

DRILL STEM TEST REPORT

Prepared For: **Midco Explo**

414 Plaza Dr
Siute 204
Westmont, IL 60559

ATTN: Al Downing

11-34-26w

Theis B #2

Start Date: 2004.01.27 @ 17:53:35

End Date: 2004.01.28 @ 04:48:40

Job Ticket #: 17220 DST #: 1

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

149058


**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Midco Explo
414 Plaza Dr
Suite 204
Westmont, IL 60559
ATTN: Al Downing

Theis B #2

11-34-26w

Job Ticket: 17220

DST#: 1

Test Start: 2004.01.27 @ 17:53:35

GENERAL INFORMATION:

Formation: **Morrow Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:08:11

Time Test Ended: 04:48:40

Test Type: Conventional Straddle

Tester: Nick Budig

Unit No: 17

Interval: **5660.00 ft (KB) To 5740.00 ft (KB) (TVD)**

Total Depth: 6000.00 ft (KB) (TVD)

Hole Diameter: 7.78 inches Hole Condition: Fair

Reference Elevations: 2176.00 ft (KB)

2166.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6771 Inside

Press@RunDepth: 57.39 psig @ 5663.00 ft (KB)

Start Date: 2004.01.27

End Date:

2004.01.28

Start Time: 17:53:40

End Time:

04:48:41

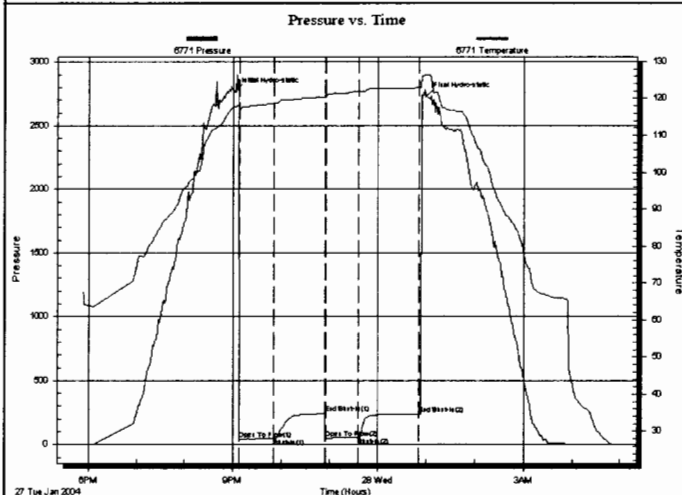
Capacity: 7000.00 psig

Last Calib.: 2004.01.28

Time On Btm: 2004.01.27 @ 21:01:31

Time Off Btm: 2004.01.28 @ 01:00:11

TEST COMMENT: IF- Weak Blow slowly built to obb in 36 min
IS- No Blow
FF- Strong Blow obb as soon as tool opened
FS- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2769.16	117.71	Initial Hydro-static
7	40.78	116.86	Open To Flow (1)
50	49.76	118.72	Shut-In (1)
112	242.23	120.40	End Shut-In (1)
114	50.19	120.33	Open To Flow (2)
155	57.39	121.95	Shut-In (2)
230	237.39	122.88	End Shut-In (2)
239	2730.73	126.37	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
65.00	Drig mud	0.32

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Midco Explo

Theis B #2

414 Plaza Dr
Suite 204
Westmont, IL 60559
ATTN: Al Downing

11-34-26w

Job Ticket: 17220

DST#: 1

Test Start: 2004.01.27 @ 17:53:35

Tool Information

Drill Pipe:	Length: 5661.00 ft	Diameter: 3.38 inches	Volume: 62.83 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	28000.00 lb
Drill Collar:	Length: 296.00 ft	Diameter: 2.25 inches	Volume: 1.46 bbl	Weight to Pull Loose:	lb
		Total Volume:	64.29 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	324.00 ft			String Weight: Initial	81000.00 lb
Depth to Top Packer:	5660.00 ft			Final	lb
Depth to Bottom Packer:	5740.00 ft				
Interval between Packers:	80.00 ft				
Tool Length:	375.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			5634.00	
Shut In Tool	5.00			5639.00	
Hydraulic tool	5.00			5644.00	
Jars	5.00			5649.00	
Safety Joint	2.00			5651.00	
Packer	5.00			5656.00	27.00 Bottom Of Top Packer
Packer	4.00			5660.00	
Stubb	1.00			5661.00	
Perforations	1.00			5662.00	
Change Over Sub	1.00			5663.00	
Recorder	0.00	6771	Inside	5663.00	
Drill Pipe	62.00			5725.00	
Change Over Sub	1.00			5726.00	
Recorder	0.00		Inside	5726.00	
Perforations	13.00			5739.00	
Blank Off Sub	1.00			5740.00	80.00 Tool Interval
Packer	1.00			5741.00	
Stubb	1.00			5742.00	
Perforations	12.00			5754.00	
Change Over Sub	1.00			5755.00	
Drill Pipe	249.00			6004.00	
Change Over Sub	1.00			6005.00	
Recorder	0.00		Inside	6005.00	
Bullnose	3.00			6008.00	268.00 Bottom Packers & Anchor
Total Tool Length:	375.00				



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DRILL STEM TEST REPORT

FLUID SUMMARY

Midco Explo

Theis B #2

414 Plaza Dr
Suite 204
Westmont, IL 60559
ATTN: Al Downing

11-34-26w

Job Ticket: 17220

DST#: 1

Test Start: 2004.01.27 @ 17:53:35

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: 60.00 sec/qt

Cushion Volume: bbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 3400.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
65.00	Drig mud	0.320

Total Length: 65.00 ft Total Volume: 0.320 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

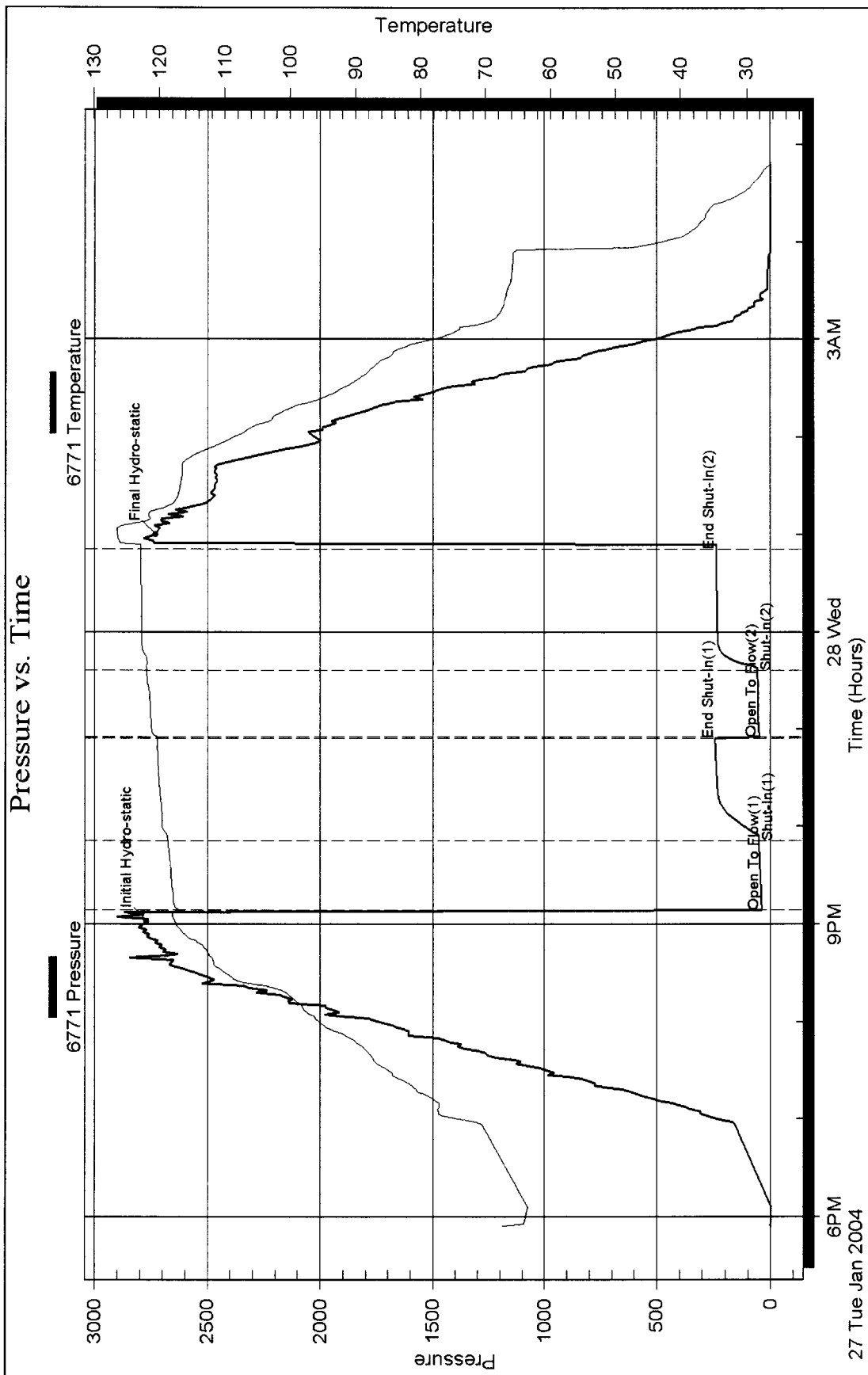
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Midco Explo**

414 Plaza Dr
Suite 204
Westmont, IL 60559

ATTN: Al Downing

11-34-26w

Theis B #2

Start Date: 2004.01.28 @ 08:39:48

End Date: 2004.01.28 @ 13:49:05

Job Ticket #: 17221 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Midco Explo

Theis B #2

11-34-26w

DST # 2

Council Grove

2004.01.28



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Midco Explo

414 Plaza Dr
Suite 204
Westmont, IL 60559
ATTN: Al Downing

Theis B #2

11-34-26w

Job Ticket: 17221

DST#: 2

Test Start: 2004.01.28 @ 08:39:48

GENERAL INFORMATION:

Formation: **Council Grove**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 13:49:05

Test Type: Conventional Straddle

Tester: Nick & Blake

Unit No: 17

Interval: **2750.00 ft (KB) To 2810.00 ft (KB) (TVD)**

Total Depth: 6000.00 ft (KB) (TVD)

Hole Diameter: 7.78 inches Hole Condition: Fair

Reference Elevations: 2176.00 ft (KB)

2166.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6771 Inside

Press@RunDepth: psig @ 2755.00 ft (KB)

Start Date: 2004.01.28

End Date:

2004.01.28

Capacity: 7000.00 psig

Last Calib.: 2004.01.28

Start Time: 08:39:53

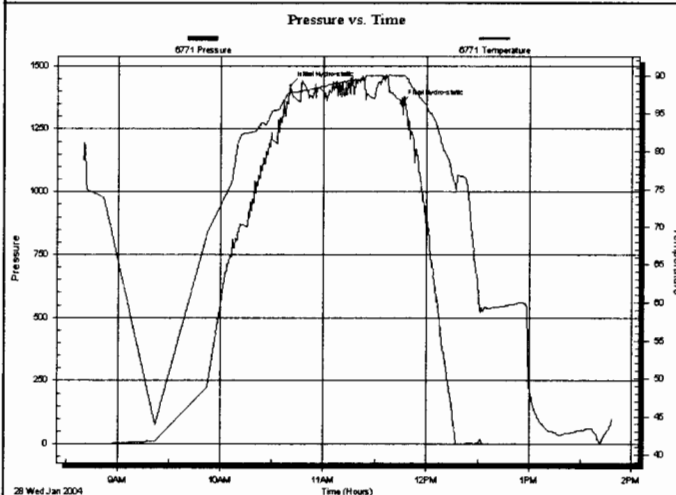
End Time:

13:49:06

Time On Btm: 2004.01.28 @ 10:40:26

Time Off Btm: 2004.01.28 @ 11:44:56

TEST COMMENT: Misrun (Tagged 15' lower than wanted , opened tool and lost packer seat tried twice to set tool)



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1421.85	87.80	Initial Hydro-static
65	1350.25	89.99	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Midco Explo

Theis B #2

414 Plaza Dr
Suite 204
Westmont, IL 60559
ATTN: Al Downing

11-34-26w

Job Ticket: 17221

DST#: 2

Test Start: 2004.01.28 @ 08:39:48

Tool Information

Drill Pipe:	Length: 2539.00 ft	Diameter: 3.38 inches	Volume: 28.18 bbl	Tool Weight: 2200.00 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: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 48000.00 lb
		Total Volume: 29.09 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	2.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	2750.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	2806.00 ft			
Interval between Packers:	56.00 ft			
Tool Length:	160.00 ft			
Number of Packers:	3	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			2724.00	
Shut In Tool	5.00			2729.00	
Hydraulic tool	5.00			2734.00	
Jars	5.00			2739.00	
Safety Joint	2.00			2741.00	
Packer	5.00			2746.00	27.00 Bottom Of Top Packer
Packer	4.00			2750.00	
Stubb	1.00			2751.00	
Perforations	4.00			2755.00	
Recorder	0.00	6771	Inside	2755.00	
Perforations	12.00			2767.00	
Change Over Sub	1.00			2768.00	
Drill Pipe	31.00			2799.00	
Change Over Sub	1.00			2800.00	
Recorder	0.00		Inside	2800.00	
Perforations	5.00			2805.00	
Blank Off Sub	1.00			2806.00	56.00 Tool Interval
Packer	4.00			2810.00	
Stubb	1.00			2811.00	
Hookwall	5.00			2816.00	
Change Over Sub	1.00			2817.00	
Drill Pipe	62.00			2879.00	
Change Over Sub	1.00			2880.00	
Recorder	0.00		Inside	2880.00	
Bullnose	3.00			2883.00	77.00 Bottom Packers & Anchor

Total Tool Length: 160.00



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FLUID SUMMARY

Midco Explo

Theis B #2

414 Plaza Dr
Suite 204
Westmont, IL 60559
ATTN: Al Downing

11-34-26w

Job Ticket: 17221

DST#: 2

Test Start: 2004.01.28 @ 08:39:48

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: 60.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3400.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl

Total Length:

ft

Total Volume:

bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

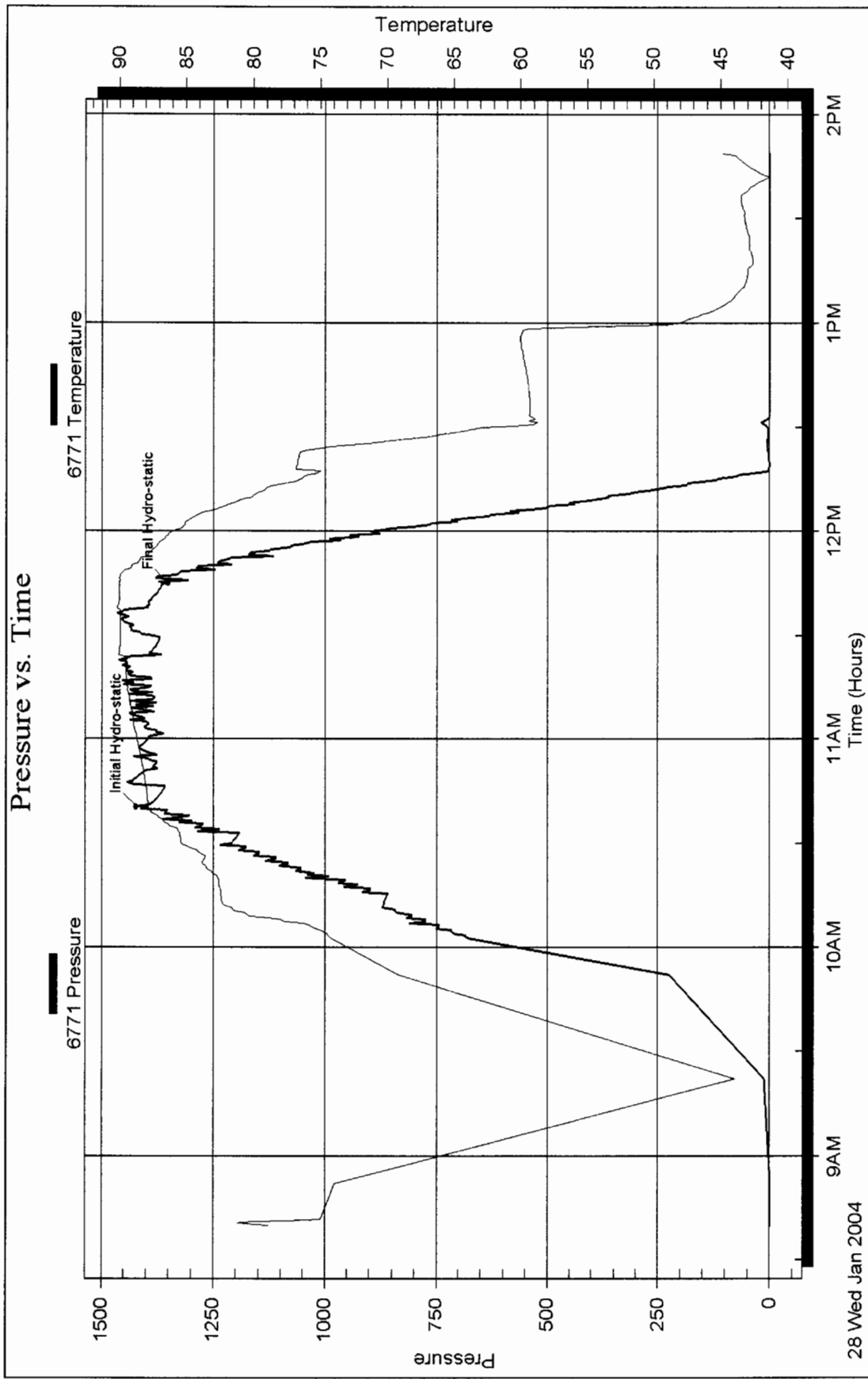
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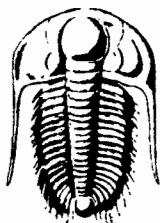
Inside

Mdco Explo

11-34-26w

DST Test Number: 2





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 17220

Test Ticket

Well Name & No. Theis B#2 Test No. 1 Date 1-27-04
Company Midco Expl. Zone Tested Morrow Sand
Address 414 Plaza Dr. Suite 204 Westmont, IL 60559 Elevation 2176 KB 2166 GL
Co. Rep / Geo. Al Downing Cont. Big A Dty #1 Est. Ft. of Pay _____ Por. _____ %
Location: Sec. 11 Twp. 34 Rge. 26w Co. Moade State Ks
No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 5660 - 5740 Initial Str Wt./Lbs. 81,000 Unseated Str Wt./Lbs. 84,000
Anchor Length 80' Wt. Set Lbs. 28,000 Wt. Pulled Loose/Lbs. 90,000
Top Packer Depth 5655 Tool Weight 2200
Bottom Packer Depth 5660 Hole Size 7 7/8" ☒ Rubber Size 6 3/4" ☒
Total Depth 6000 Wt. Pipe Run 0 Drill Collar Run 296
Mud Wt. 9.1 LCM _____ Vis. 60 WL 7.2 Drill Pipe Size 4 1/2 Ft. Run 5661

Blow Description IF - Weak Blow slowly built to OBB in 36 min
ISI - No Blow

FF - Strong Blow OBB as soon as tool opened
FSI - No Blow

Recovery - Total Feet 65 GIP 2200 Ft. in DC 65 Ft. in DP 0
Rec. 65 Feet of Drig Mud
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____
BHT 123 °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery _____ Chlorides 3400 ppm System

	AK-1	Alpine	Recorder No.	Test
(A) Initial Hydrostatic Mud	<u>2769</u>	PSI	<u>6771</u>	<u>900</u>
(B) First Initial Flow Pressure	<u>41</u>	PSI	(depth) <u>5659</u>	Elec. Rec. <u>150</u>
(C) First Final Flow Pressure	<u>50</u>	PSI	Recorder No. <u>13761</u>	Jars <u>200</u>
(D) Initial Shut-In Pressure	<u>242</u>	PSI	(depth) <u>5722</u>	Safety Jt. <u>50</u>
(E) Second Initial Flow Pressure	<u>50</u>	PSI	Recorder No. <u>5495</u>	Circ Sub _____
(F) Second Final Flow Pressure	<u>57</u>	PSI	(depth) <u>5997</u>	Sampler _____
(G) Final Shut-In Pressure	<u>237</u>	PSI	Initial Opening <u>45</u>	Straddle <u>250</u>
(Q) Final Hydrostatic Mud	<u>2731</u>	PSI	Initial Shut-In <u>60</u>	Ext. Packer _____

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Approved By _____

Our Representative Nick Bely

Final Flow _____
Final Shut-In _____
T-On Location 10:50 am
T-Started 17:53
T-Open 9:10
T-Pulled 12:40
T-Out 4:48
Shale Packer 150
Mileage 128
Sub Total: 1417.60
Std. By 2 1/4 hr 67.50
Other _____
Total: 1985.10

CHART PAGE

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

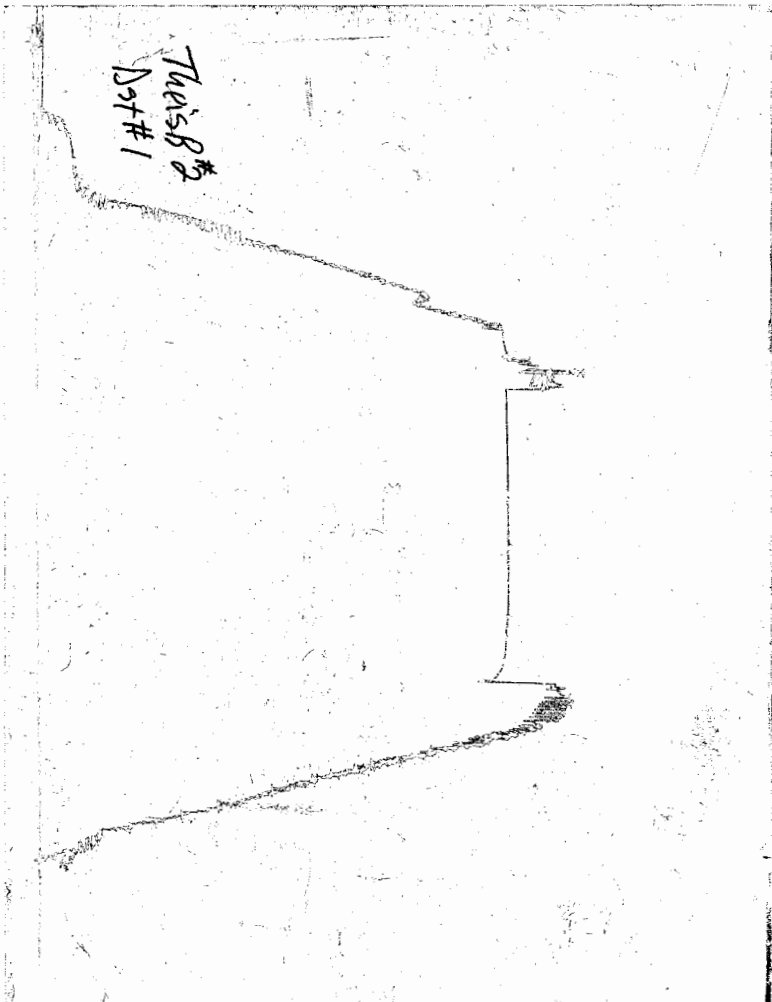
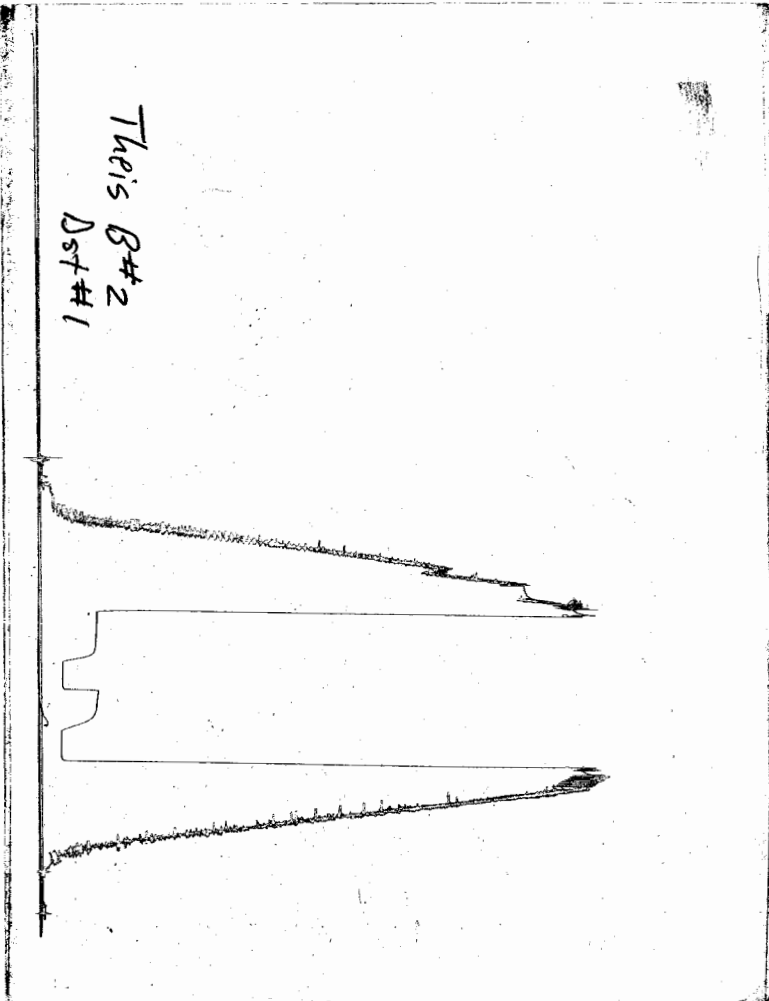
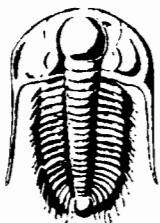


CHART PAGE

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





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 17221

12/02

Test Ticket

Well Name & No.	Theris B #2	Test No.	2	Date	1-28-04
Company	Midco Expl.	Zone Tested			
Address	414 Plaza Dr. Suite 204 Westmont, ILL 60559	Elevation		KB	GL
Co. Rep / Geo.	Al Downing	Cont.	Dugan Orlg #1	Est. Ft. of Pay	Por. %
Location: Sec.	11	Twp.	34	Rge.	26w Co. made State KS
No. of Copies		Disbtribution Sheet (Y, N)		Turnkey (Y, N)	Evaluation (Y, N)

Interval Tested	2750 - 2810	Initial Str Wt./Lbs.	49,000	Unseated Str Wt./Lbs.	49,000
Anchor Length	60'	Wt. Set Lbs.	30,000	Wt. Pulled Loose/Lbs.	49,000
Top Packer Depth	2805	Tool Weight	2200		
Bottom Packer Depth	2810	Hole Size 7 7/8"	✓	Rubber Size 6 3/4"	✓
Total Depth	6000	Wt. Pipe Run	0	Drill Collar Run	184
Mud Wt.	LCM	Vis.	WL	Drill Pipe Size	4 1/2
Blow Description	M.S.S.E.W. (Tagged 15' lower than wanted, opened tool & lost packer seal, tried twice)				

Recovery - Total Feet		GIP		Ft. in DC		Ft. in DP	
Rec.		Feet of					
Rec.		Feet of					
Rec.		Feet of					
Rec.		Feet of					
Rec.		Feet of					
BHT		°F Gravity		°API D @		°F Corrected Gravity	
RW		@		°F	Chlorides	ppm Recovery	Chlorides ppm System

(A) Initial Hydrostatic Mud	AK-1	Alpine	PSI	Recorder No.		Test	Hookwall
(B) First Initial Flow Pressure			PSI	(depth)		Elec. Rec.	
(C) First Final Flow Pressure			PSI	Recorder No.		Jars	
(D) Initial Shut-In Pressure			PSI	(depth)		Safety Jt.	
(E) Second Initial Flow Pressure			PSI	Recorder No.		Circ Sub	
(F) Second Final Flow Pressure			PSI	(depth)		Sampler	
(G) Final Shut-In Pressure			PSI	Initial Opening		Straddle	
(Q) Final Hydrostatic Mud			PSI	Initial Shut-In		Ext. Packer	

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Approved By [Signature]

Our Representative Nick Burg

Final Flow		Mileage	0
Final Shut-In		Sub Total:	\$1350.00
T-On Location		Std. By	1550
T-Started	08:45	Other	
T-Open		Total:	
T-Pulled			
T-Out	17:30		

CHART PAGE

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

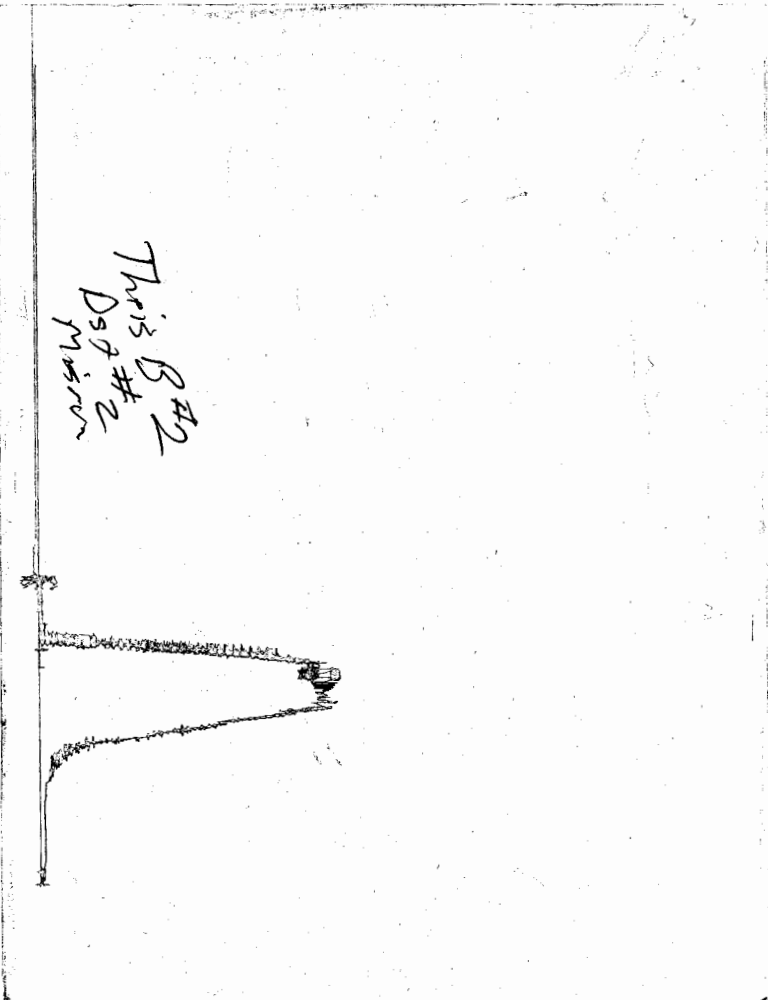


CHART PAGE

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

