

**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations**

PO Box 33
Russell, Ks 67665

ATTN: Allen Bangert

27-11-19-Ellis-Ks

Vine #9

Start Date: 2002.10.17 @ 16:29:21

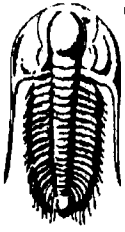
End Date: 2002.10.17 @ 22:36:51

Job Ticket #: 16705 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

Mai Oil Operations

Vine #9

PO Box 33
Russell, Ks 67665

27-11-19-Ellis-Ks

ATTN: Allen Bangert

Job Ticket: 16705

DST#: 1

Test Start: 2002.10.17 @ 16:29:21

GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:10:21

Time Test Ended: 22:36:51

Test Type: Conventional Bottom Hole

Tester: Dan Bangle

Unit No: 21

Interval: **3054.00 ft (KB) To 3092.00 ft (KB) (TVD)**

Total Depth: 3092.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2085.00 ft (KB)

2080.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 2357

Inside

Press@RunDepth: 30.72 psig @ 3055.00 ft (KB)

Start Date: 2002.10.17

End Date:

2002.10.17

Start Time: 16:29:22

End Time:

22:36:51

Capacity: 7000.00 psig

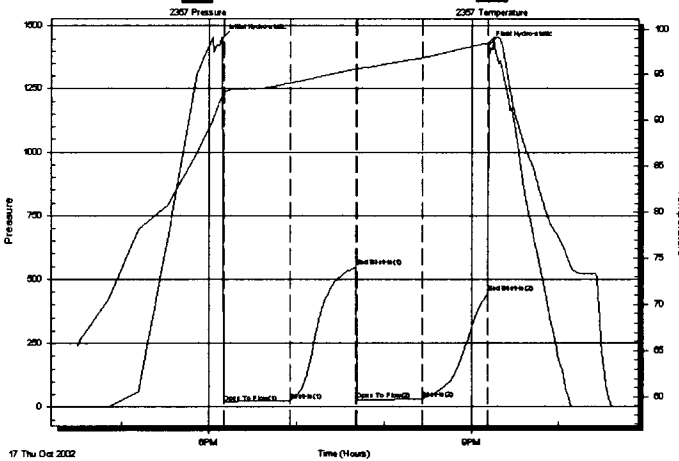
Last Calib.: 2002.10.17

Time On Btm: 2002.10.17 @ 18:09:21

Time Off Btm: 2002.10.17 @ 21:11:51

TEST COMMENT: Slid tool 6' to bottom-IF-Weak building to 1"
FF-Weak steady surface blow
Times-45-45-45-45

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1450.47	92.61	Initial Hydro-static
1	17.40	92.91	Open To Flow (1)
47	25.61	94.05	Shut-In (1)
92	547.40	95.59	End Shut-In (1)
92	26.75	95.60	Open To Flow (2)
137	30.72	96.82	Shut-In (2)
182	446.05	98.47	End Shut-In (2)
183	1425.30	98.49	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	OCM 20%o 80%m	0.15

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations

Vine #9

PO Box 33
Russell, Ks 67665

27-11-19-Ellis-Ks

Job Ticket: 16705

DST#: 1

ATTN: Allen Bangert

Test Start: 2002.10.17 @ 16:29:21

Tool Information

Drill Pipe:	Length: 2895.00 ft	Diameter: 3.80 inches	Volume: 40.61 bbl	Tool Weight: 1800.00 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: 148.00 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 41.34 bbl</u>	Tool Chased 6.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3054.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	38.00 ft			
Tool Length:	59.00 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			3034.00	
S.I. Tool	5.00			3039.00	
HMV	5.00			3044.00	
Packer	5.00			3049.00	21.00 Bottom Of Top Packer
Packer	5.00			3054.00	
Stubb	1.00			3055.00	
Recorder	0.00	2357	Inside	3055.00	
Perforations	34.00			3089.00	
Recorder	0.00	13254	Outside	3089.00	
Bullnose	3.00			3092.00	38.00 Bottom Packers & Anchor
Total Tool Length:	59.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations

Vine #9

PO Box 33
Russell, Ks 67665

27-11-19-Ellis-Ks

Job Ticket: 16705

DST#: 1

ATTN: Allen Bangert

Test Start: 2002.10.17 @ 16:29:21

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: 42.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	OCM 20%o 80%m	0.148

Total Length: 30.00 ft Total Volume: 0.148 bbl

Num Fluid Samples: 0

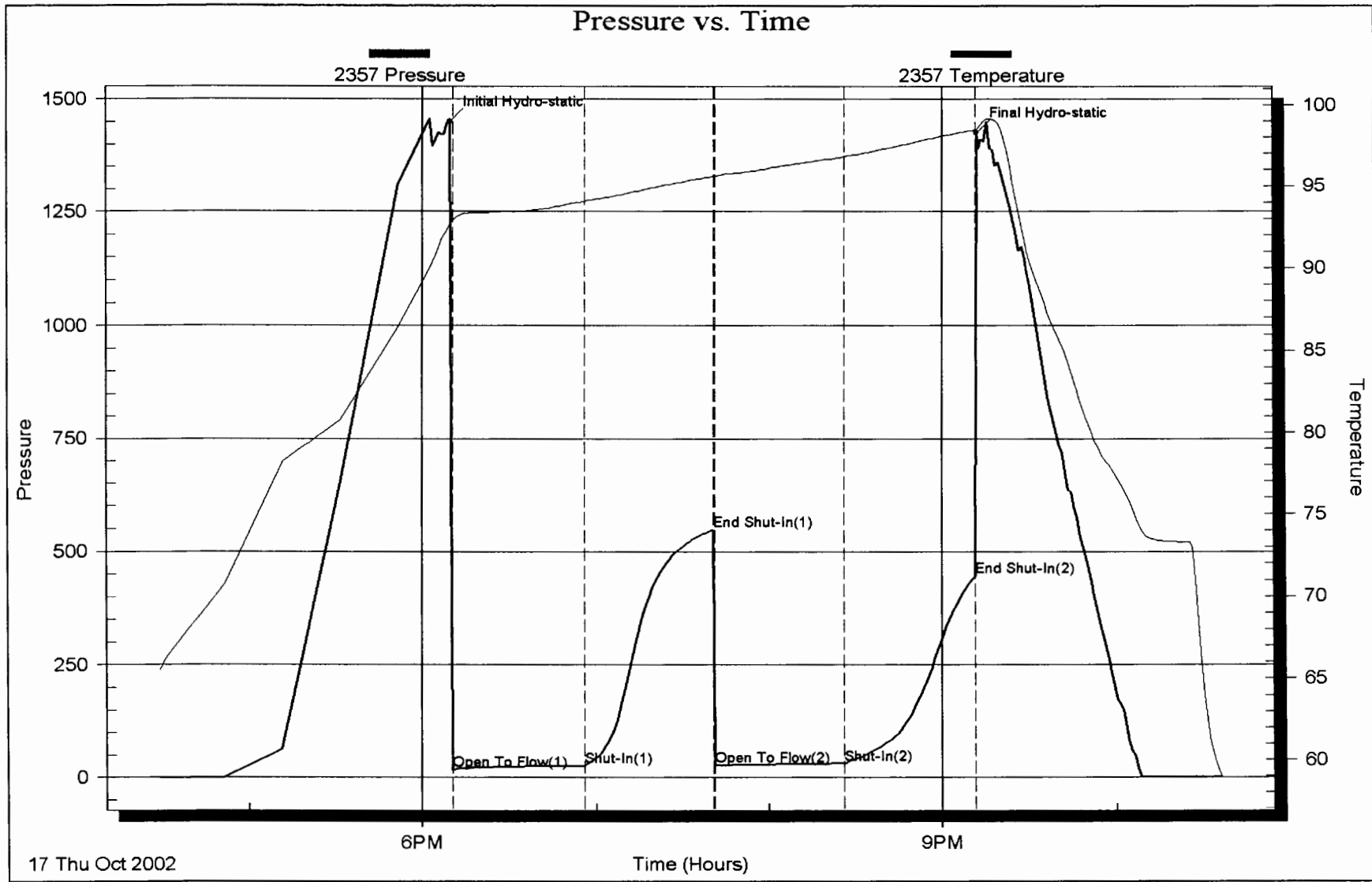
Num Gas Bombs: 0

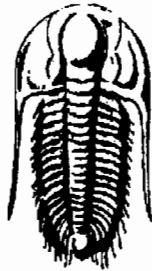
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations**

PO Box 33
Russell, Ks 67665

ATTN: Allen Bangert

27-11-19-Ellis-Ks

Vine #9

Start Date: 2002.10.19 @ 10:21:49

End Date: 2002.10.19 @ 16:33:19

Job Ticket #: 16706 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Mai Oil Operations

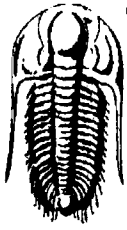
Vine #9

27-11-19-Ellis-Ks

DST # 2

Arbuckle

2002.10.19



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Mai Oil Operations

Vine #9

PO Box 33
Russell, Ks 67665

27-11-19-Ellis-Ks

Job Ticket: 16706

DST#: 2

ATTN: Allen Bangert

Test Start: 2002.10.19 @ 10:21:49

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:02:19

Time Test Ended: 16:33:19

Test Type: Conventional Bottom Hole

Tester: Dan Bangle

Unit No: 21

Interval: **3554.00 ft (KB) To 3607.00 ft (KB) (TVD)**

Reference Elevations: 2085.00 ft (KB)

Total Depth: 3607.00 ft (KB) (TVD)

2080.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 2357

Inside

Press@RunDepth: 53.83 psig @ 3558.00 ft (KB)

Capacity: 7000.00 psig

Start Date: 2002.10.19 End Date: 2002.10.19

Last Calib.: 2002.10.19

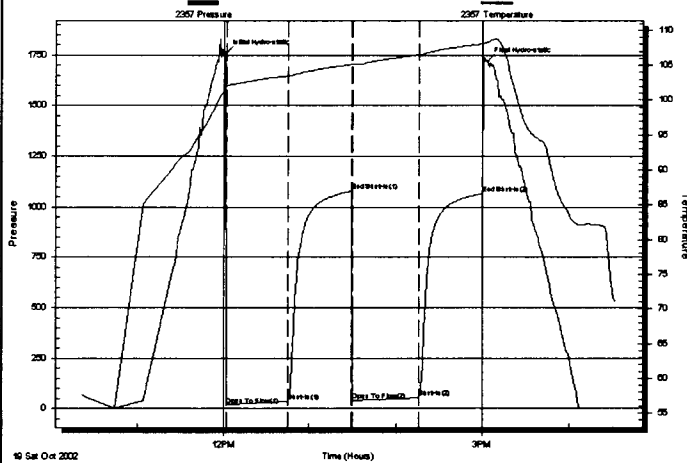
Start Time: 10:21:50 End Time: 16:33:19

Time On Btm: 2002.10.19 @ 12:01:19

Time Off Btm: 2002.10.19 @ 15:03:19

TEST COMMENT: F-Weak building to 1/4"
FF-Weak steady surface blow
Times-45-45-45-45

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1758.67	101.75	Initial Hydro-static
1	17.06	101.98	Open To Flow (1)
44	34.79	103.47	Shut-In(1)
88	1079.97	105.11	End Shut-In(1)
89	40.41	105.12	Open To Flow (2)
135	53.83	106.53	Shut-In(2)
179	1066.09	108.03	End Shut-In(2)
182	1718.32	108.33	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	OCM 15%o 85%m	0.34
5.00	CO	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations

Vine #9

PO Box 33
Russell, Ks 67665

27-11-19-Ellis-Ks

Job Ticket: 16706

DST#: 2

ATTN: Allen Bangert

Test Start: 2002.10.19 @ 10:21:49

Tool Information

Drill Pipe:	Length: 3395.00 ft	Diameter: 3.80 inches	Volume: 47.62 bbl	Tool Weight: 1500.00 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: 148.00 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 65000.00 lb
			Total Volume: 48.35 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3554.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	54.00 ft			
Tool Length:	75.00 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			3534.00	
S.I. Tool	5.00			3539.00	
HMV	5.00			3544.00	
Packer	5.00			3549.00	21.00 Bottom Of Top Packer
Packer	5.00			3554.00	
Stubb	1.00			3555.00	
Perforations	2.00			3557.00	
C.O. Sub	1.00			3558.00	
Recorder	0.00	2357	Inside	3558.00	
Blank Spacing	30.00			3588.00	
C.O. Sub	1.00			3589.00	
Recorder	0.00	13254	Outside	3589.00	
Perforations	16.00			3605.00	
Bullnose	3.00			3608.00	54.00 Bottom Packers & Anchor

Total Tool Length: 75.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations

Vine #9

PO Box 33
Russell, Ks 67665

27-11-19-Ellis-Ks

Job Ticket: 16706

DST#: 2

ATTN: Allen Bangert

Test Start: 2002.10.19 @ 10:21:49

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: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.98 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6000.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	OCM 15%o 85%m	0.344
5.00	CO	0.025

Total Length: 75.00 ft Total Volume: 0.369 bbl

Num Fluid Samples: 0

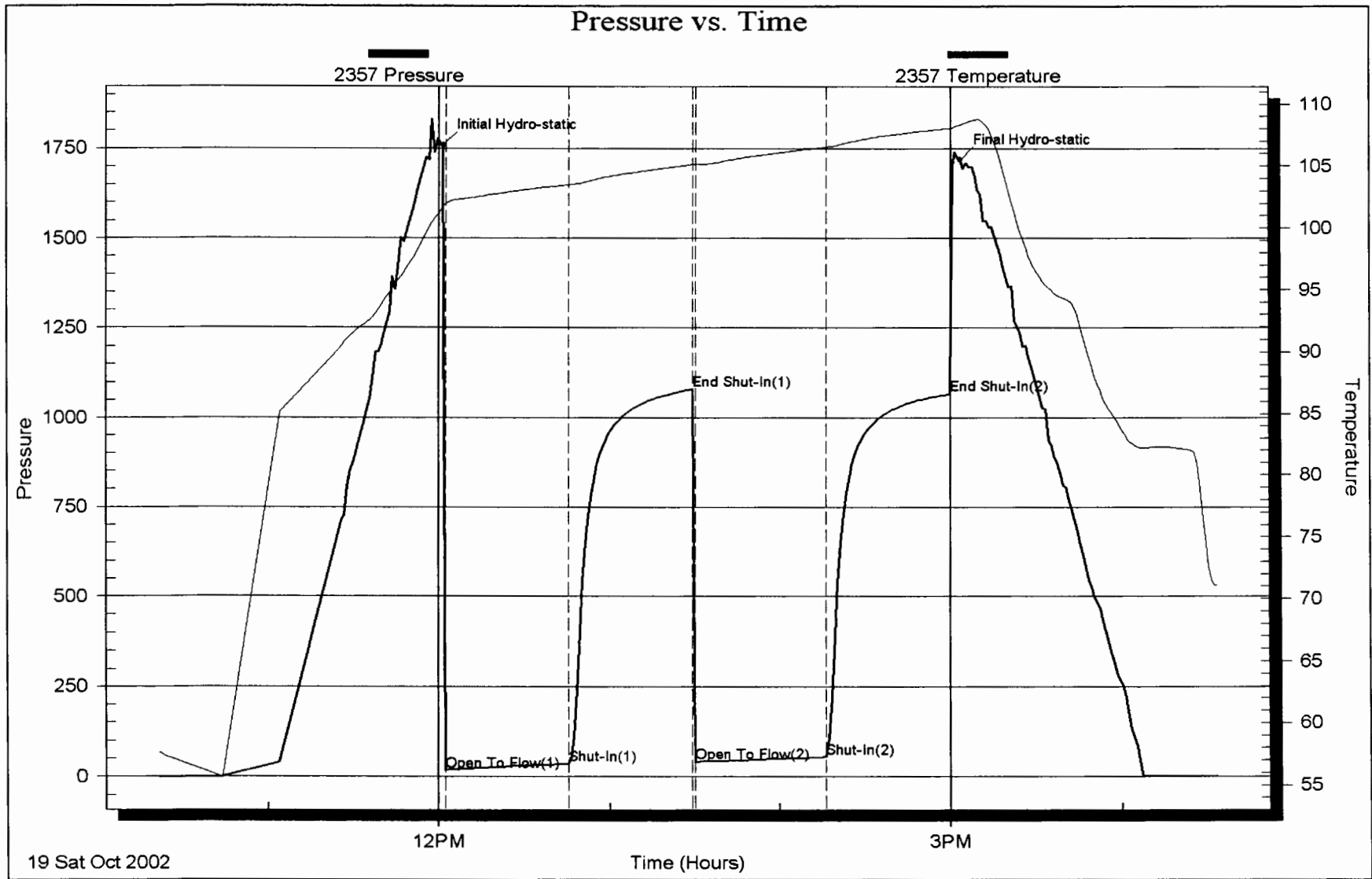
Num Gas Bombs: 0

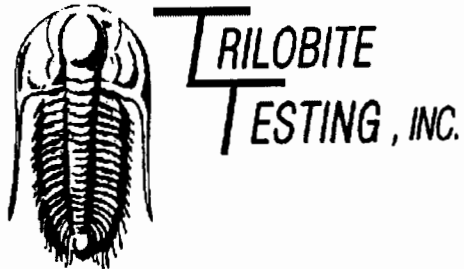
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations**

PO Box 33
Russell, Ks 67665

ATTN: Allen Bangert

27-11-19-Ellis-Ks

Vine #9

Start Date: 2002.10.20 @ 03:58:46

End Date: 2002.10.20 @ 07:35:46

Job Ticket #: 16707 DST #: 3

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Mai Oil Operations

Vine #9

PO Box 33
Russell, Ks 67665

27-11-19-Ellis-Ks

Job Ticket: 16707

DST#: 3

ATTN: Allen Bangert

Test Start: 2002.10.20 @ 03:58:46

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:26:46

Time Test Ended: 07:35:46

Test Type: Conventional Bottom Hole

Tester: Dan Bangle

Unit No: 21

Interval: **3556.00 ft (KB) To 3609.00 ft (KB) (TVD)**

Total Depth: 3609.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2085.00 ft (KB)

2080.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 2357

Inside

Press@RunDepth: 102.14 psig @ 3560.00 ft (KB)

Start Date: 2002.10.20

End Date:

2002.10.20

Start Time: 03:58:47

End Time:

07:35:46

Capacity: 7000.00 psig

Last Calib.: 2002.10.20

Time On Btm: 2002.10.20 @ 05:24:46

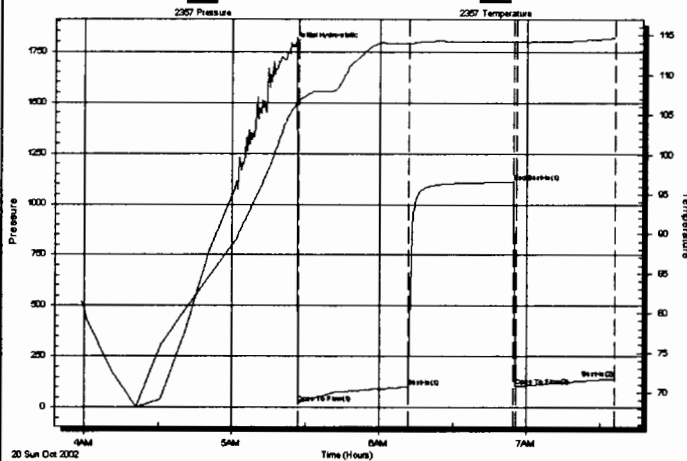
Time Off Btm:

TEST COMMENT: F-Weak building to 1 1/2"

FF-Weak building to 1/4"

Times-45-45-45

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1777.98	105.76	Initial Hydro-static
2	22.39	106.65	Open To Flow (1)
47	102.14	113.94	Shut-In (1)
90	1110.73	114.23	End Shut-In (1)
91	105.68	114.20	Open To Flow (2)
131	140.93	114.70	Shut-In (2)

Recovery

Length (ft)	Description	Volume (bbl)
154.00	V Silty OCMdy Wtr 2%o 50%w 48%r	0.81
124.00	DM W/oil spots	1.74
50.00	DM w/show of oil on top	0.70

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations

Vine #9

PO Box 33
Russell, Ks 67665

27-11-19-Ellis-Ks

Job Ticket: 16707

DST#: 3

ATTN: Allen Bangert

Test Start: 2002.10.20 @ 03:58:46

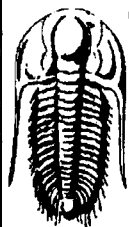
Tool Information

Drill Pipe:	Length: 3397.00 ft	Diameter: 3.80 inches	Volume: 47.65 bbl	Tool Weight: 1500.00 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: 148.00 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 48.38 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3556.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	54.00 ft			
Tool Length:	75.00 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			3536.00	
S.I. Tool	5.00			3541.00	
HMV	5.00			3546.00	
Packer	5.00			3551.00	21.00 Bottom Of Top Packer
Packer	5.00			3556.00	
Stubb	1.00			3557.00	
Perforations	2.00			3559.00	
C.O. Sub	1.00			3560.00	
Recorder	0.00	2357	Inside	3560.00	
Blank Spacing	30.00			3590.00	
C.O. Sub	1.00			3591.00	
Recorder	0.00	13254	Outside	3591.00	
Perforations	16.00			3607.00	
Bullnose	3.00			3610.00	54.00 Bottom Packers & Anchor

Total Tool Length: 75.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations

Vine #9

PO Box 33
Russell, Ks 67665

27-11-19-Ellis-Ks

Job Ticket: 16707

DST#: 3

ATTN: Allen Bangert

Test Start: 2002.10.20 @ 03:58:46

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:	36000 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.98 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6000.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
154.00	V Stlly OCMdy Wtr 2%o 50%w 48%m	0.812
124.00	DM W/oil spots	1.739
50.00	DM w/show of oil on top	0.701

Total Length: 328.00 ft Total Volume: 3.252 bbl

Num Fluid Samples: 0

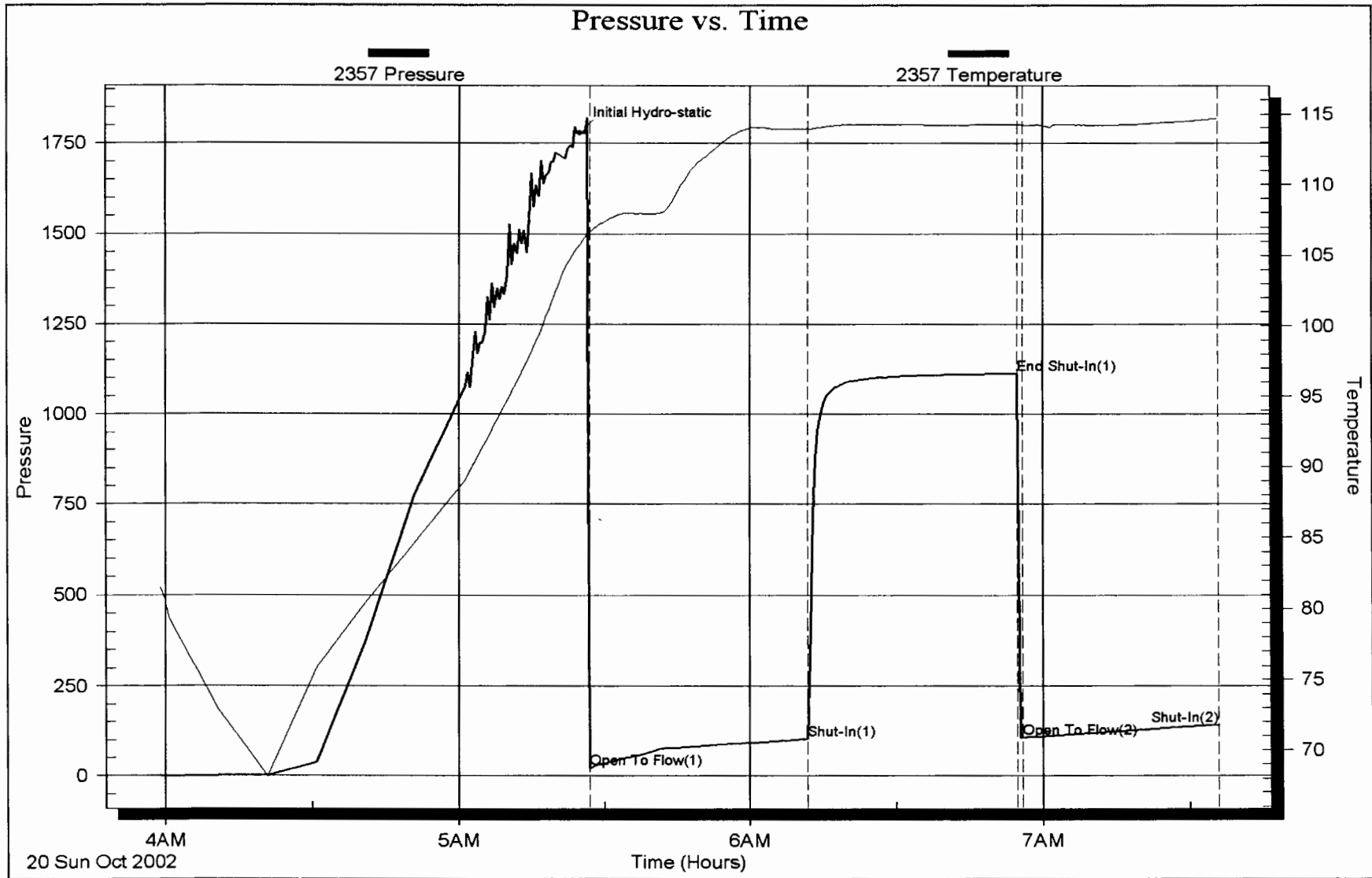
Num Gas Bombs: 0

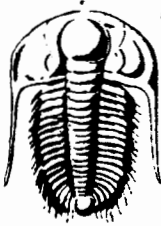
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

INVOICE # 5191 2013

No 16705

Test Ticket

Well Name & No. Vine #9 Test No. 1 Date 10-17-02
 Company Mai Oil Operations Zone Tested Topeka
 Address P.O. Box 33, Russell, Ks. 67665 Elevation 2085 KB 2080 GL
 Co. Rep / Geo. Todd Morgenstern Cont. Murfin #16 Est. Ft. of Pay Por. %
 Location: Sec. 27 Twp. 11 Rge. 19 Co. Ellis State Ks
 No. of Copies Distribution Sheet (Y, N) Turnkey (Y, N) Evaluation (Y, N)

Interval Tested 3054 — 3092 Initial Str Wt./Lbs. 50,000 Unseated Str Wt./Lbs. 50,000
 Anchor Length 38 Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 25,000
 Top Packer Depth 3049 Tool Weight 1800
 Bottom Packer Depth 3054 Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 3092 Wt. Pipe Run Drill Collar Run 148
 Mud Wt. 8.8 LCM Vis. 42 WL 8.8 Drill Pipe Size 4.5 XH Ft. Run 2895
 Blow Description slid tool 6' to bottom I.F. weak-building to 1"

E.F. weak steady surface blow

Recovery — Total Feet 30 GIP Ft. in DC 30 Ft. in DP
 Rec. 30 Feet Of OCM %gas 20 %oil %water 80 %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 98 °F Gravity °API D@ °F Corrected Gravity °API
 RW @ °F Chlorides ppm Recovery Chlorides 6,000 ppm System

	AK-1	Alpine	PSI	Recorder No.	T-On Location
(A) Initial Hydrostatic Mud		1450		2357	16:00
(B) First Initial Flow Pressure		17		(depth) 3055	T-Started 16:29
(C) First Final Flow Pressure		25		13254	T-Open 18:10
(D) Initial Shut-In Pressure		547		(depth) 3089	T-Pulled 21:10
(E) Second Initial Flow Pressure		26		Recorder No. <u> </u>	T-Out 22:36
(F) Second Final Flow Pressure		30		(depth) <u> </u>	T-Off Location 23:00
(G) Final Shut-in Pressure		446		Initial Opening 45	Test 700
(Q) Final Hydrostatic Mud		1425		Initial Shut-in 45	Jars <u> </u>
				Final Flow 45	Safety Joint <u> </u>
				Final Shut-in 45	Straddle <u> </u>

TRILOBITE TESTING INC. 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.

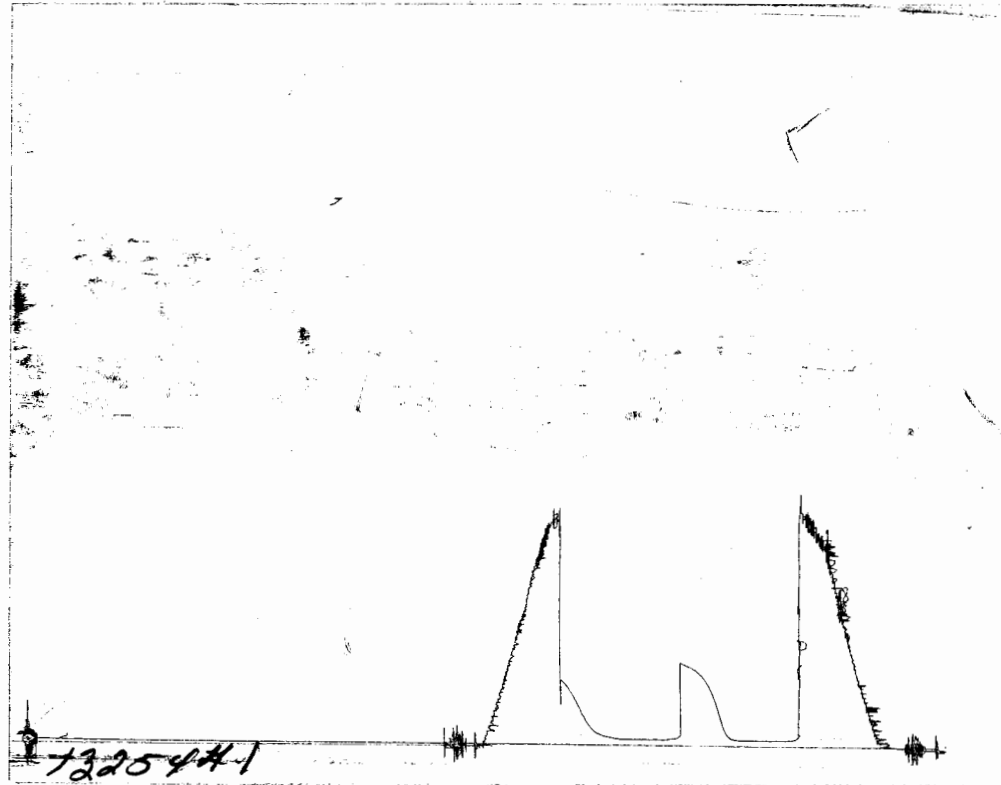
Approved By

Our Representative Don Bough

Extra Packer
 Elec. Rec. X 150
 Mileage 21 21
 Other
 TOTAL PRICE \$ 1921

CHART PAGE

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





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 16706

Test Ticket

Well Name & No. Vine #9 Test No. 2 Date 10-19-02
 Company Mai Oil Operations Zone Tested Arbuckle
 Address _____ Elevation 2085 KB 2080 GL
 Co. Rep / Geo. Todd Morgenstern ont. Murfin #16 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 27 Twp. 11 Rge. 19 Co. Ellis State Ks
 No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3554 - 3607 Initial Str Wt./Lbs. 56,000 Unseated Str Wt./Lbs. 56,000
 Anchor Length 53 Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 65,000
 Top Packer Depth 3549 Tool Weight 1500
 Bottom Packer Depth 3554 Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 3607 Wt. Pipe Run _____ Drill Collar Run 148
 Mud Wt. 9.3 LCM _____ Vis. 50 WL 8 Drill Pipe Size 4.5 X 11 Ft. Run 3395
 Blow Description I.F. Weak - building to 4"

F.F. Weak steady surface blow.

Recovery — Total Feet 75 GIP _____ Ft. in DC 75 Ft. in DP _____
 Rec. 75 Feet Of 5.0 %gas _____ %oil _____ %water _____ %mud _____
 Rec. 70 Feet Of DCM %gas 15 %oil _____ %water 85 %mud _____
 Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____
 Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____
 Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____
 BHT 108 °F Gravity _____ °API D@ _____ °F Corrected Gravity _____ °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 6,000 ppm System

	AK-1	Alpine	PSI	Recorder No.	T-On Location
(A) Initial Hydrostatic Mud		<u>1758</u>		<u>2357</u>	<u>10:00</u>
(B) First Initial Flow Pressure		<u>17</u>	PSI (depth)	<u>3558</u>	T-Started <u>10:21</u>
(C) First Final Flow Pressure		<u>34</u>	PSI	Recorder No. <u>19254</u>	T-Open <u>12:00</u>
(D) Initial Shut-In Pressure		<u>1079</u>	PSI (depth)	<u>3589</u>	T-Pulled <u>16:00</u>
(E) Second Initial Flow Pressure		<u>40</u>	PSI	Recorder No. _____	T-Out <u>16:33</u>
(F) Second Final Flow Pressure		<u>53</u>	PSI (depth)		T-Off Location <u>17:00</u>
(G) Final Shut-in Pressure		<u>1066</u>	PSI	Initial Opening <u>45</u>	Test _____ <u>200</u>
(Q) Final Hydrostatic Mud		<u>1718</u>	PSI	Initial Shut-in <u>45</u>	Jars _____
				Final Flow <u>45</u>	Safety Joint _____
				Final Shut-in <u>45</u>	Straddle _____

TRILOBITE TESTING INC. 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.

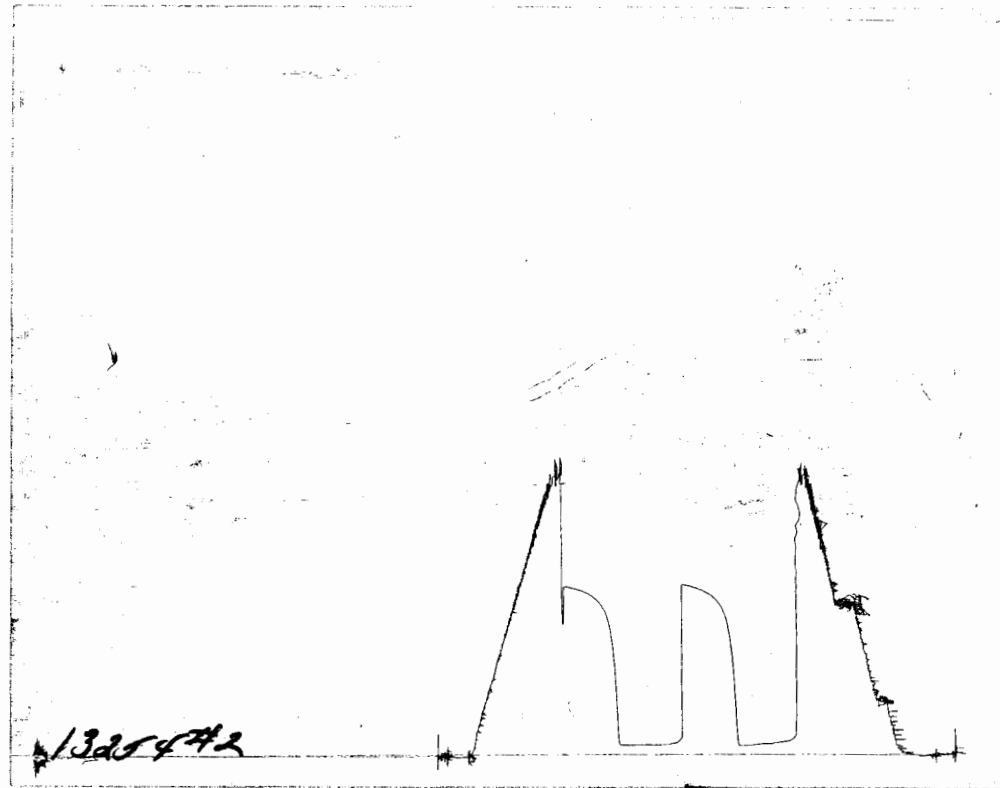
Approved By Allen Brough

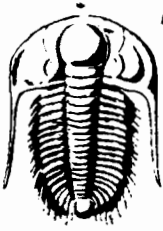
Our Representative Dave Rausch

Extra Packer _____
 Elec. Rec. X 150
 Mileage 21 21
 Other _____
 TOTAL PRICE \$ 921

CHART PAGE

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





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 16707

Test Ticket

Well Name & No. Vine # 9 Test No. 3 Date 10-20-02
 Company Mai Oil Operations Zone Tested Arbuckle
 Address _____ Elevation 2085 KB 2080 GL
 Co. Rep / Geo. Todd Morgestern Cont. Murfin # 16 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 27 Twp. 11 Rge. 19 Co. Ellis State Ks
 No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3556 - 3609 Initial Str Wt./Lbs. 56,000 Unseated Str Wt./Lbs. 56,000
 Anchor Length 53 Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 69,000
 Top Packer Depth 3551 Tool Weight 1500
 Bottom Packer Depth 3556 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
 Total Depth 3609 Wt. Pipe Run _____ Drill Collar Run 148
 Mud Wt. 9.3 LCM _____ Vis. 50 WL 8 Drill Pipe Size 4.5 X H Ft. Run 3397
 Blow Description I.F. Weak-building to 1 1/2"

E.F. Weak-building to 1/4"

Recovery — Total Feet 328 GIP _____ Ft. in DC 148 Ft. in DP 180
 Rec. 50 Feet Of D.M w/ show oil on top %gas _____ %oil _____ %water _____ %mud _____
 Rec. 124 Feet Of D.M w/ oil spots %gas _____ %oil _____ %water _____ %mud _____
 Rec. 154 Feet Of Very silty OCM dly wtr %gas 2 %oil 50 %water 48 %mud _____
 Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____
 Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____
 BHT 114 °F Gravity _____ °API D@ _____ °F Corrected Gravity _____ °API _____
 RW .09 @ 90 °F Chlorides 32,000 ppm Recovery Chlorides 6,000 ppm System

	AK-1	Alpine	PSI	Recorder No.	T-On Location
(A) Initial Hydrostatic Mud		<u>1777</u>		<u>2357</u>	<u>21:30</u>
(B) First Initial Flow Pressure		<u>23</u>	(depth)	<u>3560</u>	<u>03:58</u>
(C) First Final Flow Pressure		<u>102</u>	PSI	<u>13254</u>	<u>05:25</u>
(D) Initial Shut-In Pressure		<u>1110</u>	(depth)	<u>3591</u>	<u>08:25</u>
(E) Second Initial Flow Pressure		<u>105</u>	PSI		<u>00:30</u>
(F) Second Final Flow Pressure		<u>140</u>	(depth)		
(G) Final Shut-in Pressure	<u>1086</u>		PSI	Initial Opening <u>45</u>	Test <u>700</u>
(Q) Final Hydrostatic Mud	<u>1729</u>		PSI	Initial Shut-in <u>45</u>	Jars _____
				Final Flow <u>45</u>	Safety Joint _____
				Final Shut-in <u>45</u>	Straddle _____

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Approved By _____

Our Representative Dan Boudle

Extra Packer _____
 Elec. Rec. X 150
 Mileage 21 21
 Other _____
 TOTAL PRICE \$ \$1921

CHART PAGE

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

