TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Herman L.Loeb**

P.O.Box 524
Lawrenceville,Il.
62439

ATTN: Jon Christensen

17-33s-13w Barber

#4 Wilson Estate

Start Date: 2001.10.19 @ 14:00:10

End Date: 2001.10.19 @ 22:00:10

Job Ticket #: 14106 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

DRILL STEM TEST REPORT

Herman L.Loeb

P.O.Box 524
Law renceville,Il.
62439
ATTN: Jon Christensen

#4 Wilson Estate

17-33s-13w Barber

Job Ticket: 14106 **DST#: 1**

Test Start: 2001.10.19 @ 14:00:10

GENERAL INFORMATION:

Formation: **Marmaton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:32:10
Time Test Ended: 22:00:10

Test Type: Conventional Bottom Hole
Tester: Darren L.Amerine
Unit No: 19

Interval: 4536.00 ft (KB) To 4600.00 ft (KB) (TVD)
Total Depth: 4600.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

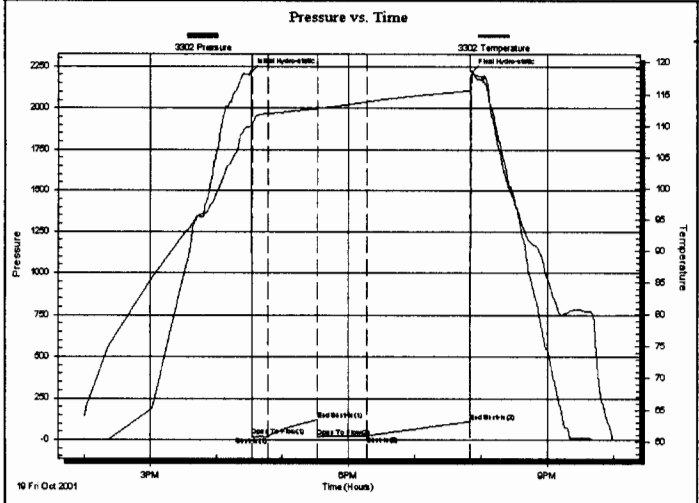
Reference Elevations: 1717.00 ft (KB)
1709.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 3302 **Inside**

Press@RunDepth: 23.20 psig @ 4537.00 ft (KB)
Start Date: 2001.10.19 End Date: 2001.10.19
Start Time: 14:00:12 End Time: 22:00:10

Capacity: 7000.00 psig
Last Calib.: 2001.10.19
Time On Btm: 2001.10.19 @ 16:31:40
Time Off Btm: 2001.10.19 @ 19:51:40

TEST COMMENT: IF:Weak blow built to 4"in H2O bucket.
ISI:Bled down for 5 mins.no blow back.
FF:Fair blow built to 4"in H2O bucket slowly died back to 3-3-1/2"in H2O bucket.
FSI:Bled down for 5 mins.no blow back.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2214.16	109.98	Initial Hydro-static
1	23.78	110.11	Open To Flow (1)
15	19.47	111.90	Shut-In(1)
60	119.45	112.73	End Shut-In(1)
61	16.99	112.77	Open To Flow (2)
105	23.20	113.79	Shut-In(2)
199	110.33	115.56	End Shut-In(2)
200	2215.02	117.59	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	VSO&GCM 4%gas 4% oil 92% mud	0.21
240.00	01 - Gas	3.37

Gas Rates

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

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Herman L.Loeb

P.O.Box 524
Law renceville,Il.
62439
ATTN: Jon Christensen

#4 Wilson Estate

17-33s-13w Barber

Job Ticket: 14106 **DST#: 1**

Test Start: 2001.10.19 @ 14:00:10

Tool Information

Drill Pipe:	Length:	4535.00 ft	Diameter:	3.80 inches	Volume:	63.61 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
					Total Volume:	63.61 bbl	

Drill Pipe Above KB:	27.00 ft
Depth to Top Packer:	4536.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	64.00 ft
Tool Length:	92.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:	2100.00 lb
Weight set on Packer:	20000.00 lb
Weight to Pull Loose:	110000.0 lb
Tool Chased	0.00 ft
String Weight: Initial	50000.00 lb
Final	50000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
C.O. Sub	1.00			4509.00		
S.I. Tool	5.00			4514.00		
HMV	5.00			4519.00		
Jars	5.00			4524.00		
Safety Joint	2.00			4526.00		
Packer	5.00			4531.00	28.00	Bottom Of Top Packer
Packer	5.00			4536.00		
Stubb	1.00			4537.00		
Recorder	0.00	3302	Inside	4537.00		
Anchor	29.00			4566.00		
Recorder	0.00	10991	Outside	4566.00		
Blank Spacing	31.00			4597.00		
Bullnose	3.00			4600.00	64.00	Bottom Packers & Anchor
Total Tool Length:	**92.00**					

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Herman L.Loeb

P.O.Box 524
Law renceville,Il.
62439

ATTN: Jon Christensen

#4 Wilson Estate

17-33s-13w Barber

Job Ticket: 14106 **DST#: 1**

Test Start: 2001.10.19 @ 14:00:10

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:	51.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.78 in³	Gas Cushion Type:			
Resistivity:	0.90 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	7000.00 ppm				
Filter Cake:	0.32 inches				

Recovery Information

Recovery Table

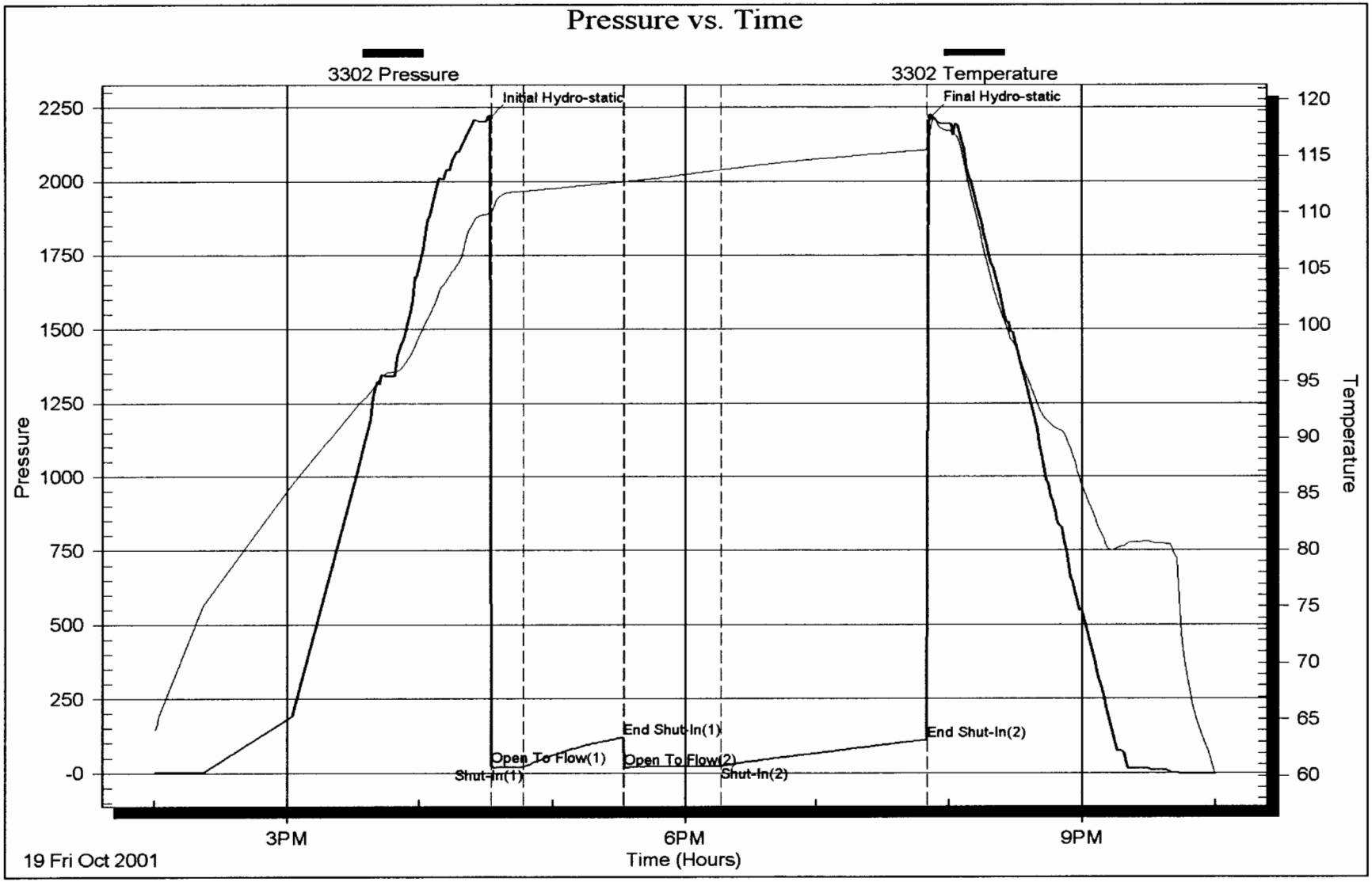
Length ft	Description	Volume bbl
15.00	VSO&GCM 4%gas 4% oil 92% mud	0.210
240.00	01 - Gas	3.367

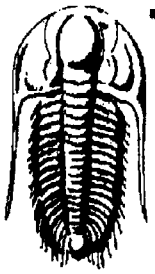
Total Length: 255.00 ft Total Volume: 3.577 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
3302 Pressure
3302 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Open To Flow(2)
Shut-In(1)
Shut-In(2)
Pressure
Temperature
2250
2000
1750
1500
1250
1000
750
500
250
-0
120
115
110
105
100
95
90
85
80
75
70
65
60
3PM
6PM
9PM
19 Fri Oct 2001
Time (Hours)



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Herman L.Loeb**

P.O.Box 524
Lawrenceville,Il.
62439

ATTN: Jon Christensen

17-33s-13w Barber

#4 Wilson Estate

Start Date: 2001.10.20 @ 11:16:44

End Date: 2001.10.20 @ 18:51:14

Job Ticket #: 14107 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

DRILL STEM TEST REPORT

Herman L.Loeb

P.O.Box 524
Law renceville,Il.
62439
ATTN: Jon Christensen

#4 Wilson Estate

17-33s-13w Barber

Job Ticket: 14107 **DST#: 2**

Test Start: 2001.10.20 @ 11:16:44

GENERAL INFORMATION:

Formation: **Mississippian**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:19:29
Time Test Ended: 18:51:14

Test Type: Conventional Bottom Hole
Tester: Darren L.Amerine
Unit No: 19

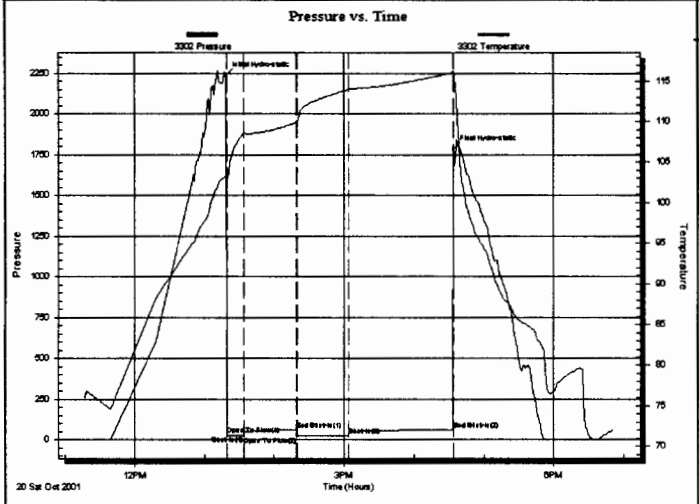
Interval: 4620.00 ft (KB) To 4679.00 ft (KB) (TVD)
Total Depth: 4679.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1717.00 ft (KB)
1709.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 3302 **Inside**
Press@RunDepth: 26.16 psig @ 4621.00 ft (KB)
Start Date: 2001.10.20 End Date: 2001.10.20
Start Time: 11:16:46 End Time: 18:51:14

Capacity: 7000.00 psig
Last Calib.: 2001.10.20
Time On Btm: 2001.10.20 @ 13:18:59
Time Off Btm: 2001.10.20 @ 16:33:44

TEST COMMENT: IF:Strong blow built to b.o.b 2-1/2 mins.
ISI:Bled down for 5 mins weak surface blow back.
FF:Strong blow b.o.b in 30 sec. GTS in 11 mins.gauge gas.
FSI:Bled down for 5 mins.no blow back.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2235.97	103.03	Initial Hydro-static
1	30.43	103.08	Open To Flow (1)
15	24.66	108.51	Shut-In(1)
60	61.41	109.87	End Shut-In(1)
61	18.55	109.88	Open To Flow (2)
105	26.16	113.94	Shut-In(2)
195	62.67	116.01	End Shut-In(2)
195	1783.27	116.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	GCM 4%Gas 96% mud	0.56
4551.00	01 - Gas	63.84

Gas Rates

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

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Herman L.Loeb

P.O.Box 524
Law renceville,Il.
62439

ATTN: Jon Christensen

#4 Wilson Estate

17-33s-13w Barber

Job Ticket: 14107 **DST#: 2**

Test Start: 2001.10.20 @ 11:16:44

Tool Information

Drill Pipe:	Length:	4596.00 ft	Diameter:	3.80 inches	Volume:	64.47 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
					Total Volume:	64.47 bbl	

Drill Pipe Above KB:	4.00 ft
Depth to Top Packer:	4620.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	59.00 ft
Tool Length:	87.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:	2100.00 lb
Weight set on Packer:	20000.00 lb
Weight to Pull Loose:	110000.0 lb
Tool Chased	0.00 ft
String Weight: Initial	56000.00 lb
Final	56000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
C.O. Sub	1.00			4593.00		
S.I. Tool	5.00			4598.00		
HMV	5.00			4603.00		
Jars	5.00			4608.00		
Safety Joint	2.00			4610.00		
Packer	5.00			4615.00	28.00	Bottom Of Top Packer
Packer	5.00			4620.00		
Stubb	1.00			4621.00		
Recorder	0.00	3302	Inside	4621.00		
Anchor	24.00			4645.00		
Recorder	0.00	10991	Outside	4645.00		
Blank Spacing	31.00			4676.00		
Bullnose	3.00			4679.00	59.00	Bottom Packers & Anchor
Total Tool Length:	**87.00**					

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Herman L.Loeb

P.O.Box 524
Law renceville,Il.
62439

ATTN: Jon Christensen

#4 Wilson Estate

17-33s-13w Barber

Job Ticket: 14107 **DST#: 2**

Test Start: 2001.10.20 @ 11:16:44

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:	48.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.79 in³	Gas Cushion Type:			
Resistivity:	2.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	0.32 inches				

Recovery Information

Recovery Table

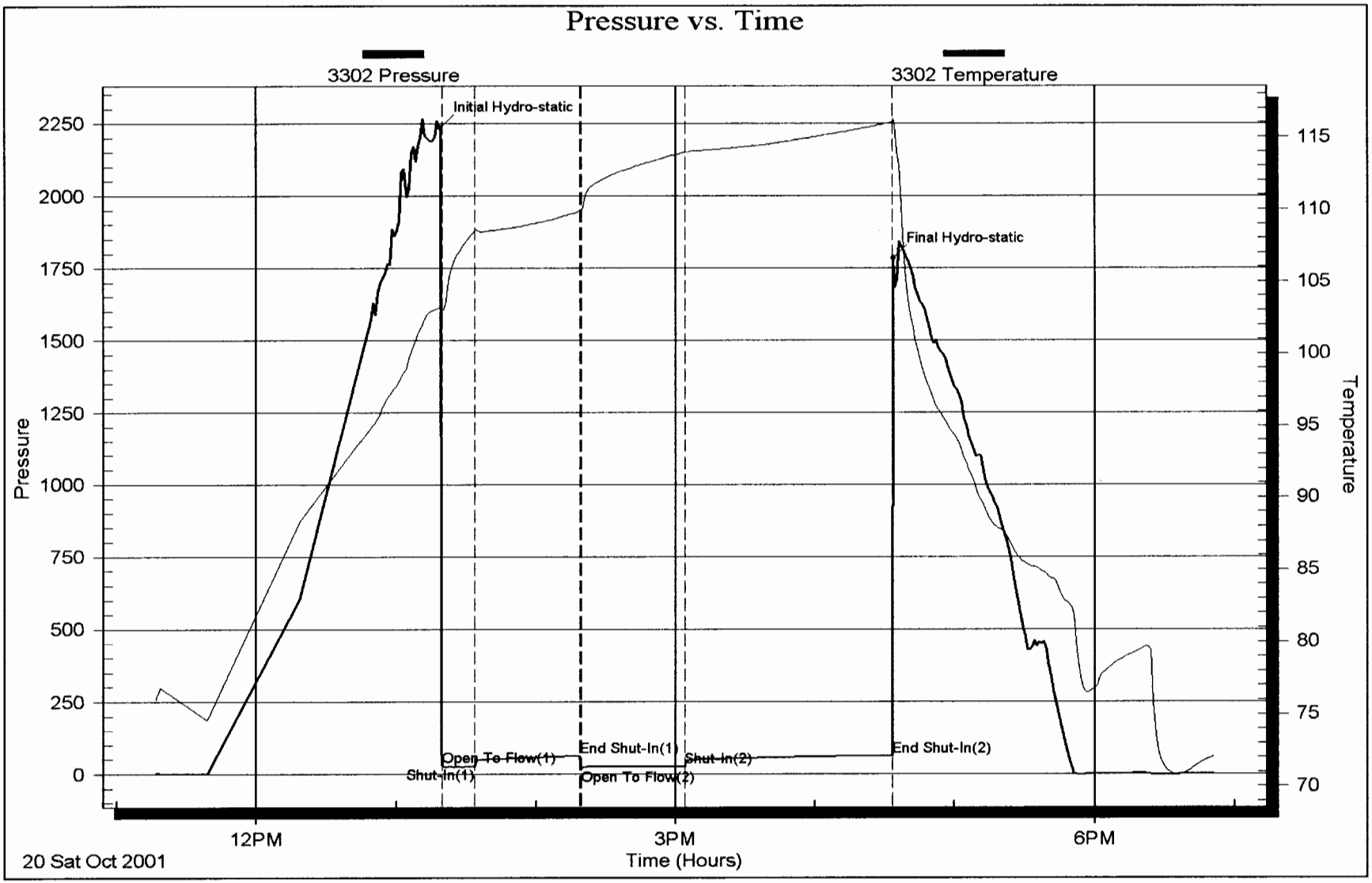
Length ft	Description	Volume bbl
40.00	GCM 4%Gas 96% mud	0.561
4551.00	01 - Gas	63.839

Total Length: 4591.00 ft Total Volume: 64.400 bbl

Num Fluid Samples: 1 Num Gas Bombs: 0 Serial #:

Laboratory Name: Caraw ay Laboratory Location: Liberal KS

Recovery Comments:


Pressure vs. Time
3302 Pressure
3302 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
Temperature
2250
2000
1750
1500
1250
1000
750
500
250
0
115
110
105
100
95
90
85
80
75
70
12PM
3PM
6PM
20 Sat Oct 2001
Time (Hours)

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

№ 14106

Test Ticket

Well Name & No. #4 Wilson Estate	Test No. #1	Date 10/19/01	
Company Herman L. Loeb P.O. box 524	Zone Tested Marmaton		
Address Lawrenceville IL 62439	Elevation 1717 KB	1709 GL	
Co. Rep / Geo. Jon Christensen	Cont. Duke #8	Est. Ft. of Pay ____	Por. ____ %
Location: Sec. 17	Twp. 33s	Rge. 13w	Co. Barber State KS
No. of Copies 5	Distribution Sheet (Y, N) —	Turnkey (Y, N) —	Evaluation (Y, N) —

Interval Tested	4536' - 4600'	Initial Str Wt./Lbs. 50,000	Unseated Str Wt./Lbs. 50,000
Anchor Length	64'	Wt. Set Lbs. 20,000	Wt. Pulled Loose/Lbs 110,000
Top Packer Depth	4531'	Tool Weight 2100	
Bottom Packer Depth	4536'	Hole Size — 7 7/8" ✓	Rubber Size — 6 3/4" ✓
Total Depth	4600'	Wt. Pipe Run N/A	Drill Collar Run N/A
Mud Wt. 9.3 LCM 2½# Vis. 51 WL 8.8		Drill Pipe Size 4½ XH	Ft. Run 4535'

Blow Description IF: Weak blow built to 4" in H2O Bucket.
ISI: Bled down for 5 mins No blow back.
FF: Fair blow built to 4" in H2O bucket.
FSI: Bled down for 5 mins

Recovery — Total Feet 15' GIP 240' Ft. in DC N/A Ft. in DP 15'

Rec.	Feet Of	%gas	%oil	%water	%mud
15'	USO&GCM	4	4		92
240'	GIP				

BHT 116° °F Gravity ______ °API D@ ______ °F Corrected Gravity ______ °API

RW ______ @ ______ °F Chlorides ______ ppm Recovery Chlorides 7000 ppm System

	AK-1	Alpine				
(A) Initital Hydrostatic Mud		2215	PSI	Recorder No. 3302	T-On Location	1200
(B) First Initial Flow Pressure		24	PSI	(depth) 4537'	T-Started	1400
(C) First Final Flow Pressure		19	PSI	Recorder No. 10991	T-Open	1610
(D) Initial Shut-In Pressure		119	PSI	(depth) 4566'	T-Pulled	1925
(E) Second Initial Flow Pressure		17	PSI	Recorder No.	T-Out	2200
(F) Second Final Flow Pressure		23	PSI	(depth)	T-Off Location	2245
(G) Final Shut-in Pressure		110	PSI	Initial Opening 15	Test	✓ 800
(Q) Final Hydrostatic Mud		2215	PSI	Initial Shut-in 45	Jars	✓ 200
				Final Flow 45	Safety Joint	✓ 50
				Final Shut-in 90	Straddle	
					Circ. Sub	
					Sampler	
					Extra Packer	
					Elec. Rec.	✓ 150
					Mileage	51
					Other	1 hr 30
					TOTAL PRICE $	1281

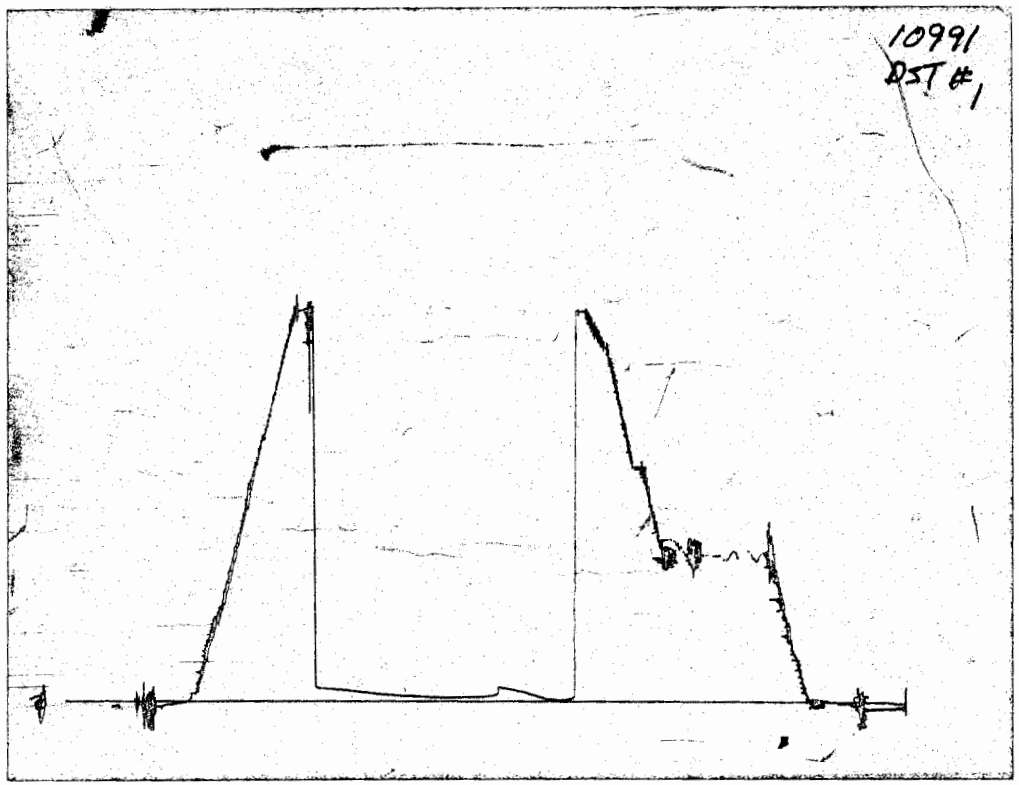
10:00

Approved By [signature]

Our Representative [signature]

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 • (913) 625-4778

GAS VOLUME REPORT

Herman L. Loeb (OPERATOR) | #4 Wilson Estate (WELL NAME AND NO.) | Miss. | #2 (DST NO.)

GTS in 11 mins.

Min.	Ins. of Water PSIG	Orifice Size	MCF/D	Min.	Ins. of Water PSIG	Orifice Size	MCF/D
16	7"	3/8	9,450				
21	8"	3/8	10,100				
26	8"	3/8	10,100				
31	8"	3/8	10,100				
36	9"	3/8	10,700				
41	9"	3/8	10,700				
45	9"	3/8	10,700				

Remarks:

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601 № 14107

Test Ticket

Well Name & No. #4 Wilson Estate Test No. #2 Date 10/20/01

Company Herman L. Loeb P.O. box 524 Zone Tested Mississippi

Address Lawrenceville IL. 62439 Elevation 1717 KB 1709 GL

Co. Rep / Geo. Jon Christensen Cont. Duke #8 Est. Ft. of Pay ___ Por. ___ %

Location: Sec. 17 Twp. 33S Rge. 13W Co. Barber State KS

No. of Copies 5 Distribution Sheet (Y, N) — Turnkey (Y, N) — Evaluation (Y, N) —

Interval Tested 4620' - 4679' Initial Str Wt./Lbs. 56000 Unseated Str Wt./Lbs. 56000

Anchor Length 59' Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 116000

Top Packer Depth 4615' Tool Weight 2100

Bottom Packer Depth 4620' Hole Size — 7 7/8" ✓ Rubber Size — 6 3/4" ✓

Total Depth 4679' Wt. Pipe Run N/A Drill Collar Run N/A

Mud Wt. 9.3 LCM 3# Vis. 48 WL 8.8 Drill Pipe Size 4½ XH Ft. Run 4596'

Blow Description IF: Strong blow b.o.b in 2½ mins

IST: Bled down for 5 mins built back to weak surface blow back.

FF: Strong blow b.o.b in 30 sec GTS in 11 mins Gauge Gas.

FST: Bled down 5 mins No blow back.

Recovery — Total Feet 40' GIP 4551 Ft. in DC N/A Ft. in DP 40

Rec. 70'	Feet Of	SGCM	4 %gas	%oil	%water	96 %mud
Rec. 4551	Feet Of	GIP	%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 116° °F Gravity ___ °API D@ ___ °F Corrected Gravity ___ °API

RW ___ @ ___ °F Chlorides ___ ppm Recovery Chlorides 4000 ppm System

	AK-1	Alpine				
(A) Initital Hydrostatic Mud		2234	PSI	Recorder No.	3302	T-On Location 1015
(B) First Initial Flow Pressure		27	PSI	(depth)	4621	T-Started 1116
(C) First Final Flow Pressure		24	PSI	Recorder No.	10991	T-Open 1255
(D) Initial Shut-In Pressure		61	PSI	(depth)	4645'	T-Pulled 1610
(E) Second Initial Flow Pressure		20	PSI	Recorder No.		T-Out 1857
(F) Second Final Flow Pressure		26	PSI	(depth)		T-Off Location 1945
(G) Final Shut-in Pressure		63	PSI	Initial Opening	15	Test ✓ 800
(Q) Final Hydrostatic Mud		1781	PSI	Initial Shut-in	45	Jars ✓ 200
				Final Flow	45	Safety Joint ✓ 50
				Final Shut-in	90	Straddle ___
						Circ. Sub ___
						Sampler ___
						Extra Packer ___
						Elec. Rec. ✓ 150
						Mileage 51
						Other ___
						TOTAL PRICE $ 1251

8:36

Approved By ___

Our Representative Dave Hammerle

CHART PAGE

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