

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Prepared For: **White & Ellis Drilli**

Box 48848
Wichita, KS 67201-4848

ATTN: Tom White

34-16s-15w Barton

Hester 1-34

Start Date: 2000.10.18 @ 02:47:00
End Date: 2000.10.20 @ 08:11:00
Job Ticket #: 3173 DST #: 1

Trilobite Testing, L.L.C.
PO Box 362 Hays KS 67601
PH: 785-625-4778 FAX: 785-625-5620

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

White & Ellis Drilli

Box 48848
Wichita, KS 67201-4848

ATTN: Tom White

Hester 1-34

34-16s-15w Barton

Job Ticket: 3173 **DST#: 1**

Test Start: 2000.10.18 @ 02:47:00

GENERAL INFORMATION:

Formation: **Lansing B**
Deviated: No Whipstock: ft (CF)
Time Tool Opened: 04:38:03
Time Test Ended: 08:11:00

Test Type:
Tester: Paul Simpson
Unit No: 18

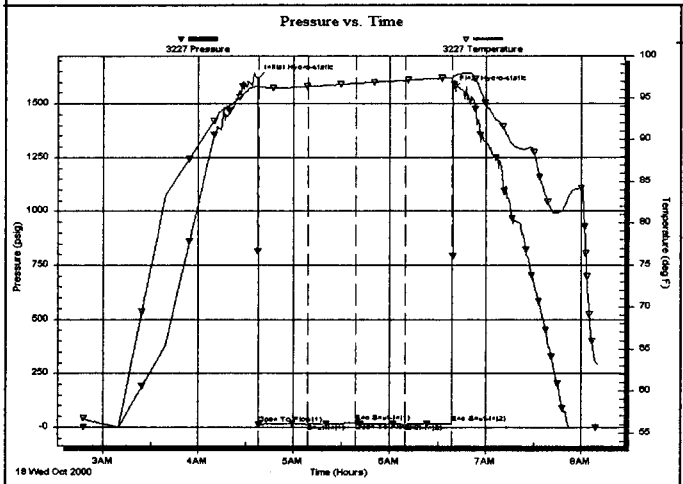
Interval: 3276.00 ft (CF) To 3296.00 ft (CF) (TVD)
Total Depth: 3296.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 21420.18 ft (KB)
1984.00 ft (CF)
KB to GR/CF: 19436.18 ft

Serial #: 3227 Inside
Press@RunDepth: 13.95 psig @ 3283.01 ft (CF)
Start Date: 2000.10.18 End Date: 2000.10.18
Start Time: 02:47:20 End Time: 08:11:18

Capacity: 7000.00 psig
Last Calib.: 2000.10.20
Time On Btm: 2000.10.18 @ 04:37:48
Time Off Btm: 2000.10.18 @ 06:39:33

TEST COMMENT: IF- surface blow died in 6 min
FF no blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
111	1617.16	96.42	Initial Hydro-static
111	12.40	96.36	Open To Flow (1)
142	13.97	96.37	Shut-In(1)
172	19.57	96.74	End Shut-In(1)
172	14.48	96.74	Open To Flow (2)
203	13.95	97.11	Shut-In(2)
232	17.59	97.43	End Shut-In(2)
233	1566.79	97.63	Final Hydro-static

Recovery

Length (m)	Description	Volume (m³)

Gas Rates

	Choke (mm)	Pressure (kPaa)	Gas Rate (m³/d)

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

White & Ellis Drilli

Box 48848
Wichita, KS 67201-4848

ATTN: Tom White

Hester 1-34

34-16s-15w Barton

Job Ticket: 3173 **DST#: 1**

Test Start: 2000.10.18 @ 02:47:00

Tool Information

Drill Pipe:	Length:	3274.00 ft	Diameter:	3.80 inches	Volume:	45.93 bbl	Tool Weight:		2900.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	Weight set on Packer:		20000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70 inches	Volume:	0.00 bbl	Weight to Pull Loose:		55000.00 lb
Drill Pipe Above KB:		13.00 ft					Tool Chased		ft
Depth to Top Packer:		3276.00 ft					String Weight:	Initial	40000.00 lb
Depth to Bottom Packer:		ft						Final	40000.00 lb
Interval betw een Packers:		ft							
Tool Length:		41.02 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
C.O. Sub	1.00			3262.00		
S.I. Tool	5.00			3267.00		
HMV	5.00			3272.00		
Packer	4.00			3276.00	15.00	Bottom Of Top Packer
Packer	5.00			3281.00		
Stubb	1.00			3282.00		
Perforations	1.00			3283.00		
Recorder	0.01	3227	Inside	3283.01		
Perforations	16.00			3299.01		
Recorder	0.01	13308	Outside	3299.02		
Bullnose	3.00			3302.02	26.02	Bottom Packers & Anchor
Total Tool Length:	**41.02**					

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

White & Ellis Drilli

Box 48848
Wichita, KS 67201-4848

ATTN: Tom White

Hester 1-34

34-16s-15w Barton

Job Ticket: 3173 **DST#: 1**

Test Start: 2000.10.18 @ 02:47:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:	
Mud Weight:	9.00 lb/gal	Cushion Length:	ft
Viscosity:	38.00 sec/qt	Cushion Volume:	bbl
Water Loss:	9.98	Gas Cushion Type:	
Resistivity:	ohm.m	Gas Cushion Pressure:	psig
Salinity:	ppm		
Filter Cake:	inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	Mud	0.014

Total Length: 1.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: 3227

Laboratory Name: Laboratory Location:

Recovery Comments:

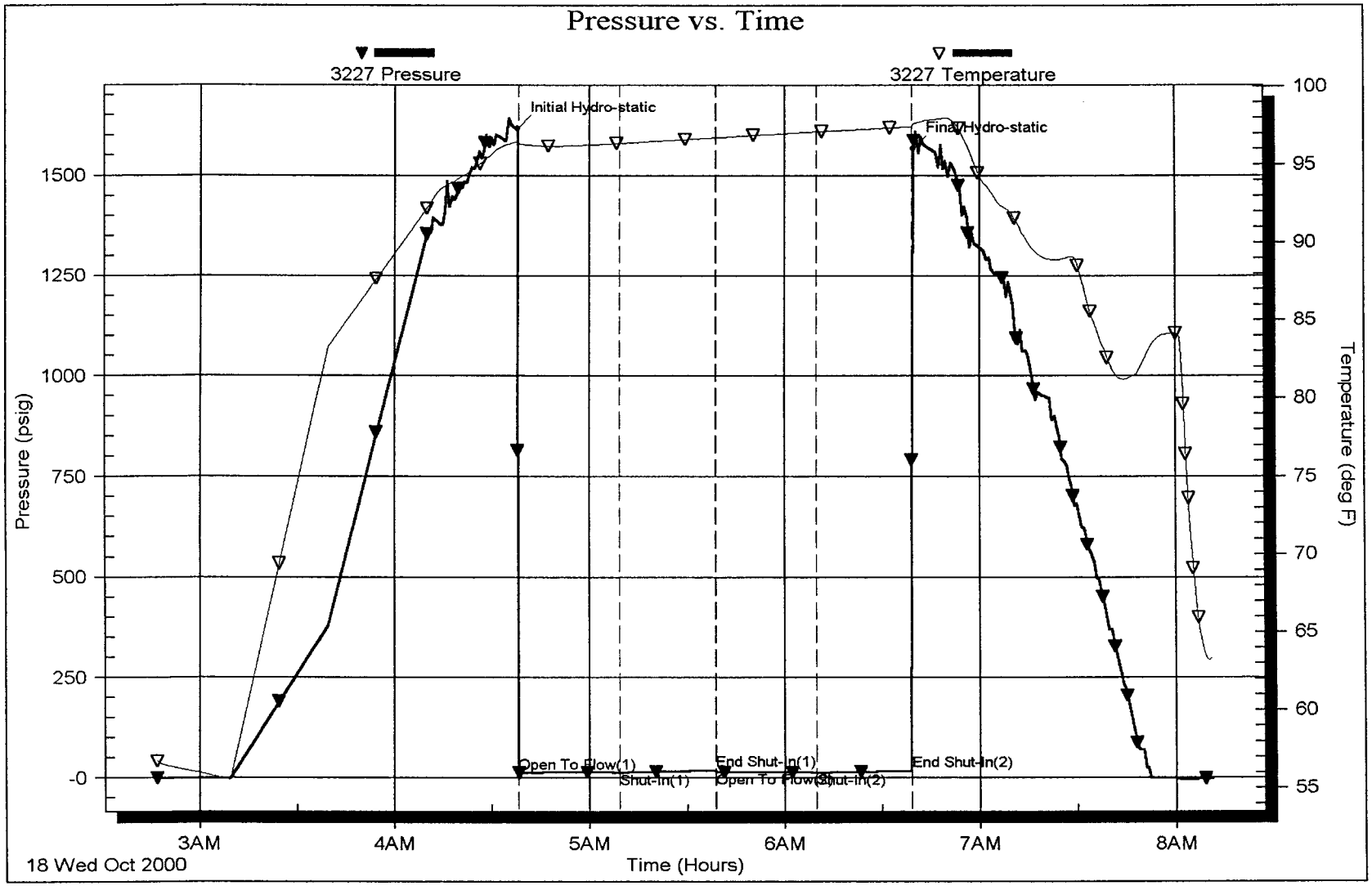
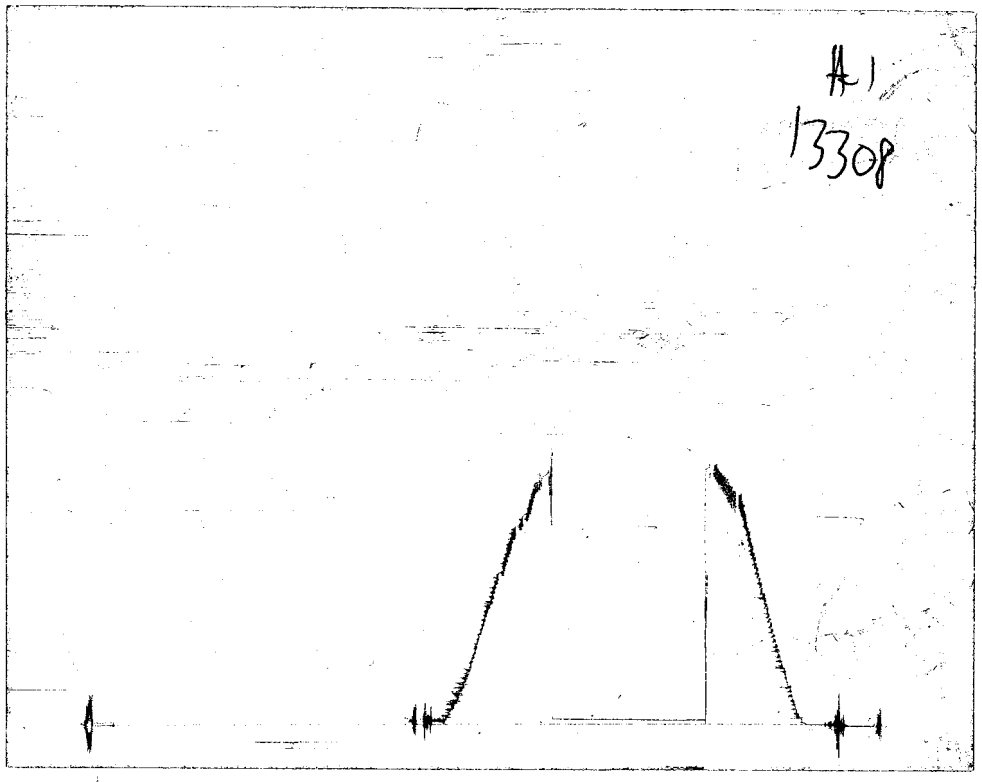

Pressure vs. Time
3227 Pressure
3227 Temperature
Initial Hydro-static
Final Hydro-static
Open To Flow(1)
Shut-In(1)
End Shut-In(1)
Open To Flow(2)
Shut-In(2)
End Shut-In(2)
Pressure (psig)
Temperature (deg F)
1500
1250
1000
750
500
250
-0
100
95
90
85
80
75
70
65
60
55
3AM
4AM
5AM
6AM
7AM
8AM
18 Wed Oct 2000
Time (Hours)

CHART PAGE



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

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

№ 13173

Test Ticket

Well Name & No. Hecker I-34 Test No. 1 Date 10-18-00

Company White & Ellis Drilling Zone Tested Lansing B

Address Box 98848 Wichita Ks 67201-4848 Elevation 1984 KB 1979 GL

Co. Rep / Geo. Steve Davis Cont. Von Feldt Est. Ft. of Pay ____ Por. ____ %

Location: Sec. 34 Twp. 16s Rge. 15w Co. Barton State Ks

No. of Copies ____ Distribution Sheet (Y, N) ____ Turnkey (Y, N) ____ Evaluation (Y, N) ____

Interval Tested 3276-3296 Initial Str Wt./Lbs. 40,000 Unseated Str Wt./Lbs. 40,000

Anchor Length 20 Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 55,000

Top Packer Depth 3271 Tool Weight 2800

Bottom Packer Depth 3276 Hole Size — 7 7/8" ____ Rubber Size — 6 3/4" ____

Total Depth 3296 Wt. Pipe Run ____ Drill Collar Run —

Mud Wt. 9.2 LCM ____ Vis. 38 WL 10.4 Drill Pipe Size 4½XH Ft. Run 3274

Blow Description IF - surface blow - died in 6 Minutes

FF - no blow

Recovery — Total Feet 1 GIP ____ Ft. in DC ____ Ft. in DP 1

Rec. 1 Feet Of Mcd %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

Rec. ____ Feet Of ____ %gas %oil %water %mud

BHT ____ °F Gravity ____ °API D@ ____ °F Corrected Gravity ____ °API

RW ____ @ ____ °F Chlorides ____ ppm Recovery Chlorides ____ ppm System

	AK-1	Alpine				
(A) Initial Hydrostatic Mud			PSI	Recorder No.	3227	T-On Location 0100 2:26
(B) First Initial Flow Pressure			PSI	(depth)	3278	T-Started 0326
(C) First Final Flow Pressure			PSI	Recorder No.	~~H884~~ 13308	T-Open 0433 4:30
(D) Initial Shut-In Pressure			PSI	(depth)	3293	T-Pulled 0653 6:5
(E) Second Initial Flow Pressure			PSI	Recorder No.		T-Out 0750
(F) Second Final Flow Pressure			PSI	(depth)		T-Off Location 0815
(G) Final Shut-in Pressure			PSI	Initial Opening	30	Test 650
(Q) Final Hydrostatic Mud			PSI	Initial Shut-in	30	Jars ____
				Final Flow	30	Safety Joint ____
				Final Shut-in	30	Straddle ____
						Circ. Sub ____
						Sampler ____
						Extra Packer ____
						Elec. Rec. 150
						Mileage 30 Mi 30
						Other ____
						TOTAL PRICE $ 830

TRILOBITE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Approved By ____

Our Representative Paul Simpson



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Prepared For: **White & Ellis Drilli**

Box 48848
Wichita, KS 67201-4848

ATTN: Tom White

34-16s-15w Barton

Hester 1-34

Start Date: 2000.10.18 @ 00:00:00
End Date: 2000.10.19 @ 23:58:00
Job Ticket #: 1314 DST #: 2

Trilobite Testing, L.L.C.
PO Box 362 Hays KS 67601
PH: 785-625-4778 FAX: 785-625-5620

White & Ellis Drilli Hester 1-34 34-16S-15W Barton DST #: 2 Lansing 2000.10.19

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

White & Ellis Drilli

Box 48848
Wichita, KS 67201-4848

ATTN: Tom White

Hester 1-34

34-16s-15w Barton

Job Ticket: 1314 **DST#: 2**

Test Start: 2000.10.18 @ 00:00:00

GENERAL INFORMATION:

Formation: **Lansing**
Deviated: No Whipstock: ft (CF)
Time Tool Opened: 20:20:36
Time Test Ended: 23:58:00

Test Type: Conventional Bottom Hole
Tester: Paul Simpson
Unit No: 18

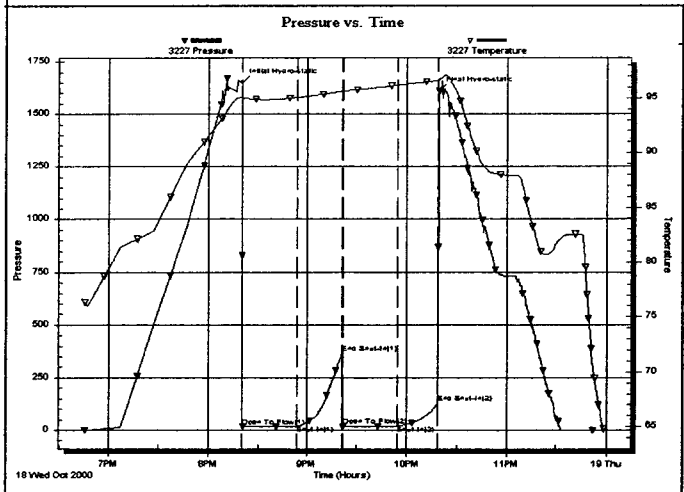
Interval: 3325.00 ft (CF) To 3357.00 ft (CF) (TVD)
Total Depth: 3357.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 21420.18 ft (KB)
1984.00 ft (CF)
KB to GR/CF: 19436.18 ft

Serial #: 3227 Inside
Press@RunDepth: 18.99 psig @ 3327.01 ft (CF)
Start Date: 2000.10.18 End Date: 2000.10.18
Start Time: 18:45:08 End Time: 23:58:21

Capacity: 7000.00 psig
Last Calib.: 1999.06.08
Time On Btm: 2000.10.18 @ 20:20:21
Time Off Btm: 2000.10.18 @ 22:18:51

TEST COMMENT: IF- surface blow died in 5 min.
FF - no blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
96	1649.93	95.11	Initial Hydro-static
96	14.58	95.02	Open To Flow (1)
129	18.25	95.04	Shut-In(1)
157	365.54	95.63	End Shut-In(1)
157	16.20	95.61	Open To Flow (2)
189	18.99	96.17	Shut-In(2)
214	127.32	96.60	End Shut-In(2)
214	1608.53	96.76	Final Hydro-static

Recovery

Length (m)	Description	Volume (m^3)
2.00	mud	0.03

Gas Rates

	Choke (mm)	Pressure (kPaa)	Gas Rate (m^3/d)

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

White & Ellis Drilli

Box 48848
Wichita, KS 67201-4848

ATTN: Tom White

Hester 1-34

34-16s-15w Barton

Job Ticket: 1314 **DST#: 2**

Test Start: 2000.10.18 @ 00:00:00

Tool Information

Drill Pipe:	Length:	3335.00 ft	Diameter:	3.70 inches	Volume:	44.35 bbl	Tool Weight:		2900.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	Weight set on Packer:		20000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70 inches	Volume:	0.00 bbl	Weight to Pull Loose:		70000.00 lb
Drill Pipe Above KB:		30.00 ft					Tool Chased		ft
Depth to Top Packer:		3320.00 ft					String Weight:	Initial	40000.00 lb
Depth to Bottom Packer:		ft						Final	40000.00 lb
Interval betw een Packers:		ft							
Tool Length:		52.02 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
C.O. Sub	1.00			3306.00		
S.I. Tool	5.00			3311.00		
HMV	5.00			3316.00		
Packer	4.00			3320.00	15.00	Bottom Of Top Packer
Packer	5.00			3325.00		
Stubb	1.00			3326.00		
Perforations	1.00			3327.00		
Recorder	0.01	3227	Inside	3327.01		
Perforations	27.00			3354.01		
Recorder	0.01	13308	Outside	3354.02		
Bullnose	3.00			3357.02	37.02	Bottom Packers & Anchor
Total Tool Length:	**52.02**					

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

White & Ellis Drilli

Box 48848
Wichita, KS 67201-4848

ATTN: Tom White

Hester 1-34

34-16s-15w Barton

Job Ticket: 1314 **DST#: 2**

Test Start: 2000.10.18 @ 00:00:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:	
Mud Weight:	9.00 lb/gal	Cushion Length:	ft
Viscosity:	38.00 sec/qt	Cushion Volume:	bbl
Water Loss:	10.33	Gas Cushion Type:	
Resistivity:	ohm.m	Gas Cushion Pressure:	psig
Salinity:	ppm		
Filter Cake:	inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	mud	0.027

Total Length: 2.00 ft Total Volume: 0.030 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: 3227

Laboratory Name: Laboratory Location:

Recovery Comments:

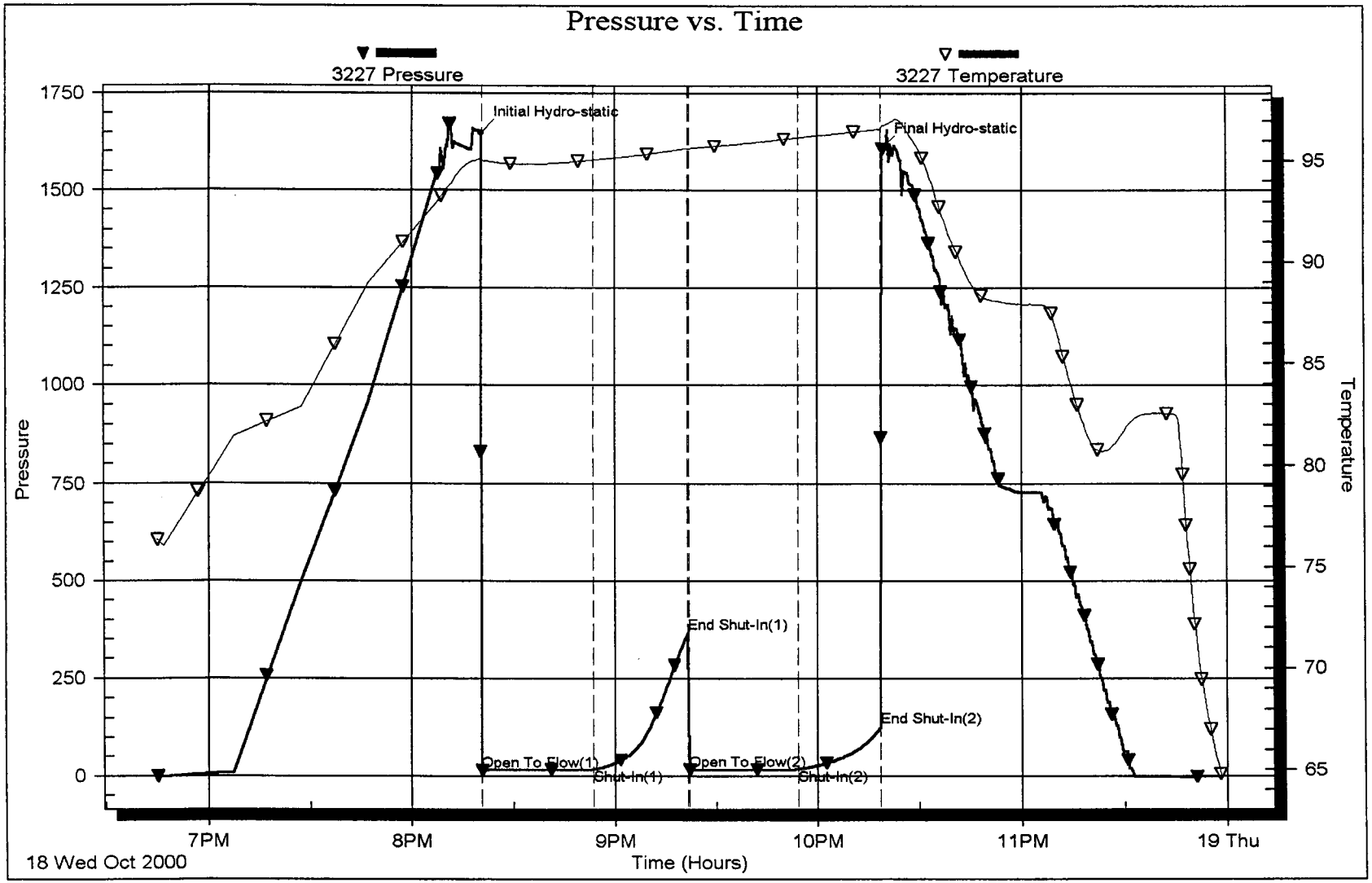
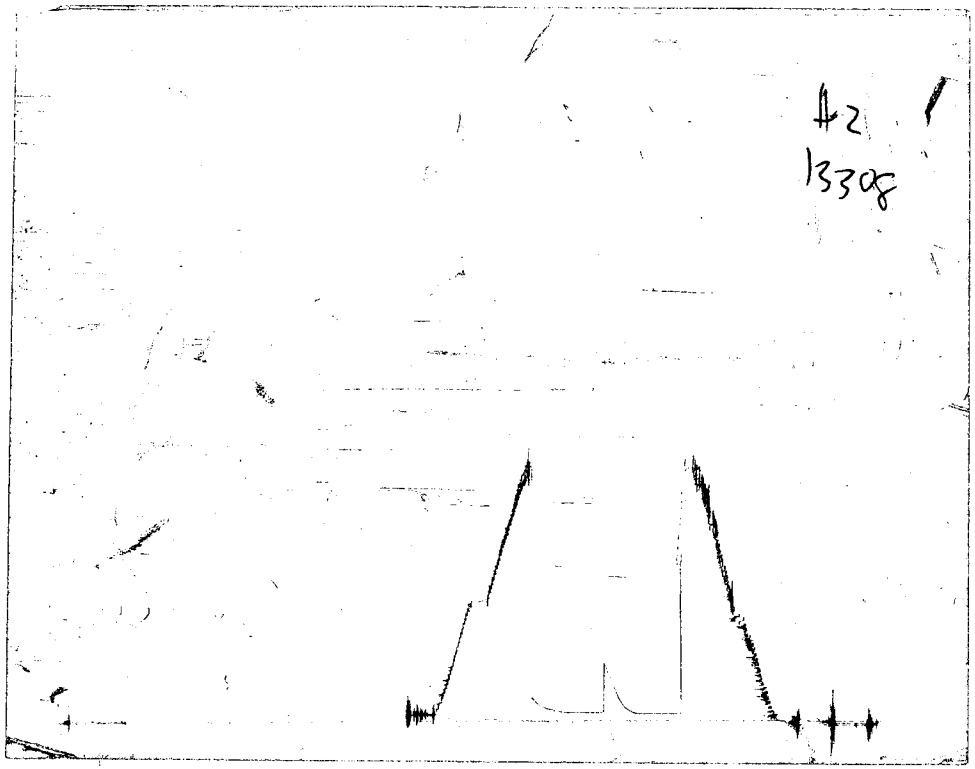

Pressure vs. Time
3227 Pressure
3227 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
1750
1500
1250
1000
750
500
250
0
95
90
85
80
75
70
65
7PM
8PM
9PM
10PM
11PM
19 Thu
18 Wed Oct 2000
Time (Hours)

CHART PAGE



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

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

№ 13174

Test Ticket

Well Name & No. Hester 1-34 Test No. 2 Date 10-15-00

Company White & Ellis Drlg Zone Tested Lansing

Address _____ Elevation _____ KB _____ GL

Co. Rep / Geo. Steve Davis Cont. Duefeldt Est. Ft. of Pay _____ Por. _____ %

Location: Sec. 34 Twp. 16s Rge. 15w Co. Barton State Ks

No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3325 - 3357 Initial Str Wt./Lbs. 40,000 Unseated Str Wt./Lbs. 40,000

Anchor Length 32 Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. _____

Top Packer Depth 3320 Tool Weight _____

Bottom Packer Depth 3325 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____

Total Depth 3357 Wt. Pipe Run _____ Drill Collar Run _____

Mud Wt. _____ LCM _____ Vis. _____ WL _____ Drill Pipe Size 4½ XH Ft. Run _____

Blow Description IF - Weak surface blow died in 5 Minutes

FF - no blow

Recovery — Total Feet 2 GIP _____ Ft. in DC _____ Ft. in DP _____

Rec. 2	Feet Of Mud	%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
Rec. _____	Feet Of _____	%gas	%oil	%water	%mud

BHT _____ °F Gravity _____ °API D@ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

	AK-1	Alpine				
(A) Initial Hydrostatic Mud			PSI	Recorder No.	3227	T-On Location 1810
(B) First Initial Flow Pressure			PSI	(depth)	3327	T-Started 1900
(C) First Final Flow Pressure			PSI	Recorder No.	13306	T-Open 2020
(D) Initial Shut-In Pressure			PSI	(depth)	3354	T-Pulled 2218
(E) Second Initial Flow Pressure			PSI	Recorder No.		T-Out 2358
(F) Second Final Flow Pressure			PSI	(depth)		T-Off Location
(G) Final Shut-in Pressure			PSI	Initial Opening	30	Test 650
(Q) Final Hydrostatic Mud			PSI	Initial Shut-in	30	Jars
				Final Flow	30	Safety Joint
				Final Shut-in	30	Straddle
						Circ. Sub
						Sampler
						Extra Packer
						Elec. Rec. 150
						Mileage 30 30
						Other
						TOTAL PRICE $ 830

TRILOBITE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Approved By _____

Our Representative Paul Simpson



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Prepared For: **White & Ellis Drilli**

Box 48848
Wichita, KS 67201-4848

ATTN: Tom White

34-16s-15w Barton

Hester 1-34

Start Date: 2000.10.19 @ 11:51:00
End Date: 2000.10.19 @ 17:56:00
Job Ticket #: 13175 DST #: 3

Trilobite Testing, L.L.C.
PO Box 362 Hays KS 67601
PH: 785-625-4778 FAX: 785-625-5620

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

White & Ellis Drilli

Box 48848
Wichita, KS 67201-4848

ATTN: Tom White

Hester 1-34

34-16s-15w Barton

Job Ticket: 13175 **DST#: 3**

Test Start: 2000.10.19 @ 11:51:00

GENERAL INFORMATION:

Formation: **Lansing G,H,I**
Deviated: No Whipstock: ft (CF)
Time Tool Opened: 13:29:06
Time Test Ended: 17:56:00

Test Type: Conventional Bottom Hole
Tester: Paul Simpson
Unit No: 18

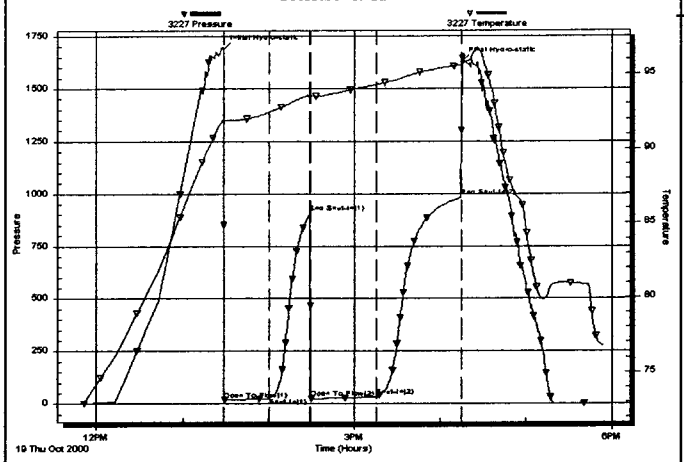
Interval: 3355.00 ft (CF) To 3435.00 ft (CF) (TVD)
Total Depth: 3435.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 6.003501359 ft (KB)
1984.00 ft (CF)
KB to GR/CF: 6.003501359 ft

Serial #: 3227 Inside
Press@RunDepth: 31.08 psig @ 3357.01 ft (CF)
Start Date: 2000.10.19 End Date: 2000.10.19
Start Time: 11:51:08 End Time: 17:55:06

Capacity: 7000.00 psig
Last Calib.: 1999.06.08
Time On Btm: 2000.10.19 @ 13:28:51
Time Off Btm: 2000.10.19 @ 16:14:51

TEST COMMENT: IF- .25" building to 1.25"
FF- .25 building to 1.75"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
98	1689.32	91.96	Initial Hydro-static
98	16.65	91.86	Open To Flow (1)
130	25.02	92.46	Shut-In(1)
158	905.95	93.60	End Shut-In(1)
159	24.26	93.54	Open To Flow (2)
204	31.08	94.30	Shut-In(2)
264	981.40	95.60	End Shut-In(2)
264	1625.41	95.67	Final Hydro-static

Recovery

Length (m)	Description	Volume (m^3)
35.00	muddy water 70% water 30% mud with oil s	0.47

Gas Rates

	Choke (mm)	Pressure (kPaa)	Gas Rate (m^3/d)

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

White & Ellis Drilli

Box 48848
Wichita, KS 67201-4848

ATTN: Tom White

Hester 1-34

34-16s-15w Barton

Job Ticket: 13175 **DST#: 3**

Test Start: 2000.10.19 @ 11:51:00

Tool Information

Drill Pipe:	Length:	3367.00 ft	Diameter:	3.70 inches	Volume:	44.78 bbl	Tool Weight:		3900.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	Weight set on Packer:		20000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70 inches	Volume:	0.00 bbl	Weight to Pull Loose:		52000.00 lb
Drill Pipe Above KB:		32.00 ft					Tool Chased		ft
Depth to Top Packer:		3350.00 ft					String Weight:	Initial	42000.00 lb
Depth to Bottom Packer:		ft						Final	42000.00 lb
Interval betw een Packers:		ft							
Tool Length:		100.02 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments
30-30-45-60

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
C.O. Sub	1.00			3336.00		
S.I. Tool	5.00			3341.00		
HMV	5.00			3346.00		
Packer	4.00			3350.00	15.00	Bottom Of Top Packer
Packer	5.00			3355.00		
Stubb	1.00			3356.00		
Perforations	1.00			3357.00		
Recorder	0.01	3227	Inside	3357.01		
C.O. Sub	1.00			3358.01		
Blank Spacing	63.00			3421.01		
C.O. Sub	1.00			3422.01		
Perforations	10.00			3432.01		
Recorder	0.01	11085	Outside	3432.02		
Bullnose	3.00			3435.02	85.02	Bottom Packers & Anchor
Total Tool Length:	**100.02**					

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

White & Ellis Drilli

Box 48848
Wichita, KS 67201-4848

ATTN: Tom White

Hester 1-34

34-16s-15w Barton

Job Ticket: 13175 **DST#: 3**

Test Start: 2000.10.19 @ 11:51:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:	
Mud Weight:	9.00 lb/gal	Cushion Length:	ft
Viscosity:	48.00 sec/qt	Cushion Volume:	bbl
Water Loss:	11.16	Gas Cushion Type:	
Resistivity:	ohm.m	Gas Cushion Pressure:	psig
Salinity:	ppm		
Filter Cake:	inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
35.00	muddy water 70% water 30% mud with oil s	0.465

Total Length: 35.00 ft Total Volume: 0.470 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: 3227

Laboratory Name: Laboratory Location:

Recovery Comments: Rw . .17 @ 76 55,000 ppm

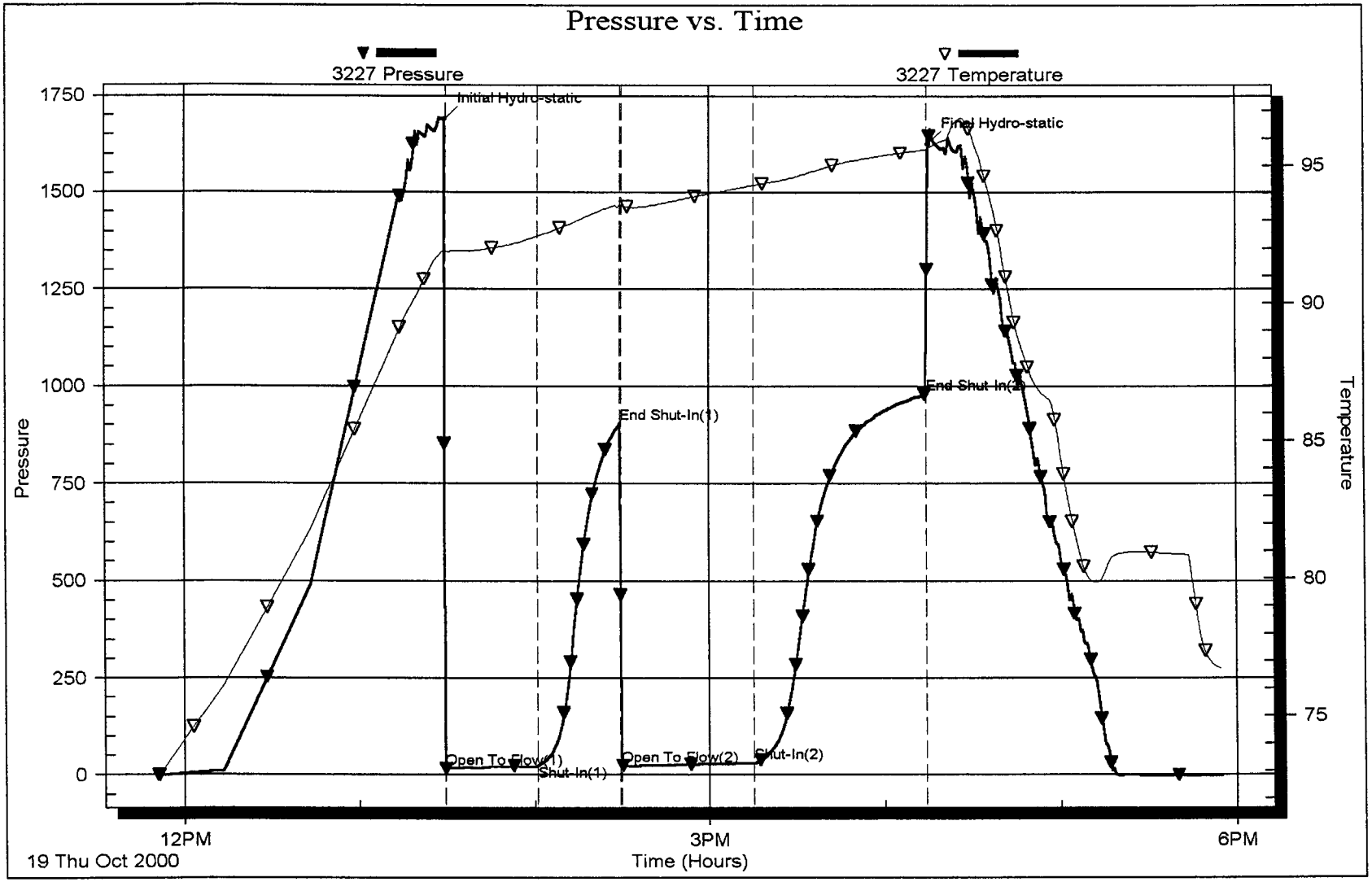
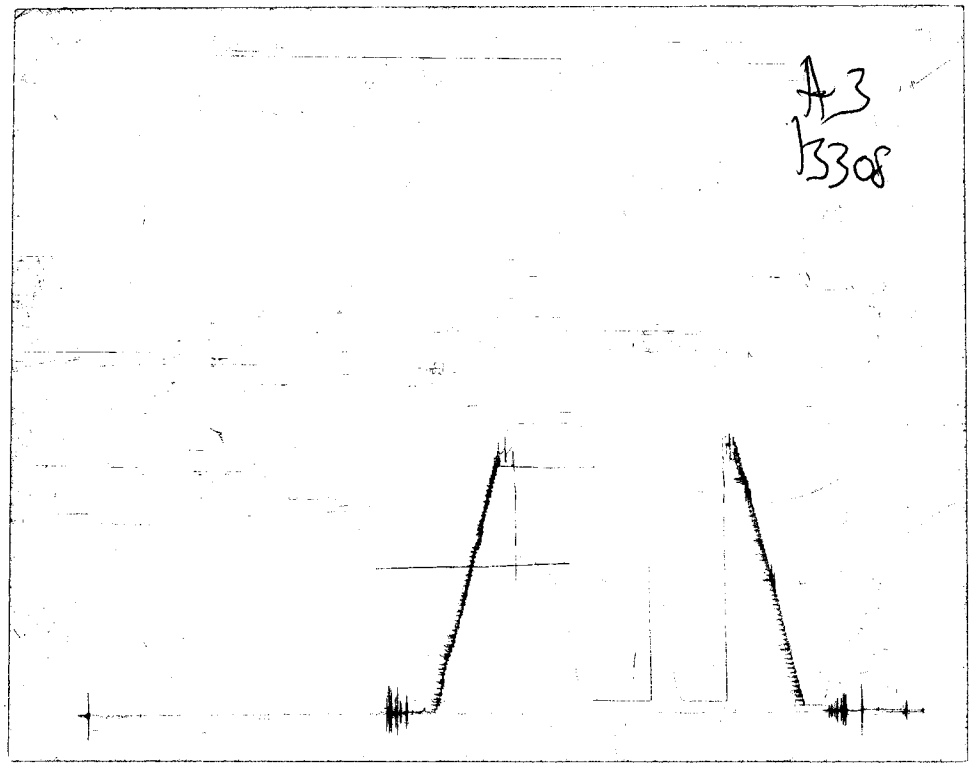

Pressure vs. Time
3227 Pressure
3227 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
1750
1500
1250
1000
750
500
250
0
95
90
85
80
75
12PM
3PM
6PM
19 Thu Oct 2000
Time (Hours)

CHART PAGE



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

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

№ 13175

Test Ticket

Well Name & No. Hester 1-34 Test No. 3 Date 10-19-00

Company White & Ellis Drilling Zone Tested Lansing G-H-I

Address _____ Elevation _____ KB _____ GL

Co. Rep / Geo. Steve Davis Cont. Canfield Est. Ft. of Pay _____ Por. _____ %

Location: Sec. 34 Twp. 16S Rge. 15W Co. Barton State KS

No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3355-3435 Initial Str Wt./Lbs. 42,000 Unseated Str Wt./Lbs. 42,000

Anchor Length 80 Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 52,000

Top Packer Depth 3350 Tool Weight 3500

Bottom Packer Depth 3355 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____

Total Depth 3435 Wt. Pipe Run _____ Drill Collar Run _____

Mud Wt. 9.2 LCM _____ Vis. 48 WL 11.2 Drill Pipe Size 4½ XH Ft. Run 3367

Blow Description IF- ½" blow building to 1.25"

FF- ¼" blow building to 1.75"

Recovery — Total Feet 35 GIP _____ Ft. in DC _____ Ft. in DP 35

Rec. 35 Feet Of MW %gas %oil 70 %water 30 %mud

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 _____ °F Gravity _____ °API D@ _____ °F Corrected Gravity _____ °API

RW .15 @ 76 °F Chlorides 55,000 ppm Recovery Chlorides _____ ppm System

	AK-1	Alpine				
(A) Initital Hydrostatic Mud			PSI	Recorder No.	3227	T-On Location 1050
(B) First Initial Flow Pressure			PSI	(depth)		T-Started 11:51
(C) First Final Flow Pressure			PSI	Recorder No.	13308	T-Open 1326
(D) Initial Shut-In Pressure			PSI	(depth)	3432	T-Pulled 1611
(E) Second Initial Flow Pressure			PSI	Recorder No.		T-Out
(F) Second Final Flow Pressure			PSI	(depth)		T-Off Location
(G) Final Shut-in Pressure			PSI	Initial Opening	30	Test 650
(Q) Final Hydrostatic Mud			PSI	Initial Shut-in	30	Jars
				Final Flow	45	Safety Joint
				Final Shut-in	60	Straddle
						Circ. Sub
						Sampler
						Extra Packer
						Elec. Rec. X 150
						Mileage 30 x 1 30
						Other
						TOTAL PRICE $ 830

TRILOBITE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Approved By _____

Our Representative Paul Simpson



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Prepared For: **White & Ellis Drilli**

Box 48848
Wichita, KS 67201-4848

ATTN: Tom White

34-16s-15w Barton

Hester 1-34

Start Date: 2000.10.18 @ 00:00:00
End Date: 2000.10.20 @ 09:06:00
Job Ticket #: 13801 DST #: 4

Trilobite Testing, L.L.C.
PO Box 362 Hays KS 67601
PH: 785-625-4778 FAX: 785-625-5620

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

White & Ellis Drilli

Box 48848
Wichita, KS 67201-4848

ATTN: Tom White

Hester 1-34

34-16s-15w Barton

Job Ticket: 13801 **DST#: 4**

Test Start: 2000.10.18 @ 00:00:00

GENERAL INFORMATION:

Formation: **Lansing J-K-L**
Deviated: No Whipstock: ft (CF)
Time Tool Opened: 05:33:05
Time Test Ended: 09:06:00

Test Type: Conventional Bottom Hole
Tester: Paul Simpson
Unit No: 18

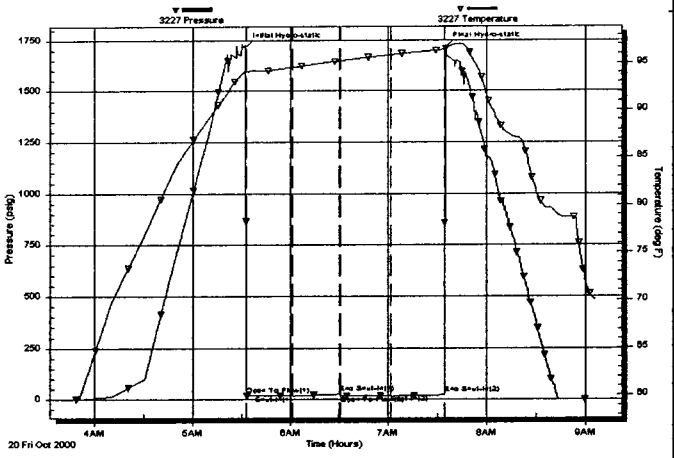
Interval: 3437.00 ft (CF) To 3486.00 ft (CF) (TVD)
Total Depth: 3296.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 21420.18 ft (KB)
1984.00 ft (CF)
KB to GR/CF: 19436.18 ft

Serial #: 3227 Inside
Press@RunDepth: 17.87 psig @ 3440.01 ft (CF)
Start Date: 2000.10.20 End Date: 2000.10.20
Start Time: 03:48:37 End Time: 09:06:05

Capacity: 7000.00 psig
Last Calib.: 1999.06.08
Time On Btm: 2000.10.20 @ 05:32:50
Time Off Btm: 2000.10.20 @ 07:35:05

TEST COMMENT: IF- w eak died in 11 min
FF- no blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
105	1717.95	94.19	Initial Hydro-static
105	17.34	94.09	Open To Flow (1)
133	17.14	94.54	Shut-In(1)
162	26.85	95.24	End Shut-In(1)
162	16.89	95.25	Open To Flow (2)
193	17.87	95.88	Shut-In(2)
226	22.26	96.43	End Shut-In(2)
227	1718.39	96.62	Final Hydro-static

Recovery

Length (m)	Description	Volume (m^3)
1.00	mud	0.01

Gas Rates

	Choke (mm)	Pressure (kPaa)	Gas Rate (m^3/d)



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

White & Ellis Drilli

Box 48848
Wichita, KS 67201-4848

ATTN: Tom White

Hester 1-34

34-16s-15w Barton

Job Ticket: 13801 **DST#: 4**

Test Start: 2000.10.18 @ 00:00:00

Tool Information

Drill Pipe:	Length:	3430.00 ft	Diameter:	3.70 inches	Volume:	45.61 bbl	Tool Weight:		2900.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	Weight set on Packer:		20000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70 inches	Volume:	0.00 bbl	Weight to Pull Loose:		65000.00 lb
Drill Pipe Above KB:		13.00 ft					Tool Chased		ft
Depth to Top Packer:		3432.00 ft					String Weight:	Initial	40000.00 lb
Depth to Bottom Packer:		ft						Final	40000.00 lb
Interval betw een Packers:		ft							
Tool Length:		69.02 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
C.O. Sub	1.00			3418.00		
S.I. Tool	5.00			3423.00		
HMV	5.00			3428.00		
Packer	4.00			3432.00	15.00	Bottom Of Top Packer
Packer	5.00			3437.00		
Stubb	1.00			3438.00		
Perforations	2.00			3440.00		
Recorder	0.01	3227	Inside	3440.01		
C.O. Sub	1.00			3441.01		
Blank Spacing	31.00			3472.01		
C.O. Sub	1.00			3473.01		
Perforations	10.00			3483.01		
Recorder	0.01	13308	Outside	3483.02		
Bullnose	3.00			3486.02	54.02	Bottom Packers & Anchor
Total Tool Length:	**69.02**					

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

White & Ellis Drilli

Box 48848
Wichita, KS 67201-4848

ATTN: Tom White

Hester 1-34

34-16s-15w Barton

Job Ticket: 13801 **DST#: 4**

Test Start: 2000.10.18 @ 00:00:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:	
Mud Weight:	9.00 lb/gal	Cushion Length:	ft
Viscosity:	52.00 sec/qt	Cushion Volume:	bbl
Water Loss:	11.16	Gas Cushion Type:	
Resistivity:	ohm.m	Gas Cushion Pressure:	psig
Salinity:	ppm		
Filter Cake:	inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	mud	0.013

Total Length: 1.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: 3227

Laboratory Name: Laboratory Location:

Recovery Comments:

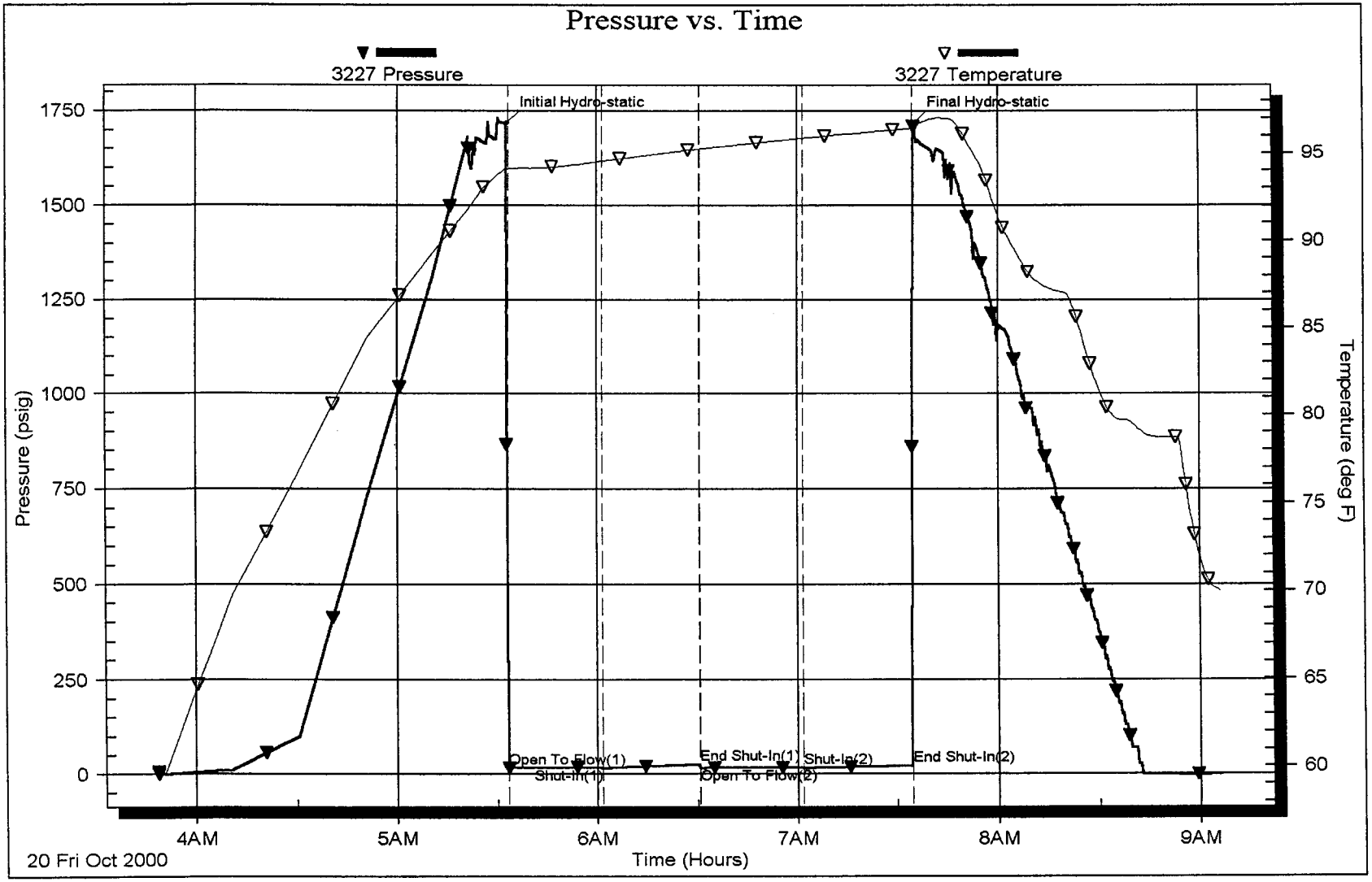
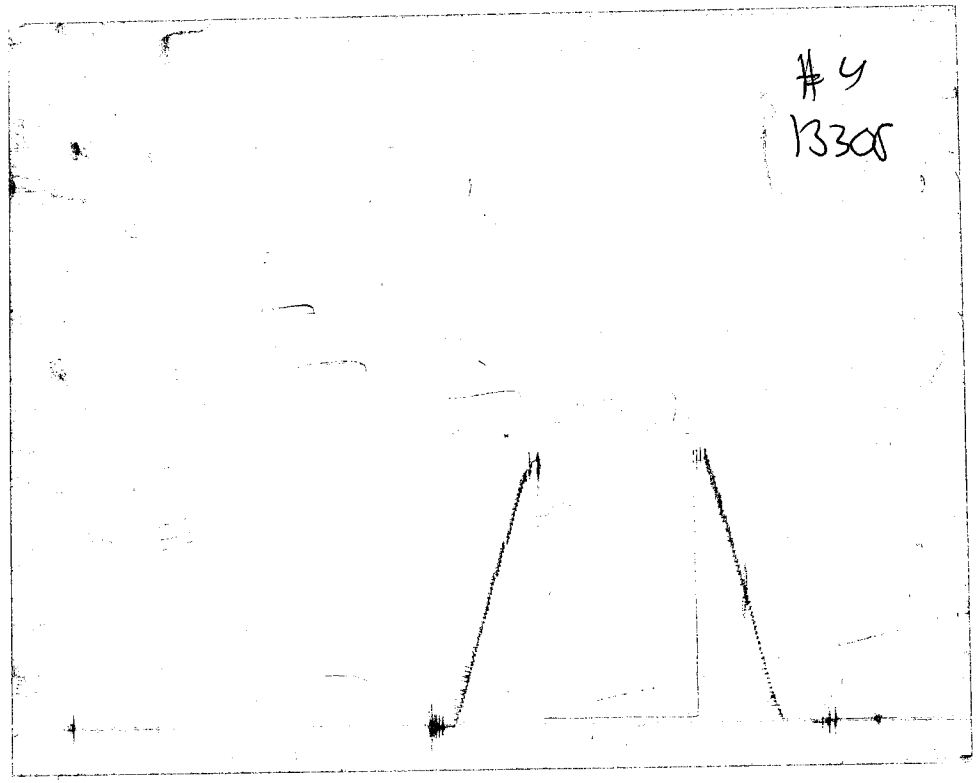

Pressure vs. Time
3227 Pressure
3227 Temperature
Initial Hydro-static
Final Hydro-static
Pressure (psig)
Temperature (deg F)
1750
1500
1250
1000
750
500
250
0
95
90
85
80
75
70
65
60
Open To Flow(1)
Shut-In(1)
End Shut-In(1)
Open To Flow(2)
Shut-In(2)
End Shut-In(2)
4AM
5AM
6AM
7AM
8AM
9AM
20 Fri Oct 2000
Time (Hours)

CHART PAGE



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

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

№ 13801

Test Ticket

Well Name & No. Hester 1-34 Test No. 4 Date 10-20-00

Company White & Ellis Drilling Zone Tested LKC - 5 KC

Address _____ Elevation _____ KB _____ GL

Co. Rep / Geo. Steve Davis Cont. Canfield Est. Ft. of Pay ____ Por. ____ %

Location: Sec. 34 Twp. 16s Rge. 15w Co. Barton State Ks

No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3437-3486 Initial Str Wt./Lbs. 40,000 Unseated Str Wt./Lbs. 40,000

Anchor Length 49 Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 65,000

Top Packer Depth 3432 Tool Weight 3060

Bottom Packer Depth 3437 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____

Total Depth 3486 Wt. Pipe Run _____ Drill Collar Run _____

Mud Wt. 9.2 LCM _____ Vis. 56 WL _____ Drill Pipe Size 4½XH Ft. Run 3430

Blow Description Weak ⅛" blow died in 11 min

ff - no blow

Recovery — Total Feet 2 GIP _____ Ft. in DC _____ Ft. in DP _____

Rec. 1 Feet Of Mud %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

Rec. _____ Feet Of _____ %gas %oil %water %mud

BHT _____ °F Gravity _____ °API D@ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

	AK-1	Alpine				
(A) Initial Hydrostatic Mud			PSI	Recorder No.	3227	T-On Location 0300 :48
(B) First Initial Flow Pressure			PSI	(depth)	3440	T-Started 3:49
(C) First Final Flow Pressure			PSI	Recorder No.	13308	T-Open 0530 5:18
(D) Initial Shut-In Pressure			PSI	(depth)	3483	T-Pulled 0730
(E) Second Initial Flow Pressure			PSI	Recorder No.		T-Out 0906
(F) Second Final Flow Pressure			PSI	(depth)		T-Off Location
(G) Final Shut-in Pressure			PSI	Initial Opening	30	Test 650
(Q) Final Hydrostatic Mud			PSI	Initial Shut-in	20	Jars
				Final Flow	30	Safety Joint
				Final Shut-in	30	Straddle
						Circ. Sub
						Sampler
						Extra Packer
						Elec. Rec. X 150
						Mileage 30
						Other
						TOTAL PRICE $ 830

TRILOBITE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Approved By _____

Our Representative Paul Simpson



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Prepared For: **White & Ellis Drilli**

Box 48848
Wichita, KS 67201-4848

ATTN: Tom White

34-16s-15w Barton

Hester 1-34

Start Date: 2000.10.20 @ 18:23:00
End Date: 2000.10.20 @ 23:28:00
Job Ticket #: 13802 DST #: 5

Trilobite Testing, L.L.C.
PO Box 362 Hays KS 67601
PH: 785-625-4778 FAX: 785-625-5620

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

White & Ellis Drilli

Box 48848
Wichita, KS 67201-4848

ATTN: Tom White

Hester 1-34

34-16s-15w Barton

Job Ticket: 13802 **DST#: 5**

Test Start: 2000.10.20 @ 18:23:00

GENERAL INFORMATION:

Formation: **conglomerate**
Deviated: No Whipstock: ft (CF)
Time Tool Opened: 19:55:57
Time Test Ended: 23:28:00

Test Type: Conventional Bottom Hole
Tester: Paul Simpson
Unit No: 18

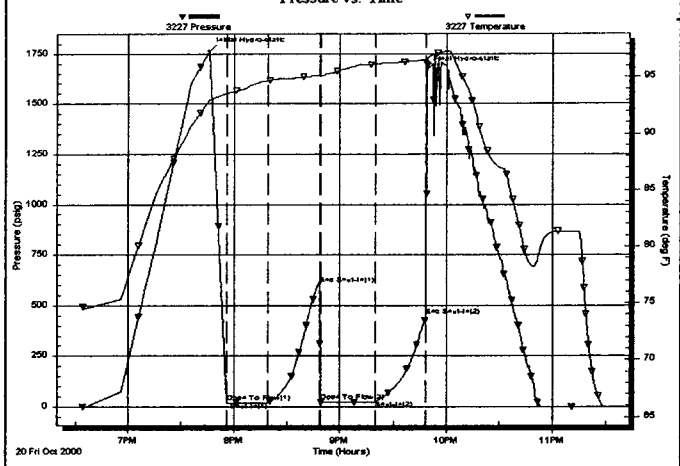
Interval: 3490.00 ft (CF) To 3549.00 ft (CF) (TVD)
Total Depth: 3549.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 21420.18 ft (KB)
1984.00 ft (CF)
KB to GR/CF: 19436.18 ft

Serial #: 3227 Inside
Press@RunDepth: 25.91 psig @ 3494.01 ft (CF)
Start Date: 2000.10.20 End Date: 2000.10.20
Start Time: 18:33:59 End Time: 23:28:42

Capacity: 7000.00 psig
Last Calib.: 1999.06.08
Time On Btm: 2000.10.20 @ 19:45:57
Time Off Btm: 2000.10.20 @ 21:48:57

TEST COMMENT: IF- w eak 1/2" blow
FF- w eak surface blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
72	1763.13	93.02	Initial Hydro-static
82	19.82	93.60	Open To Flow (1)
105	19.44	94.70	Shut-In(1)
135	601.37	95.16	End Shut-In(1)
135	21.33	95.12	Open To Flow (2)
166	25.91	96.18	Shut-In(2)
195	442.58	96.54	End Shut-In(2)
195	1664.86	96.66	Final Hydro-static

Recovery

Length (m)	Description	Volume (m^3)
2.00	clean oil	0.03
18.00	slightly oil cut mud 10% oil 90% mud	0.25

Gas Rates

	Choke (mm)	Pressure (kPaa)	Gas Rate (m^3/d)

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

White & Ellis Drilli

Box 48848
Wichita, KS 67201-4848

ATTN: Tom White

Hester 1-34

34-16s-15w Barton

Job Ticket: 13802 **DST#: 5**

Test Start: 2000.10.20 @ 18:23:00

Tool Information

Drill Pipe:	Length:	3493.00 ft	Diameter:	3.80 inches	Volume:	49.00 bbl	Tool Weight:		3000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	Weight set on Packer:		20000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70 inches	Volume:	0.00 bbl	Weight to Pull Loose:		lb
Drill Pipe Above KB:		23.00 ft					Tool Chased		ft
Depth to Top Packer:		3485.00 ft					String Weight:	Initial	40000.00 lb
Depth to Bottom Packer:		ft						Final	lb
Interval betw een Packers:		ft							
Tool Length:		79.02 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments
tool slid 4' before opening

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
C.O. Sub	1.00			3471.00		
S.I. Tool	5.00			3476.00		
HMV	5.00			3481.00		
Packer	4.00			3485.00	15.00	Bottom Of Top Packer
Packer	5.00			3490.00		
Stubb	1.00			3491.00		
Perforations	2.00			3493.00		
C.O. Sub	1.00			3494.00		
Recorder	0.01	3227	Inside	3494.01		
Blank Spacing	31.00			3525.01		
C.O. Sub	1.00			3526.01		
Perforations	20.00			3546.01		
Recorder	0.01	13308	Outside	3546.02		
Bullnose	3.00			3549.02	64.02	Bottom Packers & Anchor
Total Tool Length:	**79.02**					

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

White & Ellis Drilli

Box 48848
Wichita, KS 67201-4848

ATTN: Tom White

Hester 1-34

34-16s-15w Barton

Job Ticket: 13802 **DST#: 5**

Test Start: 2000.10.20 @ 18:23:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:	
Mud Weight:	9.00 lb/gal	Cushion Length:	ft
Viscosity:	43.00 sec/qt	Cushion Volume:	bbl
Water Loss:	11.97	Gas Cushion Type:	
Resistivity:	ohm.m	Gas Cushion Pressure:	psig
Salinity:	ppm		
Filter Cake:	inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	clean oil	0.028
18.00	slightly oil cut mud 10% oil 90% mud	0.252

Total Length: 20.00 ft Total Volume: 0.280 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: 3227

Laboratory Name: Laboratory Location:

Recovery Comments:

Serial #: 3227 **Inside** White & Ellis Drilli 34-16s-15w Barton

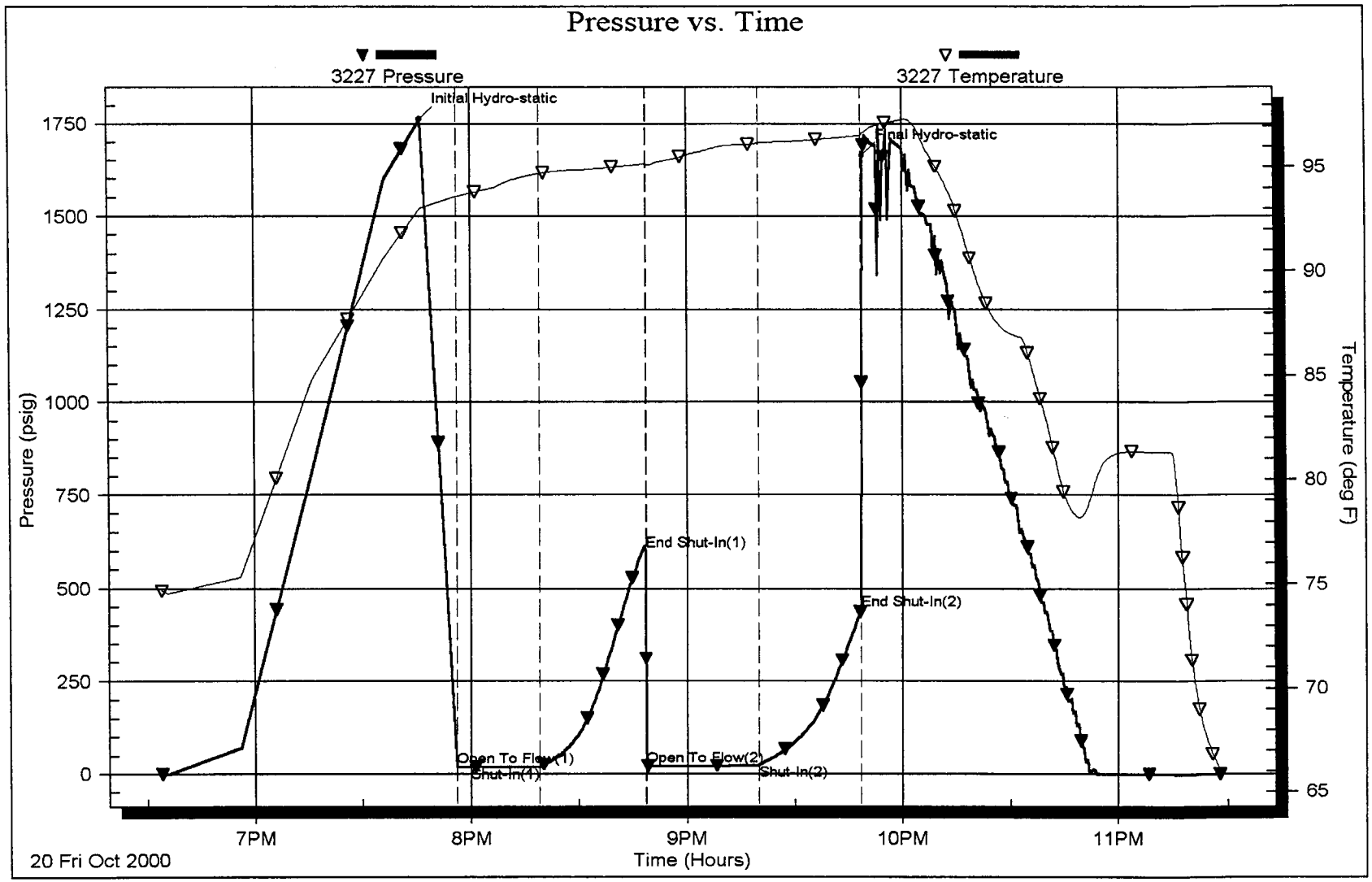
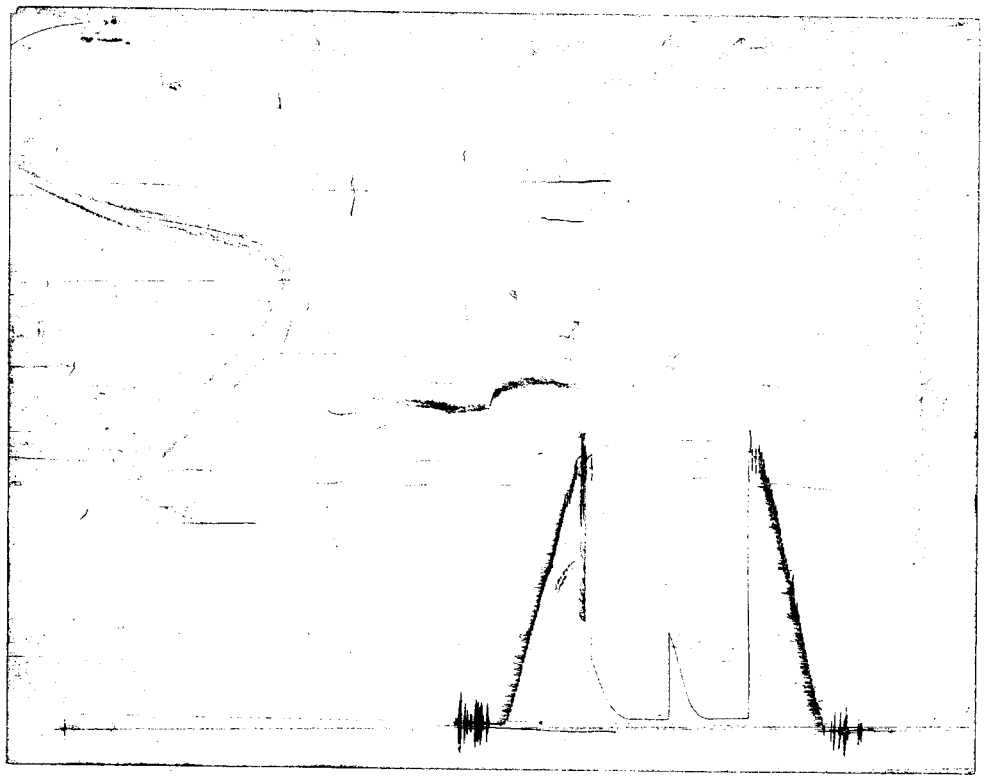


CHART PAGE



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

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

№ 13802

Test Ticket

Well Name & No. Hester 1-34 Test No. 5 Date 10-20-00

Company White & Ellis Drilling Zone Tested Cong-Arb

Address _____ Elevation _____ KB _____ GL

Co. Rep / Geo. Steve Davis Cont. Vanfeldt Est. Ft. of Pay _____ Por. _____ %

Location: Sec. 34 Twp. 16 Rge. 15w Co. Barton State Ks

No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3490-3549 Initial Str Wt./Lbs. 40,000 Unseated Str Wt./Lbs. _____

Anchor Length 59 Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. _____

Top Packer Depth 3485 Tool Weight 3000

Bottom Packer Depth 3490 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____

Total Depth 3549 Wt. Pipe Run _____ Drill Collar Run _____

Mud Wt. 9.3 LCM _____ Vis. 43 WL 12 Drill Pipe Size 4 1/2 XH Ft. Run 3493

Blow Description IF (tool slid 4' before opening) weak 1/2" blow throughout

FF - weak surface blow

Recovery — Total Feet _____ GIP _____ Ft. in DC _____ Ft. in DP _____

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

Rec. _____ Feet Of _____ %gas %oil %water %mud

BHT _____ °F Gravity _____ °API D@ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

	AK-1	Alpine				
(A) Initital Hydrostatic Mud			PSI	Recorder No. 3227	T-On Location	1820:13
(B) First Initial Flow Pressure			PSI	(depth)	T-Started	1833
(C) First Final Flow Pressure			PSI	Recorder No. 13308	T-Open	1947
(D) Initial Shut-In Pressure			PSI	(depth) 3546	T-Pulled	4:5
(E) Second Initial Flow Pressure			PSI	Recorder No.	T-Out	23:28
(F) Second Final Flow Pressure			PSI	(depth)	T-Off Location	
(G) Final Shut-in Pressure			PSI	Initial Opening 30	Test	650
(Q) Final Hydrostatic Mud			PSI	Initial Shut-in 30	Jars	
				Final Flow 30	Safety Joint	
				Final Shut-in 30	Straddle	
					Circ. Sub	
					Sampler	
					Extra Packer	
					Elec. Rec. X	150
					Mileage	30M 30
					Other	
					TOTAL PRICE $	830

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Approved By _____

Our Representative Paul Simpson