

WELL NAME: ZU # 40
COMPANY: Castle Resources Inc.
LOCATION: 1-24S-11W
Stafford County Kansas
DATE: 10/28/97

TRILOBITE TESTING L.L.C.

OPERATOR : Castle Res. Inc.

DATE 10-24-97

WELL NAME: Zu #40

KB 1815.00 ft

TICKET NO: 10703

DST #1

LOCATION : 1-24S-11W Stafford Co Ks

GR 1807.00 ft

FORMATION: Lansing KC "J-K"

INTERVAL : 3538.00 To 3600.00 ft

TD 3600.00 ft

TEST TYPE: CONV

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 45 Rec.	13754	13754	3257			PF Fr. 1330 to 1415 hr
SI 45 Range(Psi)	4000.0	4000.0	4985.0	0.0	0.0	IS Fr. 1415 to 1500 hr
SF 45 Clock(hrs)	12 hr	12 hr	Elec			SF Fr. 1500 to 1545 hr
FS 45 Depth(ft)	3597.0	3597.0	3546.0	0.0	0.0	FS Fr. 1545 to 1630 hr

	Field	1	2	3	4	
A. Init Hydro	1816.0	1770.0	1759.0	0.0	0.0	T STARTED 1159 hr
B. First Flow	68.0	65.0	24.0	0.0	0.0	T ON BOTM 1328 hr
B1. Final Flow	68.0	57.0	28.0	0.0	0.0	T OPEN 1330 hr
C. In Shut-in	108.0	109.0	106.0	0.0	0.0	T PULLED 1630 hr
D. Init Flow	78.0	62.0	29.0	0.0	0.0	T OUT 1810 hr
E. Final Flow	78.0	61.0	30.0	0.0	0.0	
F. Fl Shut-in	127.0	107.0	102.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	1746.0	1756.0	1733.0	0.0	0.0	Tool Wt. 1000.00 lbs
Inside/Outside	0	0	I			Wt Set On Packer 30000.00 lbs
						Wt Pulled Loose 40000.00 lbs
						Initial Str Wt 34000.00 lbs
						Unseated Str Wt 34000.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.88 in
						D Col. ID 2.25 in
						D. Pipe ID 3.80 in
						D.C. Length 30.00 ft
						D.P. Length 3497.00 ft

RECOVERY

Tot Fluid 50.00 ft of 30.00 ft in DC and 20.00 ft in DP
 196.00 ft of Gas in Pipe
 50.00 ft of Slightly Gassy Oil Cut Mud
 0.00 ft of 5%gas 5%oil 90%mud
 0.00 ft of
 SALINITY 0.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Blow-
 Weak blow building to 5"

Final Blow-
 Weak blow building to 3"

SAMPLES:

SENT TO:

MUD DATA-----

Mud Type	Chemical
Weight	9.40 lb/c
Vis.	42.00 S/L
W.L.	9.60 in3
F.C.	0.00 in
Mud Drop N	
Amt. of fill	0.00 ft
Btm. H. Temp.	113.00 F
Hole Condition	GOOD
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out N	
Tool Chased N	
Tester	Dan Bangle
Co. Rep.	Jerry Green
Contr.	Discovery
Rig #	1
Unit #	
Pump T.	

Test Successful: Y

*** TOOL DIAGRAM *** CONV

WELL NAME: Zu #40

LOCATION : 1-24S-11W Stafford Co Ks

TICKET No. 10703 D.S.T. No. 1 DATE 10-24-97

TOTAL TOOL TO BOTTOM OF TOP PACKERS 20

INTERVAL TOOL

BOTTOM PACKERS AND ANCHOR 31

TOTAL TOOL 51

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single 1 Total 31

TOTAL ASSEMBLY 82

D.C. ABOVE TOOLS.Stands Single 1 Total 30

D.P. ABOVE TOOLS.Stands 57 Single 1 Total 3497

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 3609

TOTAL DEPTH 3600

TOTAL DRILL PIPE ABOVE K.B. 9

REMARKS:

P.O. SUB	3394
C.O. SUB	3518
S.I. TOOL	3524
HMV	3529
JARS n/a	
SAFETY JOINT n/a	
PACKER	3533
PACKER	3538
DEPTH 3538	
STUBB 1'	3539
ANCHOR 5' Perfs	3544
1' co sub	3545
Alpine @ 3546	
1 jt dp 31'	3576
1' co sub	3577
T.C. DEPTH	
5' Perfs	3582
5' Perfs	3587
5' Perfs	3592
3' Perfs	3595
AK-1 @ 3597	
BULLNOSE 5' Bullplug	3600
T.D.	

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk #10703 DST #1 Zu #40 Castle Res. Inc.

DATE: 10/24/97

TIME: 12:00:09

	Time	Pressure PSI _g	delta P PSI _g	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
***** Initial Hydro.	93.00	1758.8	0.0	97.16		
***** Start Flow 1	0.00	23.8	0.0	97.37		
	1.00	22.1	-1.7	97.40		
	2.00	23.1	-0.6	97.39		
	3.00	23.7	-0.1	97.38		
	4.00	24.0	0.2	97.37		
	5.00	24.9	1.1	97.36		
	6.00	24.1	0.4	97.36		
	7.00	24.3	0.5	97.36		
	8.00	25.4	1.6	97.36		
	9.00	25.1	1.3	97.37		
	10.00	26.5	2.8	97.39		
	11.00	25.6	1.9	97.41		
	12.00	26.1	2.4	97.44		
	13.00	27.4	3.7	97.47		
	14.00	26.1	2.4	97.51		
	15.00	28.0	4.2	97.54		
	16.00	26.5	2.7	97.58		
	17.00	27.7	4.0	97.62		
	18.00	28.1	4.4	97.67		
	19.00	28.5	4.8	97.72		
	20.00	28.4	4.7	97.76		
	21.00	27.0	3.2	97.82		
	22.00	26.8	3.0	97.86		
	23.00	26.9	3.1	97.91		
	24.00	29.1	5.3	97.96		
	25.00	29.0	5.3	98.02		
	26.00	28.8	5.1	98.06		
	27.00	28.6	4.8	98.11		
	28.00	27.8	4.1	98.16		
	29.00	29.5	5.8	98.22		
	30.00	29.1	5.4	98.27		
	31.00	28.5	4.8	98.32		
	32.00	27.5	3.7	98.37		
	33.00	29.4	5.6	98.42		
	34.00	28.8	5.0	98.46		
	35.00	27.7	3.9	98.51		
	36.00	29.5	5.7	98.55		
	37.00	28.8	5.0	98.60		
	38.00	30.0	6.3	98.65		
	39.00	29.4	5.7	98.69		
	40.00	28.6	4.8	98.74		
	41.00	30.0	6.2	98.78		
	42.00	29.4	5.7	98.83		
***** End Flow 1	43.00	28.3	4.5	98.87		
***** Start Shutin 1	0.00	28.3	0.0	98.87	0.0000	0.001
	1.00	30.0	1.7	98.91	44.0000	0.001
	2.00	29.3	1.0	98.96	22.5000	0.001
	3.00	30.4	2.1	99.00	15.3333	0.001
	4.00	31.7	3.4	99.04	11.7500	0.001
	5.00	33.0	4.7	99.08	9.6000	0.001

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk #10703 DST #1 Zu #40 Castle Res. Inc.

DATE: 10/24/97

TIME: 12:00:09

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶	
6.00	34.3	5.9	99.13	8.1667	0.001	
7.00	35.5	7.2	99.17	7.1429	0.001	
8.00	36.9	8.6	99.21	6.3750	0.001	
9.00	38.2	9.9	99.25	5.7778	0.001	
10.00	39.6	11.3	99.29	5.3000	0.002	
11.00	41.0	12.7	99.33	4.9091	0.002	
12.00	42.3	14.0	99.37	4.5833	0.002	
13.00	43.7	15.4	99.40	4.3077	0.002	
14.00	45.1	16.8	99.44	4.0714	0.002	
15.00	46.5	18.2	99.49	3.8667	0.002	
16.00	47.9	19.6	99.52	3.6875	0.002	
17.00	49.3	21.0	99.56	3.5294	0.002	
18.00	50.9	22.6	99.60	3.3889	0.003	
19.00	52.4	24.1	99.64	3.2632	0.003	
20.00	54.0	25.7	99.67	3.1500	0.003	
21.00	55.5	27.2	99.71	3.0476	0.003	
22.00	57.0	28.7	99.74	2.9545	0.003	
23.00	58.6	30.3	99.78	2.8696	0.003	
24.00	60.2	31.9	99.82	2.7917	0.004	
25.00	61.7	33.4	99.85	2.7200	0.004	
26.00	63.4	35.0	99.89	2.6538	0.004	
27.00	64.9	36.6	99.93	2.5926	0.004	
28.00	66.5	38.2	99.96	2.5357	0.004	
29.00	68.1	39.8	99.99	2.4828	0.005	
30.00	69.9	41.6	100.03	2.4333	0.005	
31.00	71.5	43.2	100.07	2.3871	0.005	
32.00	73.1	44.8	100.10	2.3438	0.005	
33.00	74.7	46.4	100.13	2.3030	0.006	
34.00	76.5	48.2	100.17	2.2647	0.006	
35.00	78.2	49.9	100.20	2.2286	0.006	
36.00	79.9	51.6	100.23	2.1944	0.006	
37.00	81.7	53.4	100.27	2.1622	0.007	
38.00	83.4	55.1	100.30	2.1316	0.007	
39.00	85.2	56.9	100.34	2.1026	0.007	
40.00	87.0	58.7	100.37	2.0750	0.008	
41.00	88.8	60.5	100.40	2.0488	0.008	
42.00	90.6	62.3	100.43	2.0238	0.008	
43.00	92.5	64.2	100.47	2.0000	0.009	
44.00	94.3	66.0	100.50	1.9773	0.009	
45.00	96.2	67.9	100.53	1.9556	0.009	
46.00	98.0	69.7	100.57	1.9348	0.01	
47.00	99.9	71.6	100.60	1.9149	0.01	
48.00	101.9	73.6	100.63	1.8958	0.010	
49.00	103.8	75.5	100.66	1.8776	0.011	
***** End Shut-in 1	50.00	105.7	77.4	100.69	1.8600	0.011
***** Start Flow 2	0.00	28.5	0.0	100.75		
	1.00	28.2	-0.3	100.78		
	2.00	29.9	1.4	100.81		
	3.00	28.4	-0.1	100.83		
	4.00	28.7	0.2	100.86		
	5.00	28.9	0.3	100.89		

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk #10703 DST #1 Zu #40 Castle Res. Inc.
 DATE: 10/24/97 TIME: 12:00:09

Time	Pressure PSIG	delta P PSIG	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
6.00	29.7	1.2	100.92		
7.00	28.0	-0.5	100.95		
8.00	28.7	0.2	100.98		
9.00	29.6	1.1	101.01		
10.00	28.1	-0.4	101.04		
11.00	29.2	0.7	101.07		
12.00	28.9	0.4	101.10		
13.00	29.7	1.2	101.12		
14.00	29.7	1.1	101.16		
15.00	28.6	0.1	101.18		
16.00	29.5	1.0	101.21		
17.00	28.8	0.3	101.24		
18.00	29.8	1.2	101.27		
19.00	28.7	0.2	101.30		
20.00	29.6	1.0	101.33		
21.00	29.5	0.9	101.36		
22.00	29.9	1.3	101.39		
23.00	30.0	1.5	101.42		
24.00	29.1	0.6	101.44		
25.00	30.1	1.5	101.48		
26.00	29.2	0.7	101.50		
27.00	29.0	0.5	101.53		
28.00	30.3	1.8	101.55		
29.00	29.0	0.5	101.59		
30.00	29.9	1.3	101.61		
31.00	29.3	0.8	101.63		
32.00	31.0	2.5	101.66		
33.00	30.7	2.2	101.69		
34.00	30.8	2.3	101.71		
35.00	29.2	0.6	101.74		
36.00	29.5	1	101.77		
37.00	29.5	1.0	101.79		
38.00	30.0	1.5	101.83		
39.00	28.9	0.4	101.85		
40.00	30.5	2.0	101.87		
***** End Flow 2	41.00	29.6	1.1	101.90	
***** Start Shutin 2	0.00	29.6	0.0	101.90	0.0000
	1.00	31.2	1.6	101.93	85.0000
	2.00	33.1	3.5	101.95	43.0000
	3.00	34.6	5.0	101.98	29.0000
	4.00	36.6	7.0	102.01	22.0000
	5.00	38.1	8.5	102.03	17.8000
	6.00	39.6	10.0	102.05	15.0000
	7.00	41.4	11.8	102.09	13.0000
	8.00	42.9	13.3	102.11	11.5000
	9.00	44.5	14.9	102.13	10.3333
	10.00	46.1	16.5	102.16	9.4000
	11.00	47.6	18.0	102.19	8.6364
	12.00	49.2	19.6	102.20	8.0000
	13.00	50.7	21.1	102.23	7.4615
	14.00	52.3	22.7	102.26	7.0000

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk #10703 DST #1 Zu #40 Castle Res. Inc.

DATE: 10/24/97

TIME: 12:00:09

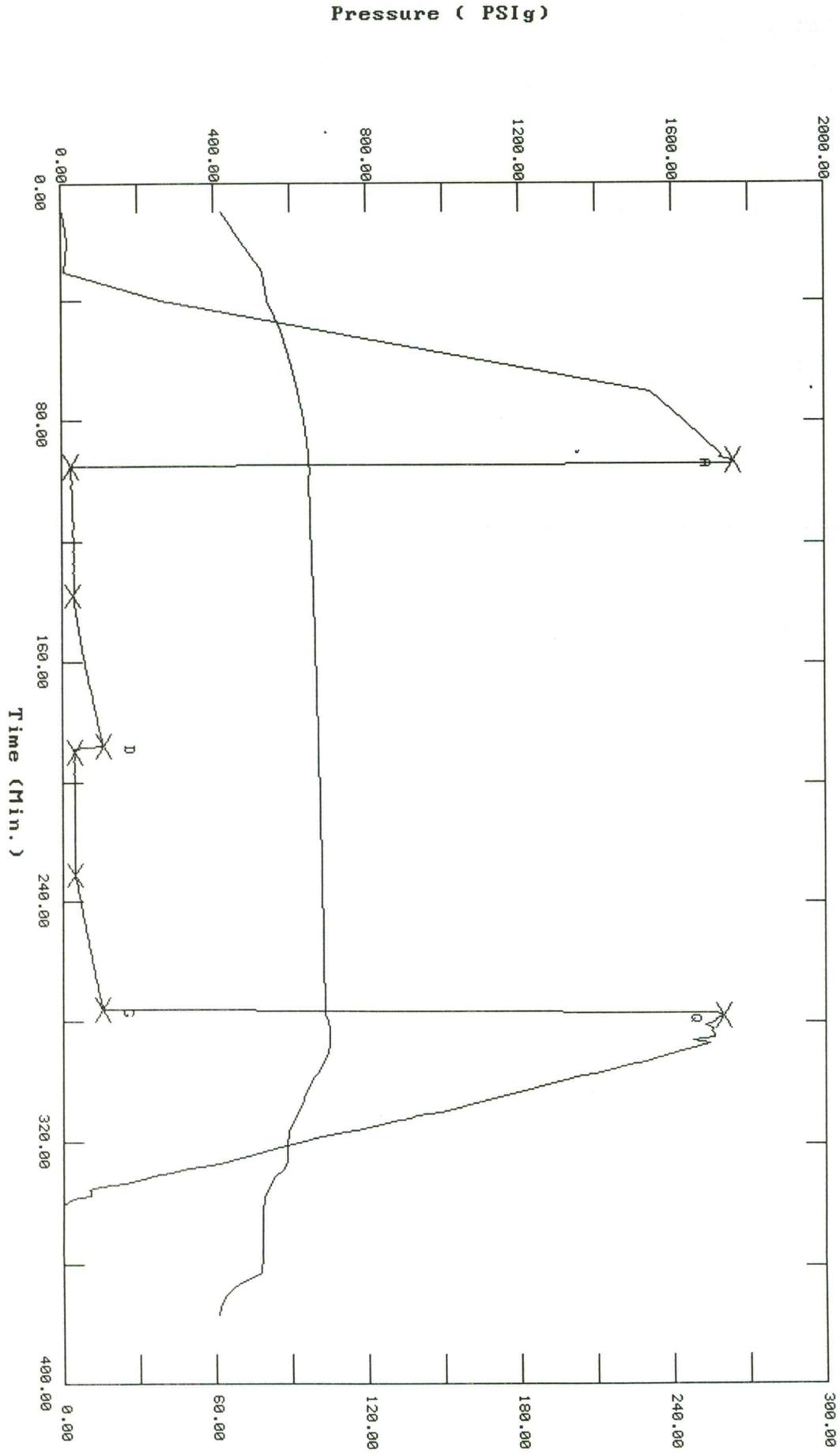
Time	Pressure PSI _g	delta P PSI _g	P	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
15.00	53.8	24.2	102.28	102.28	6.6000	0.003
16.00	55.5	25.9	102.31	102.31	6.2500	0.003
17.00	57.0	27.4	102.33	102.33	5.9412	0.003
18.00	58.6	29.0	102.36	102.36	5.6667	0.003
19.00	60.2	30.6	102.38	102.38	5.4211	0.004
20.00	61.7	32.2	102.40	102.40	5.2000	0.004
21.00	63.4	33.8	102.43	102.43	5.0000	0.004
22.00	65.0	35.4	102.45	102.45	4.8182	0.004
23.00	66.5	37.0	102.49	102.49	4.6522	0.004
24.00	68.1	38.5	102.50	102.50	4.5000	0.005
25.00	69.7	40.1	102.53	102.53	4.3600	0.005
26.00	71.3	41.7	102.55	102.55	4.2308	0.005
27.00	72.9	43.3	102.58	102.58	4.1111	0.005
28.00	74.5	44.9	102.60	102.60	4.0000	0.006
29.00	76.0	46.5	102.63	102.63	3.8966	0.006
30.00	77.6	48.1	102.65	102.65	3.8000	0.006
31.00	79.3	49.7	102.67	102.67	3.7097	0.006
32.00	80.9	51.3	102.70	102.70	3.6250	0.007
33.00	82.6	53.0	102.73	102.73	3.5455	0.007
34.00	84.2	54.6	102.74	102.74	3.4706	0.007
35.00	85.8	56.3	102.76	102.76	3.4000	0.007
36.00	87.5	57.9	102.79	102.79	3.3333	0.008
37.00	89.1	59.5	102.82	102.82	3.2703	0.008
38.00	90.7	61.1	102.83	102.83	3.2105	0.008
39.00	92.4	62.8	102.86	102.86	3.1538	0.009
40.00	94.1	64.5	102.89	102.89	3.1000	0.009
41.00	95.8	66.2	102.91	102.91	3.0488	0.009
42.00	97.4	67.9	102.93	102.93	3.0000	0.009
43.00	99.1	69.5	102.96	102.96	2.9535	0.01
44.00	100.6	71.1	102.98	102.98	2.9091	0.010
***** End Shut-in 2	45.00	102.4	72.8	103.01	2.8667	0.010
***** Final Hydro.	278.00	1733.2	0.0	103.23		

TK #10703 DST #1 Zu #40 Castle Res. Inc.

TEST HISTORY

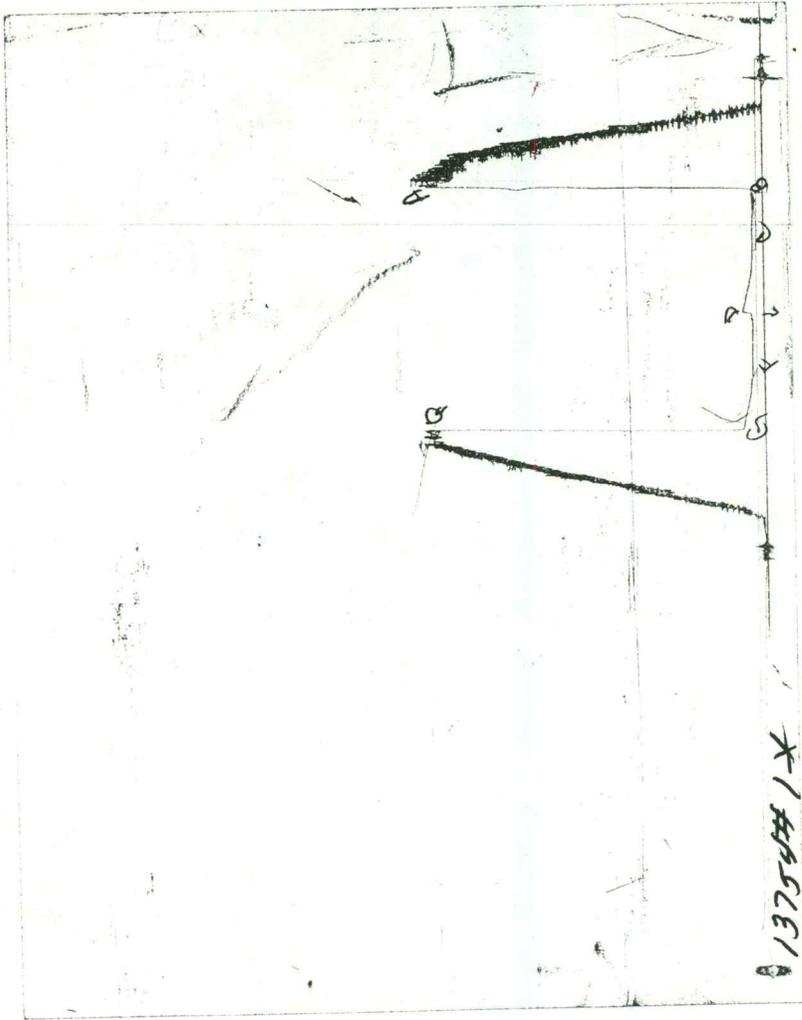
Flag Points

Time (Min.)	Pressure (PSig)
A: 0.00	1758.82
B: 0.00	23.76
C: 43.00	28.30
D: 50.00	105.75
E: 0.00	28.52
F: 41.00	29.58
G: 45.00	102.40
Q: 0.00	1733.16



Temperature (DEG F)

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

Test Ticket

No 10703

Well Name & No. ZU #40 Test No. 1 Date 10-24-97
 Company Castle Res. Inc Zone Tested J-K h.KC
 Address Box 87 Schoenchen, Ks. 67667 Elevation 1815 KB 1807 GL
 Co. Rep / Geo. Jerry Green Cont. Discovery #1 Est. Ft. of Pay Por. %
 Location: Sec. 1 Twp. 24 Rge. 11 Co. Stafford State Ks
 No. of Copies Distribution Sheet (Y, N) Turnkey (Y, N) Evaluation (Y, N)

Interval Tested 3538 - 3600 Initial Str Wt./Lbs. 34,000 Unseated Str Wt./Lbs. 34,000
 Anchor Length 62 Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 10,000
 Top Packer Depth 3533 Tool Weight 1000
 Bottom Packer Depth 3538 Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 3600 Wt. Pipe Run Drill Collar Run 30
 Mud Wt. 9.4 LCM 1/4# Vis. 42 WL 9.6 Drill Pipe Size 4.5 x H Ft. Run 3497
 Blow Description I.F. weak - building to 5" fair blow.

F.F. weak - building to 3"

Recovery — Total Feet	GIP	Ft. in DC	Ft. in DP
<u>50</u>	<u>196</u>	<u>30</u>	<u>20</u>
Rec. <u>50</u> Feet Of <u>silty OC Gsym</u>	<u>5</u> %gas	<u>5</u> %oil	<u>90</u> %water <u> </u> %mud
Rec. <u> </u> Feet Of <u> </u>	<u> </u> %gas	<u> </u> %oil	<u> </u> %water <u> </u> %mud
Rec. <u> </u> Feet Of <u> </u>	<u> </u> %gas	<u> </u> %oil	<u> </u> %water <u> </u> %mud
Rec. <u> </u> Feet Of <u> </u>	<u> </u> %gas	<u> </u> %oil	<u> </u> %water <u> </u> %mud

BHT 113 °F Gravity °API D@ °F Corrected Gravity °API

RW @ °F Chlorides ppm Recovery Chlorides 5,000 ppm System

(A) Initial Hydrostatic Mud	<u>1816</u> <u>1759</u> PSI	Recorder No. <u>3257</u>	T-Started <u>11:59</u>
(B) First Initial Flow Pressure	<u>68</u> <u>24</u> PSI	(depth) <u>3546</u>	T-Open <u>13:30</u>
(C) First Final Flow Pressure	<u>68</u> <u>28</u> PSI	Recorder No. <u>13754</u>	T-Pulled <u>16:30</u>
(D) Initial Shut-in Pressure	<u>108</u> <u>106</u> PSI	(depth) <u>3597</u>	T-Out <u>18:10</u>
(E) Second Initial Flow Pressure	<u>78</u> <u>29</u> PSI	Recorder No. <u> </u>	
(F) Second Final Flow Pressure	<u>78</u> <u>30</u> PSI	(depth) <u> </u>	
(G) Final Shut-in Pressure	<u>127</u> <u>102</u> PSI	Initial Opening <u>45</u>	Test <u>600</u>
(H) Final Hydrostatic Mud	<u>1746</u> <u>1733</u> PSI	Initial Shut-in <u>45</u>	Jars <u> </u>
	<u>AK-1 Alpine</u>	Final Flow <u>45</u>	Safety Joint <u> </u>
		Final Shut-in <u>45</u>	Straddle <u> </u>

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Approved By [Signature]
 Our Representative [Signature]

Circ. Sub
 Sampler
 Extra Packer
 Elect. Rec. X 150
 Other
 TOTAL PRICE \$ 750