

**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Black Diamond

States Ag 1-36

PO Box 641  
Hays, KS 67601

36-4-21 Norton, KS

Job Ticket: 41859

DST#: 2

ATTN: Tony Richardson

Test Start: 2011.04.02 @ 11:43:09

## GENERAL INFORMATION:

Formation: LKC "H-L"

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:12:38

Time Test Ended: 17:44:38

Test Type: Conventional Bottom Hole

Tester: Brian Fairbank

Unit No: 41

Interval: 3410.00 ft (KB) To 3498.00 ft (KB) (TVD)

Total Depth: 3498.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition:

Reference Elevations: 2077.00 ft (KB)

2072.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8647

Outside

Press@RunDepth: 169.67 psig @ 3417.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.04.02

End Date:

2011.04.02

Last Calib.: 2011.04.02

Start Time: 11:43:09

End Time:

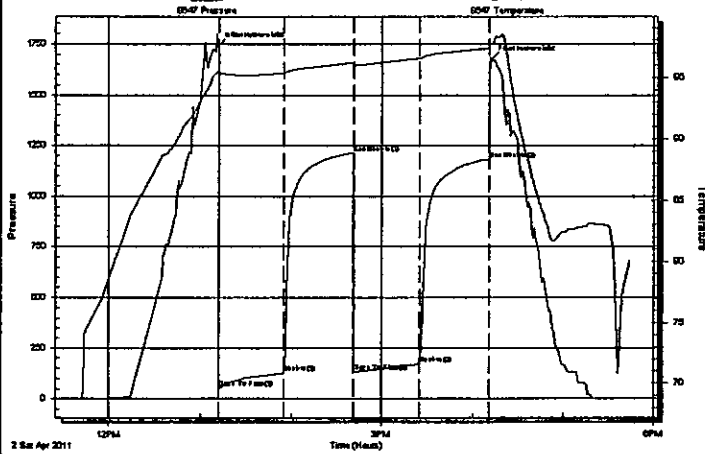
17:44:38

Time On Btm: 2011.04.02 @ 13:11:38

Time Off Btm: 2011.04.02 @ 16:12:08

TEST COMMENT: IFP - BOB 33 min  
ISI - no blow back  
FFP - BOB 35 min  
FSI - no blow back

Pressure vs. Time



## PRESSURE SUMMARY

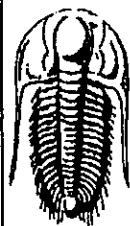
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1738.43	95.46	Initial Hydro-static
1	55.27	95.21	Open To Flow (1)
44	125.83	95.34	Shut-In(1)
90	1215.99	96.20	End Shut-In(1)
90	133.91	95.73	Open To Flow (2)
134	169.67	96.54	Shut-In(2)
179	1183.76	97.37	End Shut-In(2)
181	1674.91	97.67	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
130.00	O & MCW 5%O, 5%M 90%W	0.69
90.00	O & WCM 15%O, 35%W, 50%M	1.26
60.00	FREE OIL 95%O, 5%M	0.84

## Gas Rates

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



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# DRILL STEM TEST REPORT

Black Diamond

States Ag 1-36

PO Box 641  
Hays, KS 67601

36-4-21 Norton, KS

Job Ticket: 41860

DST#: 3

ATTN: Tony Richardson

Test Start: 2011.04.03 @ 06:05:57

## GENERAL INFORMATION:

Formation: LKC "E-F"

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:26:26

Time Test Ended: 11:02:56

Test Type: Conventional Straddle

Tester: Brian Fairbank

Unit No: 41

Interval: 3355.00 ft (KB) To 3377.00 ft (KB) (TVD)

Total Depth: 3595.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2077.00 ft (KB)

2072.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8647

Outside

Press@RunDepth: 228.57 psig @ 3362.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.04.03

End Date:

2011.04.03

Last Calib.: 2011.04.03

Start Time: 06:05:57

End Time:

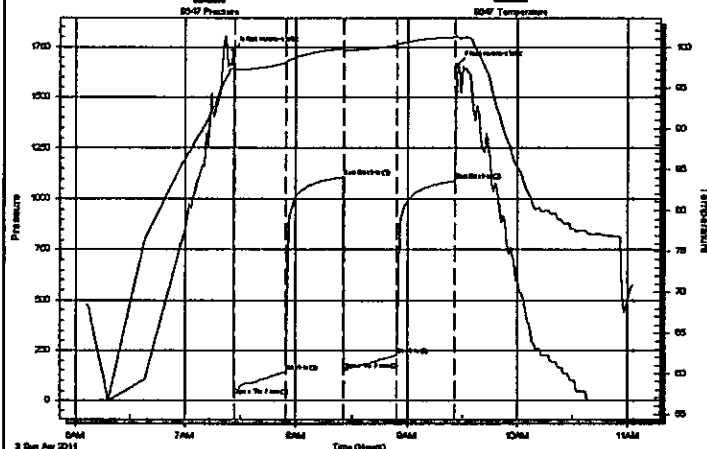
11:02:56

Time On Btm: 2011.04.03 @ 07:25:26

Time Off Btm: 2011.04.03 @ 09:27:26

TEST COMMENT: IFP - BOB 9 min  
ISI - no blow back  
FFP - BOB 11 min  
FSI - no blow back

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1734.00	97.34	Initial Hydro-static
1	27.07	96.44	Open To Flow (1)
29	143.89	98.04	Shut-In(1)
60	1105.72	99.78	End Shut-In(1)
61	153.91	99.40	Open To Flow (2)
89	228.57	100.19	Shut-In(2)
121	1088.05	101.18	End Shut-In(2)
122	1664.32	101.22	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
185.00	MW 70%W, 30%M	1.47
125.00	OCMW 10%O, 50%W, 40%M	1.75
185.00	W & MCO 60%O, 10%W, 30%M	2.60

## Gas Rates

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