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15-081-21419

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**TRILOBITE
TESTING, INC.**

RECEIVED

OCT 15 2001

KCC WICHITA

DRILL STEM TEST REPORT

Prepared For: **OXY USA**

PO Box 2528
Liberal KS 67905

KCC

OCT 10 2001

CONFIDENTIAL

ATTN: Tom Heflin

31-27S-33W Haskell

Pierce B-3

Start Date: 2001.08.10 @ 11:21:22

End Date: 2001.08.10 @ 20:14:52

Job Ticket #: 15412 DST #: 1

RELEASED

NOV 12 2002

FROM CONFIDENTIAL

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

OXY USA

Pierce B-3

31-27S-33W Haskell

DST # 1

Lower Lansing

2001.08.10

111-17100



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

OXY USA

Pierce B-3

PO Box 2528
Liberal KS 67905

31-27S-33W Haskell

Job Ticket: 15412

DST#: 1

ATTN: Tom Heflin

Test Start: 2001.08.10 @ 11:21:22

GENERAL INFORMATION:

Formation: **Lower Lansing**

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

Time Tool Opened: 13:46:22

Time Test Ended: 20:14:52

Test Type: **Conventional Bottom Hole**

Tester: **Allan**

Unit No: **12**

Interval: **4694.00 ft (KB) To 4724.00 ft (KB) (TVD)**

Reference Elevations: **3042.00 ft (KB)**

Total Depth: **4724.00 ft (KB) (TVD)**

3029.00 ft (CF)

Hole Diameter: **7.78 inches** Hole Condition: **Fair**

KB to GR/CF: **13.00 ft**

Serial #: **2341**

Inside

Press@RunDepth: **247.13 psig @ 4696.00 ft (KB)**

Capacity: **7000.00 psig**

Start Date: **2001.08.10**

End Date:

2001.08.10

Leak Calib.: **2001.08.11**

Start Time: **11:21:23**

End Time:

RELEASED

Time On Btm: **2001.08.10 @ 13:35:07**

Time Off Btm: **2001.08.10 @ 18:14:52**

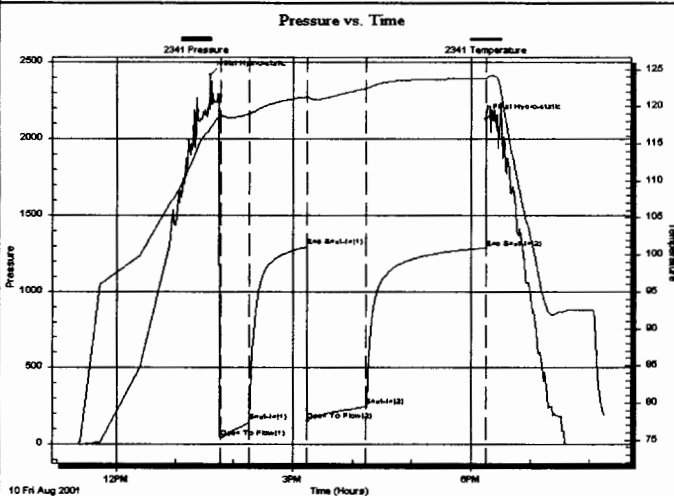
TEST COMMENT: IF- fair blow BOB in 20 min died off 2"

ISI- no blow back

FF- fair blow built to 7" in 1 hr

FSI- very little blow back

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PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2413.67	117.04	Initial Hydro-static
12	37.70	118.73	Open To Flow (1)
41	143.49	119.04	Shut-In(1)
99	1291.19	121.30	End Shut-In(1)
100	152.24	121.31	Open To Flow (2)
159	247.13	122.48	Shut-In(2)
280	1279.61	123.84	End Shut-In(2)
280	2129.37	123.84	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	100% mud	0.15
390.00	20% mud 80% salt water	2.13

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

Pierce B-3

PO Box 2528
Liberal KS 67905

31-27S-33W Haskell

Job Ticket: 15412

DST#: 1

ATTN: Tom Heflin

Test Start: 2001.08.10 @ 11:21:22

Tool Information

Drill Pipe:	Length: 4328.00 ft	Diameter: 3.80 inches	Volume: 60.71 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: 30000.00 lb
Drill Collar:	Length: 397.00 ft	Diameter: 2.25 inches	Volume: 1.95 bbl	Weight to Pull Loose: 140000.0 lb
		Total Volume:	62.66 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	61.00 ft			String Weight: Initial 84000.00 lb
Depth to Top Packer:	4694.00 ft			Final 84000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	60.00 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
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C.O. Sub	1.00			4665.00	
S.I. Tool	5.00			4670.00	
Sampler	3.00			4673.00	
HMV	5.00			4678.00	
Jars	5.00			4683.00	
Safety Joint	2.00			4685.00	
Packer	5.00			4690.00	30.00 Bottom Of Top Packer
Packer	4.00			4694.00	
Stubb	1.00			4695.00	
Perforations	1.00			4696.00	
Recorder	0.00	2341	Inside	4696.00	
P.O. Sub	5.00			4701.00	
Perforations	20.00			4721.00	
Recorder	0.00	13362	Inside	4721.00	
Bullnose	3.00			4724.00	30.00 Bottom Packers & Anchor

Total Tool Length: 60.00

ORIGINAL

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TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

OXY USA

Pierce B-3

PO Box 2528
Liberal KS 67905

31-27S-33W Haskell

Job Ticket: 15412

DST#: 1

ATTN: Tom Heflin

Test Start: 2001.08.10 @ 11:21:22

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil APt:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

70000 ppm

Viscosity: 69.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.52 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	100% mud	0.148
390.00	20% mud 80% salt water	2.127

Total Length: 420.00 ft Total Volume: 2.275 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

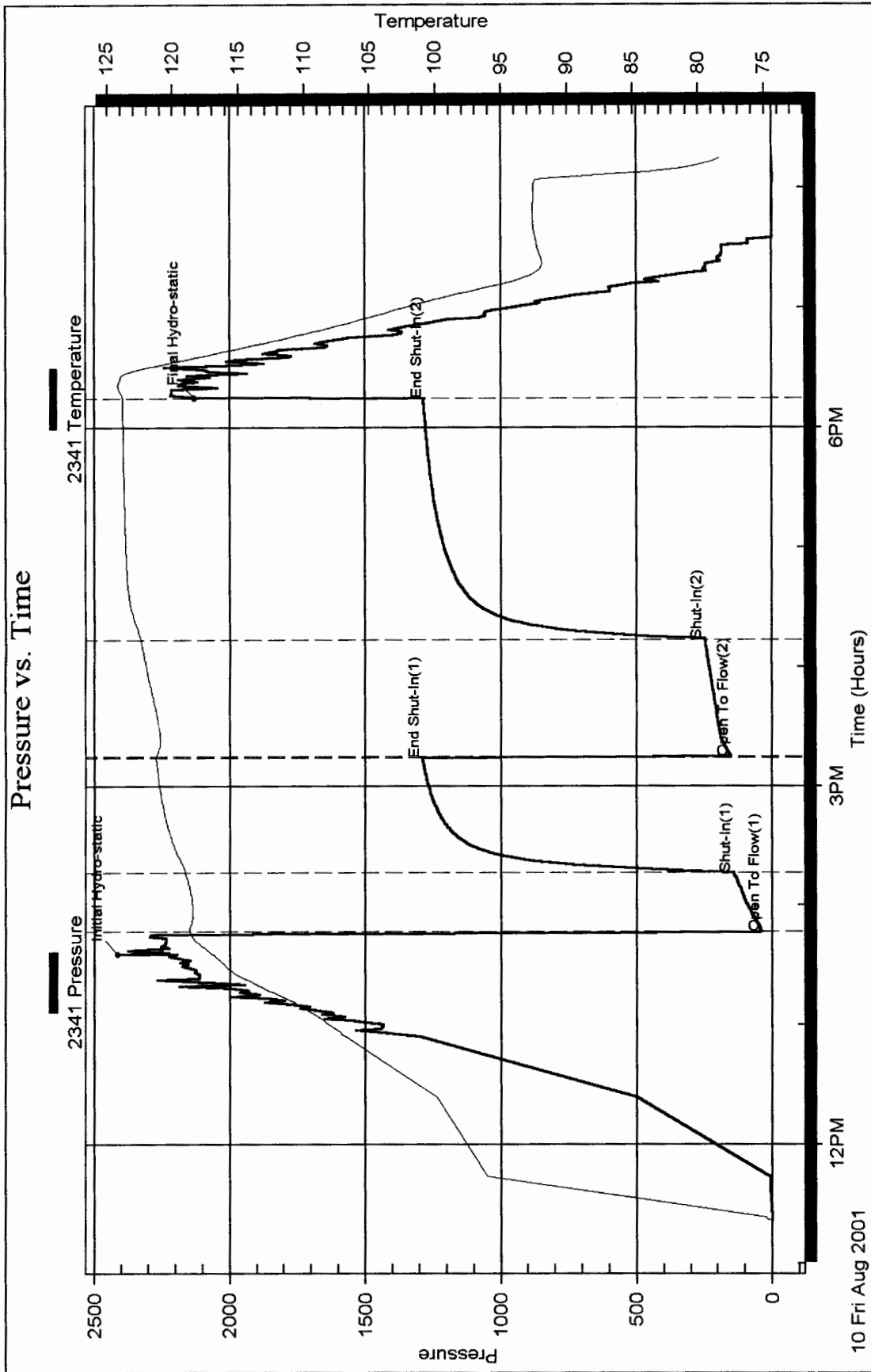
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .08 ohms @96 deg = 70000 chlorides

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **OXY USA**

PO Box 2528
Liberal KS 67905

ATTN: Tom Heflin

31-27S-33W Haskell

Pierce B-3

Start Date: 2001.08.11 @ 07:57:46

End Date: 2001.08.11 @ 19:06:16

Job Ticket #: 15413 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

OXY USA

Pierce B-3

31-27S-33W Haskell

DST # 2

Marmaton

2001.08.11



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

OXY USA

PO Box 2528
Liberal KS 67905

ATTN: Tom Heflin

Pierce B-3

31-27S-33W Haskell

Job Ticket: 15413

DST#: 2

Test Start: 2001.08.11 @ 07:57:46

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:05:31

Time Test Ended: 19:06:16

Test Type: Conventional Bottom Hole

Tester: Allan

Unit No: 12

Interval: 4782.00 ft (KB) To 4802.00 ft (KB) (TVD)

Total Depth: 5802.00 ft (KB) (TVD)

Hole Diameter: 7.78 inches Hole Condition: Fair

Reference Elevations: 3042.00 ft (KB)

3029.00 ft (CF)

KB to GR/CF: 13.00 ft

Serial #: 2341 Inside

Press@RunDepth: 109.54 psig @ 4784.00 ft (KB)

Start Date: 2001.08.11

End Date:

2001.08.11

Start Time: 07:57:47

End Time:

19:06:16

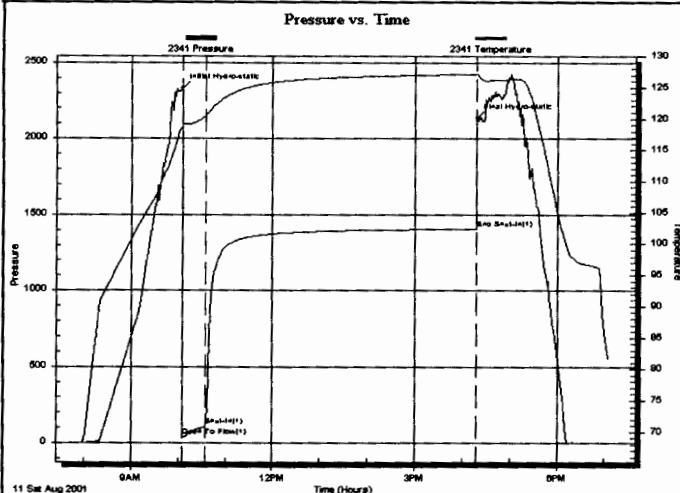
Capacity: 7000.00 psig

Last Calib.: 2001.01.14

Time On Btm: 2001.08.11 @ 10:04:46

Time Off Btm: 2001.08.11 @ 16:18:16

TEST COMMENT: IF- strong blow BOB in 5 min
IS- no blow back
FF- stuck in hole



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2331.28	118.86	Initial Hydro-static
1	41.93	118.99	Open To Flow (1)
31	109.54	120.60	Shut-In (1)
374	1404.62	127.14	End Shut-In (1)
374	2135.05	127.14	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	gas cut mud	0.44

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

Pierce B-3

PO Box 2528
Liberal KS 67905

31-27S-33W Haskell

Job Ticket: 15413

DST#: 2

ATTN: Tom Heflin

Test Start: 2001.08.11 @ 07:57:46

Tool Information

Drill Pipe:	Length: 4384.00 ft	Diameter: 3.80 inches	Volume: 61.50 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: 30000.00 lb
Drill Collar:	Length: 397.00 ft	Diameter: 2.25 inches	Volume: 1.95 bbl	Weight to Pull Loose: 140000.0 lb
		Total Volume: 63.45 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 82000.00 lb
Depth to Top Packer:	4782.00 ft			Final 82000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	50.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool stuck in hole during initial shutin. dropped bar & spotted oil. recovery is under circ sub.

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			4753.00	
S.I. Tool	5.00			4758.00	
Sampler	3.00			4761.00	
HMV	5.00			4766.00	
Jars	5.00			4771.00	
Safety Joint	2.00			4773.00	
Packer	5.00			4778.00	30.00 Bottom Of Top Packer
Packer	4.00			4782.00	
Stubb	1.00			4783.00	
Perforations	1.00			4784.00	
Recorder	0.00	2341	Inside	4784.00	
P.O. Sub	5.00			4789.00	
Perforations	10.00			4799.00	
Recorder	0.00	13362	Inside	4799.00	
Bullnose	3.00			4802.00	20.00 Bottom Packers & Anchor

Total Tool Length: 50.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

OXY USA

Pierce B-3

PO Box 2528
Liberal KS 67905

31-27S-33W Haskell

Job Ticket: 15413

DST#: 2

ATTN: Tom Heflin

Test Start: 2001.08.11 @ 07:57:46

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: 69.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.56 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
90.00	gas cut mud	0.443

Total Length: 90.00 ft Total Volume: 0.443 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: no sampler data. tool stuck in hole and could not cycle through test.

Pressure vs. Time

