TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations**

PO Box 33
Russell,KS 67665

ATTN: Allen Bangert

20--10s--20w Rooks

Hellen Keller # 1

Start Date: 2002.07.01 @ 12:05:24
End Date: 2002.07.01 @ 17:10:24
Job Ticket #: 16413 DST #: 1

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

DRILL STEM TEST REPORT

Mai Oil Operations

PO Box 33
Russell,KS 67665

ATTN: Allen Bangert

Hellen Keller # 1

20--10s--20w Rooks

Job Ticket: 16413 **DST#: 1**

Test Start: 2002.07.01 @ 12:05:24

GENERAL INFORMATION:

Formation: **L-Kc. 35'**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:47:54
Time Test Ended: 17:10:24

Test Type: Conventional Bottom Hole
Tester: John Schmidt
Unit No: 18

Interval: 3480.00 ft (KB) To 3508.00 ft (KB) (TVD)
Total Depth: 3508.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

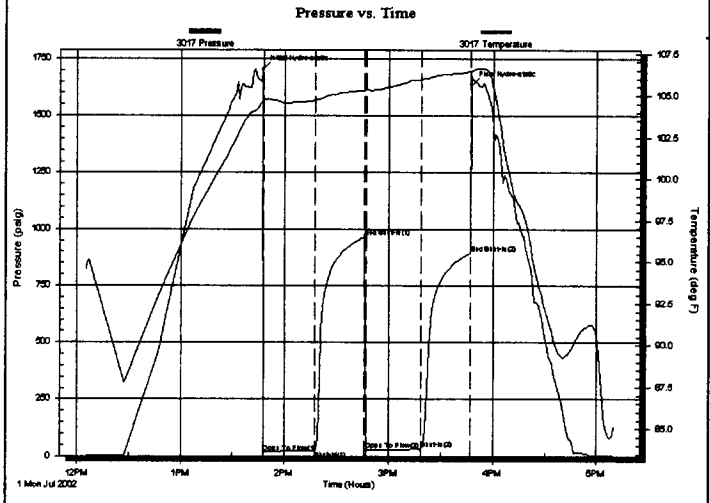
Reference Elevations: 2163.00 ft (KB)
2158.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 3017 **Inside**

Press@RunDepth: 31.51 psig @ 3485.01 ft (KB)
Start Date: 2002.07.01 End Date: 2002.07.01
Start Time: 12:05:25 End Time: 17:10:24

Capacity: 7000.00 psig
Last Calib.: 2002.07.01
Time On Btm: 2002.07.01 @ 13:47:24
Time Off Btm: 2002.07.01 @ 15:47:24

TEST COMMENT: IF-Weak Surf Blow ISI-no blow
FF-Weak Surf Blow FSI-no blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1702.66	104.66	Initial Hydro-static
1	17.27	104.75	Open To Flow (1)
30	25.76	104.72	Shut-In(1)
59	966.02	105.32	End Shut-In(1)
60	27.42	105.34	Open To Flow (2)
92	31.51	105.96	Shut-In(2)
120	894.94	106.44	End Shut-In(2)
120	1635.75	106.47	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	Mud with few oil specks	0.42

Gas Rates

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

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DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations

PO Box 33
Russell,KS 67665

ATTN: Allen Bangert

Hellen Keller # 1

20–10s–20w Rooks

Job Ticket: 16413 **DST#: 1**

Test Start: 2002.07.01 @ 12:05:24

Tool Information

Drill Pipe:	Length:	3482.00 ft	Diameter:	3.80	inches	Volume:	48.84	bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70	inches	Volume:	0.00	bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	2.25	inches	Volume:	0.00	bbl	
						Total Volume:	48.84	bbl	

Drill Pipe Above KB:	22.00 ft
Depth to Top Packer:	3480.00 ft
Depth to Bottom Packer:	ft
Interval between Packers:	28.02 ft
Tool Length:	48.02 ft
Number of Packers:	2
Diameter:	inches

Tool Weight:	2200.00 lb
Weight set on Packer:	20000.00 lb
Weight to Pull Loose:	48000.00 lb
Tool Chased	0.00 ft
String Weight: Initial	43000.00 lb
Final	43000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
C.O. Sub	1.00			3461.00		
S.I. Tool	5.00			3466.00		
HMV	5.00			3471.00		
Packer	4.00			3475.00	20.00	Bottom Of Top Packer
Packer	5.00			3480.00		
Stubb	1.00			3481.00		
Perforations	4.00			3485.00		
Recorder	0.01	3017	Inside	3485.01		
Perforations	20.00			3505.01		
Recorder	0.01	1308	Outside	3505.02		
Bullnose	3.00			3508.02	28.02	Bottom Packers & Anchor
Total Tool Length:	**48.02**					

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations

PO Box 33
Russell,KS 67665

ATTN: Allen Bangert

Hellen Keller # 1

20–10s–20w Rooks

Job Ticket: 16413 **DST#: 1**

Test Start: 2002.07.01 @ 12:05:24

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:	53.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.20 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2000.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

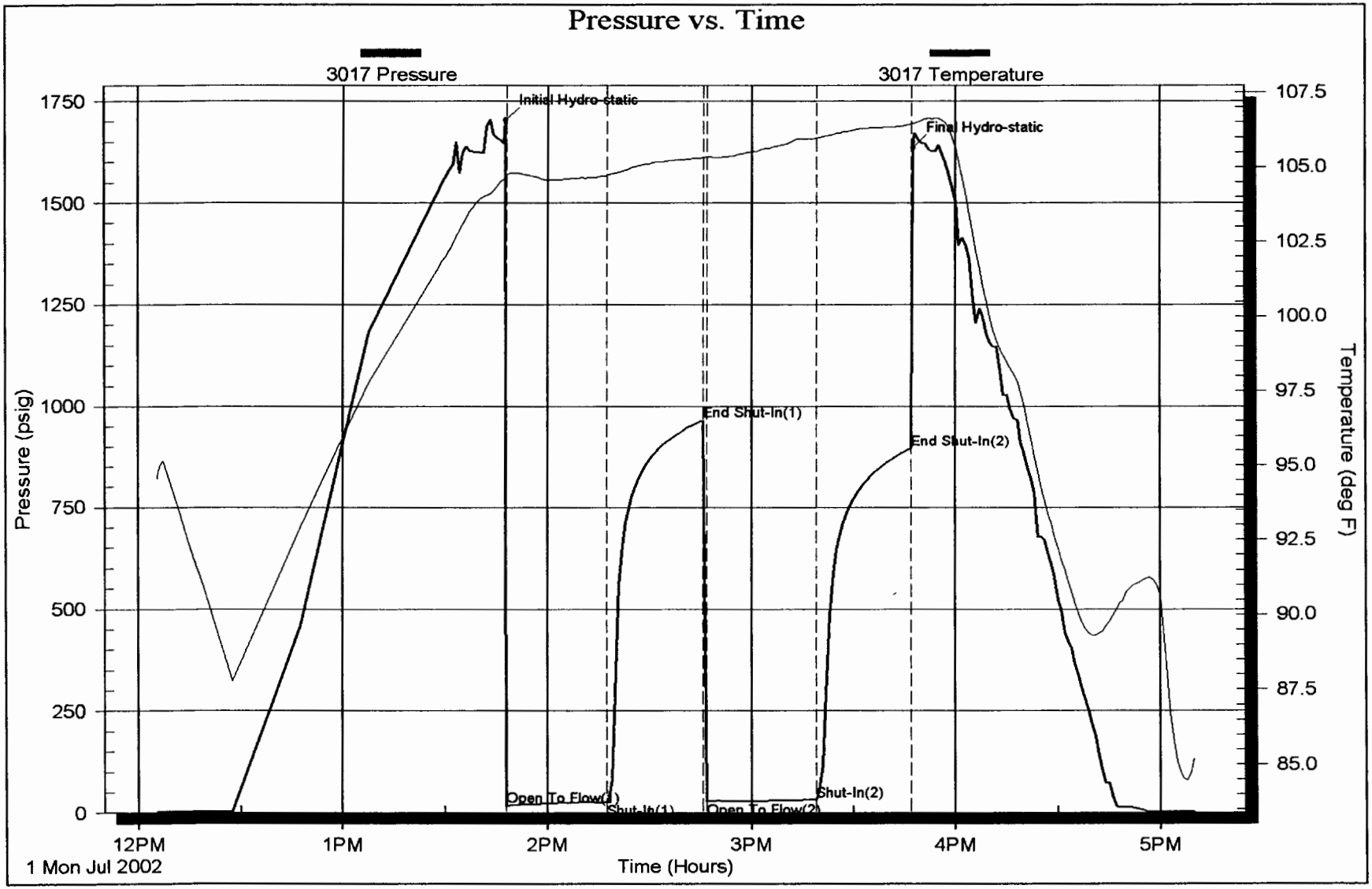
Length ft	Description	Volume bbl
30.00	Mud with few oil specks	0.421

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:


Pressure vs. Time
3017 Pressure
3017 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure (psig)
Temperature (deg F)
1750
1500
1250
1000
750
500
250
0
107.5
105.0
102.5
100.0
97.5
95.0
92.5
90.0
87.5
85.0
12PM
1PM
2PM
3PM
4PM
5PM
1 Mon Jul 2002
Time (Hours)

TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

№ 16413

Test Ticket

Well Name & No. HELEN KELLER #1 Test No. #1 Date 7-1-02

Company MAI OIL OPERATIONS Zone Tested L-KC 35'

Address P.O. BOX 33 RUSSELL, KS 67665 Elevation 2163 KB 2158 GL

Co. Rep / Geo. TODD MORGENSTERN Cont. VONFELDT #1 Est. Ft. of Pay ____ Por. ____ %

Location: Sec. 20 Twp. 10S Rge. 20W Co. ROOKS State KS

No. of Copies ____ Distribution Sheet (Y, N) ____ Turnkey (Y, N) ____ Evaluation (Y, N) ____

Interval Tested 3480 To 3508 Initial Str Wt./Lbs. 43,000 Unseated Str Wt./Lbs. 43,000

Anchor Length 28' Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 48,000

Top Packer Depth 3475 Tool Weight 2200

Bottom Packer Depth 3480 Hole Size — 7 7/8" ✓ Rubber Size — 6 3/4" ✓

Total Depth 3508 Wt. Pipe Run — Drill Collar Run —

Mud Wt. 9.0 LCM ¼ Vis. 53 WL 7.2 Drill Pipe Size 4½ XH Ft. Run 3482'

Blow Description IF- WEAK SURF. BLOW ISI- NO BLOW

FF WEAK SURF. BLOW FSI- NO BLOW

Recovery — Total Feet 30' GIP — Ft. in DC — Ft. in DP 30'

Rec. 30	Feet Of MUD (W) FEW OIL SPECKS	%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 106 °F Gravity ____ °API D@ ____ °F Corrected Gravity ____ °API

RW ____ @ ____ °F Chlorides ____ ppm Recovery Chlorides 2,000 ppm System

	AK-1	Alpine				
(A) Initial Hydrostatic Mud		1702	PSI	Recorder No.	3017	T-On Location 10:00
(B) First Initial Flow Pressure		17	PSI	(depth)	3485	T-Started 12:06
(C) First Final Flow Pressure		25	PSI	Recorder No.	13308	T-Open 13:48
(D) Initial Shut-In Pressure		966	PSI	(depth)	3505	T-Pulled 15:48
(E) Second Initial Flow Pressure		26	PSI	Recorder No.		T-Out 17:10
(F) Second Final Flow Pressure		31	PSI	(depth)		T-Off Location 17:45
(G) Final Shut-in Pressure		894	PSI	Initial Opening	30	Test BOTTOM HOLE 700
(Q) Final Hydrostatic Mud		1635	PSI	Initial Shut-in	30	Jars
				Final Flow	30	Safety Joint
				Final Shut-in	30	Straddle
						Circ. Sub
						Sampler
						Extra Packer
						Elec. Rec. ✓ 150
						Mileage 35
						Other
						TOTAL PRICE $ 885

7.45

Approved By Todd E. Morgenstern

Our Representative John P. Schmitt

CHART PAGE

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