

DRILL STEM TEST REPORT

Prepared For: **DNOC**

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

10-17-21-Ness-Ks

Swartz # 1-10

Start Date: 2004.11.06 @ 17:25:37

End Date: 2004.11.06 @ 21:21:37

Job Ticket #: 20856 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

DNOC
P O Box 372
Hays Ks 67601
ATTN: Ron Nelson

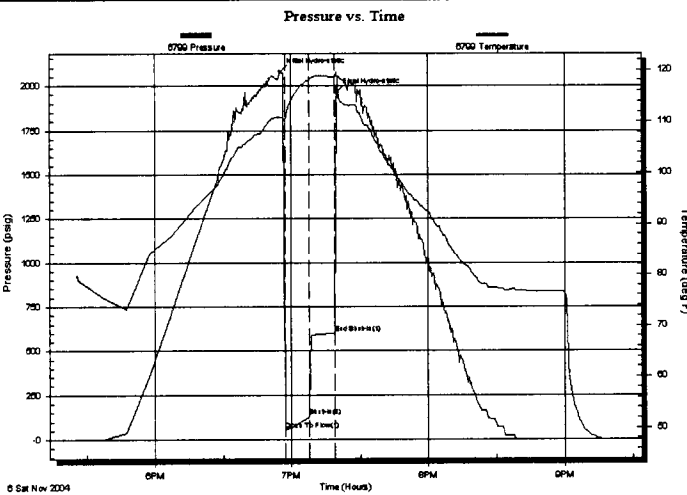
Swartz # 1-10
10-17-21-Ness-Ks
Job Ticket: 20856 **DST#: 1**
Test Start: 2004.11.06 @ 17:25:37

GENERAL INFORMATION:

Formation: **Cher Sd**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:57:07
Time Test Ended: 21:21:37
Interval: **4116.00 ft (KB) To 4130.00 ft (KB) (TVD)**
Total Depth: 4250.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole
Tester: Dan Bangle
Unit No: 21
Reference Elevations: 2223.00 ft (KB)
2215.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6799 Inside
Press@RunDepth: 128.64 psig @ 4117.00 ft (KB)
Start Date: 2004.11.06 End Date: 2004.11.06
Start Time: 17:25:38 End Time: 21:21:37
Capacity: 7000.00 psig
Last Calib.: 2004.11.06
Time On Btm: 2004.11.06 @ 18:55:07
Time Off Btm: 2004.11.06 @ 19:19:37

TEST COMMENT: IF-Strong B-B in 4 min
IS-Weak building to 8"
Times-10-10



PRESSURE SUMMARY

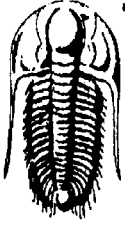
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2077.25	110.82	Initial Hydro-static
2	56.38	110.10	Open To Flow (1)
13	128.64	118.12	Shut-In (1)
24	598.19	118.65	End Shut-In (1)
25	1965.12	119.61	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	O&WCM 20%o 20%w 60%m	26.68
62.00	MCO 60%o 40%m	0.87
340.00	CGsyO 20%g 80%o	4.77
0.00	1085 GIP	0.00

Gas Rates

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



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DRILL STEM TEST REPORT

TOOL DIAGRAM

DNOC

Swartz # 1-10

P O Box 372
Hays Ks 67601

10-17-21-Ness-Ks

Job Ticket: 20856

DST#: 1

ATTN: Ron Nelson

Test Start: 2004.11.06 @ 17:25:37

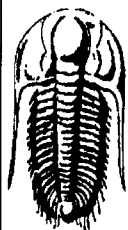
Tool Information

Drill Pipe:	Length: 4077.00 ft	Diameter: 3.80 inches	Volume: 57.19 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: 30.00 ft	Diameter: 30.00 inches	Volume: 26.23 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 83.42 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	4116.00 ft			Final 57000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	139.00 ft			
Tool Length:	168.00 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			4088.00	
Shut In Tool	5.00			4093.00	
Hydraulic tool	5.00			4098.00	
Jars	5.00			4103.00	
Safety Joint	3.00			4106.00	
Packer	5.00			4111.00	29.00 Bottom Of Top Packer
Packer	5.00			4116.00	
Stubb	1.00			4117.00	
Recorder	0.00	6799	Inside	4117.00	
Perforations	12.00			4129.00	
Blank Off Sub	1.00			4130.00	139.00 Tool Interval
Packer	5.00			4135.00	
Stubb	1.00			4136.00	
Recorder	0.00	13248	Outside	4136.00	
Drill Pipe	119.00			4255.00	1000167.00 Bottom Packers & Anchor

Total Tool Length: 168.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

DNOG

Swartz # 1-10

P O Box 372
Hays Ks 67601

10-17-21-Ness-Ks

Job Ticket: 20856

DST#: 1

ATTN: Ron Nelson

Test Start: 2004.11.06 @ 17:25:37

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

38 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.99 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
62.00	O&WCM 20%o 20%w 60%m	26.677
62.00	MCO 60%o 40%m	0.870
340.00	CGsyO 20%g 80%o	4.769
0.00	1085 GIP	0.000

Total Length: 464.00 ft Total Volume: 32.316 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

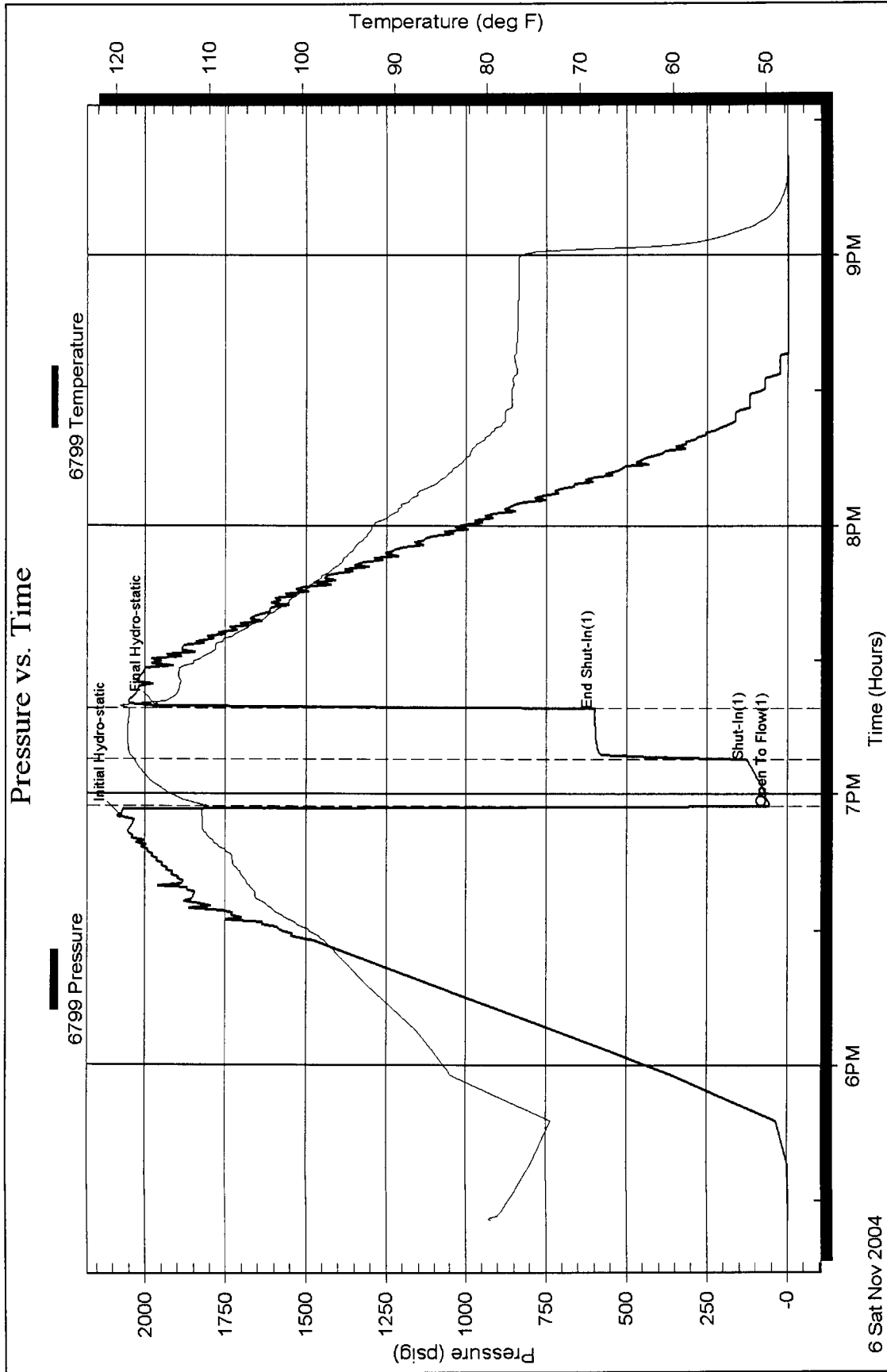
Serial #: 6799

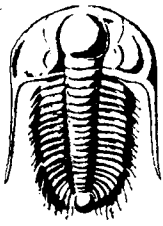
Inside

DNOC

10-17-21-Ness-Ks

DST Test Number: 1





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

INV
6931

No 20856

05/03

Test Ticket

Well Name & No. SWARTZ #1-10 Test No. 1 Date 11-6-04
 Company DNOC Zone Tested Cher Sd.
 Address P.O. Box 372, Hays KS 67601 Elevation 2223 KB 2215 GL
 Co. Rep / Geo. Ron Nelson Cont. Discovery #1 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 10 Twp. 17 Rge. 21 Co. Ness State KS
 No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 4116 — 4130 Initial Str Wt./Lbs 54,000 Unseated Str Wt./Lbs 57,000
 Anchor Length 14 Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs 60,000
 Top Packer Depth 4116 Tool Weight 2500
 Bottom Packer Depth 4130 Hole Size 7 7/8" Rubber Size 6 3/4"
 Total Depth 4250 Wt. Pipe Run _____ Drill Collar Run 30
 Mud Wt. 9.3 LCM _____ Vis. 47 WL 8 Drill Pipe Size 4.5 XH Ft. Run 4077
 Blow Description I.F. Strong B-B in 4 min.

ISI-Weak - building to 8"

Recovery - Total Feet 464 GIP 1085 Ft. in DC 30 Ft. in DP 434
 Rec. 340 Feet of CG 5x0 20% gas 80% oil %water %mud
 Rec. 62 Feet of MCO %gas 60% oil %water 40% mud
 Rec. 62 Feet of O+WTRCM %gas 20% oil 20% water 60% mud
 Rec. _____ Feet of _____ %gas %oil %water %mud
 Rec. _____ Feet of _____ %gas %oil %water %mud
 BHT 118 °F Gravity _____ °API D @ _____ °F Corrected Gravity 38 °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery _____ Chlorides 4200 ppm System

	AK-1	Alpine	Recorder No.	Test
(A) Initial Hydrostatic Mud	<u>2077</u>	PSI	<u>6799</u>	<u>1000</u>
(B) First Initial Flow Pressure	<u>56</u>	PSI	(depth) <u>4117</u>	Elec. Rec. <u>X</u>
(C) First Final Flow Pressure	<u>128</u>	PSI	Recorder No. <u>13254</u>	Jars <u>X</u> <u>200</u>
(D) Initial Shut-In Pressure	<u>598</u>	PSI	(depth) _____	Safety Jt. <u>X</u> <u>50</u>
(E) Second Initial Flow Pressure	<u>—</u>	PSI	Recorder No. <u>13248</u>	Circ Sub _____
(F) Second Final Flow Pressure	<u>—</u>	PSI	(depth) _____	Sampler _____
(G) Final Shut-In Pressure	<u>—</u>	PSI	Initial Opening <u>10</u>	Straddle <u>X</u> <u>250</u>
(Q) Final Hydrostatic Mud	<u>1965</u>	PSI	Initial Shut-In <u>10</u>	Ext. Packer <u>X</u> <u>150</u>

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Approved By _____
 Our Representative Dave Bangle

Final Flow	<u>—</u>	Shale Packer _____
Final Shut-In	<u>—</u>	Mileage <u>80</u> <u>80</u>
T-On Location	<u>16:00</u>	Sub Total: <u>1730</u>
T-Started	<u>17:25</u>	Std. By _____
T-Open	<u>19:00</u>	Other _____
T-Pulled	<u>19:20</u>	Total: <u>1730</u>
T-Out	<u>21:21</u>	

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

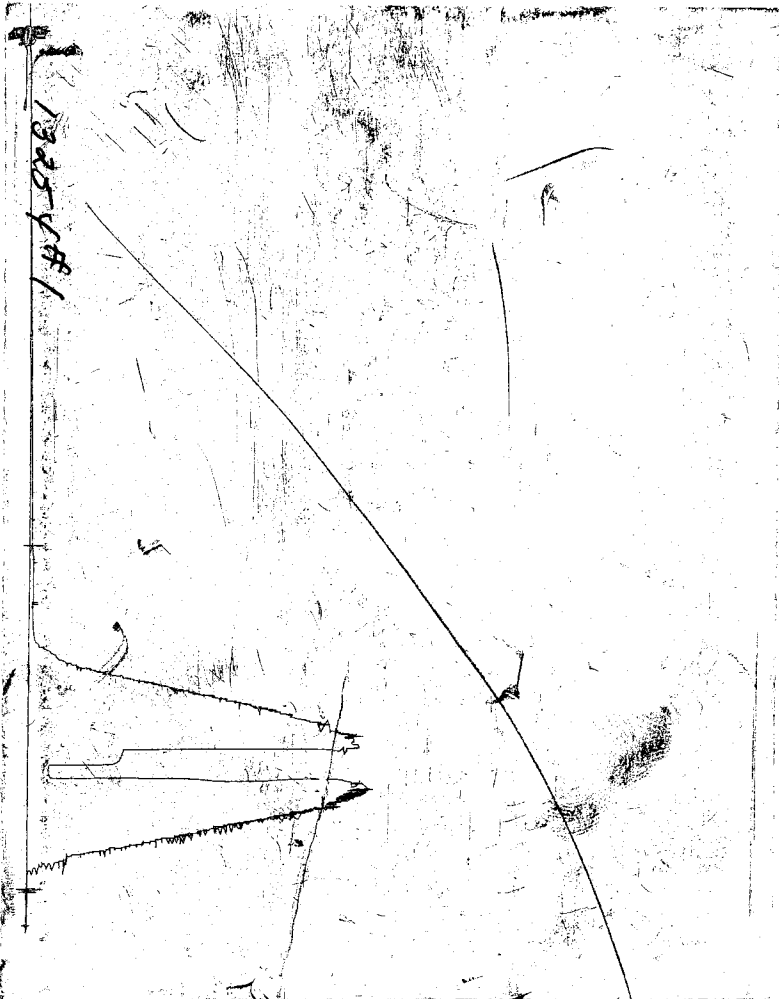


CHART PAGE

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