15-167-23180

6-14s-11w

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Prepared For: **Grady Bolding Corp.**

P.O.box 486
Ellinwood Ks. 67526

ATTN: Grady Bolding

6-14s-11w Russell co

Betts 1

Start Date: 2000.11.25 @ 00:00:00
End Date: 2000.11.25 @ 00:00:00
Job Ticket #: 13819 DST #: 1

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

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Grady Bolding Corp.

P.O.box 486
Ellinw ood Ks. 67526

ATTN: Grady Bolding

Betts 1

6-14s-11w Russell co

Job Ticket: 13819 **DST#: 1**

Test Start: 2000.11.25 @ 00:00:00

GENERAL INFORMATION:

Formation: **Lansing**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:05:28
Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole
Tester: John Schmidt
Unit No: 18

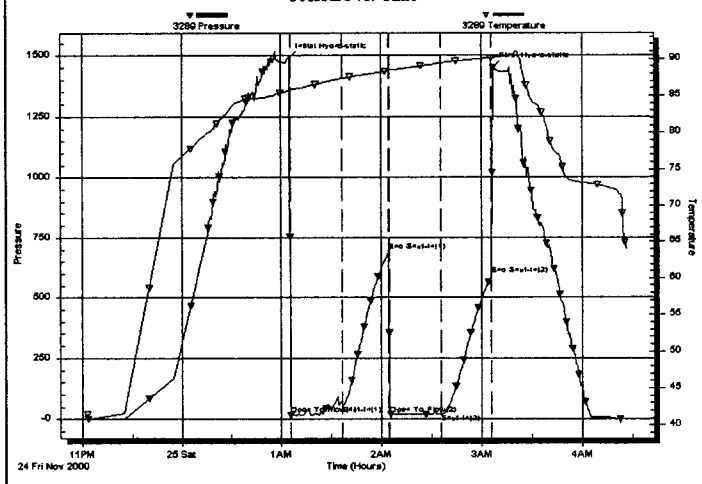
Interval: 2938.00 ft (KB) To 2982.00 ft (KB) (TVD)
Total Depth: 2982.00 ft (KB)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1825.00 ft (KB)
1820.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 3289 Inside
Press@RunDepth: 18.93 psig @ 2944.00 ft (KB)
Start Date: 2000.11.24 End Date: 2000.11.25
Start Time: 23:03:15 End Time: 04:27:13

Capacity: 7000.00 psig
Last Calib.: 2000.11.25
Time On Btm: 2000.11.25 @ 01:05:13
Time Off Btm: 2000.11.25 @ 03:06:43

TEST COMMENT: IF- w eak 1/4"
FF-surface died in 5 min



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
122	1489.45	85.69	Initial Hydro-static
123	17.39	85.46	Open To Flow (1)
154	51.09	87.34	Shut-In(1)
182	688.92	88.34	End Shut-In(1)
182	18.69	88.46	Open To Flow (2)
213	18.93	89.41	Shut-In(2)
243	592.97	90.11	End Shut-In(2)
244	1449.71	90.08	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud	0.07

Gas Rates

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

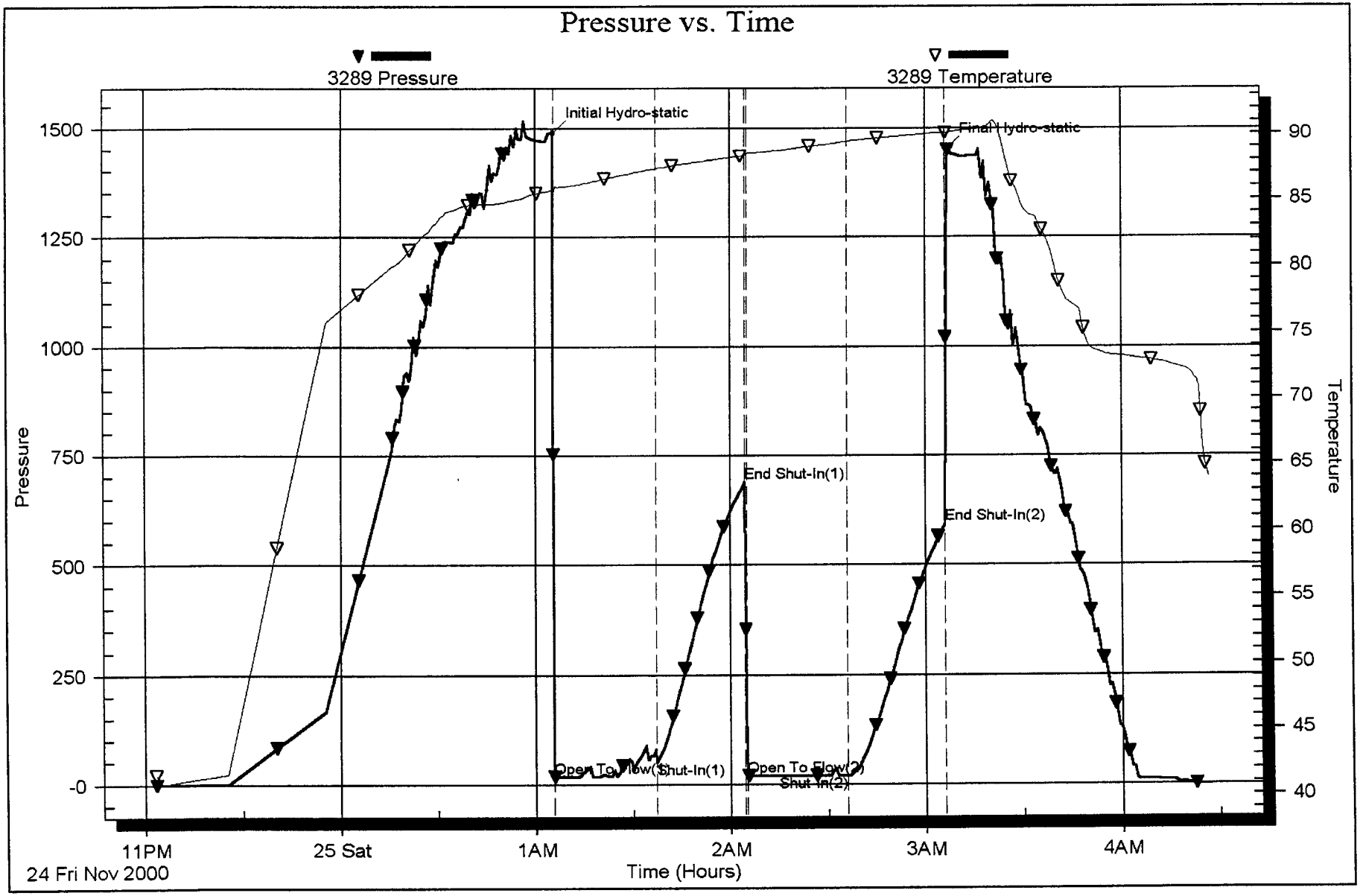
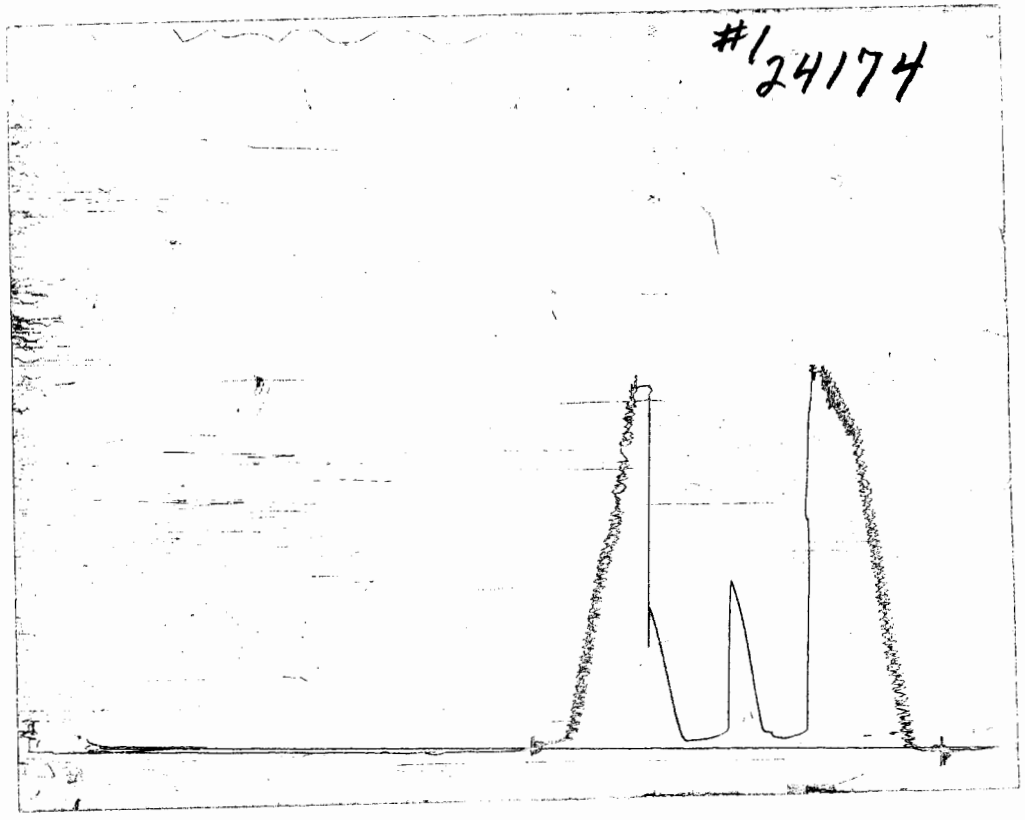

Pressure vs. Time
3289 Pressure
3289 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
1500
1250
1000
750
500
250
-0
90
85
80
75
70
65
60
55
50
45
40
11PM
24 Fri Nov 2000
25 Sat
1AM
2AM
3AM
4AM
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

№ 13819

Test Ticket

Well Name & No. BETTS #1 Test No. 1 Date 11-25-00

Company GRADY BOLDING CORP. Zone Tested LANSING

Address P.O. BOX 486 ELLINWOOD, KS 67526 Elevation 1825 KB 1820 GL

Co. Rep / Geo. JAMES C. MUSGROVE Cont. L.D. DRILLING Co Est. Ft. of Pay ___ Por. ___ %

Location: Sec. 6 Twp. 14S Rge. 11W Co. RUSSELL State KS.

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

Interval Tested 2938-2982 Initial Str Wt./Lbs. 36,000 Unseated Str Wt./Lbs. 36,000

Anchor Length 44' Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 40,000

Top Packer Depth 2933 Tool Weight 350

Bottom Packer Depth 2938 Hole Size — 7 7/8" ___ Rubber Size — 6 3/4" ___

Total Depth 2982 7.2 Wt. Pipe Run ___ Drill Collar Run ___

Mud Wt. 9.2 LCM 4 Vis. 45 WL 9.2 Drill Pipe Size 4½ XH Ft. Run 2951

Blow Description WEAK BLOW ¼" TO SURFACE F.F. SURFACE BLOW DIED 5 MIN.

Recovery — Total Feet 5 GIP ___ Ft. in DC ___ Ft. in DP ___

Rec. 5	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) Initital Hydrostatic Mud	1469		PSI	Recorder No.	3289	T-On Location	2220
(B) First Initial Flow Pressure	37		PSI	(depth)	2943	T-Started	2303
(C) First Final Flow Pressure	37		PSI	Recorder No.	24174	T-Open	0106
(D) Initial Shut-In Pressure	652		PSI	(depth)	2979	T-Pulled	0306
(E) Second Initial Flow Pressure	37		PSI	Recorder No.		T-Out	4:27
(F) Second Final Flow Pressure	37		PSI	(depth)		T-Off Location	
(G) Final Shut-in Pressure	545		PSI	Initial Opening	30	Test	650
(Q) Final Hydrostatic Mud	1401		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	40 40
						Other	
						TOTAL PRICE $	840

1:40
4:27
6 07

Approved By ___

Our Representative ___

TRILOBITE TESTING,INC

DRILL STEM TEST REPORT

Prepared For: **Grady Bolding Corp.**

P.O.box 486
Ellinwood Ks. 67526

ATTN: Grady Bolding

6-14s-11w Russell co

Betts 1

Start Date: 2000.11.25 @ 00:00:00

End Date:

Job Ticket #: 13820 DST #: 2

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

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Grady Bolding Corp.

P.O.box 486
Ellinw ood Ks. 67526

ATTN: Grady Bolding

Betts 1

6-14s-11w Russell co

Job Ticket: 13820 **DST#: 2**

Test Start: 2000.11.25 @ 00:00:00

GENERAL INFORMATION:

Formation: **Lansing**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:26:43
Time Test Ended:

Test Type: Conventional Bottom Hole
Tester: John Schmidt
Unit No: 18

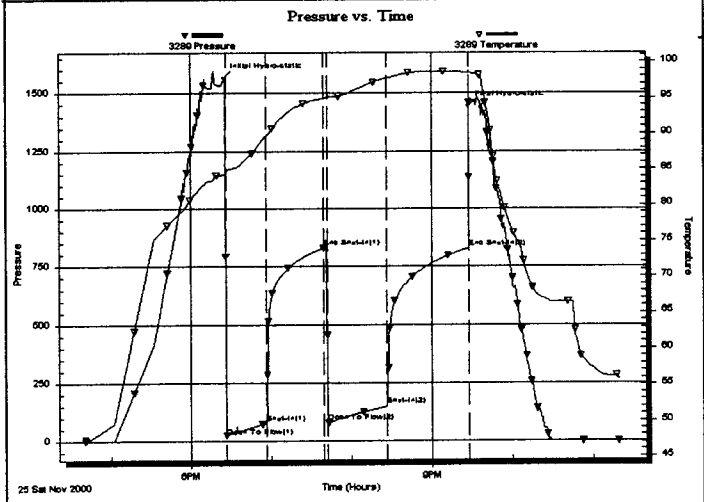
Interval: 3036.00 ft (KB) To 3051.00 ft (KB) (TVD)
Total Depth: 2982.00 ft (KB)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1825.00 ft (KB)
1820.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 3289
Press@RunDepth: 149.83 psig @ ft (KB)
Start Date: 2000.11.25 End Date: 2000.11.25
Start Time: 16:40:30 End Time: 23:19:43

Capacity: 7000.00 psig
Last Calib.: 1899.12.30
Time On Btm: 2000.11.25 @ 18:25:13
Time Off Btm: 2000.11.25 @ 21:27:43

TEST COMMENT: 3 Rw -.06@65 IF .5 to bottom in 20 min.
FF.5 to bottom in 29 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
105	1566.25	84.27	Initial Hydro-static
107	19.45	84.55	Open To Flow (1)
136	77.97	89.60	Shut-In(1)
179	830.19	94.84	End Shut-In(1)
182	80.01	94.77	Open To Flow (2)
227	149.83	97.71	Shut-In(2)
287	827.25	98.43	End Shut-In(2)
288	1443.71	98.70	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
270.00	salt water	3.79

Gas Rates

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

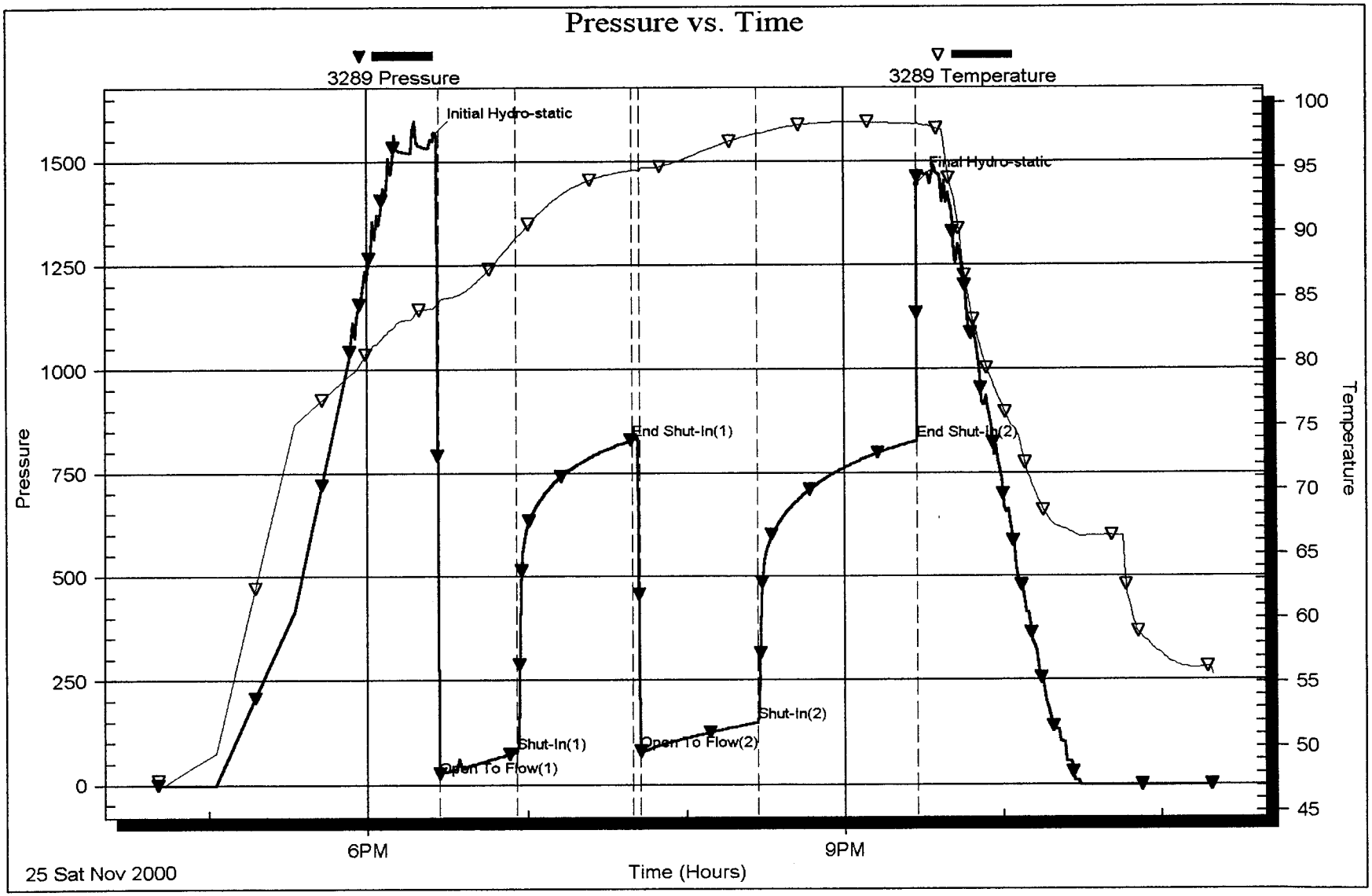
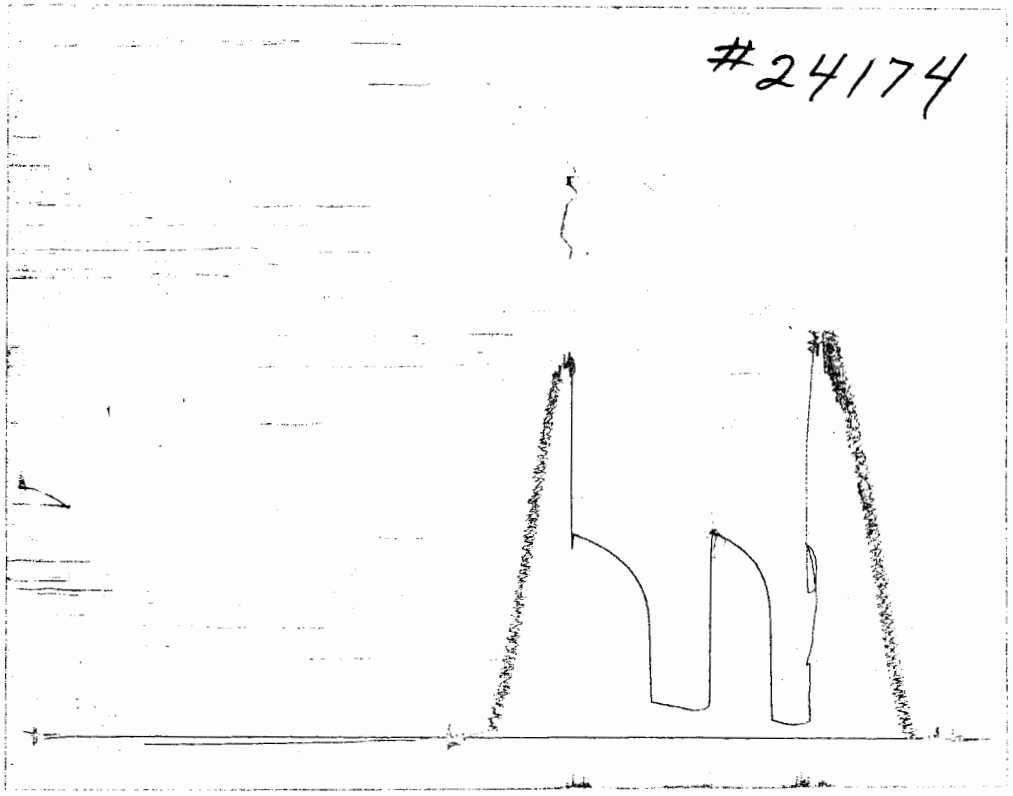

Pressure vs. Time
3289 Pressure
3289 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(1)
Shut-In(2)
Open To Flow(1)
Open To Flow(2)
Pressure
Temperature
Time (Hours)
6PM
9PM
25 Sat Nov 2000
1500
1250
1000
750
500
250
0
100
95
90
85
80
75
70
65
60
55
50
45

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

№ 13820

Test Ticket

Well Name & No. BETTS #1 Test No. #2 Date 11-25-00

Company GRADY BOLDING CORP Zone Tested LANSING

Address PO BOX 486 ELLINWOOD, KS 67526 Elevation 1825 KB 1820 GL

Co. Rep / Geo. JAMES C. MUSGROVE Cont. L.D. DRILLING Est. Ft. of Pay ____ Por. ____ %

Location: Sec. 6 Twp. 14 S Rge. 11 W Co. RUSSELL State KS

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

Interval Tested 3036 - 3051 Initial Str Wt./Lbs. 37,000 Unseated Str Wt./Lbs. 38000

Anchor Length 15' Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 38000

Top Packer Depth 3031 Tool Weight 3,000

Bottom Packer Depth 3036 Hole Size — 7 7/8" ____ Rubber Size — 6 3/4" ____

Total Depth 3051 Wt. Pipe Run ____ Drill Collar Run ____

Mud Wt. 9.2 LCM 3 Vis. 51 WL 8 Drill Pipe Size 4½ XH Ft. Run ~~3024~~ 3045

Blow Description WEAK BLOW BUILT TO BOTTOM OF BUCKET IN 20 MIN.

F.F WEAK BLOW BUILT TO BOTTOM 29 MIN.

Recovery — Total Feet 270' GIP ____ Ft. in DC ____ Ft. in DP ____

Rec. ~~SALT~~ 270 Feet Of SALT WATER %gas %oil 100 %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 .06 @ 65 °F Chlorides 152,000 ppm Recovery Chlorides ____ ppm System

	AK-1	Alpine					
(A) Initital Hydrostatic Mud	1469		PSI	Recorder No.	3289	T-On Location	1545
(B) First Initial Flow Pressure	44		PSI	(depth)	3037	T-Started	1710 1640
(C) First Final Flow Pressure	59		PSI	Recorder No.	24174	T-Open	1828
(D) Initial Shut-In Pressure	797		PSI	(depth)	3048	T-Pulled	____
(E) Second Initial Flow Pressure	89		PSI	Recorder No.	____	T-Out	23:19
(F) Second Final Flow Pressure	127		PSI	(depth)	____	T-Off Location	____
(G) Final Shut-in Pressure	797		PSI	Initial Opening	30	Test	650
(Q) Final Hydrostatic Mud	1439		PSI	Initial Shut-in	45	Jars	____
				Final Flow	45	Safety Joint	____
				Final Shut-in	60	Straddle	____
						Circ. Sub	____
						Sampler	____
						Extra Packer	____
						Elec. Rec.	150
						Mileage	40
						Other	____
						TOTAL PRICE $	840

1:34

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 ____