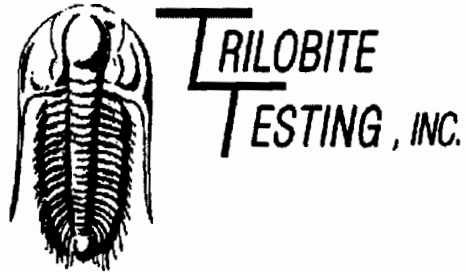


15-135-24315

10-17s-24w



## DRILL STEM TEST REPORT

Prepared For: **Smith Oil Operations**

P O Box 550  
Hutchinson KS 67504-0550

ATTN: Joe Baker

**10-17S-24W Ness**

**Amstutz-Dellinger #1**

Start Date: 2004.12.13 @ 02:55:35

End Date: 2004.12.13 @ 11:33:50

Job Ticket #: 20148      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

Smith Oil Operations  
P O Box 550  
Hutchinson KS 67504-0550  
ATTN: Joe Baker

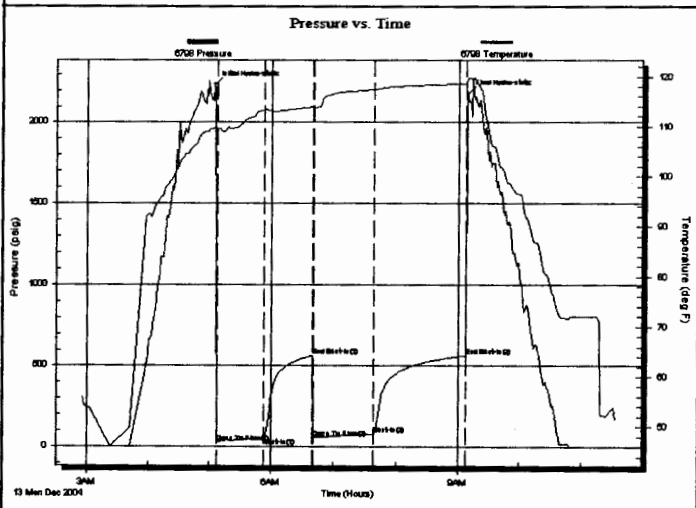
**Amstutz-Dellinger #1**  
**10-17S-24W Ness**  
Job Ticket: 20148      DST#: 1  
Test Start: 2004.12.13 @ 02:55:35

### GENERAL INFORMATION:

Formation: **Cherokee Sd**  
Deviated: **No** Whipstock:                      ft (KB)  
Time Tool Opened: 05:06:50  
Time Test Ended: 11:33:50  
Interval: **4416.00 ft (KB) To 4462.00 ft (KB) (TVD)**  
Total Depth: **4462.00 ft (KB) (TVD)**  
Hole Diameter: **7.88 inches** Hole Condition: **Good**  
Test Type: **Conventional Bottom Hole**  
Tester: **Rod Steinbrink**  
Unit No: **22**  
Reference Elevations: **2495.00 ft (KB)**  
**2490.00 ft (CF)**  
KB to GR/CF: **5.00 ft**

**Serial #: 6798**      **Inside**  
Press@RunDepth: **78.42 psig @ 4417.00 ft (KB)**      Capacity: **7000.00 psig**  
Start Date: **2004.12.13**      End Date: **2004.12.13**      Last Calib.: **1899.12.30**  
Start Time: **02:55:40**      End Time: **11:33:50**      Time On Btrr: **2004.12.13 @ 05:04:35**  
Time Off Btrr: **2004.12.13 @ 09:09:20**

**TEST COMMENT:** F; Fair blow built to 8 1/2"  
IS; No return  
FF; Fair blow built to 7"  
FSI; No return



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2234.37	109.84	Initial Hydro-static
3	26.74	109.49	Open To Flow (1)
49	54.47	113.32	Shut-In(1)
96	564.49	113.97	End Shut-In(1)
96	56.52	113.84	Open To Flow (2)
154	78.42	117.45	Shut-In(2)
243	564.51	118.67	End Shut-In(2)
245	2181.10	119.59	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
110.00	OCM 7%o 93% m	1.54
40.00	CO 100%o	0.56

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



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Smith Oil Operations  
P O Box 550  
Hutchinson KS 67504-0550  
ATTN: Joe Baker

**Amstutz-Dellinger #1**  
**10-17S-24W Ness**  
Job Ticket: 20148      **DST#: 1**  
Test Start: 2004.12.13 @ 02:55:35

**Tool Information**

Drill Pipe:	Length: 4402.00 ft	Diameter: 3.80 inches	Volume: 61.75 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: 60000.00 lb
			<u>Total Volume: 61.75 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	4416.00 ft			Final 51000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	46.00 ft			
Tool Length:	72.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4395.00	
Hydraulic tool	5.00			4400.00	
Jars	5.00			4405.00	
Safety Joint	2.00			4407.00	
Packer	5.00			4412.00	26.00      Bottom Of Top Packer
Packer	4.00			4416.00	
Stubb	1.00			4417.00	
Recorder	0.00	6798	Inside	4417.00	
Perforations	7.00			4424.00	
Change Over Sub	1.00			4425.00	
Anchor	31.00			4456.00	
Change Over Sub	1.00			4457.00	
Recorder	0.00	13309	Outside	4457.00	
Bullnose	5.00			4462.00	46.00      Bottom Packers & Anchor

**Total Tool Length: 72.00**



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

FLUID SUMMARY

Smith Oil Operations  
P O Box 550  
Hutchinson KS 67504-0550  
  
ATTN: Joe Baker

**Amstutz-Dellinger #1**  
**10-17S-24W Ness**  
Job Ticket: 20148      DST#: 1  
Test Start: 2004.12.13 @ 02:55:35

### Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	36 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	52.00 sec/qt	Cushion Volume:	bbbl		
Water Loss:	7.99 in <sup>3</sup>	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
110.00	OCM 7%o 93% <sub>m</sub>	1.543
40.00	CO 100% <sub>o</sub>	0.561

Total Length: 150.00 ft      Total Volume: 2.104 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:

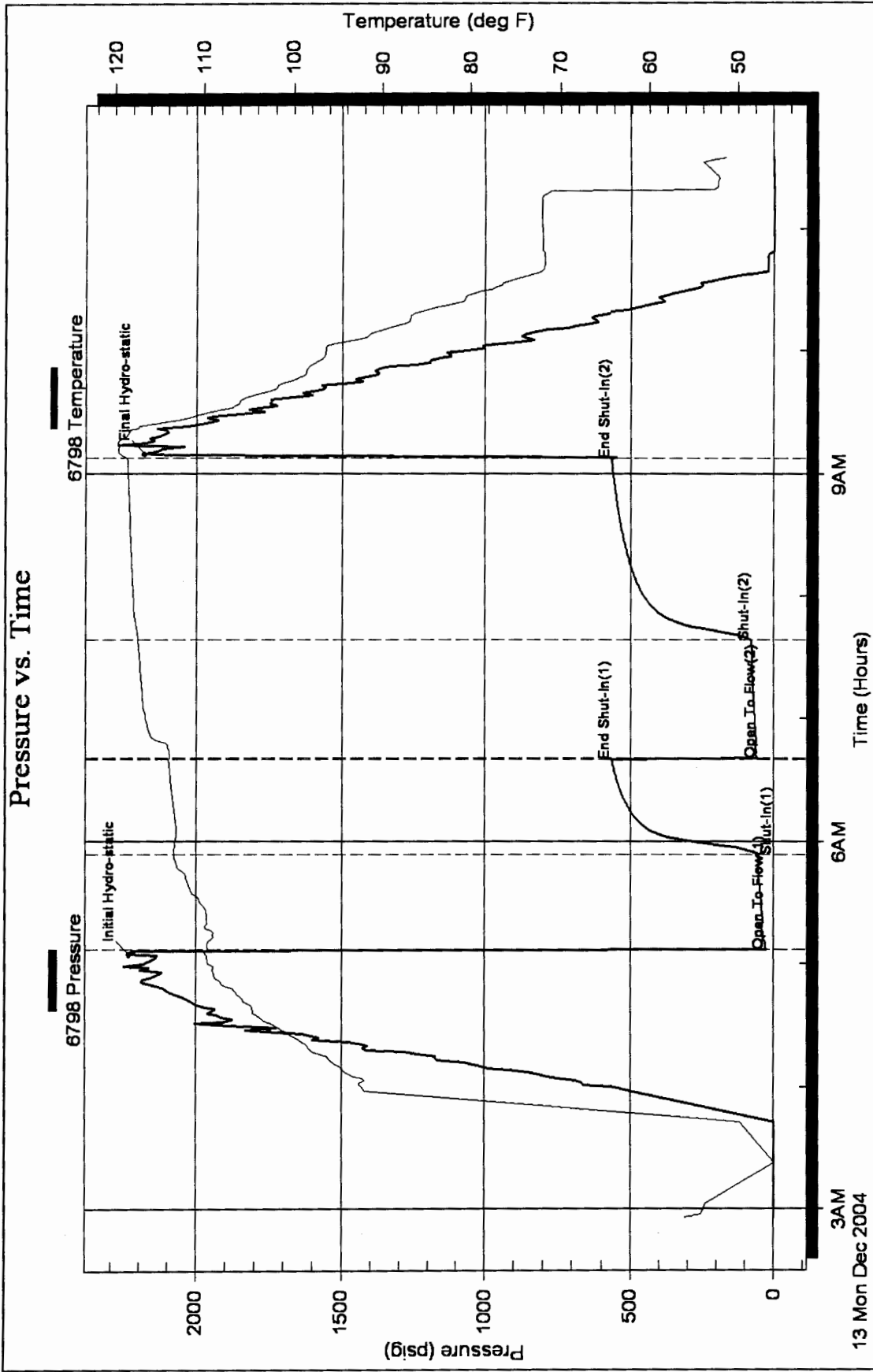
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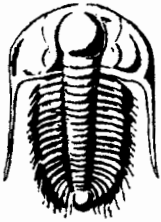
Inside

Smith Oil Operations

10-17S-24W/Ness

DST Test Number: 1





# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

INV  
7036

No 20148

## Test Ticket

Well Name & No. Amstutz-Dellinger #1 Test No. 1 Date 12-13-04  
 Company Smith Oil Operations Zone Tested Cherokee Sd.  
 Address P.O. Box 550 Hutchinson KS. 67504-0550 Elevation 2495 KB 2490 GL  
 Co. Rep / Geo. Joe Baker Cont. L.D. Davis #1 Est. Ft. of Pay \_\_\_\_\_ Por. \_\_\_\_\_ %  
 Location: Sec. 10 Twp. 17<sup>s</sup> Rge. 24<sup>w</sup> Co. Ness State KS.  
 No. of Copies \_\_\_\_\_ Distribution Sheet (Y, N) \_\_\_\_\_ Turnkey (Y, N) \_\_\_\_\_ Evaluation (Y, N) \_\_\_\_\_

Interval Tested 4416 - 4462 Initial Str Wt./Lbs. 50,000 Unseated Str Wt./Lbs. 51,000  
 Anchor Length 46' Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs. 60,000  
 Top Packer Depth 4411 Tool Weight 2,500  
 Bottom Packer Depth 4416 Hole Size 7 7/8" Rubber Size 6 3/4"  
 Total Depth 4462 Wt. Pipe Run \_\_\_\_\_ Drill Collar Run \_\_\_\_\_  
 Mud Wt. 9.3 LCM - Vis. S2 WL 8.0 Drill Pipe Size 4 1/2" XH Ft. Run 4402'  
 Blow Description IF: Fair blow built to 8 1/2"  
ISI: No return  
FF: Fair blow built to 7"  
FSI: No return

Recovery - Total Feet 150' GIP - Ft. in DC - Ft. in DP 150'  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_ %gas \_\_\_\_\_ %oil \_\_\_\_\_ %water \_\_\_\_\_ %mud  
 Rec. 40' Feet of CO %gas 100 %oil \_\_\_\_\_ %water \_\_\_\_\_ %mud  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_ %gas \_\_\_\_\_ %oil \_\_\_\_\_ %water \_\_\_\_\_ %mud  
 Rec. 110' Feet of OCM %gas 7 %oil \_\_\_\_\_ %water 93 %mud  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_ %gas \_\_\_\_\_ %oil \_\_\_\_\_ %water \_\_\_\_\_ %mud  
 BHT 118° °F Gravity 35 °API D @ 50° °F Corrected Gravity 36 °API  
 RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery \_\_\_\_\_ Chlorides 3,000 ppm System

	AK-1	Alpine	Recorder No.	Test
(A) Initial Hydrostatic Mud	<u>2234</u>	PSI	<u>6798</u>	_____
(B) First Initial Flow Pressure	<u>26</u>	PSI	(depth) <u>4417</u>	Elec. Rec. _____
(C) First Final Flow Pressure	<u>54</u>	PSI	Recorder No. <u>13309</u>	Jars <u>X</u>
(D) Initial Shut-In Pressure	<u>564</u>	PSI	(depth) <u>4457</u>	Safety Jt. <u>X</u>
(E) Second Initial Flow Pressure	<u>56</u>	PSI	Recorder No. _____	Circ Sub <u>X N/C</u>
(F) Second Final Flow Pressure	<u>78</u>	PSI	(depth) _____	Sampler _____
(G) Final Shut-In Pressure	<u>564</u>	PSI	Initial Opening <u>45</u>	Straddle _____
(Q) Final Hydrostatic Mud	<u>2181</u>	PSI	Initial Shut-In <u>45</u>	Ext. Packer _____
			Final Flow <u>60</u>	Shale Packer _____
			Final Shut-In <u>90</u>	Mileage <u>1 way 70</u>
			T-On Location <u>0200</u>	Sub Total: <u>1390</u>
			T-Started <u>0255</u>	Std. By <u>12 15</u>
			T-Open <u>0506</u>	Other _____
			T-Pulled <u>0907</u>	Total: _____
			T-Out <u>1133</u>	

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Approved By [Signature]  
 Our Representative Rod Steinbrink

**CHART PAGE**

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

Smith Oil  
Amstutz-Dellinger #1  
DST #1  
13309

