

CONFIDENTIAL

19-27-34W
ORIGINAL

15-081-21468

KCC

JUN 12 2003

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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: Oxy USA Inc

PO Box 2528

Liberal, Ks 67905

RECEIVED

JUN 13 2003

KCC WICHITA

ATTN: Tom Heflin

19-27S-34W

Goff A-1

Start Date: 2003.03.16 @ 00:03:06

End Date: 2003.03.16 @ 06:08:06

Job Ticket #: 15865

DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Release
JUL 14 2004
From
Confidential

Printed: 2003.03.21 @ 09:11:46 Page 1

Oxy USA Inc

Goff A-1

19-27S-34W

DST # 1

Morrow

2003.03.16

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ORIGINAL


**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Oxy USA Inc

Goff A-1

 PO Box 2528
 Liberal, Ks 67905

19-27S-34W

ATTN: Tom Heflin

Job Ticket: 15865

DST#: 1

Test Start: 2003.03.16 @ 00:03:06

GENERAL INFORMATION:

Formation: **Morrow**

Deviated: No Whipstock: ft (KB)

Time Tool Opened:

Time Test Ended: 06:08:06

Interval: 5103.00 ft (KB) To 5250.00 ft (KB) (TVD)

Total Depth: 5250.00 ft (KB) (TVD)

Hole Diameter: 7.78 inches Hole Condition: Good

Test Type: Conventional Bottom Hole

Tester: Blake Wallace

Unit No: 20

Reference Elevations: 3043.00 ft (KB)

3031.00 ft (CF)

KB to GR/CF: 12.00 ft

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Serial #: 3030 Inside

Press@RunDepth: psig @ 5106.00 ft (KB)

Start Date: 2003.03.16

End Date:

2003.03.16

Start Time: 00:03:10

End Time:

06:08:05

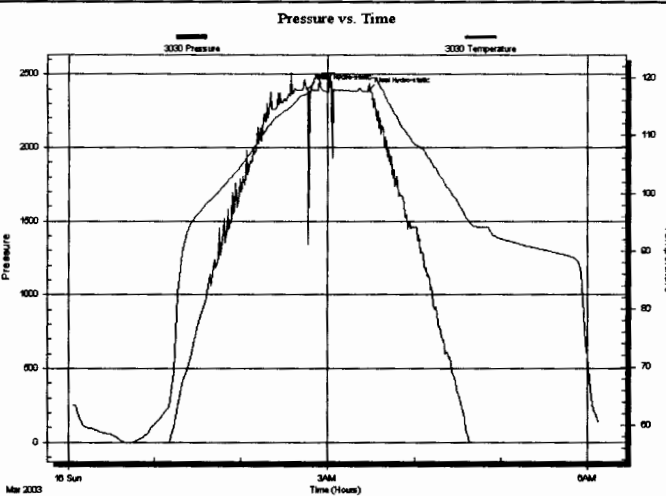
Capacity: 7000.00 psig

Last Calib.: 1899.12.30

Time On Btm: 2003.03.16 @ 02:46:06

Time Off Btm: 2003.03.16 @ 03:27:36

TEST COMMENT: Tagged bottom at two fifty lost mud and failed to set packers attempted two more times ending with same result.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2401.63	117.32	Initial Hydro-static
42	2382.24	119.90	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
496.00	100% mud	4.47

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

Goff A-1

 PO Box 2528
 Liberal, Ks 67905

19-27S-34W

Job Ticket: 15865

DST#: 1

ATTN: Tom Heflin

Test Start: 2003.03.16 @ 00:03:06

Tool Information

Drill Pipe:	Length: 4816.00 ft	Diameter: 3.80 inches	Volume: 67.56 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: 273.00 ft	Diameter: 2.25 inches	Volume: 1.34 bbl	Weight to Pull Loose: 74000.00 lb
			Total Volume: 68.90 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 72000.00 lb
Depth to Top Packer:	5103.00 ft			Final 74000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	147.00 ft			
Tool Length:	177.00 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			5074.00	
S.I. Tool	5.00			5079.00	
Sampler	3.00			5082.00	
HMV	5.00			5087.00	
Jars	5.00			5092.00	
Safety Joint	2.00			5094.00	
Packer	5.00			5099.00	30.00 Bottom Of Top Packer
Packer	4.00			5103.00	
Stubb	1.00			5104.00	
Perforations	2.00			5106.00	
Recorder	0.00	3030	Inside	5106.00	
Perforations	15.00			5121.00	
Change Over Sub	1.00			5122.00	
Blank Spacing	124.00			5246.00	
Change Over Sub	1.00			5247.00	
Recorder	0.00	11019	Outside	5247.00	
Bullnose	3.00			5250.00	147.00 Bottom Packers & Anchor
Total Tool Length:		177.00			



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Oxy USA Inc

Goff A-1

PO Box 2528
Liberal, Ks 67905

19-27S-34W

Job Ticket: 15865

DST#: 1

ATTN: Tom Hefflin

Test Start: 2003.03.16 @ 00:03:06

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: 60.00 sec/qt

Cushion Volume:

bbl

Water Loss: 5.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
496.00	100% mud	4.471

Total Length: 496.00 ft

Total Volume: 4.471 bbl

Num Fluid Samples: 0

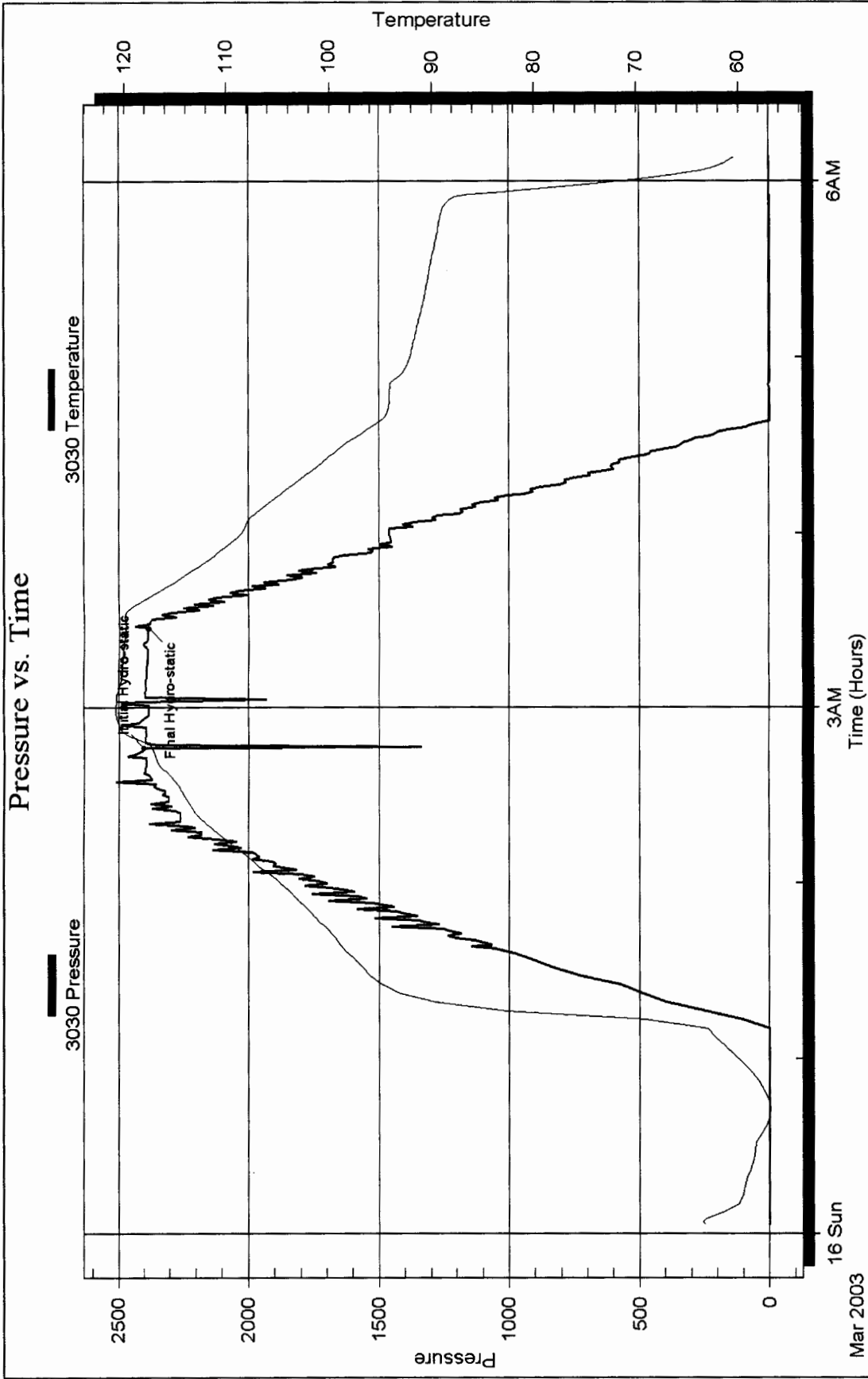
Num Gas Bombs: 0

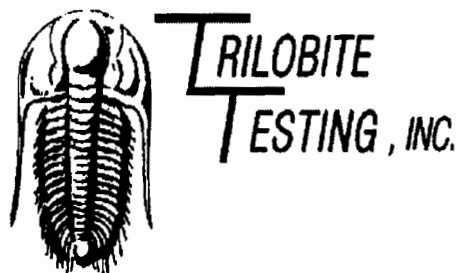
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 4000 ml mud @ 200psi





DRILL STEM TEST REPORT

Prepared For: **Oxy USA Inc**

PO Box 2528
Liberal, Ks 67905

ATTN: Tom Heflin

19-27S-34W

Goff A-1

Start Date: 2003.03.16 @ 06:31:09

End Date: 2003.03.16 @ 19:32:24

Job Ticket #: 15866 DST #: 2

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

Oxy USA Inc

Goff A-1

19-27S-34W

DST # 2

Morrow

2003.03.16



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Oxy USA Inc

PO Box 2528
Liberal, Ks 67905

ATTN: Tom Heflin

Goff A-1

19-27S-34W

Job Ticket: 15866

DST#: 2

Test Start: 2003.03.16 @ 06:31:09

GENERAL INFORMATION:

Formation: **Morrow**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:35:54

Time Test Ended: 19:32:24

Interval: **5088.00 ft (KB) To 5250.00 ft (KB) (TVD)**

Total Depth: 5250.00 ft (KB) (TVD)

Hole Diameter: 7.78 inches Hole Condition: Good

Test Type: Conventional Bottom Hole

Tester: Blake Wallace

Unit No: 20

Reference Elevations: 3043.00 ft (KB)

3031.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 3030

Inside

Press@RunDepth: 384.64 psig @ 5091.00 ft (KB)

Start Date: 2003.03.16

End Date:

2003.03.16

Start Time: 06:31:13

End Time:

19:32:24

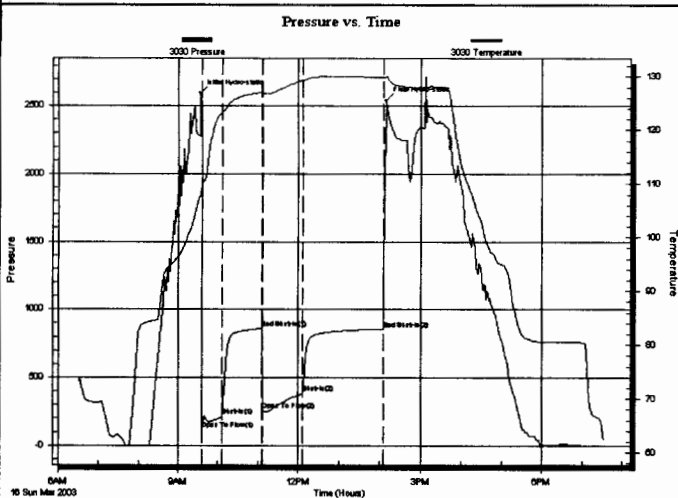
Capacity: 7000.00 psig

Last Calib.: 1899.12.30

Time On Btm: 2003.03.16 @ 09:33:09

Time Off Btm: 2003.03.16 @ 14:08:54

TEST COMMENT: IF- Strong blow BOB in 5 minutes
IS- Blow back built to BOB in 5 minutes
FF- Strong blow BOB in 4 minutes GTS in 8 minutes
FS- Blow back built to BOB in 4 minutes



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2595.57	108.42	Initial Hydro-static
3	122.27	109.90	Open To Flow (1)
34	214.87	123.23	Shut-In (1)
93	860.25	127.01	End Shut-In (1)
94	263.30	127.01	Open To Flow (2)
154	384.64	129.33	Shut-In (2)
273	855.54	129.88	End Shut-In (2)
276	2540.09	130.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1800.00	20% G 80% O	22.76
62.00	50% G 30% O 20% M	0.87
62.00	25% G 10% O 65% M	0.87

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

Goff A-1

PO Box 2528
Liberal, Ks 67905

19-27S-34W

Job Ticket: 15866

DST#: 2

ATTN: Tom Heflin

Test Start: 2003.03.16 @ 06:31:09

Tool Information

Drill Pipe:	Length: 4814.00 ft	Diameter: 3.80 inches	Volume: 67.53 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: 273.00 ft	Diameter: 2.25 inches	Volume: 1.34 bbl	Weight to Pull Loose: 84000.00 lb
			Total Volume: 68.87 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	5088.00 ft			Final 82000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	162.00 ft			
Tool Length:	192.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			5059.00	
S.I. Tool	5.00			5064.00	
Sampler	3.00			5067.00	
HMV	5.00			5072.00	
Jars	5.00			5077.00	
Safety Joint	2.00			5079.00	
Packer	5.00			5084.00	30.00 Bottom Of Top Packer
Packer	4.00			5088.00	
Stubb	1.00			5089.00	
Perforations	2.00			5091.00	
Recorder	0.00	3030	Inside	5091.00	
Perforations	30.00			5121.00	
Change Over Sub	1.00			5122.00	
Blank Spacing	124.00			5246.00	
Change Over Sub	1.00			5247.00	
Recorder	0.00	11019	Outside	5247.00	
Bullnose	3.00			5250.00	162.00 Bottom Packers & Anchor
Total Tool Length:		192.00			



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DRILL STEM TEST REPORT

FLUID SUMMARY

Oxy USA Inc

Goff A-1

PO Box 2528
Liberal, Ks 67905

19-27S-34W

Job Ticket: 15866

DST#: 2

ATTN: Tom Heflin

Test Start: 2003.03.16 @ 06:31:09

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

37 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbl

Water Loss: 5.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1800.00	20% G 80% O	22.762
62.00	50% G 30% O 20% M	0.870
62.00	25% G 10% O 65% M	0.870

Total Length: 1924.00 ft Total Volume: 24.502 bbl

Num Fluid Samples: 1

Num Gas Bombs: 0

Serial #:

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments: Corrected gravity 37@ 58 degrees

3.2 Cubic feet Gas@ 550 psi 2500ML Oil 1500ML gas

