

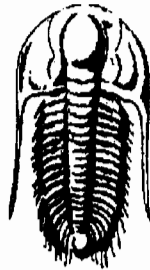
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**TRILOBITE
TESTING, INC.**

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RELEASED

AUG 11 2003

DRILL STEM TEST REPORT

FROM CONFIDENTIAL

Prepared For: **Oxy USA Inc**

PO Box 2528
Liberal KS 67905

ATTN: Tom Heflin

30-27S-33W

Ward F-2

Start Date: 2002.04.04 @ 12:34:31

End Date: 2002.04.04 @ 18:23:01

Job Ticket #: 14757 DST #: 1

Oxy USA Inc

Ward F-2

30-27S-33W

DST # 1

Morrow

2002.04.04

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Oxy USA Inc

Ward F-2

PO Box 2528
Liberal KS 67905

30-27S-33W

ATTN: Tom Heflin

Job Ticket: 14757

DST#: 1

Test Start: 2002.04.04 @ 12:34:31

GENERAL INFORMATION:

Formation: **Morrow**

Deviated: No Whipstock:

Time Tool Opened:

Time Test Ended: 18:23:01

Interval: **5175.00 ft (KB) To 5230.00 ft (KB) (TVD)**

Total Depth: 5230.00 ft (KB) (TVD)

Hole Diameter: 7.78 inches Hole Condition: Fair

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Test Type: Conventional Bottom Hole

Tester: Blake Wallace

Unit No: 20

Reference Elevations: 3011.00 ft (KB)

2998.00 ft (CF)

KB to GR/CF: 13.00 ft

Serial #: **3027**

Inside

Press@RunDepth: psig @ 5177.00 ft (KB)

Start Date: 2002.04.04

End Date:

2002.04.04

Capacity: 7000.00 psig

Last Calib.: 1899.12.30

Start Time: 12:34:33

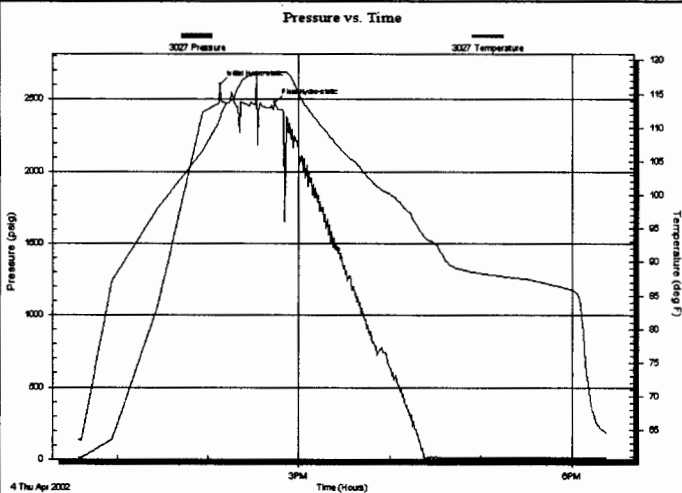
End Time:

18:23:01

Time On Btm: 2002.04.04 @ 14:08:01

Time Off Btm: 2002.04.04 @ 14:44:01

TEST COMMENT: Tagged bottom @ 2:15 packers did not hold, tried to set packers 2 more times, failed each time. (packer failure)



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2604.23	111.40	Initial Hydro-static
36	2477.27	118.12	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
613.00	100% Mud	3.30

Gas Rates

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

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**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Oxy USA Inc
PO Box 2528
Liberal KS 67905
ATTN: Tom Heflin

Ward F-2
30-27S-33W
Job Ticket: 14757 **DST#: 1**
Test Start: 2002.04.04 @ 12:34:31

Tool Information

Drill Pipe: Length: 4570.00 ft	Diameter: 3.80 inches	Volume: 64.11 bbl	Tool Weight: 1800.00 lb
Heavy Wt. Pipe: Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar: Length: 582.00 ft	Diameter: 2.25 inches	Volume: 2.86 bbl	Weight to Pull Loose: 88000.00 lb
	Total Volume: 66.97 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB: 7.00 ft			String Weight: Initial 82000.00 lb
Depth to Top Packer: 5175.00 ft			Final 84000.00 lb
Depth to Bottom Packer: ft			
Interval between Packers: 55.00 ft			
Tool Length: 85.00 ft			
Number of Packers: 2	Diameter: 6.75 inches		
Tool Comments:			

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Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			5146.00	
S.I. Tool	5.00			5151.00	
Sampler	3.00			5154.00	
HMV	5.00			5159.00	
Jars	5.00			5164.00	
Safety Joint	2.00			5166.00	
Packer	5.00			5171.00	30.00 Bottom Of Top Packer
Packer	4.00			5175.00	
Stubb	1.00			5176.00	
Perforations	1.00			5177.00	
Recorder	0.00	3027	Inside	5177.00	
Perforations	10.00			5187.00	
Change Over Sub	1.00			5188.00	
Drill Pipe	31.00			5219.00	
Change Over Sub	1.00			5220.00	
Perforations	8.00			5228.00	
Recorder	0.00	11019	Outside	5228.00	
Bullnose	2.00			5230.00	55.00 Bottom Packers & Anchor

Total Tool Length: 85.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Oxy USA Inc

Ward F-2

PO Box 2528
Liberal KS 67905

30-27S-33W

Job Ticket: 14757

DST#: 1

ATTN: Tom Hefflin

Test Start: 2002.04.04 @ 12:34:31

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: 52.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1600.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
613.00	100% Mud	3.297

Total Length: 613.00 ft Total Volume: 3.297 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 4000 ML mud @ 50 PSI

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DST Test Number: 1

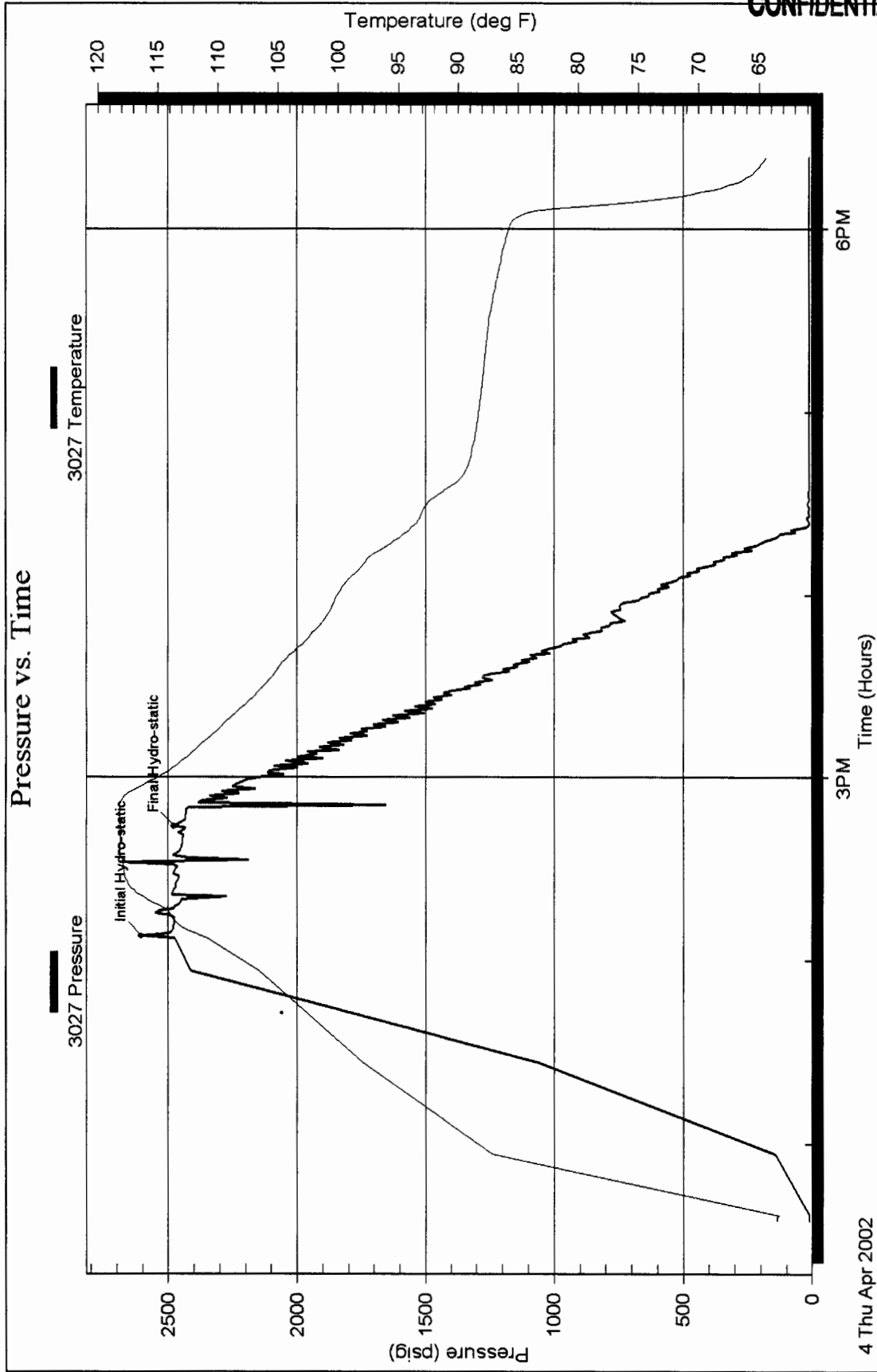
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Oxy USA Inc

Inside

Serial #: 3027

Pressure vs. Time



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Ref. No: 14757

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