



DRILL STEM TEST REPORT

Prepared For: **EOG Resources Inc**

3817 NW Expressway Ste 500 Oklahoma
City OK 73112

ATTN: Dale Passic

8 34 34 Seward KS

Hatcher 8-1

Start Date: 2006.10.15 @ 02:14:44

End Date: 2006.10.15 @ 13:22:44

Job Ticket #: 26326 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



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TESTING, INC.

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EOG Resources Inc

3817 NW Expressway Ste 500 Oklahoma City OK
73112

ATTN: Dale Passic

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Job Ticket: 26326

DST#: 1

Test Start: 2006.10.15 @ 02:14:44

GENERAL INFORMATION:

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:37:24

Time Test Ended: 13:22:44

Test Type: Conventional Bottom Hole

Tester: Chris Hagman

Unit No: 34

Interval: **4337.00 ft (KB) To 4391.00 ft (KB) (TVD)**

Total Depth: 4391.00 ft (KB) (TVD)

Hole Diameter: 7.78 inches Hole Condition: Good

Reference Elevations: 2955.00 ft (KB)

2945.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6755

Inside

Press@RunDepth: 97.90 psig @ 4339.00 ft (KB)

Start Date: 2006.10.15

End Date:

2006.10.15

Capacity: 7000.00 psig

Last Calib.: 1899.12.30

Start Time: 02:14:44

End Time:

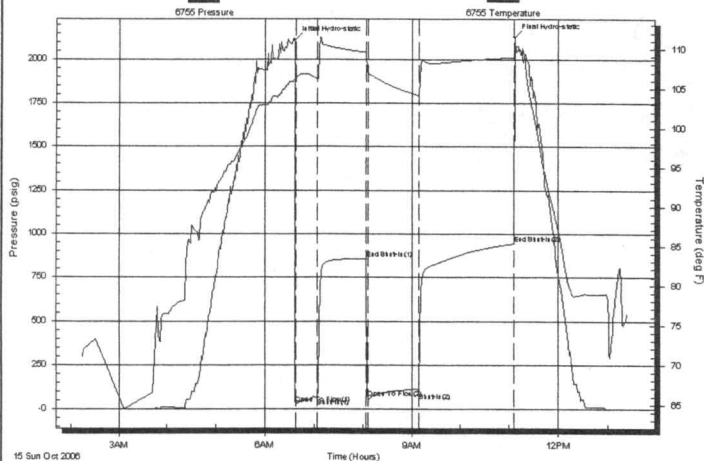
13:22:44

Time On Btm: 2006.10.15 @ 06:36:14

Time Off Btm: 2006.10.15 @ 11:06:03

TEST COMMENT: IF BOB 30 sec. GTS 15 min. strong steady blow
ISI Blow never died BOB 10 min.
FF BOB GTS ASAO strong steady blow
FSI No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2111.23	106.07	Initial Hydro-static
2	26.06	106.21	Open To Flow (1)
28	61.01	106.18	Shut-In(1)
88	858.25	109.59	End Shut-In(1)
90	62.17	106.97	Open To Flow (2)
153	97.90	104.04	Shut-In(2)
270	944.42	108.92	End Shut-In(2)
270	2126.60	110.18	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
281.00	5%G 95%M	1.38

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	10.00	38.71
Last Gas Rate	0.25	40.00	86.30
Max. Gas Rate	0.25	40.00	86.30



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TOOL DIAGRAM

EOG Resources Inc

Hatcher 8-1

3817 NW Expressway Ste 500 Oklahoma City OK
73112

8 34 34 Seward KS

Job Ticket: 26326

DST#: 1

ATTN: Dale Passic

Test Start: 2006.10.15 @ 02:14:44

Tool Information

Drill Pipe:	Length: 4044.00 ft	Diameter: 3.80 inches	Volume: 56.73 bbl	Tool Weight:	2000.00 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: 281.00 ft	Diameter: 2.25 inches	Volume: 1.38 bbl	Weight to Pull Loose:	90000.00 lb
		Total Volume:	58.11 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial	72000.00 lb
Depth to Top Packer:	4337.00 ft			Final	74000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	54.00 ft				
Tool Length:	85.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			4307.00	
Shut In Tool	5.00			4312.00	
Sampler	3.00			4315.00	
Hydraulic tool	5.00			4320.00	
Jars	5.00			4325.00	
Safety Joint	3.00			4328.00	
Packer	5.00			4333.00	31.00 Bottom Of Top Packer
Packer	4.00			4337.00	
Stubb	1.00			4338.00	
Perforations	1.00			4339.00	
Recorder	0.00	6755	Inside	4339.00	
Perforations	16.00			4355.00	
Change Over Sub	1.00			4356.00	
Drill Pipe	31.00			4387.00	
Change Over Sub	1.00			4388.00	
Recorder	0.00	13630	Inside	4388.00	
Bullnose	3.00			4391.00	54.00 Bottom Packers & Anchor
Total Tool Length:	85.00				



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FLUID SUMMARY

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Hatcher 8-1

3817 NW Expressway Ste 500 Oklahoma City OK
73112

8 34 34 Seward KS

Job Ticket: 26326

DST#: 1

ATTN: Dale Passic

Test Start: 2006.10.15 @ 02:14:44

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:

3200 ppm

Viscosity: 42.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.38 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
281.00	5%G 95%M	1.382

Total Length: 281.00 ft Total Volume: 1.382 bbl

Num Fluid Samples: 0

Num Gas Bombs: 1

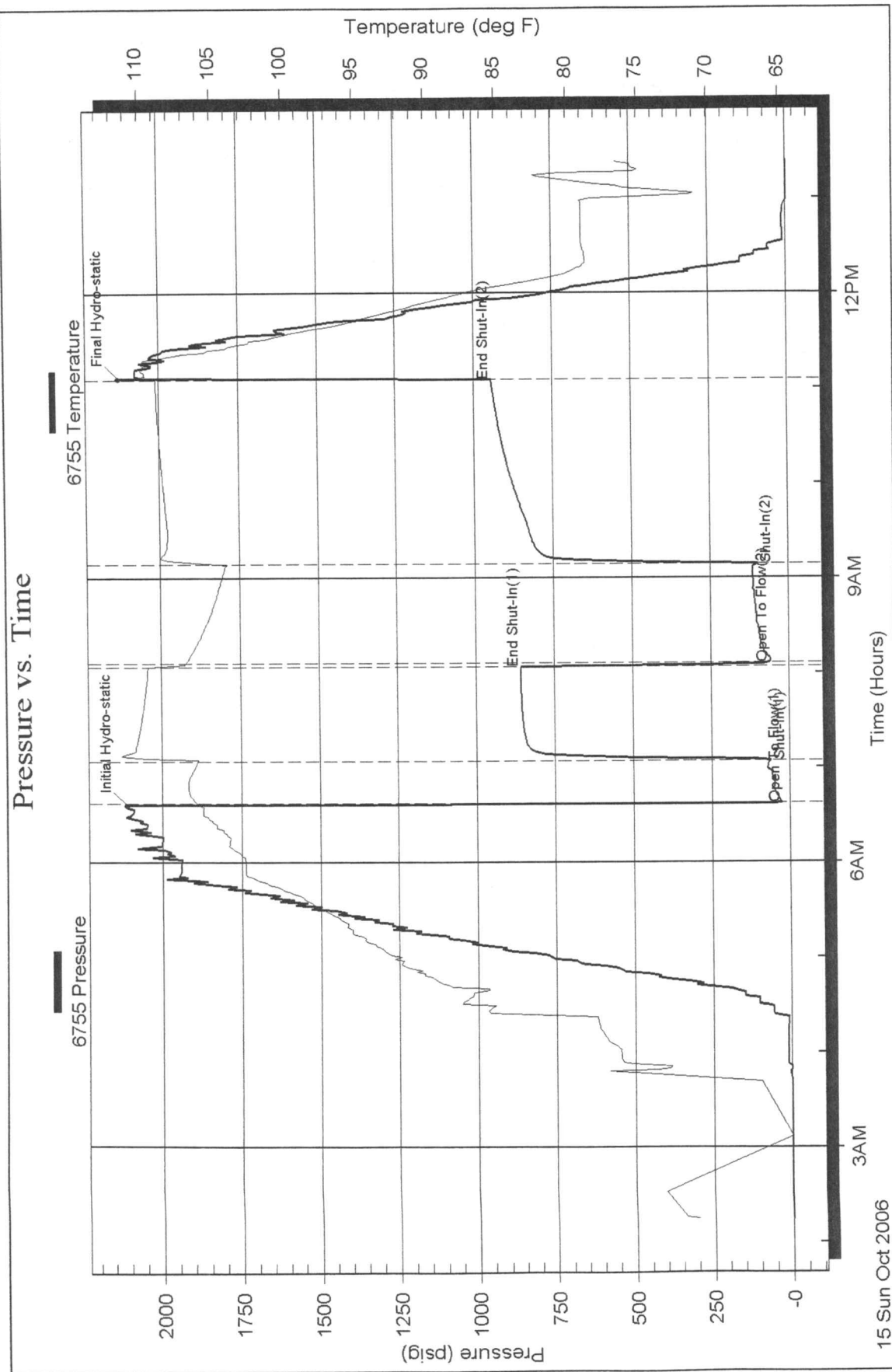
Serial #:

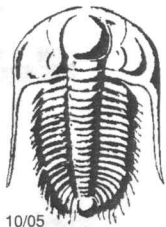
Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments: RW=1.628@83F=3200ppm

Sampler=10.5CF Gas@900psi





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

☒ BCP ☒ ACP ☐ FAC ☐ LOE ☐ Oth AFE

Well Name: Hatcher 8 #1

50-314

Date Passig
Cell # 806-773-2865

Approval: DP

26326

9398

Test Ticket

Well Name & No. Hatcher 8-1 Test No. 1 Date 10-15-06
Company EOG Resources, INC. Zone Tested Tarrant
Address 3817 NW Expressway, Suite 500 OK, OK 73112 Elevation 2955 KB 2945 GL
Co. Rep / Geo. Dale Passig Rig Aber #8
Location: Sec. 8 Twp. 34 Rge. 34 Co. Seward State KS
Comment: _____ Release date / time: _____

Interval Tested 4337-4391 Initial Str Wt./Lbs. 72K Unseated Str Wt/Lbs. 74K
Anchor Length 54' Wt. Set Lbs. 20K Wt. Pulled Loose/Lbs. 90K
Top Packer Depth 4332 Tool Weight 2K
Bottom Packer Depth 4337 Hole Size 7 7/8" ☒ Rubber Size 6 3/4" ☒
Total Depth 4391 Wt. Pipe Run N.A. Drill Collar Run 281
Mud Wt. 9.1 LCM 8# Vis. 42 WL 8.4 Drill Pipe Size 4.5 x A Ft. Run 4044
Blow Description TD: BOB 30 sec, GTS 15 min, strong steady blow
ISD: Blow never died, BOB 10 min.
FF: BOB GTS ASD, strong steady blow
FSD: No blow back

Recovery - Total Feet 281 GIP 4044 Ft. in DC 281 Ft. in DP 0
Rec. 281 Feet of gas cut mud %gas 5 %oil _____ %water _____ %mud 95
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 109 °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API
RW 1.628 @ 83 °F Chlorides 3200 ppm Recovery _____ Chlorides 1000 ppm System

	AK-1	Alpine				
(A) Initial Hydrostatic Mud	<u>2138</u>	PSI	Recorder No.	<u>6755 (2813)</u>	Test ☒ can v.	<u>1200</u>
(B) First Initial Flow Pressure	<u>26</u>	PSI	(depth)	<u>4339</u>	Jars ☒	<u>250</u>
(C) First Final Flow Pressure	<u>61</u>	PSI	Recorder No.	<u>13630</u>	Safety Jt. ☒	<u>75</u>
(D) Initial Shut-In Pressure	<u>858</u>	PSI	(depth)	<u>4388</u>	Circ Sub	
(E) Second Initial Flow Pressure	<u>62</u>	PSI	Recorder No.		Sampler ☒	<u>250</u>
(F) Second Final Flow Pressure	<u>98</u>	PSI	(depth)		Straddle	
(G) Final Shut-In Pressure	<u>944</u>	PSI	Initial Opening	<u>30</u>	Ext. Packer	
(Q) Final Hydrostatic Mud	<u>2127</u>	PSI	Initial Shut-In	<u>60</u>	Shale Packer ☒ x 2.040	

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Approved By Dale Passig

Our Representative 2244

Final Flow 60
Final Shut-In 120
T-On Location 0100 1:00
T-Started 0300
T-Open 0635
T-Pulled 01105
T-Out 0100 13:00
Test ☒ can v. 1200
Jars ☒ 250
Safety Jt. ☒ 75
Circ Sub _____
Sampler ☒ 250
Straddle _____
Ext. Packer _____
Shale Packer ☒ x 2.040
Ruined Packer _____
Mileage ☒ x 80
Sub Total: 2700
Std. By ☒ x 3.0 300
Acc. Chg: ☒ x 1.0 257
Other: 150
Total: 2700
2125



TRILOBITE TESTING, INC.

P.O. Box 362 • Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 26326 Date 10-15-06
Company Name EOG
Lease Hatcher 8-1 Test No. 1
County Seward, KS Sec. 8 Twp. 34 Rng. 34

SAMPLER RECOVERY

Gas 10.5 CF ML Chlorides 1000 ppm.
Oil 0 ML Resistivity _____ ohms @ _____ F
Mud 0 ML Viscosity 42
Water 0 ML Mud Weight 9.1
Other _____ ML Filtrate 8.4
Pressure 900 psi ML Other 8# LCM
Total _____ ML

PIT MUD ANALYSIS

SAMPLER ANALYSIS

Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.

Gravity _____ corrected @60F

PIPE RECOVERY

TOP

Resistivity 1.628 ohms @ 83 F
Chlorides 3200 ppm.

MIDDLE

Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.

BOTTOM

Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.



GAS VOLUME REPORT

POST NO.

Remarks: *Flammable*

CHART PAGE

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

