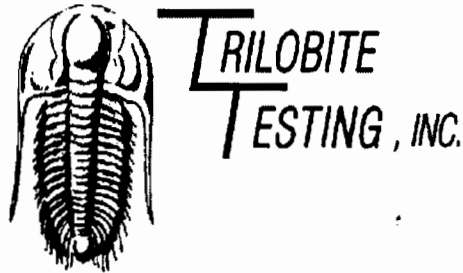


15-163-23378

28-9s-20w



DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations Inc**

PO Box 33
Russell KS 67665

ATTN: Todd M

28-9-20w Rooks Co

Palco South Unit 28-1

Start Date: 2003.06.10 @ 13:51:12

End Date: 2003.06.10 @ 20:46:57

Job Ticket #: 17330 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

Mai Oil Operations Inc

PO Box 33
Russell KS 67665

ATTN: Todd M

Palco South Unit 28-1

28-9-20w Rooks Co

Job Ticket: 17330

DST#: 1

Test Start: 2003.06.10 @ 13:51:12

GENERAL INFORMATION:

Formation: **LKC "F"**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 15:46:27

Time Test Ended: 20:46:57

Test Type: **Conventional Bottom Hole**

Tester: **Jason McLemore**

Unit No: **28**

Interval: **3592.00 ft (KB) To 3646.00 ft (KB) (TVD)**

Total Depth: **3646.00 ft (KB) (TVD)**

Hole Diameter: **7.80 inches** Hole Condition: **Good**

Reference Elevations: **2270.00 ft (KB)**

2265.00 ft (CF)

KB to GR/CF: **5.00 ft**

Serial #: 6753

Inside

Press@RunDepth: **818.71 psig @ 3604.00 ft (KB)**

Start Date: **2003.06.10**

End Date:

2003.06.10

Start Time: **13:51:14**

End Time:

20:46:57

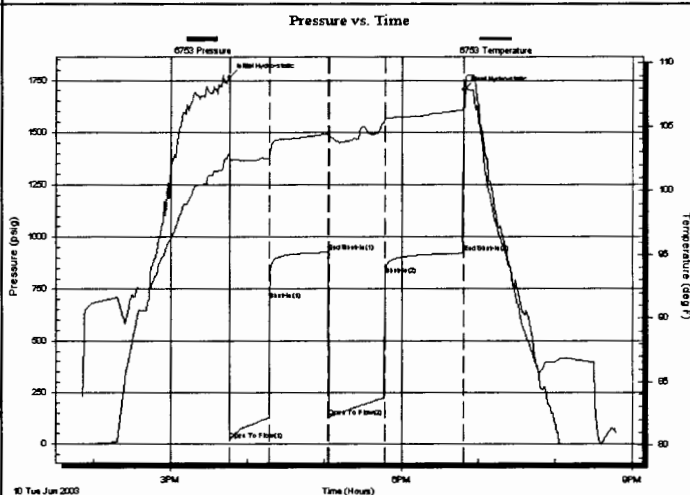
Capacity: **7000.00 psig**

Last Calib.: **1899.12.30**

Time On Btm: **2003.06.10 @ 15:46:12**

Time Off Btm: **2003.06.10 @ 18:48:27**

TEST COMMENT: **IFP Fair Blow To 8" in 30min**
FFP Good Blow To Bttm in 20min



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1767.93	102.91	Initial Hydro-static
1	21.34	102.51	Open To Flow (1)
32	698.09	102.71	Shut-In (1)
77	926.55	104.43	End Shut-In (1)
77	129.19	104.07	Open To Flow (2)
121	818.71	105.55	Shut-In (2)
182	920.95	106.27	End Shut-In (2)
183	1702.99	106.53	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
425.00	water cut mud	5.03

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations Inc

Palco South Unit 28-1

PO Box 33
Russell KS 67665

28-9-20w Rooks Co

Job Ticket: 17330

DST#: 1

ATTN: Todd M

Test Start: 2003.06.10 @ 13:51:12

Tool Information

Drill Pipe:	Length: 3464.00 ft	Diameter: 3.80 inches	Volume: 48.59 bbl	Tool Weight: 2400.00 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: 117.00 ft	Diameter: 2.50 inches	Volume: 0.71 bbl	Weight to Pull Loose: 80000.00 lb
		Total Volume:	49.30 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	3592.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	54.00 ft			
Tool Length:	75.00 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			3572.00	
Shut In Tool	5.00			3577.00	
Hydraulic tool	5.00			3582.00	
Packer	5.00			3587.00	21.00 Bottom Of Top Packer
Packer	5.00			3592.00	
Stubb	1.00			3593.00	
Perforations	10.00			3603.00	
Change Over Sub	1.00			3604.00	
Recorder	0.00	6753	Inside	3604.00	
Blank Spacing	31.00			3635.00	
Change Over Sub	1.00			3636.00	
Perforations	7.00			3643.00	
Bullnose	3.00			3646.00	54.00 Bottom Packers & Anchor

Total Tool Length: 75.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations Inc

Palco South Unit 28-1

PO Box 33
Russell KS 67665

28-9-20w Rooks Co

Job Ticket: 17330

DST#: 1

ATTN: Todd M

Test Start: 2003.06.10 @ 13:51:12

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: 48.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
425.00	water cut mud	5.031

Total Length: 425.00 ft

Total Volume: 5.031 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

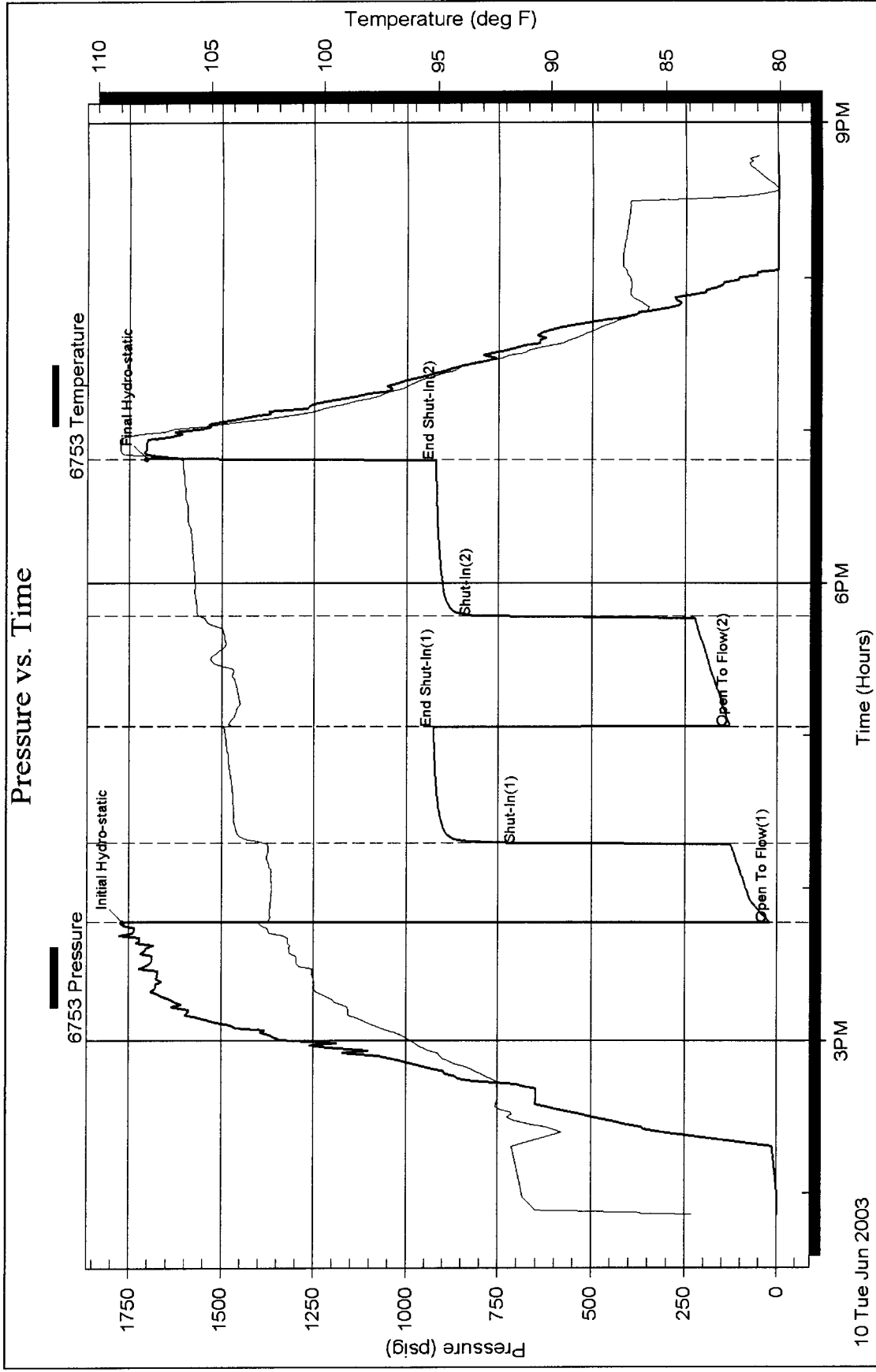
Serial #: 6753

Inside

Mai Oil Operations Inc

28-9-20w Rooks Co

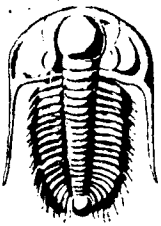
DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 17330

Printed: 2003.06.19 @ 09:20:51 Page 5



TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 17330

12/02

Test Ticket

Well Name & No. Palco South Unit 28-1 Test No. DST#1 Date 6-10-03
 Company Mai Oil Operations, Inc Zone Tested _____
 Address PO Box 33, Russell, KS 67665 Elevation 2270 KB 2265 GL _____
 Co. Rep / Geo. Todd Morgenstern Cont. Murfin #16 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 28 Twp. 9 Rge. 20W Co. Reuks State KS
 No. of Copies Reg Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3592 - 3646 Initial Str Wt./Lbs. 62000 Unseated Str Wt./Lbs. 66000
 Anchor Length 54' Wt. Set Lbs. 25000 Wt. Pulled Loose/Lbs. 80000
 Top Packer Depth 3587 Tool Weight 2400
 Bottom Packer Depth 3592 Hole Size 7 7/8" ✓ Rubber Size 6 3/4" ✓
 Total Depth _____ Wt. Pipe Run _____ Drill Collar Run 117
 Mud Wt. 9.3 LCM TRASE Vis. 48 WL 7.2 Drill Pipe Size 4 1/2 x H Ft. Run 3
 Blow Description IFP - Fair blow to 8" in 30 min
FFP - Fair blow bottom of bucket in 20 min

Recovery - Total Feet 425' GIP _____ Ft. in DC _____ Ft. in DP ✓
 Rec. 425 Feet of Water cut mud
 Rec. _____ Feet of _____
 Rec. _____ Feet of _____
 Rec. _____ Feet of _____
 Rec. _____ Feet of _____
 BHT _____ °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API
 RW 20 @ 70 °F Chlorides 33,000 ppm Recovery _____ Chlorides 3000 ppm System

AK-1	Alpine	Recorder No.	Test
(A) Initial Hydrostatic Mud	1767 PSI	6753	✓ 700
(B) First Initial Flow Pressure	21 PSI	(depth) 3599	✓ 150
(C) First Final Flow Pressure	698 PSI	Recorder No.	Jars
(D) Initial Shut-In Pressure	926 PSI	(depth)	Safety Jt.
(E) Second Initial Flow Pressure	129 PSI	Recorder No.	Circ Sub
(F) Second Final Flow Pressure	818 PSI	(depth)	Sampler
(G) Final Shut-In Pressure	920 PSI	Initial Opening 30	Straddle
(Q) Final Hydrostatic Mud	1703 PSI	Initial Shut-In 45	Ext. Packer
		Final Flow 45	Shale Packer
		Final Shut-In 60	Mileage 38 38
		T-On Location 12:00	Sub Total: 888
		T-Started 13:51	Std. By
		T-Open 15:49	Other
		T-Pulled 18:49	Total:
		T-Out 20:40	

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Approved By _____

Our Representative Jason McLeamon