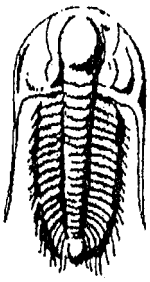


TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Deep Rock Exploration**

111 W 12th
Goodland KS 67735

ATTN: Ross McGuckin

18-9S-41W Sherman KS

Parish #1

Start Date: 2002.11.19 @ 16:58:36

End Date: 2002.11.19 @ 22:04:36

Job Ticket #: 15167 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Deep Rock Exploration

111 W 12th
Goodland KS 67735

ATTN: Ross McGuckin

Parish #1

18-9S-41W Sherman KS

Job Ticket: 15167 **DST#: 1**

Test Start: 2002.11.19 @ 16:58:36

GENERAL INFORMATION:

Formation: Dakota
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:46:21
Time Test Ended: 22:04:36

Test Type: Conventional Bottom Hole
Tester: Rod Steinbrink
Unit No: 22

Interval: 2266.00 ft (KB) To 2277.00 ft (KB) (TVD)
Total Depth: 2277.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

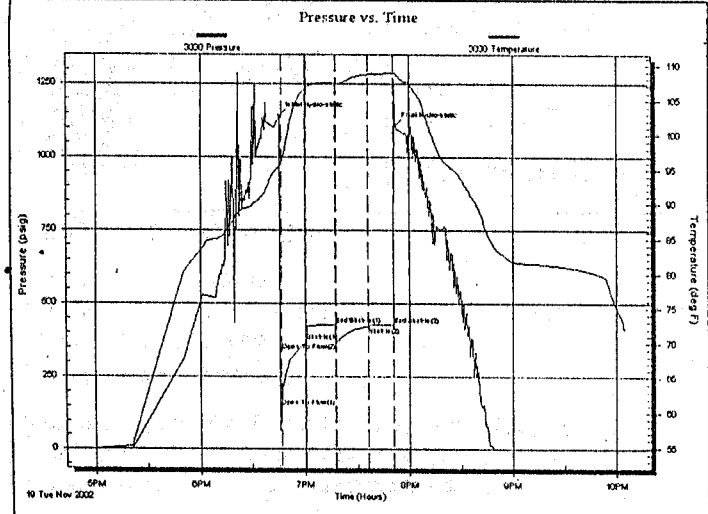
Reference Elevations: 3870.00 ft (KB)
3857.00 ft (CF)
KB to GR/CF: 13.00 ft

Serial #: 3030 **Inside**

Press@RunDepth: 419.77 psig @ 2267.00 ft (KB)
Start Date: 2002.11.19 End Date: 2002.11.19
Start Time: 16:58:38 End Time: 22:04:36

Capacity: 7000.00 psig
Last Calib.: 1899.12.30
Time On Btm: 2002.11.19 @ 18:45:21
Time Off Btm: 2002.11.19 @ 19:51:51

TEST COMMENT: IF; Strong blow off bttm in 2 mins
ISI; No return blow
FF; Strong blow off bttm in 2 mins
FSI; No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1140.83	95.53	Initial Hydro-static
1	145.02	95.96	Open To Flow (1)
16	367.34	106.80	Shut-In(1)
32	424.05	107.42	End Shut-In(1)
33	363.82	107.41	Open To Flow (2)
51	419.77	108.69	Shut-In(2)
66	423.84	108.92	End Shut-In(2)
67	1107.31	108.89	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
150.00	MW 60%w tr 40%mud	0.74
810.00	Wtr	7.65

Gas Rates

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

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Deep Rock Exploration

111 W 12th
Goodland KS 67735

ATTN: Ross McGuckin

Parish #1

18-9S-41W Sherman KS

Job Ticket: 15167 DST#: 1

Test Start: 2002.11.19 @ 16:58:36

Tool Information

Drill Pipe:	Length:	1716.00 ft	Diameter:	3.80 inches	Volume:	24.07 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	558.00 ft	Diameter:	2.25 inches	Volume:	2.74 bbl	
					Total Volume:	26.81 bbl	

Drill Pipe Above KB:	30.00 ft
Depth to Top Packer:	2266.00 ft
Depth to Bottom Packer:	ft
Interval between Packers:	11.00 ft
Tool Length:	33.00 ft
Number of Packers:	2 Diameter: 6.75 inches
Tool Comments:	

Tool Weight:	1800.00 lb
Weight set on Packer:	25000.00 lb
Weight to Pull Loose:	90000.00 lb
Tool Chased	0.00 ft
String Weight: Initial	60000.00 lb
Final	70000.00 lb

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			2249.00		
Hydraulic tool	5.00			2254.00		
Safety Joint	2.00			2256.00		
Packer	5.00			2261.00	22.00	Bottom Of Top Packer
Packer	5.00			2266.00		
Stubb	1.00			2267.00		
Recorder	0.00	3030	Inside	2267.00		
Perforations	5.00			2272.00		
Recorder	0.00	13371	Outside	2272.00		
Bullnose	5.00			2277.00	11.00	Bottom Packers & Anchor
Total Tool Length:	33.00					

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Deep Rock Exploration

111 W 12th
Goodland KS 67735

ATTN: Ross McGuckin

Parish #1

18-9S-41W Sherman KS

Job Ticket: 15167 DST#: 1

Test Start: 2002.11.19 @ 16:58:36

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:	5000 ppm
Viscosity:	44.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	10.39 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	300.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
150.00	MW 60%w tr 40%mud	0.738
810.00	Wtr	7.645

Total Length: 960.00 ft Total Volume: 8.383 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:

Serial #: 3030 Inside Deep Rock Exploration 18-9S-41W Sherman KS DST Test Number [redacted]