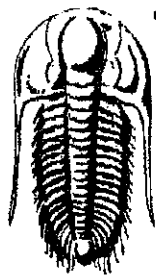


KGS ✓

15-195-22590-0000



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **DNOC**

PO Box 372
Hays, Ks
67601

ATTN: Gator

30-13s-21w Trego KS

Bongartz Family Farms #1-30

Start Date: 2008.11.02 @ 18:55:07

End Date: 2008.11.03 @ 00:43:01

Job Ticket #: 33147 DST #: 1

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

DNOC

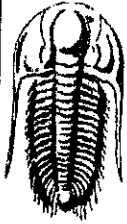
Bongartz Family Farms #1-30

30-13s-21w Trego KS

DST # 1

Cherokee Sand

2008.11.02



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

DNOC
 PO Box 372
 Hays, Ks
 67601
 ATTN: Gator

Bongartz Family Farms #1-30

30-13s-21w Trego KS

Job Ticket: 33147

DST#: 1

Test Start: 2008.11.02 @ 18:55:07

GENERAL INFORMATION:

Formation: **Cherokee Sand**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:59:02
 Time Test Ended: 00:43:01
 Interval: **4080.00 ft (KB) To 4129.00 ft (KB) (TVD)**
 Total Depth: 4129.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition:

Test Type: Conventional Bottom Hole

Tester: Brian Fairbank

Unit No: 41

Reference Elevations: 2349.00 ft (KB)

2342.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8371

Inside

Press@RunDepth: 32.95 psig @ 4088.00 ft (KB)

Start Date: 2008.11.02

End Date:

2008.11.03

Capacity: 7000.00 psig

Start Time: 18:55:07

End Time:

00:43:01

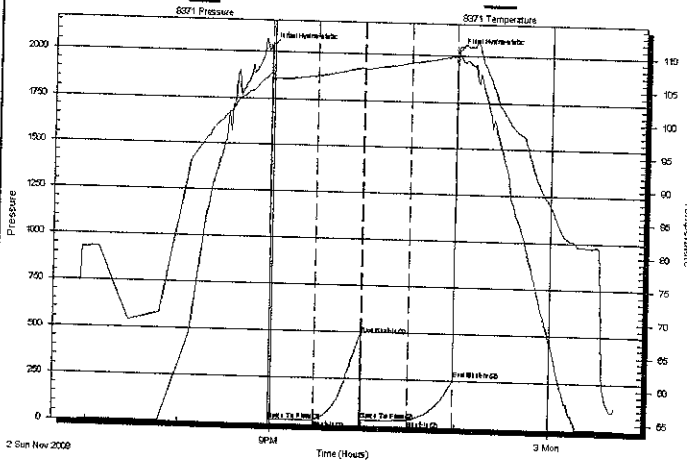
Last Calib.: 2008.11.03

Time On Btm: 2008.11.02 @ 20:58:02

Time Off Btm: 2008.11.02 @ 22:59:02

TEST COMMENT: IFF - weak blow throughout 1/2" - died 1/4"
 ISI - no blow back
 FFP - no blow
 FSI - no blow back

Pressure vs. Time



PRESSURE SUMMARY

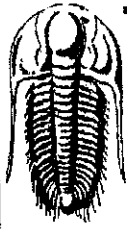
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2025.39	106.72	Initial Hydro-static
1	21.05	105.60	Open To Flow (1)
31	26.81	106.51	Shut-In(1)
61	485.23	107.90	End Shut-In(1)
61	29.11	107.63	Open To Flow (2)
91	32.95	108.72	Shut-In(2)
120	260.39	109.93	End Shut-In(2)
121	2018.88	111.00	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OCM 15%O, 85%M	0.05

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

DNOC

Bongartz Family Farms #1-30

PO Box 372

30-13s-21w Trego KS

Hays, Ks

Job Ticket: 33147

DST#: 1

67601

ATTN: Gator

Test Start: 2008.11.02 @ 18:55:07

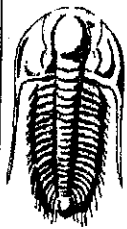
Tool Information

Drill Pipe:	Length: 4061.00 ft	Diameter: 3.80 inches	Volume: 56.97 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 62000.00 lb
			<u>Total Volume: 57.12 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	4080.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	49.00 ft			
Tool Length:	69.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			4065.00	
Hydraulic tool	5.00			4070.00	
Packer	5.00			4075.00	20.00 Bottom Of Top Packer
Packer	5.00			4080.00	
Stubb	1.00			4081.00	
Perforations	6.00			4087.00	
Change Over Sub	1.00			4088.00	
Recorder	0.00	8018	Inside	4088.00	
Recorder	0.00	8371	Inside	4088.00	
Blank Spacing	32.00			4120.00	
Change Over Sub	1.00			4121.00	
Perforations	5.00			4126.00	
Bullnose	3.00			4129.00	49.00 Bottom Packers & Anchor

Total Tool Length: 69.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

DNOC
PO Box 372
Hays, Ks
67601
ATTN: Gator

Bongartz Family Farms #1-30
30-13s-21w Trego KS
Job Ticket: 33147 DST#: 1
Test Start: 2008.11.02 @ 18:55:07

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length:	Water Salinity:	ppm
Viscosity: 45.00 sec/qt			
Water Loss: 9.14 in ³			
Resistivity: ohm.m			
Salinity: 3000.00 ppm			
Filter Cake: inches			

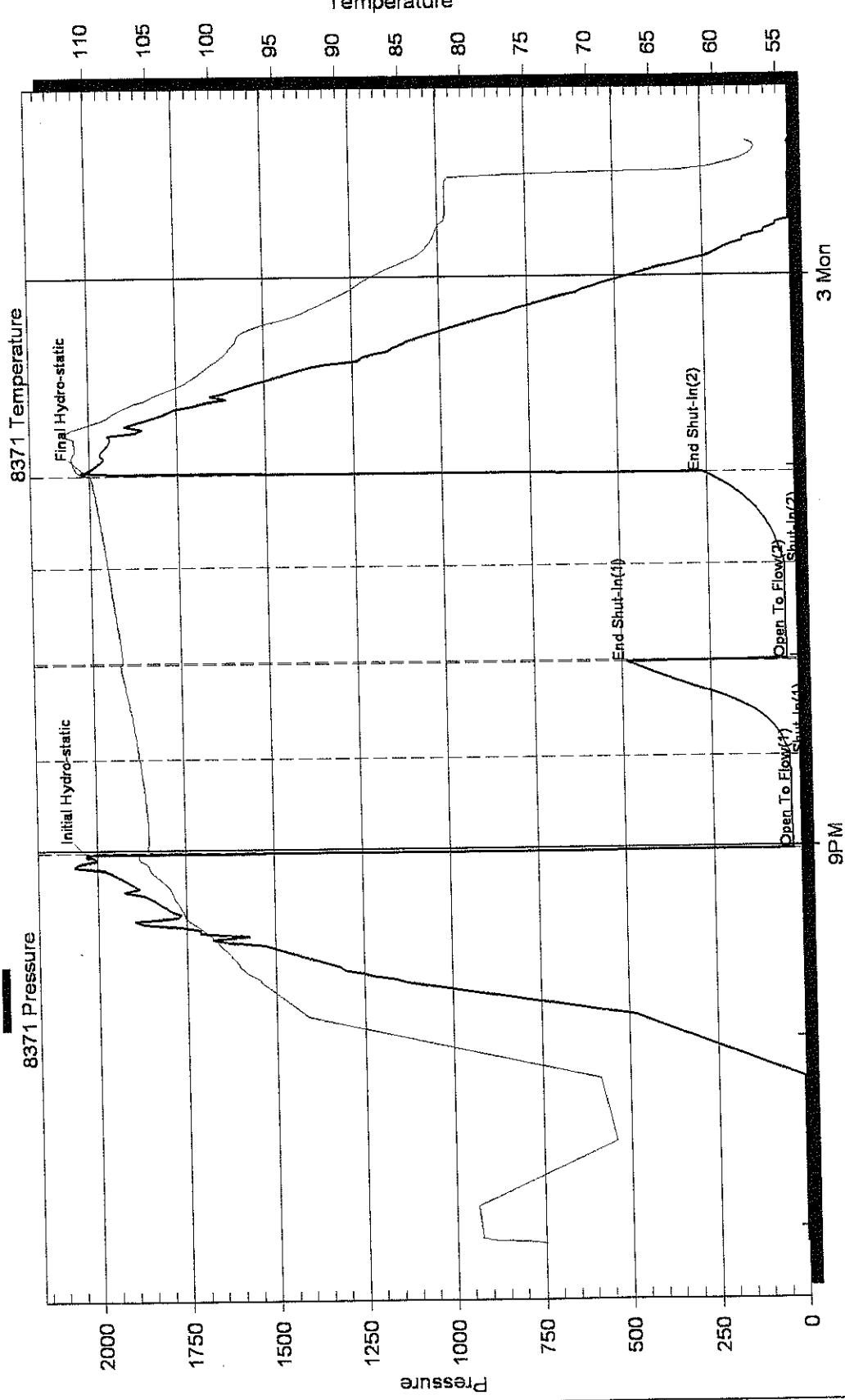
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	OCM 15%O, 85%M	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time

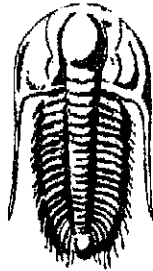


2 Sun Nov 2008

3 Mon

9PM

Time (Hours)



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **DNOC**

PO Box 372
Hays, Ks
67601

ATTN: Gator

30-13s-21w Trego KS

Bongartz Family Farms #1-30

Start Date: 2008.11.03 @ 15:09:07

End Date: 2008.11.03 @ 19:16:07

Job Ticket #: 33148 DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

DNOC

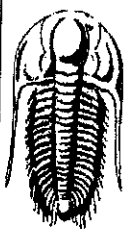
Bongartz Family Farms #1-30

30-13s-21w Trego KS

DST # 2

Congl. Sand

2008.11.03



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

DNOC
 PO Box 372
 Hays, Ks
 67601
 ATTN: Gator

Bongartz Family Farms #1-30
30-13s-21w Trego KS
 Job Ticket: 33148 **DST#: 2**
 Test Start: 2008.11.03 @ 15:09:07

GENERAL INFORMATION:

Formation: **Congl. Sand**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 16:45:37
 Time Test Ended: 19:16:07

Test Type: Conventional Straddle
 Tester: Brian Fairbank
 Unit No: 41

Interval: **4078.00 ft (KB) To 4141.00 ft (KB) (TVD)**
 Total Depth: 4240.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition:

Reference Elevations: 2349.00 ft (KB)
 2342.00 ft (CF)
 KB to GR/CF: 7.00 ft

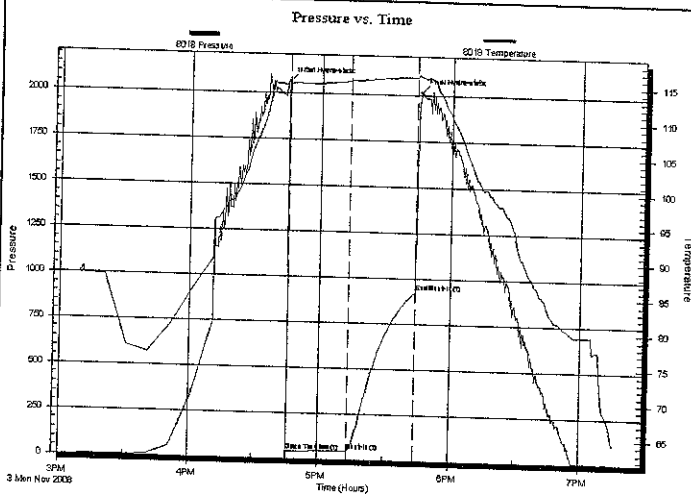
Serial #: 8018

Inside

Press@RunDepth: 48.21 psig @ 4086.00 ft (KB)
 Start Date: 2008.11.03 End Date: 2008.11.03
 Start Time: 15:09:12 End Time: 19:16:07

Capacity: 7000.00 psig
 Last Calib.: 2008.11.03
 Time On Btm: 2008.11.03 @ 16:45:07
 Time Off Btm: 2008.11.03 @ 17:45:37

TEST COMMENT: IFP - 1/4" blow - died 6 min.
 ISI - no blow back
 TIME - 30-30



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2065.05	115.29	Initial Hydro-static
1	39.12	114.85	Open To Flow (1)
29	48.21	115.42	Shut-In(1)
59	927.96	116.12	End Shut-In(1)
61	2014.77	116.23	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud w/ O spts M100%	0.05

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

DNOC

Bongartz Family Farms #1-30

PO Box 372

30-13s-21w Trego KS

Hays, Ks

Job Ticket: 33148

DST#: 2

67601

ATTN: Gator

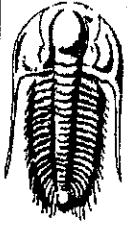
Test Start: 2008.11.03 @ 15:09:07

Tool Information

Drill Pipe:	Length: 4031.00 ft	Diameter: 3.80 inches	Volume: 56.54 bbl	Tool Weight: 2500.00 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 56.69 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4078.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	4141.00 ft			
Interval between Packers:	63.00 ft			
Tool Length:	189.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4063.00	
Hydraulic tool	5.00			4068.00	
Packer	5.00			4073.00	20.00 Bottom Of Top Packer
Packer	5.00			4078.00	
Stubb	1.00			4079.00	
Perforations	6.00			4085.00	
Change Over Sub	1.00			4086.00	
Recorder	0.00	8018	Inside	4086.00	
Blank Spacing	31.00			4117.00	
Change Over Sub	1.00			4118.00	
Perforations	18.00			4136.00	
Recorder	0.00	13548	Outside	4136.00	
Blank Off Sub	1.00			4137.00	
Blank Spacing	4.00			4141.00	63.00 Tool Interval
Packer	5.00			4146.00	
Stubb	1.00			4147.00	
Perforations	2.00			4149.00	
Change Over Sub	1.00			4150.00	
Recorder	0.00	8371	Below	4150.00	
Blank Spacing	93.00			4243.00	
Change Over Sub	1.00			4244.00	
Bullnose	3.00			4247.00	106.00 Bottom Packers & Anchor
Total Tool Length:	189.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

DNOC
PO Box 372
Hays, Ks
67601
ATTN: Gator

Bongartz Family Farms #1-30

30-13s-21w Trego KS

Job Ticket: 33148 DST#: 2

Test Start: 2008.11.03 @ 15:09:07

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 58.00 sec/qt

Water Loss: 8.75 in³

Resistivity: ohm.m

Salinity: 3000.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API: deg API

Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	mud w/ O spts M100%	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

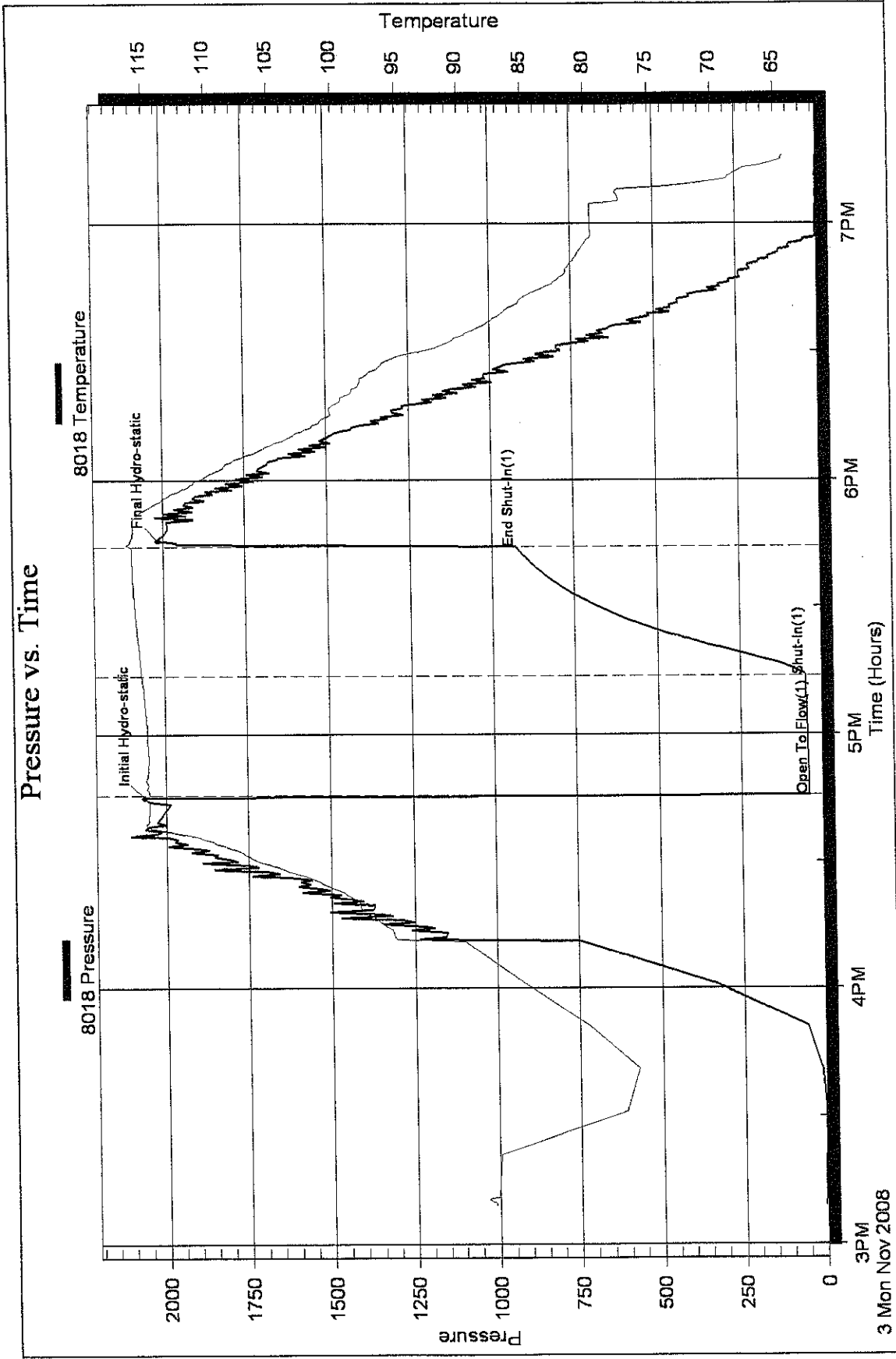
Serial #:

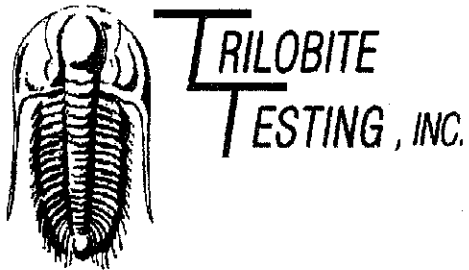
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **DNOC**

PO Box 372
Hays, Ks
67601

ATTN: Gator

30-13s-21w Trego KS

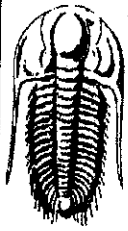
Bongartz Family Farms #1-30

Start Date: 2008.11.03 @ 19:25:54

End Date: 2008.11.04 @ 02:09:48

Job Ticket #: 33149 DST #: 3

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

DNOC
PO Box 372
Hays, Ks
67601
ATTN: Gator

Bongartz Family Farms #1-30

30-13s-21w Trego KS

Job Ticket: 33149 **DST#: 3**

Test Start: 2008.11.03 @ 19:25:54

GENERAL INFORMATION:

Formation:

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:10:19

Time Test Ended: 02:09:48

Test Type: Conventional Straddle

Tester: Brian Fairbank

Unit No: 41

Interval: **4140.00 ft (KB) To 4195.00 ft (KB) (TVD)**

Total Depth: 4240.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition:

Reference Elevations: 2349.00 ft (KB)

2342.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8018 Inside

Press@RunDepth: 651.17 psig @ 4148.00 ft (KB)

Start Date: 2008.11.03

End Date:

2008.11.04

Capacity: 7000.00 psig

Last Calib.: 2008.11.04

Start Time: 19:25:54

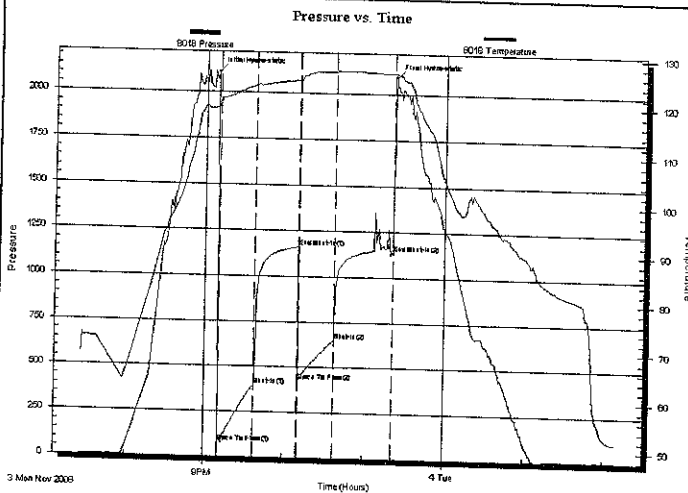
End Time:

02:09:48

Time On Btm: 2008.11.03 @ 21:09:19

Time Off Btm: 2008.11.03 @ 23:22:49

TEST COMMENT: IFP - BOB 5 min.
ISI - no blow back
FFP - BOB 3 min.
FSI - no blow back



PRESSURE SUMMARY

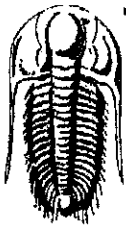
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2109.85	119.18	Initial Hydro-static
1	75.85	119.86	Open To Flow (1)
29	398.93	123.75	Shut-In (1)
61	1161.21	124.84	End Shut-In (1)
62	422.76	124.63	Open To Flow (2)
88	651.17	126.70	Shut-In (2)
132	1139.11	126.45	End Shut-In (2)
134	2091.67	126.35	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1350.00	MW 90%W, 10%M	18.65

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

DNOC

Bongartz Family Farms #1-30

PO Box 372
Hays, Ks
67601

30-13s-21w Trego KS

Job Ticket: 33149

DST#: 3

ATTN: Gator

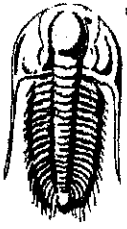
Test Start: 2008.11.03 @ 19:25:54

Tool Information

Drill Pipe:	Length: 4105.00 ft	Diameter: 3.80 inches	Volume: 57.58 bbl	Tool Weight: 2500.00 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 115000.0 lb
			<u>Total Volume: 57.73 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4140.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	4195.00 ft			
Interval between Packers:	55.00 ft			
Tool Length:	125.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4125.00	
Hydraulic tool	5.00			4130.00	
Packer	5.00			4135.00	20.00 Bottom Of Top Packer
Packer	5.00			4140.00	
Stubb	1.00			4141.00	
Perforations	6.00			4147.00	
Change Over Sub	1.00			4148.00	
Recorder	0.00	8018	Inside	4148.00	
Blank Spacing	31.00			4179.00	
Change Over Sub	1.00			4180.00	
Perforations	10.00			4190.00	
Recorder	0.00	13548	Outside	4190.00	
Blank Off Sub	1.00			4191.00	
Blank Spacing	4.00			4195.00	55.00 Tool Interval
Packer	5.00			4200.00	
Stubb	1.00			4201.00	
Perforations	8.00			4209.00	
Change Over Sub	1.00			4210.00	
Recorder	0.00	8371	Below	4210.00	
Blank Spacing	31.00			4241.00	
Change Over Sub	1.00			4242.00	
Bullnose	3.00			4245.00	50.00 Bottom Packers & Anchor
Total Tool Length:	125.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

DNOC

Bongartz Family Farms #1-30

PO Box 372
Hays, Ks
67601

30-13s-21w Trego KS

Job Ticket: 33149

DST#: 3

ATTN: Gator

Test Start: 2008.11.03 @ 19:25:54

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 58.00 sec/qt

Water Loss: 8.76 in³

Resistivity: ohm.m

Salinity: 3000.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

deg API

Water Salinity:

34000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1350.00	MW 90%W, 10%M	18.655

Total Length: 1350.00 ft Total Volume: 18.655 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .271 @ 55F = 34000ppm

Pressure vs. Time

