

WELL NAME: Cox #1
COMPANY: Maxwell Operating Co
LOCATION: 10-16S-12W
Barton County, Kansas
DATE: 12/11/97

TRILOBITE TESTING L.L.C.

OPERATOR : Maxwell Operating Co.

DATE 12-07-199

WELL NAME: Cox #1

KB 1915.00 ft

TICKET NO: 10879

DST #1

LOCATION : 10-16S-12W

GR 1907.00 ft

FORMATION: Topeka

INTERVAL : 2914.00 To 2945.00 ft

TD 2945.00 ft

TEST TYPE: CONV.

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 45 Rec.	13458	13458	3027			PF Fr. 2245 to 2330 hr
SI 45 Range(Psi)	4075.0	4075.0	4995.0	0.0	0.0	IS Fr. 2330 to 0015 hr
SF 45 Clock(hrs)	12	12 hr	Elect			SF Fr. 0015 to 0100 hr
FS 45 Depth(ft)	2942.0	2942.0	2916.0	0.0	0.0	FS Fr. 0100 to 0145 hr

	Field	1	2	3	4	
A. Init Hydro	1426.0	1434.0	1399.0	0.0	0.0	T STARTED 2000 hr
B. First Flow	70.0	69.0	16.0	0.0	0.0	T ON BOTM 2240 hr
B1. Final Flow	70.0	69.0	39.0	0.0	0.0	T OPEN 2245 hr
C. In Shut-in	722.0	721.0	754.0	0.0	0.0	T PULLED 0145 hr
D. Init Flow	70.0	82.0	28.0	0.0	0.0	T OUT 0400 hr
E. Final Flow	70.0	82.0	40.0	0.0	0.0	
F. Fl Shut-in	660.0	669.0	710.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	1396.0	1363.0	1396.0	0.0	0.0	Tool Wt. 2900.00 lbs
Inside/Outside	0	0	I			Wt Set On Packer 20000.00 lbs
						Wt Pulled Loose 34000.00 lbs
						Initial Str Wt 34000.00 lbs
						Unseated Str Wt 34000.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.78 in
						D Col. ID 2.20 in
						D. Pipe ID 3.80 in
						D.C. Length 30.00 ft
						D.P. Length 2884.00 ft

RECOVERY

Tot Fluid 62.00 ft of 30.00 ft in DC and 32.00 ft in DP

62.00 ft of Heavy oil & gas cut mud

0.00 ft of 15%gas 15%oil 70%mud

0.00 ft of

0.00 ft of

0.00 ft of

0.00 ft of

0.00 ft of

0.00 ft of

SALINITY 0.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Flow:

Weak building to a good blow

1" to 7" blow

Final Flow:

Weak building to a good blow

1" to 7" blow

SAMPLES:

SENT TO:

MUD DATA-----

Mud Type	Chemical
Weight	9.00 lb/c
Vis.	42.00 S/L
W.L.	8.80 in3
F.C.	0.00 in
Mud Drop	

Amt. of fill	0.00 ft
Btm. H. Temp.	96.00 F
Hole Condition	good
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	Bobtail
Reversed Out	
Tool Chased N	
Tester	Ray Schwager
Co. Rep.	Ron Nelson
Contr.	Discovery
Rig #	1
Unit #	
Pump T.	

Test Successful: Y

*** TOOL DIAGRAM *** CONV.

WELL NAME: cox #1

LOCATION : 10-16-12

TICKET No. 10879 D.S.T. No. 1 DATE 12-07-199

TOTAL TOOL TO BOTTOM OF TOP PACKERS 22

INTERVAL TOOL

BOTTOM PACKERS AND ANCHOR 31

TOTAL TOOL 53

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY 53

D.C. ABOVE TOOLS.Stands0 Single 1 Total 30

D.P. ABOVE TOOLS.Stands47 Single 0 Total 2882

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 2965

TOTAL DEPTH 2945

TOTAL DRILL PIPE ABOVE K.B. 20

REMARKS:

P.O. SUB	2893
C.O. SUB	
S.I. TOOL	2899
HMV	2904
JARS	
SAFETY JOINT	
PACKER	2909
PACKER	2914
DEPTH 2914	
STUBB	2915
ANCHOR 5'Perfs	2921
5'Perfs	2926
5'Perfs	2931
5'Perfs	2936
5'Perfs	2941
2'Perfs	2943
	2945
T.C.	
DEPTH	
BULLNOSE	
T.D. 2'Bullplug	2945

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING
 TEST: TIC#10879 DST#1 COX#1 MAXWELL OPER.CO.INC.
 DATE: 12/07/97 TIME: 20:56:29

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** Initial Hydro.	105.50	1399.7	0.0	91.24		
***** Start Flow 1	0.00	15.8	0.0	91.46		
	0.50	16.9	1.1	91.46		
	1.00	17.0	1.2	91.46		
	1.50	18.4	2.6	91.46		
	2.00	18.5	2.7	91.46		
	2.50	19.2	3.3	91.44		
	3.00	19.4	3.6	91.39		
	3.50	19.9	4.0	91.37		
	4.00	20.8	4.9	91.33		
	4.50	20.7	4.9	91.32		
	5.00	21.2	5.3	91.30		
	5.50	21.4	5.5	91.30		
	6.00	21.8	5.9	91.28		
	6.50	21.8	6.0	91.26		
	7.00	22.1	6.3	91.26		
	7.50	22.3	6.5	91.26		
	8.00	22.4	6.6	91.24		
	8.50	22.6	6.8	91.25		
	9.00	22.6	6.7	91.25		
	9.50	22.7	6.8	91.24		
	10.00	22.8	6.9	91.24		
	10.50	22.8	6.9	91.25		
	11.00	22.6	6.8	91.25		
	11.50	23.0	7.1	91.26		
	12.00	23.1	7.2	91.26		
	12.50	23.3	7.5	91.26		
	13.00	23.3	7.4	91.26		
	13.50	23.4	7.6	91.28		
	14.00	23.5	7.6	91.30		
	14.50	23.7	7.8	91.30		
	15.00	23.7	7.8	91.30		
	15.50	24.0	8.2	91.32		
	16.00	24.0	8.1	91.33		
	16.50	23.9	8.1	91.35		
	17.00	24.1	8.3	91.35		
	17.50	24.3	8.5	91.38		
	18.00	24.1	8.2	91.39		
	18.50	24.6	8.8	91.44		
	19.00	24.4	8.5	91.44		
	19.50	24.5	8.7	91.46		
	20.00	24.4	8.6	91.46		
	20.50	24.7	8.8	91.46		
	21.00	24.8	9.0	91.46		
	21.50	24.9	9.0	91.46		
	22.00	24.9	9.1	91.46		
	22.50	24.9	9.1	91.47		
	23.00	25.1	9.3	91.46		
	23.50	25.1	9.2	91.48		
	24.00	25.2	9.3	91.51		
	24.50	25.3	9.4	91.53		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

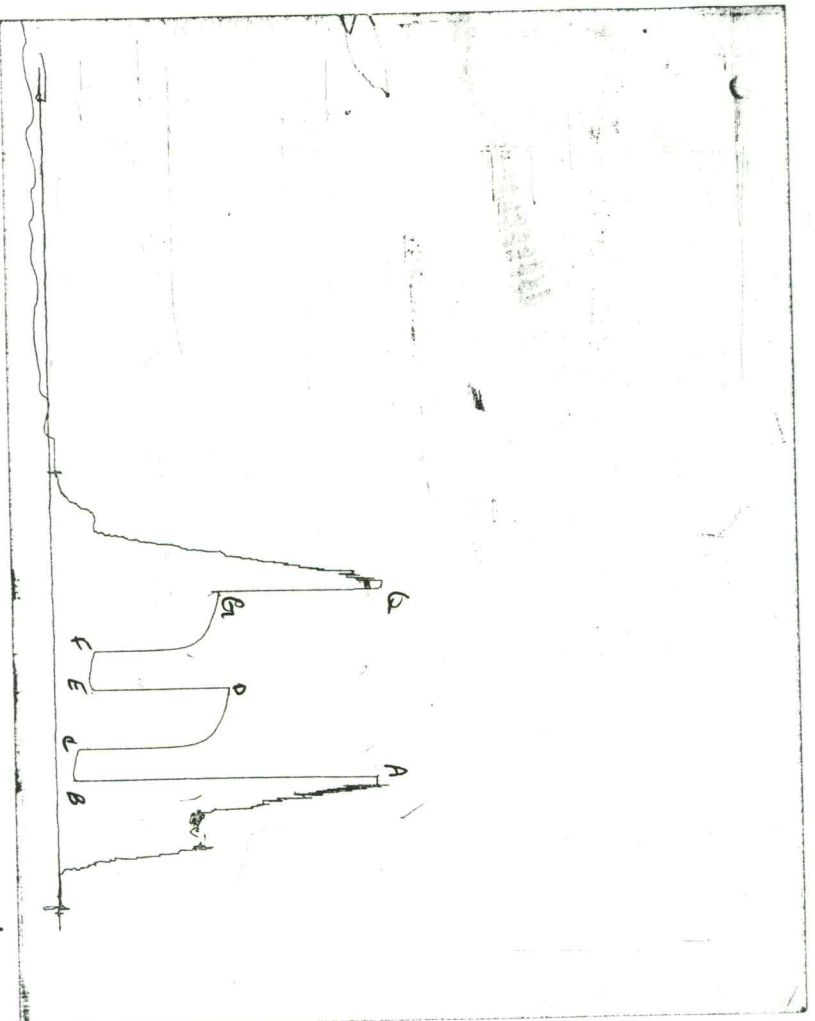
TEST: TIC#10879 DST#1 COX#1 MAXWELL OPER.CO.INC.

DATE: 12/07/97

TIME: 20:56:29

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
25.00	25.4	9.5	91.55		
25.50	25.4	9.6	91.56		
26.00	25.5	9.7	91.58		
26.50	25.7	9.9	91.61		
27.00	25.8	10	91.63		
27.50	26.0	10.2	91.66		
28.00	25.9	10.0	91.67		
28.50	26.1	10.2	91.68		
29.00	26.1	10.3	91.70		
29.50	26.2	10.3	91.73		
30.00	26.2	10.4	91.75		
30.50	26.4	10.5	91.77		
31.00	26.4	10.6	91.80		
31.50	26.7	10.9	91.80		
32.00	26.7	10.9	91.84		
32.50	26.9	11.0	91.86		
33.00	27.0	11.2	91.87		
33.50	27.0	11.2	91.89		
34.00	27.1	11.3	91.92		
34.50	27.2	11.4	91.94		
35.00	27.3	11.4	91.95		
35.50	27.4	11.6	91.98		
36.00	27.7	11.8	92.00		
36.50	27.9	12.1	92.01		
37.00	27.9	12.1	92.03		
37.50	28.2	12.3	92.05		
38.00	28.3	12.5	92.08		
38.50	28.4	12.6	92.11		
39.00	28.5	12.6	92.13		
39.50	28.5	12.6	92.15		
40.00	28.7	12.8	92.17		
40.50	28.8	12.9	92.19		
41.00	28.8	13.0	92.21		
41.50	29.0	13.1	92.22		
42.00	29.0	13.2	92.25		
42.50	29.1	13.3	92.27		
43.00	29.5	13.6	92.29		
43.50	29.4	13.6	92.32		
44.00	29.6	13.8	92.33		
44.50	29.7	13.8	92.35		
45.00	29.7	13.8	92.38		
45.50	29.8	14.0	92.40		
46.00	33.6	17.7	92.42		
46.50	39.9	24.1	92.45		
***** End Flow 1					
***** Start Shutin 1					
0.00	39.9	0.0	92.45	0.0000	0.002
0.50	46.3	6.3	92.47	94.0000	0.002
1.00	52.6	12.6	92.48	47.5000	0.003
1.50	58.7	18.8	92.51	32.0000	0.003
2.00	65.7	25.8	92.52	24.2500	0.004
2.50	73.4	33.4	92.55	19.6000	0.005
3.00	81.4	41.4	92.57	16.5000	0.007

CHART PAGE



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

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: TIC#10879 DST#1 COX#1 MAXWELL OPER.CO.INC.

DATE: 12/07/97

TIME: 20:56:29

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
3.50	89.9	50.0	92.59	14.2857	0.008
4.00	98.8	58.9	92.59	12.6250	0.01
4.50	108.5	68.6	92.63	11.3333	0.012
5.00	118.8	78.9	92.64	10.3000	0.014
5.50	130.0	90.0	92.69	9.4545	0.017
6.00	141.7	101.8	92.68	8.7500	0.020
6.50	154.2	114.3	92.71	8.1538	0.024
7.00	167.6	127.6	92.75	7.6429	0.028
7.50	182.0	142.0	92.75	7.2000	0.033
8.00	197.1	157.2	92.78	6.8125	0.039
8.50	213.1	173.1	92.80	6.4706	0.045
9.00	229.9	190.0	92.82	6.1667	0.053
9.50	247.4	207.4	92.85	5.8947	0.061
10.00	265.4	225.5	92.87	5.6500	0.070
10.50	284.0	244.1	92.90	5.4286	0.081
11.00	302.6	262.7	92.91	5.2273	0.092
11.50	321.5	281.5	92.94	5.0435	0.103
12.00	340.1	300.2	92.95	4.8750	0.116
12.50	358.7	318.7	92.97	4.7200	0.129
13.00	376.6	336.7	93.00	4.5769	0.142
13.50	393.8	353.8	93.01	4.4444	0.155
14.00	410.5	370.5	93.04	4.3214	0.168
14.50	426.3	386.4	93.07	4.2069	0.182
15.00	441.5	401.6	93.10	4.1000	0.195
15.50	456.1	416.2	93.10	4.0000	0.208
16.00	470.1	430.1	93.13	3.9062	0.221
16.50	483.3	443.4	93.13	3.8182	0.234
17.00	496.0	456.0	93.16	3.7353	0.246
17.50	508.0	468.0	93.18	3.6571	0.258
18.00	519.4	479.5	93.20	3.5833	0.270
18.50	530.3	490.4	93.24	3.5135	0.281
19.00	540.7	500.8	93.25	3.4474	0.292
19.50	550.6	510.6	93.27	3.3846	0.303
20.00	560.0	520.1	93.30	3.3250	0.314
20.50	569.0	529.1	93.33	3.2683	0.324
21.00	577.6	537.7	93.35	3.2143	0.334
21.50	585.9	545.9	93.37	3.1628	0.343
22.00	593.7	553.7	93.39	3.1136	0.352
22.50	601.0	561.1	93.41	3.0667	0.361
23.00	608.3	568.3	93.43	3.0217	0.370
23.50	615.2	575.3	93.45	2.9787	0.378
24.00	621.6	581.7	93.48	2.9375	0.386
24.50	627.9	588.0	93.48	2.8980	0.394
25.00	634.3	594.4	93.52	2.8600	0.402
25.50	639.9	600.0	93.53	2.8235	0.410
26.00	645.7	605.7	93.55	2.7885	0.417
26.50	651.0	611.1	93.57	2.7547	0.424
27.00	656.1	616.2	93.59	2.7222	0.431
27.50	661.0	621.1	93.61	2.6909	0.437
28.00	665.7	625.8	93.64	2.6607	0.443
28.50	670.2	630.3	93.64	2.6316	0.449

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: TIC#10879 DST#1 COX#1 MAXWELL OPER.CO.INC.

DATE: 12/07/97

TIME: 20:56:29

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
29.00	674.7	634.7	93.66	2.6034	0.455
29.50	678.8	638.8	93.69	2.5763	0.461
30.00	682.8	642.9	93.70	2.5500	0.466
30.50	686.8	646.8	93.73	2.5246	0.472
31.00	690.5	650.6	93.74	2.5000	0.477
31.50	694.1	654.1	93.67	2.4762	0.482
32.00	697.4	657.5	93.78	2.4531	0.486
32.50	701.0	661.0	93.80	2.4308	0.491
33.00	704.3	664.4	93.82	2.4091	0.496
33.50	707.6	667.6	93.82	2.3881	0.501
34.00	710.7	670.7	93.85	2.3676	0.505
34.50	713.6	673.7	93.85	2.3478	0.509
35.00	716.5	676.6	93.88	2.3286	0.513
35.50	719.2	679.2	93.90	2.3099	0.517
36.00	722.0	682.0	93.92	2.2917	0.521
36.50	724.6	684.6	93.96	2.2740	0.525
37.00	727.1	687.1	93.96	2.2568	0.529
37.50	729.4	689.4	93.97	2.2400	0.532
38.00	731.6	691.7	93.97	2.2237	0.535
38.50	733.9	694.0	93.97	2.2078	0.539
39.00	736.0	696.1	93.97	2.1923	0.542
39.50	738.2	698.2	93.99	2.1772	0.545
40.00	740.2	700.3	93.99	2.1625	0.548
40.50	742.3	702.4	94.01	2.1481	0.551
41.00	744.3	704.3	94.06	2.1341	0.554
41.50	746.2	706.3	94.06	2.1205	0.557
42.00	748.8	708.9	94.07	2.1071	0.561
42.50	750.6	710.6	94.10	2.0941	0.563
43.00	752.4	712.4	94.11	2.0814	0.566
43.50	754.1	714.2	94.13	2.0690	0.569
44.00	754.1	714.2	94.14	2.0568	0.569
***** End Shut-in 1					
***** Start Flow 2	0.00	28.6	0.0	94.16	
	0.50	29.0	0.3	94.18	
	1.00	29.9	1.2	94.20	
	1.50	30.1	1.4	94.20	
	2.00	30.6	1.9	94.22	
	2.50	30.9	2.2	94.22	
	3.00	31.2	2.6	94.21	
	3.50	31.8	3.2	94.20	
	4.00	32.0	3.3	94.22	
	4.50	32.1	3.5	94.23	
	5.00	32.2	3.5	94.23	
	5.50	32.1	3.5	94.24	
	6.00	32.3	3.7	94.25	
	6.50	32.3	3.7	94.26	
	7.00	32.8	4.1	94.25	
	7.50	32.7	4.0	94.28	
	8.00	32.8	4.1	94.29	
	8.50	33.0	4.3	94.31	
	9.00	32.9	4.2	94.31	
	9.50	32.8	4.2	94.32	

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

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10.00	32.8	4.2	94.34		
10.50	32.9	4.3	94.36		
11.00	32.9	4.3	94.37		
11.50	33.1	4.5	94.39		
12.00	33.2	4.5	94.39		
12.50	33.4	4.8	94.39		
13.00	33.4	4.7	94.41		
13.50	33.4	4.8	94.44		
14.00	33.7	5.0	94.45		
14.50	33.9	5.2	94.46		
15.00	33.9	5.3	94.48		
15.50	34.1	5.4	94.49		
16.00	34.3	5.6	94.51		
16.50	34.3	5.7	94.52		
17.00	34.4	5.8	94.55		
17.50	34.5	5.9	94.55		
18.00	34.7	6.0	94.57		
18.50	34.7	6.0	94.58		
19.00	34.7	6.1	94.61		
19.50	34.9	6.3	94.61		
20.00	34.9	6.2	94.64		
20.50	34.9	6.2	94.65		
21.00	35.3	6.6	94.66		
21.50	35.4	6.7	94.67		
22.00	35.3	6.7	94.69		
22.50	35.4	6.7	94.72		
23.00	35.5	6.8	94.73		
23.50	35.5	6.9	94.75		
24.00	35.7	7.0	94.76		
24.50	35.8	7.1	94.77		
25.00	36.0	7.4	94.79		
25.50	36.1	7.4	94.81		
26.00	36.3	7.7	94.82		
26.50	36.4	7.8	94.83		
27.00	36.4	7.8	94.85		
27.50	36.5	7.9	94.87		
28.00	36.6	8.0	94.90		
28.50	36.7	8.0	94.91		
29.00	36.8	8.1	94.92		
29.50	37.1	8.4	94.94		
30.00	37.1	8.5	94.95		
30.50	37.1	8.5	94.97		
31.00	37.4	8.7	94.98		
31.50	37.4	8.8	95.01		
32.00	37.6	9.0	95.02		
32.50	37.7	9.0	95.03		
33.00	37.8	9.2	95.05		
33.50	38.1	9.5	95.05		
34.00	38.1	9.5	95.08		
34.50	38.2	9.6	95.10		
35.00	38.3	9.6	95.11		

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 DATE: 12/07/97 TIME: 20:56:29

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	35.50	38.5	9.8	95.12		
	36.00	38.5	9.8	95.14		
	36.50	38.7	10.0	95.15		
	37.00	38.7	10.1	95.17		
	37.50	38.8	10.1	95.18		
	38.00	39.0	10.3	95.20		
	38.50	39.0	10.4	95.22		
	39.00	39.2	10.5	95.22		
	39.50	39.3	10.7	95.23		
	40.00	39.4	10.8	95.24		
	40.50	39.5	10.8	95.29		
	41.00	39.7	11.0	95.28		
	41.50	39.6	11.0	95.28		
	42.00	39.8	11.2	95.31		
	42.50	39.8	11.2	95.33		
	43.00	39.9	11.3	95.33		
	43.50	39.9	11.3	95.34		
***** End Flow 2	44.00	40.1	11.5	95.38		
***** Start Shutin 2	0.00	40.1	0.0	95.38	0.0000	0.002
	0.50	40.3	0.1	95.37	182.0000	0.002
	1.00	40.3	0.1	95.40	91.5000	0.002
	1.50	43.4	3.2	95.40	61.3333	0.002
	2.00	51.5	11.3	95.41	46.2500	0.003
	2.50	59.4	19.3	95.43	37.2000	0.004
	3.00	67.7	27.5	95.44	31.1667	0.005
	3.50	76.1	36.0	95.45	26.8571	0.006
	4.00	85.0	44.8	95.47	23.6250	0.007
	4.50	94.2	54.1	95.49	21.1111	0.009
	5.00	103.7	63.6	95.49	19.1000	0.011
	5.50	113.9	73.8	95.50	17.4545	0.013
	6.00	124.5	84.4	95.52	16.0833	0.016
	6.50	135.7	95.5	95.52	14.9231	0.018
	7.00	147.4	107.2	95.55	13.9286	0.022
	7.50	159.6	119.5	95.55	13.0667	0.025
	8.00	172.4	132.3	95.57	12.3125	0.030
	8.50	185.8	145.7	95.57	11.6471	0.035
	9.00	199.8	159.7	95.59	11.0556	0.040
	9.50	214.4	174.3	95.61	10.5263	0.046
	10.00	229.8	189.7	95.63	10.0500	0.053
	10.50	245.8	205.7	95.63	9.6190	0.060
	11.00	262.4	222.3	95.66	9.2273	0.069
	11.50	279.3	239.1	95.67	8.8696	0.078
	12.00	296.3	256.1	95.69	8.5417	0.088
	12.50	313.3	273.1	95.70	8.2400	0.098
	13.00	330.1	289.9	95.70	7.9615	0.109
	13.50	346.4	306.3	95.73	7.7037	0.120
	14.00	362.4	322.3	95.73	7.4643	0.131
	14.50	377.9	337.8	95.77	7.2414	0.143
	15.00	392.7	352.6	95.77	7.0333	0.154
	15.50	406.9	366.7	95.78	6.8387	0.166
	16.00	420.4	380.2	95.80	6.6562	0.177

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: TIC#10879 DST#1 COX#1 MAXWELL OPER.CO.INC.

DATE: 12/07/97

TIME: 20:56:29

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
16.50	433.4	393.3	95.82	6.4848	0.188
17.00	445.8	405.6	95.84	6.3235	0.199
17.50	457.4	417.3	95.84	6.1714	0.209
18.00	468.6	428.5	95.85	6.0278	0.220
18.50	479.2	439.1	95.87	5.8919	0.230
19.00	489.3	449.2	95.88	5.7632	0.239
19.50	499.0	458.9	95.92	5.6410	0.249
20.00	508.1	468.0	95.91	5.5250	0.258
20.50	516.8	476.7	95.92	5.4146	0.267
21.00	525.2	485.1	95.96	5.3095	0.276
21.50	533.1	493.0	95.96	5.2093	0.284
22.00	540.9	500.7	95.98	5.1136	0.293
22.50	548.3	508.2	96.01	5.0222	0.301
23.00	555.4	515.3	96.01	4.9348	0.309
23.50	562.2	522.0	96.01	4.8511	0.316
24.00	568.6	528.4	96.05	4.7708	0.323
24.50	574.7	534.6	96.04	4.6939	0.330
25.00	580.6	540.4	96.06	4.6200	0.337
25.50	586.2	546.1	96.08	4.5490	0.344
26.00	591.7	551.6	96.09	4.4808	0.350
26.50	597.0	556.8	96.11	4.4151	0.356
27.00	602.2	562.0	96.10	4.3519	0.363
27.50	607.1	567.0	96.13	4.2909	0.369
28.00	611.9	571.7	96.15	4.2321	0.374
28.50	616.4	576.3	96.15	4.1754	0.380
29.00	620.8	580.7	96.17	4.1207	0.385
29.50	625.2	585.0	96.16	4.0678	0.391
30.00	629.3	589.2	96.21	4.0167	0.396
30.50	633.3	593.2	96.21	3.9672	0.401
31.00	637.3	597.1	96.22	3.9194	0.406
31.50	641.1	600.9	96.24	3.8730	0.411
32.00	644.6	604.5	96.26	3.8281	0.416
32.50	648.2	608.0	96.26	3.7846	0.420
33.00	651.6	611.5	96.28	3.7424	0.425
33.50	654.9	614.8	96.30	3.7015	0.429
34.00	658.2	618.1	96.30	3.6618	0.433
34.50	661.4	621.2	96.31	3.6232	0.437
35.00	664.5	624.3	96.34	3.5857	0.442
35.50	667.6	627.4	96.34	3.5493	0.446
36.00	670.5	630.4	96.35	3.5139	0.450
36.50	673.4	633.3	96.42	3.4795	0.454
37.00	676.2	636.1	96.38	3.4459	0.457
37.50	678.9	638.7	96.47	3.4133	0.461
38.00	681.5	641.3	96.00	3.3816	0.464
38.50	684.1	644.0	96.44	3.3506	0.468
39.00	686.7	646.5	96.44	3.3205	0.471
39.50	689.1	649.0	96.45	3.2911	0.475
40.00	691.5	651.3	96.45	3.2625	0.478
40.50	693.8	653.6	96.45	3.2346	0.481
41.00	696.1	655.9	96.45	3.2073	0.485
41.50	698.3	658.2	96.45	3.1807	0.488

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: TIC#10879 DST#1 COX#1 MAXWELL OPER.CO.INC.

DATE: 12/07/97

TIME: 20:56:29

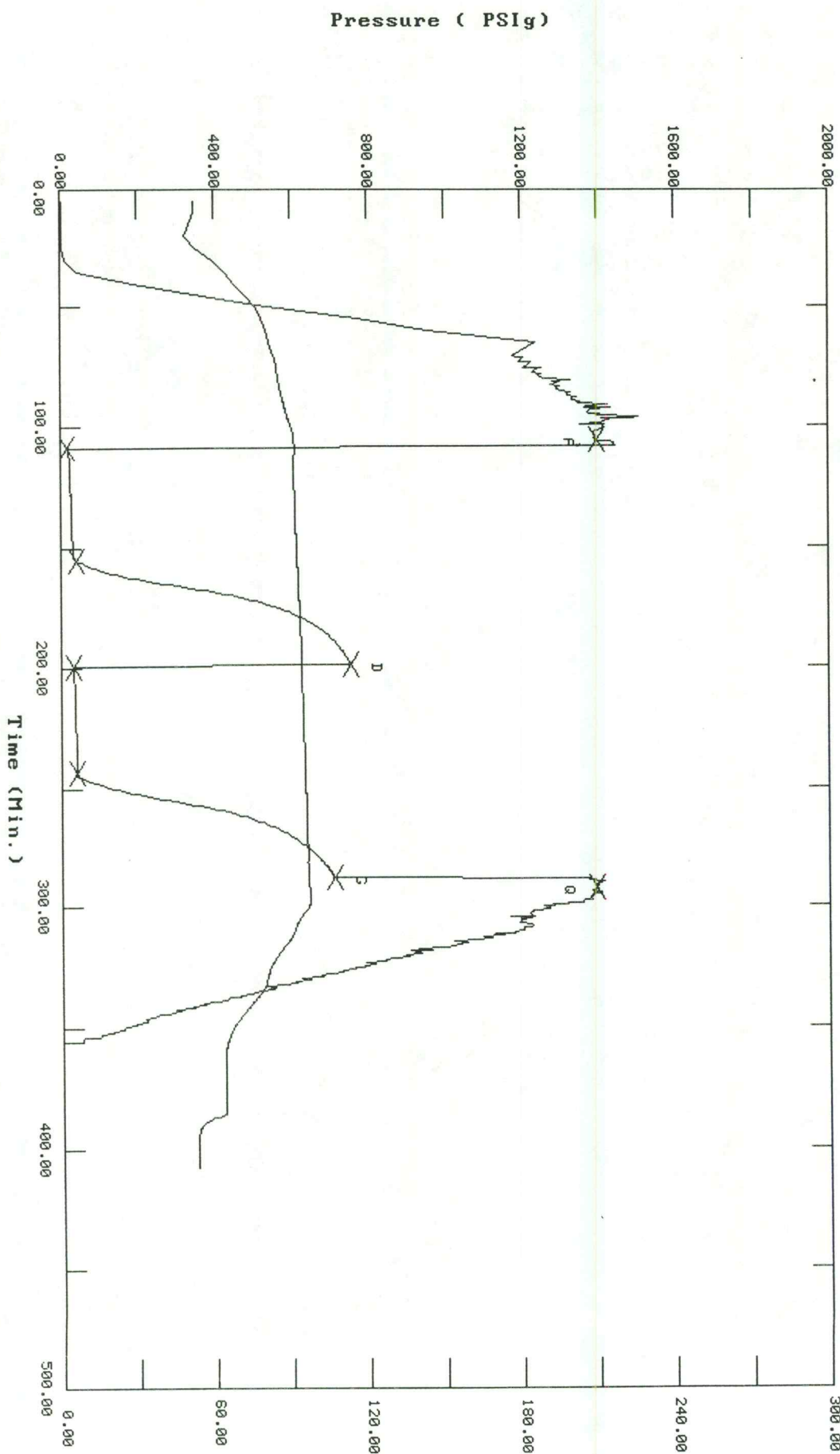
	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
	42.00	700.5	660.4	96.48	3.1548	0.491
	42.50	702.6	662.5	96.46	3.1294	0.494
	43.00	704.8	664.6	96.49	3.1047	0.497
	43.50	706.8	666.7	96.48	3.0805	0.500
	44.00	708.7	668.6	96.49	3.0568	0.502
***** End Shut-in 2	44.50	710.7	670.6	96.49	3.0337	0.505
***** Final Hydro.	292.00	1396.4	0.0	96.83		

TEST HISTORY

TIC#10879 DST#1 COX#1 MAXWELL OPER.CO.INC.

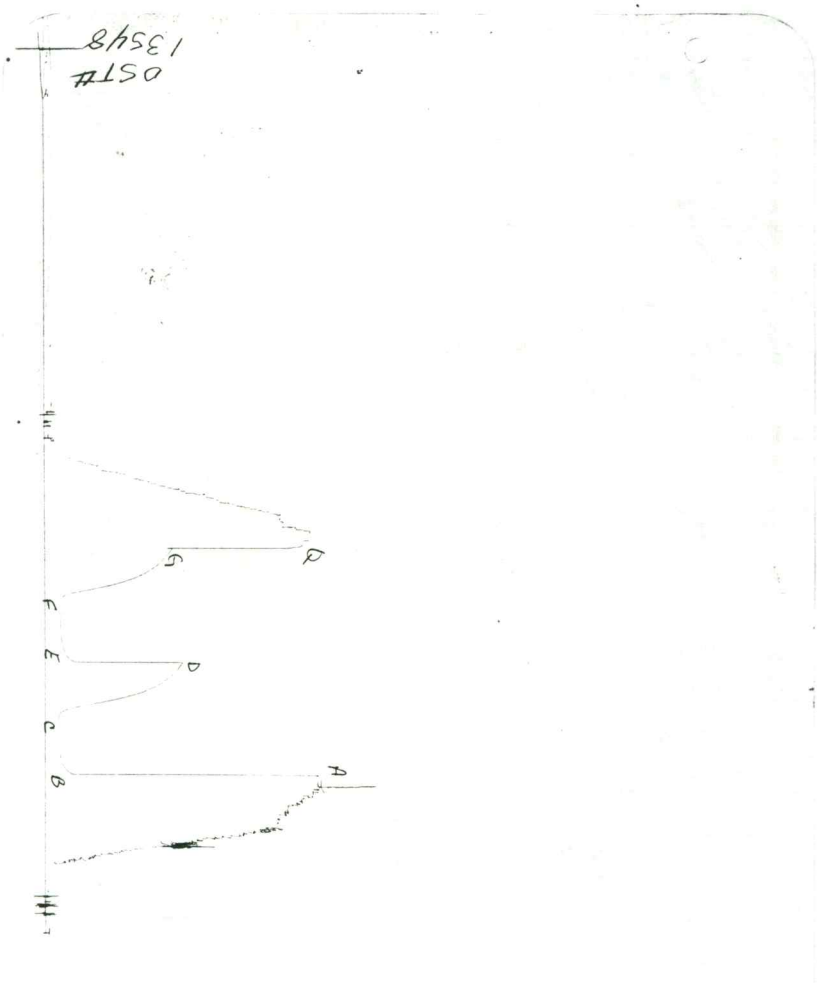
Flag Points
t(Min.) P(PSig)

R:	0.00	1399.69
B:	0.00	15.85
C:	46.50	39.94
D:	44.00	754.15
E:	0.00	28.64
F:	44.00	40.14
G:	44.50	710.69
Q:	0.00	1396.40



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 10879

Well Name & No.	Cox #1	Test No.	1	Date	12-7-97
Company	MAXWELL OPERATING CO., INC	Zone Tested	~~2914-2945~~ Topeka		
Address	P.O. Box 1213 Hays, KS 67601	Elevation	1915	KB	1907 GL
Co. Rep / Geo.	Ron Nelson	Cont.	Discovery Delg	Est. Ft. of Pay	Por. %
Location: Sec.	10	Twp.	16 ^s	Rge.	12 ^w
		Co.	BARTON	State	Ks
No. of Copies		Distribution Sheet (Y, N)		Turnkey (Y, N)	
		Evaluation (Y, N)			

Interval Tested 2914-2945 Initial Str Wt./Lbs. 34000 Unseated Str Wt./Lbs. 34000
Anchor Length 31 Wt. Set Lbs. 20000 Wt. Pulled Loose/Lbs. 34000
Top Packer Depth 2909 Tool Weight 2900
Bottom Packer Depth 2914 Hole Size — 7 7/8" Rubber Size — 6 3/4"
Total Depth 2945 Wt. Pipe Run — Drill Collar Run 30
Mud Wt. 9 LCM — Vis. 42 WL 8.8 Drill Pipe Size 4 1/2 XH Ft. Run 2884
Blow Description IFP-WEAK building To A Good Blow 1" To 7" Blow
FFP-WEAK building To A Good Blow 1" To 7" Blow

Recovery — Total Feet	GIP	Ft. in DC	Ft. in DP
<u>62</u>	<u>500</u>	<u>30</u>	<u>32</u>
Rec. <u>62</u>	Feet Of <u>HEAVY OIL & GAS cut mud</u>	%gas <u>15</u>	%oil — %water <u>70</u> %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 96 °F Gravity — °API D@ — °F Corrected Gravity — °API
RW — @ — °F Chlorides — ppm Recovery Chlorides 5000 ppm System
(A) Initial Hydrostatic Mud 1426 PSI Recorder No. 3027 T-Started 8:00 pm
(B) First Initial Flow Pressure 70 PSI (depth) 2916 T-Open 10:45 pm
(C) First Final Flow Pressure 70 PSI Recorder No. 13548 T-Pulled 1:45 AM
(D) Initial Shut-in Pressure 722 PSI (depth) 2942 T-Out 4:00 AM
(E) Second Initial Flow Pressure 70 PSI Recorder No. —
(F) Second Final Flow Pressure 70 PSI (depth) —
(G) Final Shut-in Pressure 660 PSI Initial Opening 45 Test 600
(H) Final Hydrostatic Mud 1396 PSI Initial Shut-in 45 Jars —

Final Flow 45 Safety Joint —
Final Shut-in 45 Straddle —
Circ. Sub —
Sampler —
Extra Packer —
Elect. Rec 150
Other —

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 _____

TRILOBITE TESTING L.L.C.

OPERATOR : Maxwell Oper. Co.Inc.
WELL NAME: Cox#1
LOCATION : 10-16S-12W Barton Co KS
INTERVAL : 3081.00 To 3116.00 ft

DATE 12-08-199
KB 1915.00 ft TICKET NO: 10880 DST #2
GR 1907.00 ft FORMATION: K.C.
TD 3116.00 ft TEST TYPE: CONV.

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
F 30 Rec.	10278	10278	3027			PF Fr. 1715 to 1745 hr
I 45 Range(Psi)	4150.0	4150.0	4995.0	0.0	0.0	IS Fr. 1745 to 1830 hr
F 30 Clock(hrs)	12 hr	12 hr	elect			SF Fr. 1830 to 1900 hr
S 45 Depth(ft)	3111.0	3111.0	3088.0	0.0	0.0	FS Fr. 1900 to 1945 hr

	Field	1	2	3	4	
Init Hydro	1506.0	1551.0	1483.0	0.0	0.0	T STARTED 1615 hr
First Flow	72.0	78.0	45.0	0.0	0.0	T ON BOTM 1710 hr
Final Flow	83.0	91.0	76.0	0.0	0.0	T OPEN 1715 hr
In Shut-in	614.0	623.0	612.0	0.0	0.0	T PULLED 1945 hr
Init Flow	114.0	130.0	90.0	0.0	0.0	T OUT 2200 hr
Final Flow	124.0	142.0	136.0	0.0	0.0	
Fl Shut-in	562.0	608.0	602.0	0.0	0.0	TOOL DATA-----
Final Hydro	1506.0	1532.0	1473.0	0.0	0.0	Tool Wt. 2900.00 lbs
Inside/Outside	O	O	I			Wt Set On Packer 20000.00 lbs
						Wt Pulled Loose 34000.00 lbs
						Initial Str Wt 32000.00 lbs
						Unseated Str Wt 32000.00 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 3055.00 ft

RECOVERY

Not Fluid 278.00 ft of 30.00 ft in DC and 248.00 ft in DP
0.00 ft of Heavy Oil & Gas Cut Mud
0.00 ft of 20%gas 30%oil 50%mud
2.00 ft of Heavy Oil & Gas Cut Watery Mud
0.00 ft of 20%gas 28%Oil 22%Water 30%Mud
2.00 ft of Slight Oil & Gas Cut Water
0.00 ft of 1%Oil 99%water
24.00 ft of Water
0.00 ft of
SALINITY 81000.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Flow:
Strong blow - gas to surface in
9 minutes

Final Flow:
Strong Blow

MUD DATA-----
Mud Type Chemical
Weight 9.30 lb/cf
Vis. 48.00 S/L
W.L. 8.80 in3
F.C. 200.00 in
Mud Drop

Amt. of fill 0.00 ft
Btm. H. Temp. 104.00 F
Hole Condition Good
% Porosity 0.00
Packer Size 6.75 in
No. of Packers 2
Cushion Amt. 0.00
Cushion Type
Reversed Out
Tool Chased
Tester Ray Schwager
Co. Rep. Ron Nelson
Contr. Discovery Drlg.
Rig # 1
Unit #
Pump T.

SAMPLES:
SENT TO:

Test Successful: Y

GAS RECOVERY

COMPANY: Maxwell Oper. Co.Inc.

DATE: 12-08-199

WELL NAME: Cox#1

KB Elev: 1915.00 ft TICKET #10880

DST #2

WELL LOCATION: 10-16S-12W Barton Co KS

GR Elev: 1907.00 ft FORMATION: K.C.

INTERVAL Fr.: 3081.00 To 3116.00 T.D.: 3116.00 ft TEST TYPE: CONV.

GAS RECOVERY MEASURED WITH gas in 9 min

10

0.25

0

5

3710.0

*** TOOL DIAGRAM *** CONV.

WELL NAME: Cox#1	P.O. SUB	
	C.O. SUB	3060
LOCATION : 10-16S-12W Barton Co KS	S.I. TOOL	3066
TICKET No. 10880 D.S.T. No. 2 DATE 12-08-199		
TOTAL TOOL TO BOTTOM OF TOP PACKERS 20	HMV	3071
INTERVAL TOOL	JARS	
BOTTOM PACKERS AND ANCHOR 35		
TOTAL TOOL 55		
DRILL COLLAR ANCHOR IN INTERVAL 0		
D.C. ANCHOR STND.Stands Single 0 Total	SAFETY JOINT	
D.P. ANCHOR STND.Stands Single Total	PACKER	3076
TOTAL ASSEMBLY	PACKER	3081
D.C. ABOVE TOOLS.Stands Single 1 Total 30	DEPTH 3081	
D.P. ABOVE TOOLS.Stands51 Single Total 3055	STUBB	3082
	ANCHOR 34	3116
TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 3140		
TOTAL DEPTH 3116		
TOTAL DRILL PIPE ABOVE K.B. 24		
REMARKS:		
	T.C.	
	DEPTH	
	1'perfs	3082
	5'perfs	3087
	5'perfs	3092
	5 perfs	3097
	5' "	3102
	5' "	3107
	5' "	3112
	2' "	3114
	BULLNOSE	
	T.D. 2'bullplug	3116

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tkt#10880 DST#2 Cox#1 Maxwell Operating Co.Inc.

DATE: 12/08/97

TIME: 16:13:17

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** Initial Hydro.	60.00	1483.3	0.0	91.22		
***** Start Flow 1	0.00	45.3	0.0	92.35		
	5.50	51.2	5.9	92.75		
	6.00	51.2	5.9	92.76		
	6.50	48.5	3.2	92.78		
	7.00	46.5	1.2	92.79		
	7.50	45.4	0.2	92.80		
	8.00	45.1	-0.2	92.81		
	8.50	44.7	-0.6	92.83		
	9.00	44.8	-0.5	92.84		
	9.50	46.5	1.2	92.87		
	10.00	46.5	1.2	92.89		
	10.50	47.4	2.1	92.90		
	11.00	48.2	2.9	92.92		
	11.50	48.4	3.1	92.93		
	12.00	49.5	4.2	92.94		
	12.50	50.6	5.3	92.96		
	13.00	51.3	6.0	92.98		
	13.50	51.3	6.0	93.01		
	14.00	52.5	7.2	93.03		
	14.50	53.0	7.7	93.05		
	15.00	52.8	7.6	93.08		
	15.50	54.6	9.4	93.10		
	16.00	55.2	9.9	93.13		
	16.50	56.2	10.9	93.13		
	17.00	56.9	11.6	93.16		
	17.50	57.4	12.2	93.18		
	18.00	58.4	13.2	93.22		
	18.50	59.4	14.1	93.24		
	19.00	60.1	14.8	93.29		
	19.50	60.1	14.8	93.32		
	20.00	61.3	16.1	93.34		
	20.50	62.6	17.3	93.39		
	21.00	62.7	17.5	93.47		
	21.50	63.7	18.4	93.44		
	22.00	65.3	20.0	93.48		
	22.50	66.2	20.9	93.52		
	23.00	67.3	22.0	93.55		
	23.50	68.1	22.8	93.60		
	24.00	68.2	22.9	93.62		
	24.50	69.1	23.8	93.66		
	25.00	69.1	23.8	93.71		
	25.50	70.4	25.1	93.74		
	26.00	71.9	26.6	93.80		
	26.50	72.1	26.8	93.84		
	27.00	73.1	27.8	93.88		
	27.50	73.8	28.5	93.94		
	28.00	75.4	30.1	93.96		
	28.50	75.6	30.4	93.97		
***** End Flow 1	29.00	76.5	31.2	94.00		
***** Start Shutin 1	0.00	76.5	0.0	94.00	0.0000	0.006

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tkt#10880 DST#2 Cox#1 Maxwell Operating Co.Inc.

DATE: 12/08/97

TIME: 16:13:17

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
0.50	77.5	1.0	94.05	59.0000	0.006
1.00	98.6	22.1	94.11	30.0000	0.01
1.50	310.3	233.8	94.18	20.3333	0.096
2.00	390.8	314.3	94.20	15.5000	0.153
2.50	424.1	347.6	94.25	12.6000	0.180
3.00	445.5	369.0	94.29	10.6667	0.199
3.50	462.3	385.8	94.34	9.2857	0.214
4.00	475.7	399.2	94.39	8.2500	0.226
4.50	487.5	411.0	94.43	7.4444	0.238
5.00	504.7	428.2	94.49	6.8000	0.255
5.50	514.1	437.6	94.54	6.2727	0.264
6.00	520.9	444.4	94.59	5.8333	0.271
6.50	526.5	450.0	94.63	5.4615	0.277
7.00	531.5	455.0	94.69	5.1429	0.282
7.50	535.9	459.4	94.74	4.8667	0.287
8.00	539.9	463.4	94.79	4.6250	0.291
8.50	543.5	467.0	94.83	4.4118	0.295
9.00	546.9	470.4	94.89	4.2222	0.299
9.50	550.0	473.5	94.93	4.0526	0.303
10.00	552.8	476.3	94.99	3.9000	0.306
10.50	555.4	478.9	95.04	3.7619	0.308
11.00	557.8	481.3	95.08	3.6364	0.311
11.50	560.1	483.6	95.13	3.5217	0.314
12.00	562.3	485.8	95.18	3.4167	0.316
12.50	564.3	487.8	95.22	3.3200	0.318
13.00	566.3	489.8	95.30	3.2308	0.321
13.50	568.1	491.6	95.32	3.1481	0.323
14.00	569.8	493.3	95.38	3.0714	0.325
14.50	571.5	495.0	95.45	3.0000	0.327
15.00	573.1	496.6	95.49	2.9333	0.328
15.50	574.7	498.2	95.55	2.8710	0.330
16.00	576.1	499.6	95.62	2.8125	0.332
16.50	577.5	501.0	95.66	2.7576	0.334
17.00	578.9	502.4	95.72	2.7059	0.335
17.50	580.2	503.7	95.78	2.6571	0.337
18.00	581.5	505.0	95.84	2.6111	0.338
18.50	582.7	506.2	95.89	2.5676	0.340
19.00	583.8	507.3	95.96	2.5263	0.341
19.50	584.9	508.4	96.03	2.4872	0.342
20.00	586.0	509.5	96.10	2.4500	0.343
20.50	587.0	510.5	96.15	2.4146	0.345
21.00	588.1	511.6	96.23	2.3810	0.346
21.50	589.1	512.6	96.30	2.3488	0.347
22.00	590.0	513.5	96.44	2.3182	0.348
22.50	590.9	514.4	96.45	2.2889	0.349
23.00	591.8	515.3	96.49	2.2609	0.350
23.50	592.7	516.2	96.54	2.2340	0.351
24.00	593.6	517.1	96.62	2.2083	0.352
24.50	594.4	517.9	96.72	2.1837	0.353
25.00	595.2	518.7	96.78	2.1600	0.354
25.50	596.0	519.5	96.87	2.1373	0.355

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tkt#10880 DST#2 Cox#1 Maxwell Operating Co.Inc.

DATE: 12/08/97

TIME: 16:13:17

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
26.00	596.8	520.3	96.95	2.1154	0.356
26.50	597.5	521.0	97.00	2.0943	0.357
27.00	598.3	521.8	97.09	2.0741	0.358
27.50	599.0	522.5	97.17	2.0545	0.359
28.00	599.6	523.1	97.23	2.0357	0.360
28.50	600.3	523.8	97.32	2.0175	0.360
29.00	601.0	524.5	97.38	2.0000	0.361
29.50	601.6	525.1	97.46	1.9831	0.362
30.00	602.2	525.7	97.54	1.9667	0.363
30.50	602.8	526.3	97.61	1.9508	0.363
31.00	603.4	526.9	97.68	1.9355	0.364
31.50	604.0	527.5	97.77	1.9206	0.365
32.00	604.6	528.1	97.83	1.9062	0.366
32.50	605.1	528.6	97.89	1.8923	0.366
33.00	605.7	529.2	97.96	1.8788	0.367
33.50	606.3	529.8	98.03	1.8657	0.368
34.00	606.8	530.3	98.08	1.8529	0.368
34.50	607.3	530.8	98.15	1.8406	0.369
35.00	607.8	531.3	98.22	1.8286	0.369
35.50	608.3	531.8	98.28	1.8169	0.370
36.00	608.8	532.3	98.34	1.8056	0.371
36.50	609.3	532.8	98.41	1.7945	0.371
37.00	609.8	533.2	98.46	1.7838	0.372
37.50	610.2	533.7	98.52	1.7733	0.372
38.00	610.7	534.1	98.58	1.7632	0.373
38.50	611.1	534.6	98.66	1.7532	0.373
39.00	611.5	535.0	98.72	1.7436	0.374
39.50	611.9	535.4	98.77	1.7342	0.374
40.00	612.4	535.8	98.83	1.7250	0.375
40.50	612.8	536.2	98.91	1.7160	0.375
41.00	613.2	536.7	98.95	1.7073	0.376
41.50	613.6	537.1	98.97	1.6988	0.376
42.00	614.0	537.5	99.00	1.6905	0.377
42.50	614.3	537.8	99.08	1.6824	0.377
43.00	614.7	538.2	99.13	1.6744	0.378
43.50	615.1	538.6	99.19	1.6667	0.378
44.00	615.4	538.9	99.24	1.6591	0.379
44.50	615.8	539.3	99.30	1.6517	0.379
45.00	616.1	539.6	99.34	1.6444	0.380
45.50	616.5	540.0	99.40	1.6374	0.380
46.00	616.8	540.3	99.44	1.6304	0.380
46.50	613.0	536.5	99.50	1.6237	0.376
***** End Shut-in 1					
***** Start Flow 2					
0.00	90.5	0.0	99.52		
0.50	90.5	0.0	99.56		
1.00	90.7	0.3	99.53		
1.50	90.8	0.3	99.47		
2.00	90.9	0.4	99.40		
2.50	91.2	0.7	99.30		
3.00	91.7	1.3	99.24		
3.50	92.0	1.6	99.15		
4.00	92.8	2.3	99.10		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tkt#10880 DST#2 Cox#1 Maxwell Operating Co.Inc.

DATE: 12/08/97

TIME: 16:13:17

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
4.50	93.8	3.3	99.03		
5.00	94.7	4.2	98.97		
5.50	95.3	4.8	98.97		
6.00	96.3	5.8	98.97		
6.50	98.1	7.6	98.96		
7.00	98.2	7.7	98.95		
7.50	100.1	9.6	98.92		
8.00	100.7	10.2	98.94		
8.50	101.9	11.4	98.90		
9.00	102.6	12.1	98.92		
9.50	103.7	13.2	98.92		
10.00	104.9	14.5	98.94		
10.50	105.4	14.9	98.96		
11.00	106.5	16.1	98.97		
11.50	107.2	16.7	98.97		
12.00	108.1	17.6	98.97		
12.50	109.5	19.0	98.97		
13.00	109.4	18.9	98.97		
13.50	110.8	20.3	98.99		
14.00	111.8	21.3	99.03		
14.50	112.8	22.4	99.05		
15.00	113.7	23.3	99.09		
15.50	114.3	23.8	99.10		
16.00	115.1	24.6	99.13		
16.50	116.1	25.7	99.16		
17.00	117.3	26.8	99.19		
17.50	118.1	27.6	99.20		
18.00	118.6	28.1	99.23		
18.50	119.3	28.8	99.26		
19.00	120.3	29.8	99.29		
19.50	121.1	30.6	99.31		
20.00	121.4	31.0	99.35		
20.50	122.5	32.0	99.38		
21.00	123.7	33.2	99.41		
21.50	124.6	34.1	99.43		
22.00	125.1	34.6	99.46		
22.50	126.2	35.7	99.49		
23.00	127.1	36.7	99.51		
23.50	127.0	36.6	99.53		
24.00	127.7	37.2	99.56		
24.50	128.9	38.5	99.58		
25.00	129.9	39.4	99.61		
25.50	130.7	40.2	99.63		
26.00	131.2	40.8	99.65		
26.50	132.1	41.6	99.67		
27.00	132.7	42.3	99.72		
27.50	133.3	42.8	99.73		
28.00	134.0	43.6	99.78		
28.50	135.2	44.8	99.80		
29.00	135.6	45.1	99.80		
29.50	136.1	45.7	99.81		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tkt#10880 DST#2 Cox#1 Maxwell Operating Co.Inc.

DATE: 12/08/97

TIME: 16:13:17

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** End Flow 2	30.00	136.8	46.3	99.79		
***** Start Shutin 2	0.00	136.8	0.0	99.79	0.0000	0.019
	0.50	196.0	59.2	99.87	119.0000	0.038
	1.00	348.4	211.6	99.90	60.0000	0.121
	1.50	403.5	266.7	99.93	40.3333	0.163
	2.00	430.0	293.3	99.96	30.5000	0.185
	2.50	448.5	311.8	99.99	24.6000	0.201
	3.00	463.3	326.6	100.06	20.6667	0.215
	3.50	481.8	345.0	100.11	17.8571	0.232
	4.00	494.6	357.9	100.17	15.7500	0.245
	4.50	502.3	365.5	100.26	14.1111	0.252
	5.00	508.3	371.6	100.34	12.8000	0.258
	5.50	513.3	376.6	100.44	11.7273	0.263
	6.00	517.7	381.0	100.53	10.8333	0.268
	6.50	521.8	385.0	100.65	10.0769	0.272
	7.00	525.4	388.6	100.74	9.4286	0.276
	7.50	528.7	391.9	100.85	8.8667	0.280
	8.00	531.7	395.0	100.95	8.3750	0.283
	8.50	534.6	397.8	101.05	7.9412	0.286
	9.00	537.2	400.4	101.13	7.5556	0.289
	9.50	539.7	402.9	101.26	7.2105	0.291
	10.00	542.0	405.3	101.34	6.9000	0.294
	10.50	544.2	407.5	101.45	6.6190	0.296
	11.00	546.3	409.6	101.46	6.3636	0.298
	11.50	548.3	411.5	101.50	6.1304	0.301
	12.00	550.2	413.4	101.56	5.9167	0.303
	12.50	552.0	415.2	101.63	5.7200	0.305
	13.00	553.6	416.9	101.69	5.5385	0.307
	13.50	555.3	418.5	101.74	5.3704	0.308
	14.00	556.9	420.1	101.78	5.2143	0.310
	14.50	558.4	421.6	101.82	5.0690	0.312
	15.00	559.8	423.1	101.85	4.9333	0.313
	15.50	561.3	424.6	101.89	4.8065	0.315
	16.00	562.7	426.0	101.92	4.6875	0.317
	16.50	564.0	427.2	101.96	4.5758	0.318
	17.00	565.2	428.5	101.97	4.4706	0.319
	17.50	566.5	429.7	102.00	4.3714	0.321
	18.00	567.7	430.9	102.02	4.2778	0.322
	18.50	568.8	432.0	102.05	4.1892	0.324
	19.00	569.9	433.2	102.05	4.1053	0.325
	19.50	571.0	434.2	102.08	4.0256	0.326
	20.00	572.0	435.3	102.09	3.9500	0.327
	20.50	573.0	436.3	102.11	3.8780	0.328
	21.00	574.0	437.2	102.14	3.8095	0.329
	21.50	574.9	438.2	102.15	3.7442	0.331
	22.00	575.9	439.1	102.16	3.6818	0.332
	22.50	576.7	440.0	102.17	3.6222	0.333
	23.00	577.6	440.9	102.19	3.5652	0.334
	23.50	578.5	441.7	102.21	3.5106	0.335
	24.00	579.3	442.5	102.22	3.4583	0.336
	24.50	580.1	443.4	102.22	3.4082	0.337

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tkt#10880 DST#2 Cox#1 Maxwell Operating Co.Inc.

DATE: 12/08/97

TIME: 16:13:17

Time	Pressure PSig	delta P PSig	P	Temp. DEG F	(T+dT)/dT	P^2/10^6
25.00	580.9	444.1	102.25	3.3600	0.337	
25.50	581.6	444.9	102.25	3.3137	0.338	
26.00	582.4	445.6	102.26	3.2692	0.339	
26.50	583.1	446.4	102.29	3.2264	0.340	
27.00	583.8	447.0	102.30	3.1852	0.341	
27.50	584.5	447.8	102.33	3.1455	0.342	
28.00	585.2	448.4	102.32	3.1071	0.342	
28.50	585.8	449.1	102.34	3.0702	0.343	
29.00	586.5	449.7	102.36	3.0345	0.344	
29.50	587.1	450.4	102.37	3.0000	0.345	
30.00	587.7	451.0	102.37	2.9667	0.345	
30.50	588.3	451.6	102.40	2.9344	0.346	
31.00	588.9	452.2	102.41	2.9032	0.347	
31.50	589.5	452.7	102.43	2.8730	0.347	
32.00	590.0	453.3	102.44	2.8438	0.348	
32.50	590.6	453.9	102.44	2.8154	0.349	
33.00	591.2	454.4	102.46	2.7879	0.349	
33.50	591.7	454.9	102.48	2.7612	0.350	
34.00	592.2	455.5	102.50	2.7353	0.351	
34.50	592.7	456.0	102.51	2.7101	0.351	
35.00	593.3	456.5	102.52	2.6857	0.352	
35.50	593.7	457.0	102.52	2.6620	0.352	
36.00	594.2	457.4	102.54	2.6389	0.353	
36.50	594.7	458.0	102.57	2.6164	0.354	
37.00	595.2	458.4	102.58	2.5946	0.354	
37.50	595.6	458.9	102.58	2.5733	0.355	
38.00	596.1	459.4	102.61	2.5526	0.355	
38.50	596.5	459.8	102.61	2.5325	0.356	
39.00	597.0	460.2	102.63	2.5128	0.356	
39.50	597.4	460.7	102.64	2.4937	0.357	
40.00	597.9	461.1	102.66	2.4750	0.357	
40.50	598.3	461.5	102.68	2.4568	0.358	
41.00	598.7	461.9	102.68	2.4390	0.358	
41.50	599.1	462.3	102.70	2.4217	0.359	
42.00	599.5	462.7	102.72	2.4048	0.359	
42.50	599.9	463.1	102.72	2.3882	0.360	
43.00	600.3	463.5	102.73	2.3721	0.360	
43.50	600.7	463.9	102.76	2.3563	0.361	
44.00	601.0	464.3	102.77	2.3409	0.361	
44.50	601.4	464.7	102.80	2.3258	0.362	
45.00	601.8	465.1	102.80	2.3111	0.362	
45.50	602.2	465.5	102.83	2.2967	0.363	

***** End Shut-in 2

***** Final Hydro. 221.00 1473.9 0.0 105.05

TEST HISTORY

Tkt#10880 DST#2 Cox#1 Maxwell Operating Co. Inc.

Flag Points

t(Min.) P(PSig)

A:	0.00	1483.28
B:	0.00	45.29
C:	29.00	76.51
D:	46.50	612.98
E:	0.00	90.47
F:	30.00	136.75
G:	45.50	602.20
H:	0.00	1473.91

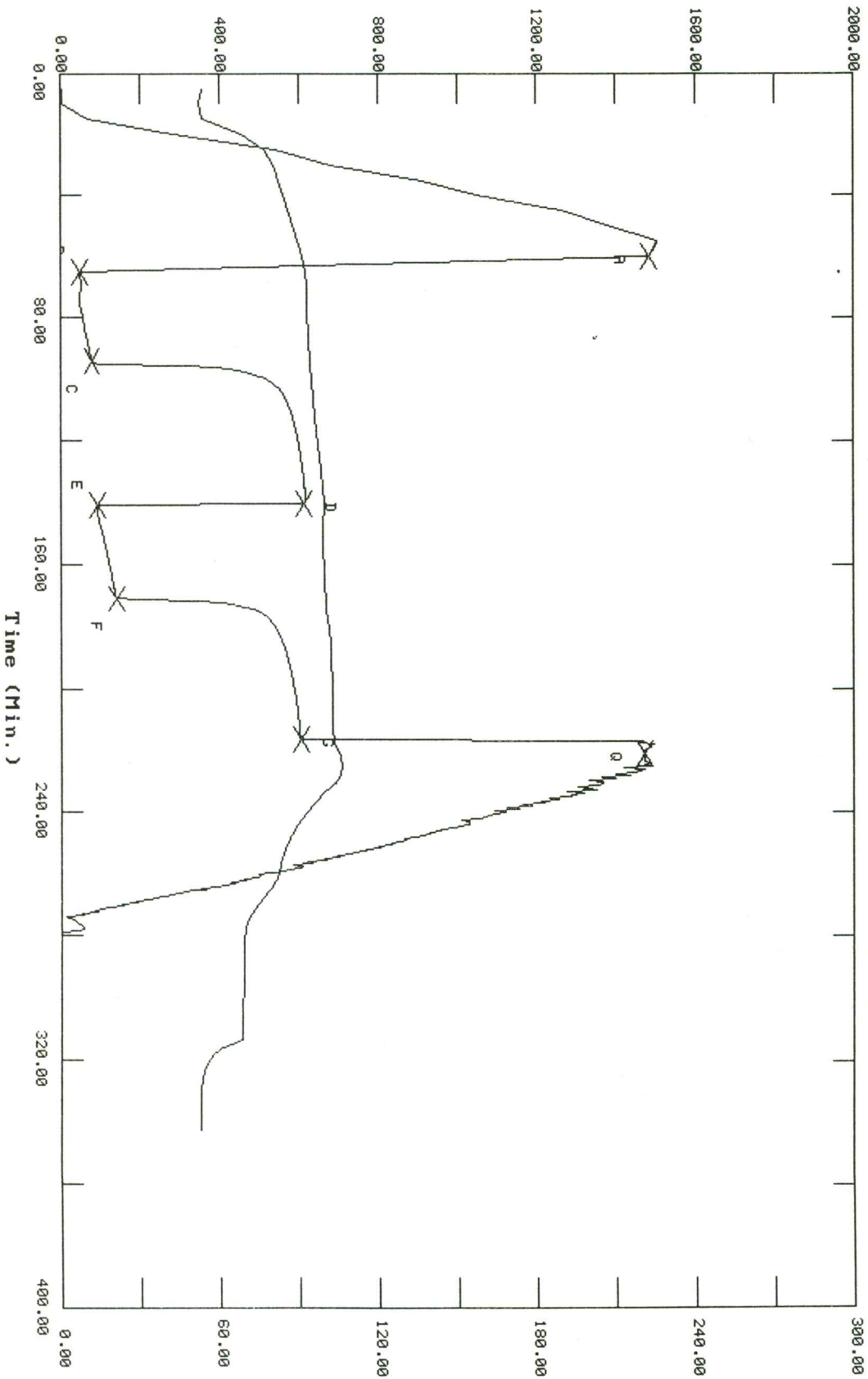
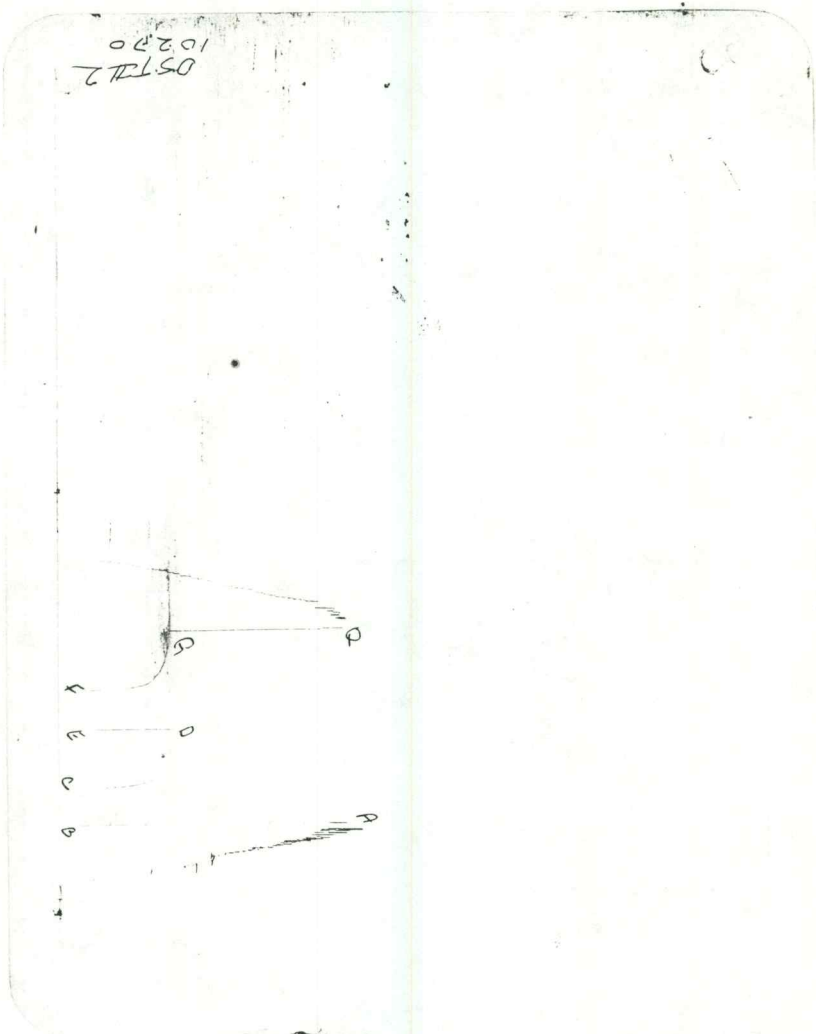


CHART PAGE



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



GAS VOLUME REPORT

MAXWELL OPERATING CO INC
OPERATOR

OPERATOR

Cox #1

WELL NAME AND NO.

2

DST NO.

IFP

QAS TO SURFACE IN 9 MIN FFP

[illegible]

Remarks:

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 10880

Well Name & No.	<u>Cox #1</u>	Test No.	<u>2</u>	Date	<u>12-8-97</u>
Company	<u>MAXWELL OPERATING CO. INC</u>	Zone Tested	<u>3081-3116 K.C.</u>		
Address	<u>P.O. Box 1213 Hays, Ks 67601</u>	Elevation	<u>1915</u>	KB	<u>1907</u> GL
Co. Rep / Geo.	<u>Ron Nelson</u>	Cont.	<u>Discovery Delg</u>	Est. Ft. of Pay	<u> </u> Por. <u> </u> %
Location: Sec.	<u>10</u>	Twp.	<u>16</u>	Rge.	<u>12</u> Co. <u>BARTON</u> State <u>Ks</u>
No. of Copies	<u>Reg</u>	Distribution Sheet (Y, N)	<u> </u>	Turnkey (Y, N)	<u> </u> Evaluation (Y, N) <u> </u>

Interval Tested	<u>3081-3116</u>	Initial Str Wt./Lbs.	<u>32000</u>	Unseated Str Wt./Lbs.	<u>32000</u>
Anchor Length	<u>35</u>	Wt. Set Lbs.	<u>20000</u>	Wt. Pulled Loose/Lbs.	<u>34000</u>
Top Packer Depth	<u>3076</u>	Tool Weight	<u>2900</u>		
Bottom Packer Depth	<u>3081</u>	Hole Size — 7 7/8"	<u> </u>	Rubber Size — 6 3/4"	<u> </u>
Total Depth	<u>3116</u>	Wt. Pipe Run	<u> </u>	Drill Collar Run	<u>30</u>
Mud Wt.	<u>9.3</u> LCM <u> </u> Vis. <u>48</u> WL <u>8800</u>	Drill Pipe Size	<u>4 1/2 XH</u>	Ft. Run	<u>3055</u>
Blow Description	<u>IFP - STRONG BLOW, GAS TO SURFACE IN 9 min</u> <u>FFP - STRONG BLOW</u>				

Recovery — Total Feet	<u>278</u>	GIP	<u>GTS</u>	Ft. in DC	<u>30</u>	Ft. in DP	<u>248</u>
Rec.	<u>30</u>	Feet Of	<u>H.O. + G.C.M</u>	<u>20</u> %gas	<u>30</u> %oil	<u> </u> %water	<u>50</u> %mud
Rec.	<u>62</u>	Feet Of	<u>H.O. + G.C.W.M</u>	<u>20</u> %gas	<u>28</u> %oil	<u>22</u> %water	<u>30</u> %mud
Rec.	<u>62</u>	Feet Of	<u>SL. O. C.W</u>	<u> </u> %gas	<u>1</u> %oil	<u>99</u> %water	<u> </u> %mud
Rec.	<u>124</u>	Feet Of	<u>WATER</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	<u>104</u>	°F Gravity	<u> </u>	°API D@	<u> </u>	°F Corrected Gravity	<u> </u> °API
RW	<u> </u>	@	<u> </u>	°F Chlorides	<u>81000</u>	ppm Recovery	<u>5000</u> ppm System
(A) Initial Hydrostatic Mud	<u>1483</u>	PSI	Recorder No.	<u>3027</u>	T-Started	<u>4:15 pm</u>	
(B) First Initial Flow Pressure	<u>45</u>	PSI	(depth)	<u>3088</u>	T-Open	<u>5:15 pm</u>	
(C) First Final Flow Pressure	<u>76</u>	PSI	Recorder No.	<u>10270</u>	T-Pulled	<u>7:45 pm</u>	
(D) Initial Shut-in Pressure	<u>612</u>	PSI	(depth)	<u>3111</u>	T-Out	<u>10:00 pm</u>	
(E) Second Initial Flow Pressure	<u>90</u>	PSI	Recorder No.	<u> </u>			
(F) Second Final Flow Pressure	<u>136</u>	PSI	(depth)	<u> </u>			
(G) Final Shut-in Pressure	<u>602</u>	PSI	Initial Opening	<u>30</u>	Test	<u>✓</u>	<u>600</u>
(H) Final Hydrostatic Mud	<u>1473</u>	PSI	Initial Shut-in	<u>45</u>	Jars	<u> </u>	

Final Flow	<u>30</u>	Safety Joint	<u> </u>
Final Shut-in	<u>45</u>	Straddle	<u> </u>
		Circ. Sub	<u> </u>
		Sampler	<u> </u>
		Extra Packer	<u> </u>
		Elect. Rec.	<u>✓ 150</u>
		Other	<u> </u>

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

TRILOBITE TESTING L.L.C.

PERATOR : Maxwell Oper.Co.,Inc.

DATE 12-09-199

ELL NAME: Cox #1

KB 1915.00 ft

TICKET NO: 10881

DST #3

OCATION : 10-16s-12w Barton Co KS

GR 1907.00 ft

FORMATION: K.C.

INTERVAL : 3140.00 To 3160.00 ft

TD 3160.00 ft

TEST TYPE: CONV.

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
F 30 Rec.	10270	10270	3027			PF Fr. 0800 to 0830 hr
I 45 Range(Psi)	4150.0	4150.0	4995.0	0.0	0.0	IS Fr. 0830 to 0915 hr
F 30 Clock(hrs)	12 hr	12hr.	elect			SF Fr. 0915 to 0945 hr
S 45 Depth(ft)	3155.0	3155.0	3143.0	0.0	0.0	FS Fr. 0945 to 1030 hr

	Field	1	2	3	4	
Init Hydro	1537.0	1585.0	1516.0	0.0	0.0	T STARTED 0645 hr
First Flow	291.0	293.0	241.0	0.0	0.0	T ON BOTM 0755 hr
Final Flow	655.0	655.0	678.0	0.0	0.0	T OPEN 0800 hr
In Shut-in	894.0	876.0	878.0	0.0	0.0	T PULLED 1030 hr
Init Flow	759.0	751.0	704.0	0.0	0.0	T OUT 1320 hr
Final Flow	842.0	830.0	835.0	0.0	0.0	
Fl Shut-in	904.0	886.0	883.0	0.0	0.0	
Final Hydro	1537.0	1548.0	1500.0	0.0	0.0	TOOL DATA-----
Inside/Outside	I	O	I			Tool Wt. 2900.00 lbs
						Wt Set On Packer 20000.00 lbs
						Wt Pulled Loose 40000.00 lbs
						Initial Str Wt 31000.00 lbs
						Unseated Str Wt 38000.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.78 in
						D Col. ID 2.20 in
						D. Pipe ID 3.80 in
						D.C. Length 30.00 ft
						D.P. Length 3110.00 ft

ECOVERY

ot Fluid 1786.00 ft of 30.00 ft in DC and 1756.00 ft in DP

0.00 ft of Oil & Gas cut Watery Mud

.00 ft of 5%gas 10%oil 20%water 65%mud

24.00 ft of Oil & Gas Cut Muddy Water

.00 ft of 10%gas 5%oil 55%water 30%mud

2.00 ft of Slight Oil & Gas Cut Water

.00 ft of 8%gas 2%oil 90%water

560.00 ft of Water

.00 ft of

ALINITY 80000.00 P.P.M. A.P.I. Gravity 0.00

MUD DATA-----

Mud Type	Chemical
Weight	9.30 lb/cf
Vis.	48.00 S/L
W.L.	8.80 in3
F.C.	0.00 in
Mud Drop	

LOW DESCRIPTION

nitial Flow:

Strong blow throughout

inal Flow:

Strong blow in 1 minute

Amt. of fill	0.00 ft
Btm. H. Temp.	111.00 F
Hole Condition	good
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out	
Tool Chased N	
Tester	Ray Schwager
Co. Rep.	Ron Nelson
Contr.	Discovery Drlg
Rig #	1
Unit #	
Pump T.	

SAMPLES:

SENT TO:

Test Successful: Y

*** TOOL DIAGRAM *** CONV.

WELL NAME: Cox #1

LOCATION : 10-16s-12w Barton Co KS

TICKET No. 10881 D.S.T. No. 3 DATE 12-09-199

TOTAL TOOL TO BOTTOM OF TOP PACKERS 20

INTERVAL TOOL

BOTTOM PACKERS AND ANCHOR 20

TOTAL TOOL 40

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY

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

D.P. ABOVE TOOLS.Stands52 Single Total 3110

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 3180

TOTAL DEPTH 3160

TOTAL DRILL PIPE ABOVE K.B. 20

REMARKS:

P.O. SUB	
C.O. SUB	3119
S.I. TOOL	3125
HMV	3130
JARS	
SAFETY JOINT	
PACKER	3135
PACKER	3140
DEPTH	
STUBB	
ANCHOR	
T.C.	
DEPTH	
1'perf	3141
5'perf	3146
5'perf	3151
5'perf	3156
2'perf	3158
BULLNOSE	
T.D. 2'bullplug	3160

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tkt.#10881 DST#3 COX#1 Maxwell Oper.Co.INC.

DATE: 12/09/97

TIME: 06:42:30

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
***** Initial Hydro.	74.00	1516.9	0.0	90.32		
***** Start Flow 1	0.00	241.2	0.0	90.96		
	0.50	229.6	-11.6	91.16		
	1.00	233.4	-7.8	91.58		
	1.50	238.7	-2.5	92.41		
	2.00	247.2	6.1	93.52		
	2.50	256.6	15.4	94.80		
	3.00	266.7	25.5	96.18		
	3.50	275.4	34.2	97.54		
	4.00	285.8	44.6	98.87		
	4.50	295.8	54.7	100.08		
	5.00	306.2	65.0	101.22		
	5.50	315.8	74.7	102.23		
	6.00	326.5	85.3	103.15		
	6.50	335.6	94.4	103.97		
	7.00	345.6	104.4	104.77		
	7.50	355.0	113.8	105.47		
	8.00	363.9	122.7	106.10		
	8.50	373.4	132.2	106.61		
	9.00	381.9	140.8	107.14		
	9.50	390.5	149.3	107.60		
	10.00	399.4	158.3	108.00		
	10.50	407.7	166.5	108.37		
	11.00	416.7	175.5	108.70		
	11.50	424.9	183.7	108.97		
	12.00	433.6	192.5	109.27		
	12.50	442.0	200.9	109.52		
	13.00	450.6	209.4	109.75		
	13.50	459.1	217.9	109.93		
	14.00	466.4	225.3	110.13		
	14.50	474.3	233.2	110.29		
	15.00	482.0	240.8	110.43		
	15.50	489.8	248.7	110.56		
	16.00	497.0	255.8	110.69		
	16.50	504.6	263.4	110.80		
	17.00	512.0	270.9	110.89		
	17.50	519.6	278.4	110.99		
	18.00	525.9	284.7	111.07		
	18.50	532.8	291.7	111.16		
	19.00	539.7	298.5	111.24		
	19.50	546.5	305.4	111.31		
	20.00	553.2	312.1	111.38		
	20.50	559.4	318.2	111.40		
	21.00	565.7	324.6	111.41		
	21.50	572.0	330.8	111.41		
	22.00	578.5	337.3	111.48		
	22.50	584.3	343.1	111.51		
	23.00	589.9	348.8	111.55		
	23.50	595.7	354.5	111.96		
	24.00	601.4	360.2	111.60		
	24.50	606.9	365.7	111.61		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tkt.#10881 DST#3 COX#1 Maxwell OPer.Co.INC.

DATE: 12/09/97

TIME: 06:42:30

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	25.00	612.3	371.1	111.65		
	25.50	617.8	376.7	111.65		
	26.00	623.1	381.9	111.68		
	26.50	628.1	386.9	111.69		
	27.00	633.3	392.1	111.71		
	27.50	638.2	397.0	111.71		
	28.00	643.0	401.8	111.74		
	28.50	647.8	406.7	111.74		
	29.00	652.4	411.3	111.76		
	29.50	657.1	415.9	111.75		
	30.00	661.6	420.4	111.78		
	30.50	665.9	424.8	111.78		
	31.00	670.3	429.1	111.78		
	31.50	674.5	433.4	111.80		
***** End Flow 1	32.00	678.6	437.4	111.79		
***** Start Shutin 1	0.00	678.6	0.0	111.79	0.0000	0.460
	0.50	741.9	63.3	111.85	65.0000	0.550
	1.00	777.1	98.5	111.81	33.0000	0.604
	1.50	786.9	108.3	111.82	22.3333	0.619
	2.00	793.8	115.3	111.80	17.0000	0.630
	2.50	799.4	120.8	111.80	13.8000	0.639
	3.00	804.2	125.6	111.78	11.6667	0.647
	3.50	808.3	129.7	111.77	10.1429	0.653
	4.00	812.0	133.5	111.78	9.0000	0.659
	4.50	815.4	136.8	111.76	8.1111	0.665
	5.00	818.4	139.9	111.74	7.4000	0.670
	5.50	821.3	142.7	111.70	6.8182	0.674
	6.00	823.9	145.3	111.70	6.3333	0.679
	6.50	826.3	147.8	111.67	5.9231	0.683
	7.00	828.6	150.1	111.65	5.5714	0.687
	7.50	830.8	152.2	111.63	5.2667	0.690
	8.00	832.8	154.2	111.61	5.0000	0.694
	8.50	834.7	156.1	111.58	4.7647	0.697
	9.00	836.5	157.9	111.57	4.5556	0.700
	9.50	838.2	159.6	111.53	4.3684	0.703
	10.00	839.8	161.2	111.51	4.2000	0.705
	10.50	841.3	162.7	111.48	4.0476	0.708
	11.00	842.8	164.2	111.43	3.9091	0.710
	11.50	844.1	165.6	111.41	3.7826	0.713
	12.00	845.4	166.9	111.40	3.6667	0.715
	12.50	846.7	168.1	111.40	3.5600	0.717
	13.00	847.9	169.4	111.40	3.4615	0.719
	13.50	849.1	170.5	111.40	3.3704	0.721
	14.00	850.2	171.6	111.31	3.2857	0.723
	14.50	851.2	172.7	111.28	3.2069	0.725
	15.00	852.2	173.7	111.26	3.1333	0.726
	15.50	853.2	174.6	111.23	3.0645	0.728
	16.00	854.1	175.6	111.17	3.0000	0.730
	16.50	855.0	176.5	111.14	2.9394	0.731
	17.00	855.9	177.3	111.11	2.8824	0.733
	17.50	856.7	178.2	111.08	2.8286	0.734

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tkt.#10881 DST#3 COX#1 Maxwell OPer.Co.INC.

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TIME: 06:42:30

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
18.00	857.5	179.0	111.06	2.7778	0.735
18.50	858.3	179.8	111.01	2.7297	0.737
19.00	859.0	180.5	111.00	2.6842	0.738
19.50	859.8	181.2	110.97	2.6410	0.739
20.00	860.5	181.9	110.95	2.6000	0.740
20.50	861.2	182.6	110.92	2.5610	0.742
21.00	861.8	183.2	110.87	2.5238	0.743
21.50	862.4	183.9	110.85	2.4884	0.744
22.00	863.0	184.5	110.83	2.4545	0.745
22.50	863.7	185.1	110.80	2.4222	0.746
23.00	864.2	185.7	110.78	2.3913	0.747
23.50	864.8	186.2	110.74	2.3617	0.748
24.00	865.3	186.8	110.72	2.3333	0.749
24.50	865.9	187.3	110.70	2.3061	0.750
25.00	866.4	187.8	110.67	2.2800	0.751
25.50	866.8	188.3	110.65	2.2549	0.751
26.00	867.3	188.8	110.63	2.2308	0.752
26.50	867.8	189.3	110.59	2.2075	0.753
27.00	868.2	189.7	110.58	2.1852	0.754
27.50	868.7	190.1	110.56	2.1636	0.755
28.00	869.1	190.6	110.54	2.1429	0.755
28.50	869.6	191.0	110.50	2.1228	0.756
29.00	870.0	191.4	110.47	2.1034	0.757
29.50	870.4	191.8	110.46	2.0847	0.758
30.00	870.7	192.2	110.43	2.0667	0.758
30.50	871.1	192.6	110.42	2.0492	0.759
31.00	871.5	192.9	110.41	2.0323	0.760
31.50	871.9	193.3	110.37	2.0159	0.760
32.00	872.2	193.6	110.35	2.0000	0.761
32.50	872.6	194.0	110.34	1.9846	0.761
33.00	872.9	194.3	110.32	1.9697	0.762
33.50	873.2	194.7	110.30	1.9552	0.763
34.00	873.6	195.0	110.28	1.9412	0.763
34.50	873.9	195.3	110.26	1.9275	0.764
35.00	874.2	195.6	110.24	1.9143	0.764
35.50	874.5	195.9	110.22	1.9014	0.765
36.00	874.7	196.2	110.20	1.8889	0.765
36.50	875.1	196.5	110.17	1.8767	0.766
37.00	875.3	196.7	110.17	1.8649	0.766
37.50	875.6	197.0	110.15	1.8533	0.767
38.00	875.9	197.3	110.12	1.8421	0.767
38.50	876.1	197.5	110.11	1.8312	0.768
39.00	876.4	197.8	110.10	1.8205	0.768
39.50	876.6	198.1	110.08	1.8101	0.768
40.00	876.9	198.3	110.07	1.8000	0.769
40.50	877.1	198.6	110.05	1.7901	0.769
41.00	877.4	198.8	110.03	1.7805	0.770
41.50	877.6	199.1	110.00	1.7711	0.770
42.00	877.9	199.3	110.01	1.7619	0.771
42.50	878.1	199.5	109.97	1.7529	0.771
43.00	878.3	199.7	109.96	1.7442	0.771

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tkt.#10881 DST#3 COX#1 Maxwell OPer.Co.INC.

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	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	43.50	878.5	200.0	109.95	1.7356	0.772
***** End Shut-in 1	44.00	878.7	200.1	109.93	1.7273	0.772
***** Start Flow 2	0.00	704.1	0.0	109.94		
	0.50	706.7	2.6	109.91		
	1.00	710.6	6.5	109.93		
	1.50	714.8	10.7	110.01		
	2.00	718.8	14.6	110.12		
	2.50	723.1	18.9	110.24		
	3.00	727.2	23.1	110.37		
	3.50	731.2	27.0	110.51		
	4.00	735.2	31.1	110.64		
	4.50	739.2	35.0	110.76		
	5.00	743.0	38.8	110.88		
	5.50	746.6	42.4	110.98		
	6.00	750.1	46.0	111.07		
	6.50	753.6	49.4	111.18		
	7.00	756.8	52.6	111.25		
	7.50	760.1	55.9	111.33		
	8.00	763.3	59.1	111.40		
	8.50	766.2	62.0	111.41		
	9.00	769.1	65.0	111.45		
	9.50	772.0	67.9	111.50		
	10.00	775.0	70.9	111.53		
	10.50	777.7	73.6	111.57		
	11.00	780.3	76.1	111.59		
	11.50	782.8	78.7	111.65		
	12.00	785.3	81.2	111.65		
	12.50	787.8	83.7	111.68		
	13.00	790.2	86.1	111.70		
	13.50	792.4	88.3	111.72		
	14.00	794.6	90.5	111.73		
	14.50	796.7	92.6	111.75		
	15.00	798.9	94.7	111.76		
	15.50	801.0	96.8	111.78		
	16.00	802.9	98.8	111.79		
	16.50	804.7	100.6	111.78		
	17.00	806.5	102.4	111.79		
	17.50	808.2	104.1	111.80		
	18.00	810.0	105.8	111.81		
	18.50	811.7	107.6	111.81		
	19.00	813.4	109.3	111.82		
	19.50	815.1	111.0	111.83		
	20.00	816.7	112.5	111.82		
	20.50	818.2	114.1	111.83		
	21.00	819.6	115.5	111.82		
	21.50	821.0	116.9	111.82		
	22.00	822.4	118.3	111.82		
	22.50	823.7	119.6	111.83		
	23.00	825.1	120.9	111.83		
	23.50	826.4	122.3	111.83		
	24.00	827.7	123.6	111.82		

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	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	24.50	829.0	124.9	111.84		
	25.00	830.3	126.1	111.84		
	25.50	831.4	127.3	111.83		
	26.00	832.5	128.4	111.83		
	26.50	833.6	129.5	111.83		
	27.00	834.7	130.5	111.83		
***** End Flow 2	27.50	835.7	131.6	111.84		
***** Start Shutin 2	0.00	835.7	0.0	111.84	0.0000	0.698
	0.50	836.7	1.0	111.82	120.0000	0.700
	1.00	837.7	2.0	111.82	60.5000	0.702
	1.50	851.8	16.1	111.83	40.6667	0.726
	2.00	855.2	19.5	111.82	30.7500	0.731
	2.50	857.2	21.5	111.82	24.8000	0.735
	3.00	858.8	23.0	111.82	20.8333	0.737
	3.50	860.1	24.3	111.82	18.0000	0.740
	4.00	861.2	25.4	111.82	15.8750	0.742
	4.50	862.2	26.4	111.80	14.2222	0.743
	5.00	863.1	27.3	111.79	12.9000	0.745
	5.50	863.9	28.2	111.78	11.8182	0.746
	6.00	864.7	29.0	111.77	10.9167	0.748
	6.50	865.4	29.7	111.77	10.1538	0.749
	7.00	866.1	30.3	111.74	9.5000	0.750
	7.50	866.7	31.0	111.74	8.9333	0.751
	8.00	867.3	31.5	111.72	8.4375	0.752
	8.50	867.8	32.1	111.72	8.0000	0.753
	9.00	868.4	32.6	111.69	7.6111	0.754
	9.50	868.9	33.1	111.67	7.2632	0.755
	10.00	869.3	33.6	111.65	6.9500	0.756
	10.50	869.8	34.1	111.63	6.6667	0.757
	11.00	870.3	34.5	111.61	6.4091	0.757
	11.50	870.7	35.0	111.60	6.1739	0.758
	12.00	871.1	35.4	111.59	5.9583	0.759
	12.50	871.5	35.8	111.57	5.7600	0.759
	13.00	871.8	36.1	111.56	5.5769	0.760
	13.50	872.2	36.5	111.53	5.4074	0.761
	14.00	872.5	36.8	111.51	5.2500	0.761
	14.50	872.9	37.2	111.49	5.1034	0.762
	15.00	873.2	37.5	111.47	4.9667	0.762
	15.50	873.5	37.8	111.44	4.8387	0.763
	16.00	873.8	38.1	111.41	4.7188	0.764
	16.50	874.1	38.4	111.41	4.6061	0.764
	17.00	874.4	38.7	111.41	4.5000	0.765
	17.50	874.7	39.0	111.40	4.4000	0.765
	18.00	875.0	39.2	111.40	4.3056	0.766
	18.50	875.2	39.5	111.41	4.2162	0.766
	19.00	875.5	39.7	111.40	4.1316	0.766
	19.50	875.7	40.0	111.37	4.0513	0.767
	20.00	875.9	40.2	111.33	3.9750	0.767
	20.50	876.2	40.5	111.31	3.9024	0.768
	21.00	876.4	40.7	111.26	3.8333	0.768
	21.50	876.6	40.9	111.25	3.7674	0.768

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tkt.#10881 DST#3 COX#1 Maxwell OPer.Co.INC.

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Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
22.00	876.8	41.1	111.24	3.7045	0.769
22.50	877.0	41.3	111.22	3.6444	0.769
23.00	877.2	41.5	111.19	3.5870	0.770
23.50	877.4	41.7	111.18	3.5319	0.770
24.00	877.6	41.9	111.17	3.4792	0.770
24.50	877.8	42.1	111.14	3.4286	0.771
25.00	878.0	42.3	111.13	3.3800	0.771
25.50	878.1	42.4	111.11	3.3333	0.771
26.00	878.3	42.6	111.10	3.2885	0.771
26.50	878.5	42.8	111.09	3.2453	0.772
27.00	878.7	42.9	111.06	3.2037	0.772
27.50	878.9	43.1	111.06	3.1636	0.772
28.00	879.0	43.3	111.04	3.1250	0.773
28.50	879.2	43.5	111.02	3.0877	0.773
29.00	879.3	43.6	111.00	3.0517	0.773
29.50	879.5	43.8	110.99	3.0169	0.773
30.00	879.6	43.9	110.98	2.9833	0.774
30.50	879.8	44.1	110.97	2.9508	0.774
31.00	879.9	44.2	110.95	2.9194	0.774
31.50	880.1	44.3	110.94	2.8889	0.775
32.00	880.2	44.5	110.93	2.8594	0.775
32.50	880.3	44.6	110.92	2.8308	0.775
33.00	880.5	44.7	110.89	2.8030	0.775
33.50	880.6	44.9	110.89	2.7761	0.775
34.00	880.7	45.0	110.87	2.7500	0.776
34.50	880.8	45.1	110.87	2.7246	0.776
35.00	881.0	45.3	110.85	2.7000	0.776
35.50	881.1	45.4	110.85	2.6761	0.776
36.00	881.2	45.5	110.83	2.6528	0.777
36.50	881.3	45.6	110.82	2.6301	0.777
37.00	881.5	45.8	110.81	2.6081	0.777
37.50	881.6	45.9	110.78	2.5867	0.777
38.00	881.7	46.0	110.78	2.5658	0.777
38.50	881.8	46.1	110.76	2.5455	0.778
39.00	881.9	46.2	110.74	2.5256	0.778
39.50	882.0	46.2	110.75	2.5063	0.778
40.00	882.1	46.4	110.73	2.4875	0.778
40.50	882.2	46.5	110.71	2.4691	0.778
41.00	882.3	46.6	110.71	2.4512	0.779
41.50	882.5	46.7	110.71	2.4337	0.779
42.00	882.6	46.8	110.72	2.4167	0.779
42.50	882.7	46.9	110.71	2.4000	0.779
43.00	882.7	47.0	110.71	2.3837	0.779
43.50	882.8	47.1	110.70	2.3678	0.779
44.00	882.9	47.2	110.69	2.3523	0.780
44.50	883.0	47.3	110.67	2.3371	0.780
45.00	883.1	47.4	110.68	2.3222	0.780
45.50	883.2	47.5	110.66	2.3077	0.780
46.00	883.3	47.6	110.65	2.2935	0.780
46.50	883.4	47.7	110.64	2.2796	0.780
47.00	883.5	47.8	110.62	2.2660	0.781

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tkt.#10881 DST#3 COX#1 Maxwell OPer.Co.INC.

DATE: 12/09/97

TIME: 06:42:30

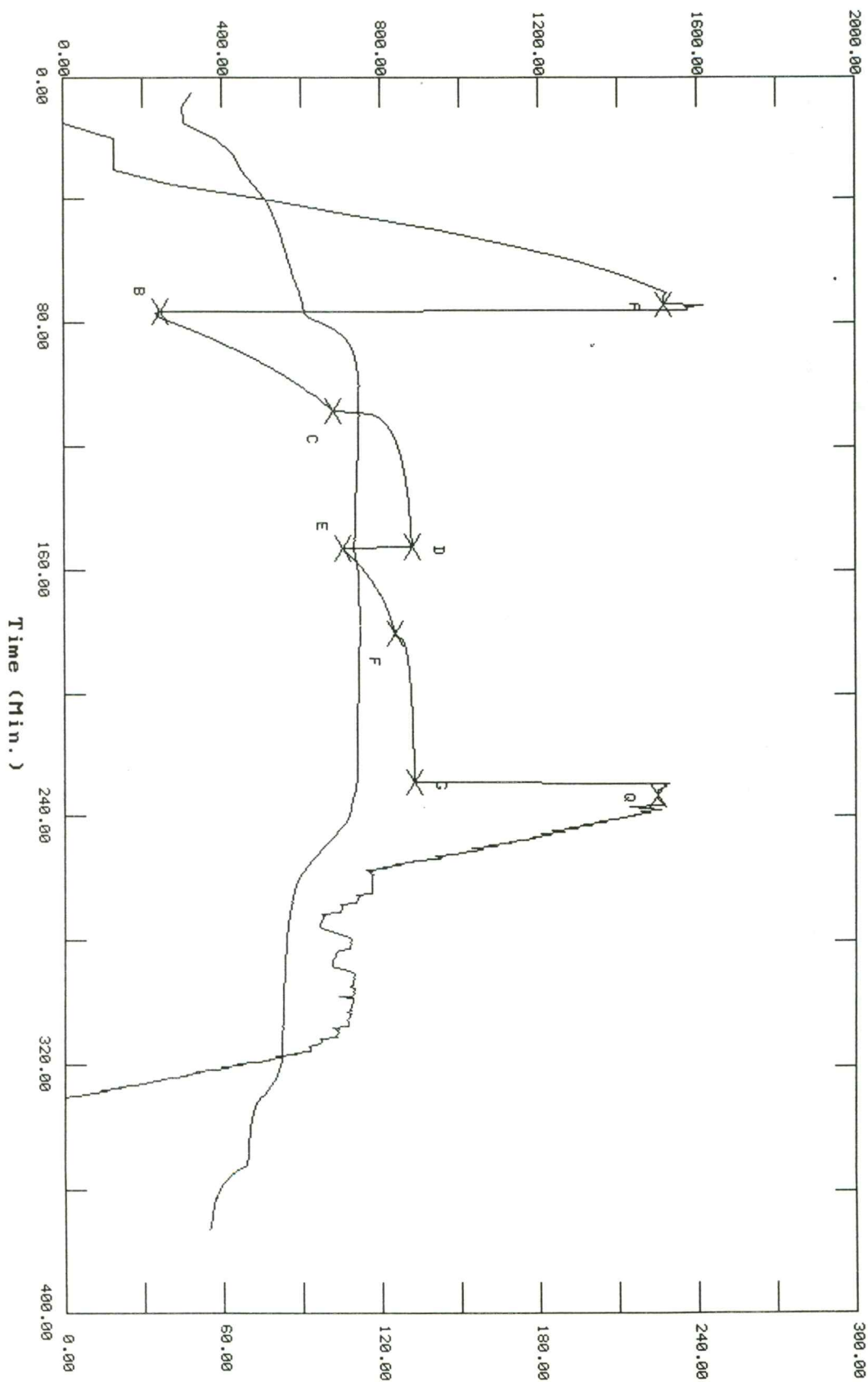
	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
	47.50	883.6	47.9	110.62	2.2526	0.781
***** End Shut-in 2	48.00	883.6	47.9	110.61	2.2396	0.781
***** Final Hydro.	233.00	1500.6	0.0	109.51		

TEST HISTORY

Tkt. #10881 DST#3 COX#1 Maxwelll Oper. Co. INC.

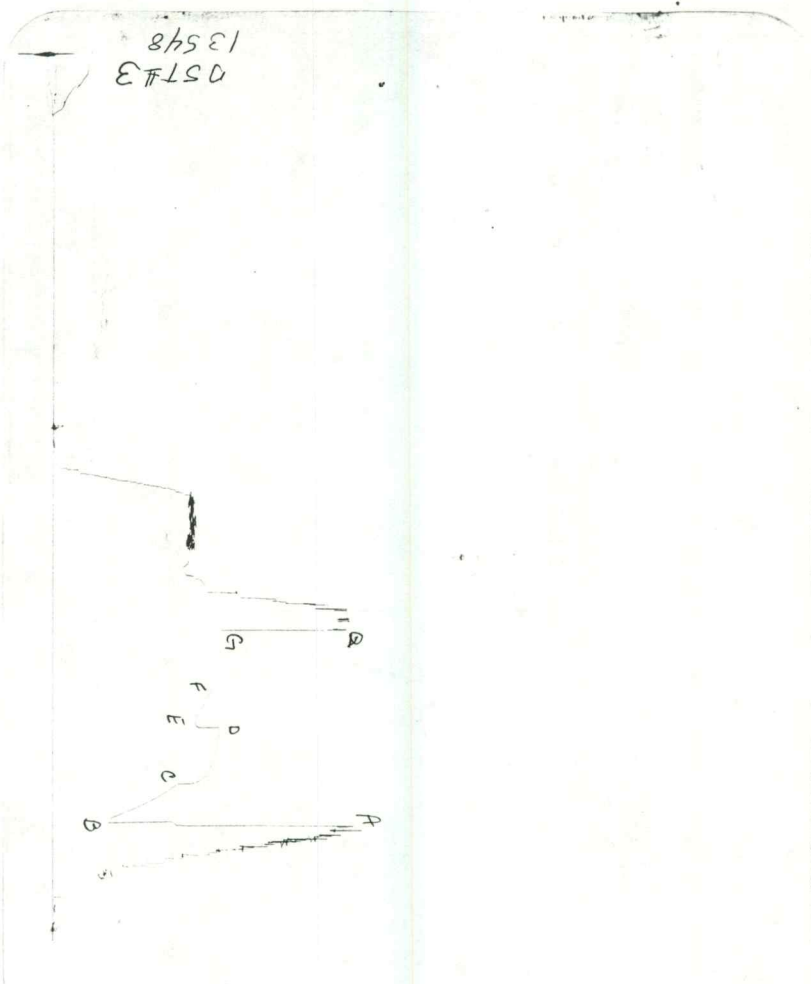
Flag Points

t(min.)	P (PSig)
A: 0.00	1516.93
B: 0.00	241.17
C: 32.00	678.57
D: 44.00	878.66
E: 0.00	704.14
F: 27.50	835.72
G: 48.00	883.63
H: 0.00	1500.58



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 10881

Well Name & No.	<u>Cox #1</u>	Test No.	<u>3</u>	Date	<u>12-9-97</u>
Company	<u>MAXWELL OPERATING Co., INC.</u>	Zone Tested	<u>KC</u>		
Address	<u>P.O. Box 1213 Hays, KS 67601</u>	Elevation	<u>1915</u> KB <u>1907</u> GL		
Co. Rep / Geo.	<u>Ron Nelson</u>	Cont.	<u>Discovery DPLg</u>	Est. Ft. of Pay	<u>—</u> Por. <u>—</u> %
Location: Sec.	<u>10</u>	Twp.	<u>16</u>	Rge.	<u>12</u> Co. <u>BARTON</u> State <u>Ks</u>
No. of Copies	<u>Reg</u>	Distribution Sheet (Y, N)	<u>N</u>	Turnkey (Y, N)	<u>N</u> Evaluation (Y, N) <u>N</u>

Interval Tested	<u>3140 - 3160</u>	Initial Str Wt./Lbs.	<u>31000</u>	Unseated Str Wt./Lbs.	<u>38000</u>
Anchor Length	<u>20</u>	Wt. Set Lbs.	<u>20000</u>	Wt. Pulled Loose/Lbs.	<u>40000</u>
Top Packer Depth	<u>3135</u>	Tool Weight	<u>2900</u>		
Bottom Packer Depth	<u>3140</u>	Hole Size — 7 7/8"		Rubber Size — 6 3/4"	
Total Depth	<u>3160</u>	Wt. Pipe Run	<u>—</u>	Drill Collar Run	<u>30</u>
Mud Wt.	<u>9.3</u> LCM <u>—</u> Vis. <u>48</u> WL <u>8.8</u>	Drill Pipe Size	<u>4 1/2 XH</u>	Ft. Run	<u>3110</u>
Blow Description	<u>IFP - STRONG Blow Throughout</u> <u>FFP - STRONG Blow in 1 min</u>				

Recovery — Total Feet	<u>1786</u>	GIP	<u>80</u>	Ft. in DC	<u>30</u>	Ft. in DP	<u>1756</u>
Rec.	<u>40</u>	Feet Of	<u>096 CWM</u>	5 %gas	10 %oil	20 %water	65 %mud
Rec.	<u>124</u>	Feet Of	<u>096 CMW</u>	10 %gas	5 %oil	55 %water	30 %mud
Rec.	<u>62</u>	Feet Of	<u>SLI 096 CW</u>	8 %gas	2 %oil	90 %water	%mud
Rec.	<u>1560</u>	Feet Of	<u>WATER</u>	%gas	%oil	%water	%mud
Rec.		Feet Of		%gas	%oil	%water	%mud
BHT	<u>111</u>	°F Gravity	<u>—</u>	°API D@	<u>—</u>	°F Corrected Gravity	<u>—</u> °API
RW	<u>—</u>	@	<u>—</u>	°F Chlorides	<u>80000</u>	ppm Recovery	Chlorides <u>5000</u> ppm System
(A) Initial Hydrostatic Mud	<u>1537</u>	PSI	Recorder No.	<u>3027</u>	T-Started	<u>6:45 AM</u>	
(B) First Initial Flow Pressure	<u>291</u>	PSI	(depth)	<u>3142</u>	T-Open	<u>8:00 AM</u>	
(C) First Final Flow Pressure	<u>655</u>	PSI	Recorder No.	<u>10270</u>	T-Pulled	<u>10:30 AM</u>	
(D) Initial Shut-in Pressure	<u>894</u>	PSI	(depth)	<u>3155</u>	T-Out	<u>1:20 pm</u>	
(E) Second Initial Flow Pressure	<u>759</u>	PSI	Recorder No.	<u>—</u>			
(F) Second Final Flow Pressure	<u>842</u>	PSI	(depth)	<u>—</u>			
(G) Final Shut-in Pressure	<u>904</u>	PSI	Initial Opening	<u>30</u>	Test	<u>✓</u>	<u>600</u>
(H) Final Hydrostatic Mud	<u>1537</u>	PSI	Initial Shut-in	<u>45</u>	Jars		
			Final Flow	<u>30</u>	Safety Joint		
			Final Shut-in	<u>45</u>	Straddle		

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 A / / 11 11

Extra Packer —
Elect. Rec. ✓ 150
Other —

785

TRILOBITE TESTING L.L.C.

OPERATOR : Maxwell Oper.Co., Inc.

DATE 12-10-199

WELL NAME: Cox#1

KB 1915.00 ft

TICKET NO: 10882

DST #4

LOCATION : 10-16s-12w Barton Co KS

GR 1907.00 ft

FORMATION: Arbuckle

INTERVAL : 3329.00 To 3364.00 ft

TD 3364.00 ft

TEST TYPE: CONV.

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	10270	10270	3027			PF Fr. 0850 to 0920 hr
SI 45 Range(Psi)	4150.0	4150.0	4995.0	0.0	0.0	IS Fr. 0920 to 1005 hr
SF 30 Clock(hrs)	12 hr	12hr.	elect			SF Fr. 1005 to 1035 hr
FS 45 Depth(ft)	3359.0	3359.0	3336.0	0.0	0.0	FS Fr. 1035 to 1120 hr

	Field	1	2	3	4	
1. Init Hydro	1629.0	1703.0	1629.0	0.0	0.0	T STARTED 0745 hr
2. First Flow	40.0	81.0	40.0	0.0	0.0	T ON BOTM 0845 hr
3. Final Flow	132.0	110.0	132.0	0.0	0.0	T OPEN 0850 hr
4. In Shut-in	937.0	919.0	937.0	0.0	0.0	T PULLED 1120 hr
5. Init Flow	140.0	168.0	140.0	0.0	0.0	T OUT 1400 hr
6. Final Flow	217.0	196.0	217.0	0.0	0.0	
7. Fl Shut-in	885.0	867.0	885.0	0.0	0.0	TOOL DATA-----
8. Final Hydro	1629.0	1664.0	1629.0	0.0	0.0	Tool Wt. 2900.00 lbs
Inside/Outside	I	I	O			Wt Set On Packer 20000.00 lbs
						Wt Pulled Loose 35000.00 lbs
						Initial Str Wt 32000.00 lbs
						Unseated Str Wt 34000.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.78 in
						D Col. ID 2.25 in
						D. Pipe ID 3.80 in
						D.C. Length 30.00 ft
						D.P. Length 3299.00 ft

RECOVERY

Bot Fluid 566.00 ft of 30.00 ft in DC and 536.00 ft in DP

880.00 ft of Clean Oil

86.00 ft of Slightly muddy gassy oil

0.00 ft of 6%gas 91%oil 3%mud

0.00 ft of

0.00 ft of

0.00 ft of

0.00 ft of

0.00 ft of

0.00 ft of

SALINITY 0.00 P.P.M. A.P.I. Gravity 40.00

BLOW DESCRIPTION

Initial Flow:

Weak building to a strong blow in 4 minutes

Final Flow:

Weak building to a strong blow in 10 minutes

no blow back on shutins

SAMPLES:

SENT TO:

MUD DATA-----

Mud Type	Chemical
Weight	9.20 lb/cf
Vis.	46.00 S/L
W.L.	8.80 in3
F.C.	0.00 in
Mud Drop	
Amt. of fill	0.00 ft
Btm. H. Temp.	111.00 F
Hole Condition	good
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out	
Tool Chased N	
Tester	Ray Schwager
Co. Rep.	Ron Nelson
Contr.	Discovery Drlg.
Rig #	1
Unit #	
Pump T.	

Test Successful: Y

*** TOOL DIAGRAM *** CONV.

WELL NAME: Cox#1

LOCATION : 10-16s-12w Barton Co KS

TICKET No. 10882 D.S.T. No. 4 DATE 12-10-199

TOTAL TOOL TO BOTTOM OF TOP PACKERS 20

INTERVAL TOOL

BOTTOM PACKERS AND ANCHOR 35

TOTAL TOOL 55

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY

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

D.P. ABOVE TOOLS.Stands55 Single Total 3299

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 3384

TOTAL DEPTH 3364

TOTAL DRILL PIPE ABOVE K.B. 20

REMARKS:

P.O. SUB	
C.O. SUB	3190
S.I. TOOL	3314
HMV	3319
JARS	
SAFETY JOINT	
PACKER	3324
PACKER	3329
DEPTH	
STUBB	
ANCHOR	
T.C.	
DEPTH	
1'perf	3330
4'perf	3334
5'perf	3339
5'perf	3344
5'perf	3349
5'perf	3354
5'perf	3359
3'perf	3362
BULLNOSE	
T.D. 2'bullplug	3364

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING
 TEST: Tkt#10882 DST#4 Cox#1 Maxwell Oper. Co., Inc.
 DATE: 12/10/97 TIME: 07:40:15

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** Initial Hydro.	65.00	1629.9	0.0	93.59		
***** Start Flow 1	0.00	40.5	0.0	95.55		
	0.50	41.6	1.1	95.71		
	1.00	43.2	2.7	95.88		
	1.50	45.1	4.6	96.06		
	2.00	47.6	7.1	96.30		
	2.50	50.2	9.8	96.49		
	3.00	52.9	12.4	96.77		
	3.50	55.8	15.4	97.04		
	4.00	58.5	18.1	97.30		
	4.50	61.3	20.8	97.56		
	5.00	62.3	21.8	97.80		
	5.50	57.9	17.4	98.01		
	6.00	58.3	17.8	98.21		
	6.50	59.4	19.0	98.40		
	7.00	60.8	20.3	98.57		
	7.50	62.7	22.2	98.74		
	8.00	64.3	23.9	98.93		
	8.50	66.1	25.6	99.02		
	9.00	68.1	27.6	99.17		
	9.50	69.8	29.3	99.31		
	10.00	71.4	30.9	99.45		
	10.50	73.1	32.6	99.58		
	11.00	74.8	34.3	99.70		
	11.50	76.7	36.2	99.80		
	12.00	78.5	38.0	99.91		
	12.50	80.2	39.7	100.01		
	13.00	82.0	41.5	100.10		
	13.50	83.5	43.0	100.19		
	14.00	85.2	44.7	100.26		
	14.50	87.0	46.6	100.33		
	15.00	88.8	48.3	100.40		
	15.50	90.4	50.0	100.47		
	16.00	92.0	51.6	100.54		
	16.50	93.8	53.4	100.61		
	17.00	95.4	55.0	100.67		
	17.50	97.3	56.8	100.73		
	18.00	98.9	58.4	100.78		
	18.50	100.3	59.8	100.84		
	19.00	101.9	61.4	100.89		
	19.50	103.6	63.1	100.95		
	20.00	105.1	64.6	101.01		
	20.50	106.5	66.0	101.07		
	21.00	108.4	68.0	101.13		
	21.50	109.9	69.5	101.19		
	22.00	111.4	70.9	101.25		
	22.50	112.6	72.1	101.32		
	23.00	113.8	73.4	101.44		
	23.50	115.4	75.0	101.46		
	24.00	116.9	76.4	101.47		
	24.50	118.0	77.6	101.56		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tkt#10882 DST#4 Cox#1 Maxwell OPer. Co., Inc.

DATE: 12/10/97

TIME: 07:40:15

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	25.00	119.9	79.5	101.65		
	25.50	121.3	80.8	101.71		
	26.00	122.6	82.1	101.80		
	26.50	124.1	83.7	101.87		
	27.00	125.3	84.9	101.97		
	27.50	126.9	86.4	102.05		
	28.00	128.2	87.8	102.12		
	28.50	129.6	89.1	102.21		
	29.00	131.0	90.5	102.28		
***** End Flow 1	29.50	132.3	91.9	102.36		
***** Start Shutin 1	0.00	132.3	0.0	102.36	0.0000	0.018
	0.50	373.3	241.0	102.47	60.0000	0.139
	1.00	657.6	525.3	102.53	30.5000	0.432
	1.50	712.1	579.8	102.62	20.6667	0.507
	2.00	741.3	609.0	102.73	15.7500	0.550
	2.50	761.3	629.0	102.84	12.8000	0.580
	3.00	776.5	644.2	102.96	10.8333	0.603
	3.50	788.6	656.3	103.08	9.4286	0.622
	4.00	798.6	666.3	103.18	8.3750	0.638
	4.50	806.9	674.6	103.30	7.5556	0.651
	5.00	814.3	682.0	103.42	6.9000	0.663
	5.50	820.8	688.5	103.51	6.3636	0.674
	6.00	826.5	694.1	103.61	5.9167	0.683
	6.50	831.7	699.4	103.71	5.5385	0.692
	7.00	836.3	704.0	103.82	5.2143	0.699
	7.50	840.6	708.3	103.94	4.9333	0.707
	8.00	844.6	712.3	103.96	4.6875	0.713
	8.50	848.3	716.0	104.05	4.4706	0.720
	9.00	851.7	719.4	104.16	4.2778	0.725
	9.50	854.9	722.6	104.24	4.1053	0.731
	10.00	857.9	725.6	104.32	3.9500	0.736
	10.50	860.7	728.4	104.39	3.8095	0.741
	11.00	863.5	731.1	104.48	3.6818	0.746
	11.50	866.1	733.8	104.56	3.5652	0.750
	12.00	868.5	736.1	104.63	3.4583	0.754
	12.50	870.8	738.5	104.68	3.3600	0.758
	13.00	873.0	740.7	104.77	3.2692	0.762
	13.50	875.1	742.8	104.85	3.1852	0.766
	14.00	877.1	744.8	104.92	3.1071	0.769
	14.50	879.1	746.7	104.99	3.0345	0.773
	15.00	880.9	748.6	105.05	2.9667	0.776
	15.50	882.7	750.4	105.10	2.9032	0.779
	16.00	884.5	752.2	105.19	2.8438	0.782
	16.50	886.3	754.0	105.25	2.7879	0.786
	17.00	887.9	755.5	105.31	2.7353	0.788
	17.50	889.4	757.1	105.37	2.6857	0.791
	18.00	890.9	758.6	105.45	2.6389	0.794
	18.50	892.3	760.0	105.51	2.5946	0.796
	19.00	893.8	761.4	105.56	2.5526	0.799
	19.50	895.1	762.8	105.63	2.5128	0.801
	20.00	896.5	764.1	105.67	2.4750	0.804

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tkt#10882 DST#4 Cox#1 Maxwell OPer. Co., Inc.

DATE: 12/10/97

TIME: 07:40:15

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
20.50	897.8	765.5	105.73	2.4390	0.806
21.00	899.1	766.8	105.80	2.4048	0.808
21.50	900.4	768.1	105.86	2.3721	0.811
22.00	901.6	769.3	105.91	2.3409	0.813
22.50	902.8	770.5	105.97	2.3111	0.815
23.00	903.9	771.6	106.01	2.2826	0.817
23.50	905.1	772.7	106.08	2.2553	0.819
24.00	906.1	773.8	106.12	2.2292	0.821
24.50	907.2	774.8	106.18	2.2041	0.823
25.00	908.2	775.9	106.25	2.1800	0.825
25.50	909.2	776.8	106.32	2.1569	0.827
26.00	910.1	777.8	106.43	2.1346	0.828
26.50	911.1	778.7	106.43	2.1132	0.830
27.00	912.0	779.7	106.43	2.0926	0.832
27.50	912.9	780.6	106.43	2.0727	0.833
28.00	913.8	781.4	106.43	2.0536	0.835
28.50	914.6	782.3	106.45	2.0351	0.837
29.00	915.5	783.1	106.52	2.0172	0.838
29.50	916.3	784.0	106.58	2.0000	0.840
30.00	917.1	784.8	106.63	1.9833	0.841
30.50	917.9	785.6	106.68	1.9672	0.843
31.00	918.7	786.4	106.72	1.9516	0.844
31.50	919.5	787.2	106.75	1.9365	0.845
32.00	920.2	787.9	106.79	1.9219	0.847
32.50	921.1	788.8	106.82	1.9077	0.848
33.00	921.8	789.4	106.89	1.8939	0.850
33.50	922.5	790.1	106.91	1.8806	0.851
34.00	923.1	790.8	106.95	1.8676	0.852
34.50	923.8	791.5	106.98	1.8551	0.853
35.00	924.4	792.1	107.02	1.8429	0.855
35.50	925.1	792.8	107.06	1.8310	0.856
36.00	925.8	793.5	107.09	1.8194	0.857
36.50	926.4	794.1	107.11	1.8082	0.858
37.00	927.1	794.7	107.16	1.7973	0.859
37.50	927.7	795.4	107.18	1.7867	0.861
38.00	928.3	796.0	107.23	1.7763	0.862
38.50	929.0	796.6	107.25	1.7662	0.863
39.00	929.5	797.2	107.29	1.7564	0.864
39.50	930.2	797.8	107.32	1.7468	0.865
40.00	930.7	798.4	107.35	1.7375	0.866
40.50	931.3	798.9	107.37	1.7284	0.867
41.00	931.8	799.5	107.41	1.7195	0.868
41.50	932.4	800.0	107.42	1.7108	0.869
42.00	932.9	800.6	107.45	1.7024	0.870
42.50	933.4	801.1	107.49	1.6941	0.871
43.00	933.9	801.6	107.51	1.6860	0.872
43.50	934.5	802.2	107.54	1.6782	0.873
44.00	935.1	802.7	107.56	1.6705	0.874
44.50	935.5	803.2	107.59	1.6629	0.875
45.00	936.1	803.7	107.60	1.6556	0.876
45.50	936.5	804.2	107.62	1.6484	0.877

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tkt#10882 DST#4 Cox#1 Maxwell OPer. Co., Inc.

DATE: 12/10/97 TIME: 07:40:15

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** End Shut-in 1	46.00	937.0	804.7	107.65	1.6413	0.878
***** Start Flow 2	0.00	140.4	0.0	107.71		
	0.50	141.6	1.2	107.73		
	1.00	143.0	2.6	107.73		
	1.50	144.6	4.2	107.73		
	2.00	146.0	5.7	107.72		
	2.50	147.4	7.0	107.70		
	3.00	148.8	8.4	107.70		
	3.50	150.5	10.1	107.69		
	4.00	152.1	11.7	107.69		
	4.50	153.4	13.0	107.68		
	5.00	154.9	14.5	107.68		
	5.50	156.3	15.9	107.69		
	6.00	157.7	17.3	107.68		
	6.50	159.3	18.9	107.71		
	7.00	160.7	20.3	107.70		
	7.50	162.1	21.7	107.73		
	8.00	163.4	23.1	107.74		
	8.50	164.8	24.5	107.76		
	9.00	166.2	25.9	107.77		
	9.50	167.5	27.2	107.80		
	10.00	169.0	28.6	107.82		
	10.50	170.4	30.0	107.85		
	11.00	171.7	31.4	107.87		
	11.50	173.0	32.6	107.90		
	12.00	174.3	33.9	107.94		
	12.50	175.6	35.2	107.95		
	13.00	177.0	36.6	107.99		
	13.50	178.4	38.0	108.02		
	14.00	179.8	39.4	108.07		
	14.50	181.1	40.7	108.09		
	15.00	182.3	41.9	108.13		
	15.50	183.6	43.3	108.17		
	16.00	184.9	44.5	108.20		
	16.50	186.1	45.8	108.25		
	17.00	187.3	46.9	108.28		
	17.50	188.5	48.1	108.33		
	18.00	189.9	49.6	108.37		
	18.50	191.2	50.8	108.40		
	19.00	192.4	52.1	108.44		
	19.50	193.6	53.3	108.49		
	20.00	194.8	54.4	108.53		
	20.50	196.0	55.6	108.57		
	21.00	197.2	56.8	108.61		
	21.50	198.4	58.0	108.65		
	22.00	199.8	59.4	108.70		
	22.50	201.0	60.7	108.74		
	23.00	202.3	62.0	108.79		
	23.50	203.5	63.2	108.84		
	24.00	204.8	64.4	108.88		
	24.50	205.9	65.5	108.92		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tkt#10882 DST#4 Cox#1 Maxwell Oper. Co., Inc.

DATE: 12/10/97

TIME: 07:40:15

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
	25.00	207.0	66.7	108.92		
	25.50	208.3	67.9	108.95		
	26.00	209.6	69.2	109.01		
	26.50	210.9	70.6	109.06		
	27.00	212.1	71.7	109.10		
	27.50	213.3	72.9	109.15		
	28.00	214.5	74.1	109.17		
	28.50	215.6	75.2	109.23		
	29.00	216.7	76.3	109.27		
***** End Flow 2	29.50	217.8	77.5	109.31		
***** Start Shutin 2	0.00	217.8	0.0	109.31	0.0000	0.047
	0.50	562.8	344.9	109.34	119.0000	0.317
	1.00	662.8	445.0	109.40	60.0000	0.439
	1.50	696.7	478.8	109.44	40.3333	0.485
	2.00	717.4	499.6	109.50	30.5000	0.515
	2.50	732.4	514.6	109.55	24.6000	0.536
	3.00	744.0	526.1	109.62	20.6667	0.553
	3.50	753.4	535.5	109.67	17.8571	0.568
	4.00	761.2	543.4	109.74	15.7500	0.579
	4.50	768.0	550.2	109.77	14.1111	0.590
	5.00	773.9	556.1	109.84	12.8000	0.599
	5.50	779.3	561.4	109.89	11.7273	0.607
	6.00	784.0	566.2	109.94	10.8333	0.615
	6.50	788.3	570.5	109.99	10.0769	0.621
	7.00	792.3	574.4	110.02	9.4286	0.628
	7.50	795.9	578.0	110.08	8.8667	0.633
	8.00	799.3	581.5	110.11	8.3750	0.639
	8.50	802.4	584.6	110.15	7.9412	0.644
	9.00	805.4	587.6	110.20	7.5556	0.649
	9.50	808.2	590.3	110.23	7.2105	0.653
	10.00	810.8	592.9	110.26	6.9000	0.657
	10.50	813.3	595.4	110.30	6.6190	0.661
	11.00	815.7	597.8	110.34	6.3636	0.665
	11.50	817.9	600.1	110.37	6.1304	0.669
	12.00	820.0	602.2	110.39	5.9167	0.672
	12.50	822.1	604.3	110.43	5.7200	0.676
	13.00	824.1	606.2	110.46	5.5385	0.679
	13.50	826.0	608.2	110.49	5.3704	0.682
	14.00	827.8	610.0	110.52	5.2143	0.685
	14.50	829.6	611.8	110.56	5.0690	0.688
	15.00	831.3	613.4	110.59	4.9333	0.691
	15.50	832.9	615.1	110.63	4.8065	0.694
	16.00	834.5	616.6	110.64	4.6875	0.696
	16.50	836.0	618.2	110.68	4.5758	0.699
	17.00	837.5	619.7	110.69	4.4706	0.701
	17.50	839.0	621.1	110.72	4.3714	0.704
	18.00	840.4	622.5	110.75	4.2778	0.706
	18.50	841.8	623.9	110.78	4.1892	0.709
	19.00	843.1	625.3	110.80	4.1053	0.711
	19.50	844.4	626.6	110.83	4.0256	0.713
	20.00	845.7	627.8	110.85	3.9500	0.715

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tkt#10882 DST#4 Cox#1 Maxwell OPer. Co., Inc.

DATE: 12/10/97

TIME: 07:40:15

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
20.50	846.9	629.0	110.87	3.8780	0.717
21.00	848.1	630.3	110.90	3.8095	0.719
21.50	849.3	631.5	110.92	3.7442	0.721
22.00	850.5	632.6	110.93	3.6818	0.723
22.50	851.6	633.7	110.95	3.6222	0.725
23.00	852.7	634.8	110.99	3.5652	0.727
23.50	853.7	635.9	111.00	3.5106	0.729
24.00	854.8	636.9	111.02	3.4583	0.731
24.50	855.8	637.9	111.04	3.4082	0.732
25.00	856.8	638.9	111.06	3.3600	0.734
25.50	857.8	639.9	111.06	3.3137	0.736
26.00	858.7	640.9	111.10	3.2692	0.737
26.50	859.7	641.8	111.11	3.2264	0.739
27.00	860.6	642.7	111.12	3.1852	0.741
27.50	861.5	643.7	111.14	3.1455	0.742
28.00	862.4	644.5	111.15	3.1071	0.744
28.50	863.3	645.4	111.18	3.0702	0.745
29.00	864.1	646.3	111.19	3.0345	0.747
29.50	865.0	647.2	111.20	3.0000	0.748
30.00	865.8	647.9	111.23	2.9667	0.750
30.50	866.6	648.8	111.24	2.9344	0.751
31.00	867.4	649.6	111.25	2.9032	0.752
31.50	868.2	650.4	111.29	2.8730	0.754
32.00	869.0	651.1	111.32	2.8438	0.755
32.50	869.8	651.9	111.32	2.8154	0.756
33.00	870.5	652.6	111.33	2.7879	0.758
33.50	871.3	653.4	111.37	2.7612	0.759
34.00	871.9	654.1	111.36	2.7353	0.760
34.50	872.7	654.8	111.39	2.7101	0.762
35.00	873.4	655.5	111.40	2.6857	0.763
35.50	874.1	656.3	111.40	2.6620	0.764
36.00	874.7	656.9	111.40	2.6389	0.765
36.50	875.4	657.6	111.40	2.6164	0.766
37.00	876.1	658.2	111.40	2.5946	0.768
37.50	876.7	658.9	111.40	2.5733	0.769
38.00	877.4	659.5	111.40	2.5526	0.770
38.50	878.0	660.2	111.41	2.5325	0.771
39.00	878.6	660.8	111.41	2.5128	0.772
39.50	879.3	661.4	111.41	2.4937	0.773
40.00	879.9	662.1	111.41	2.4750	0.774
40.50	880.5	662.6	111.41	2.4568	0.775
41.00	881.1	663.3	111.41	2.4390	0.776
41.50	881.7	663.8	111.41	2.4217	0.777
42.00	882.3	664.4	111.46	2.4048	0.778
42.50	882.8	665.0	111.46	2.3882	0.779
43.00	883.4	665.6	111.46	2.3721	0.780
43.50	883.9	666.1	111.47	2.3563	0.781
44.00	884.5	666.7	111.46	2.3409	0.782
44.50	885.1	667.2	111.48	2.3258	0.783
45.00	885.6	667.8	111.49	2.3111	0.784

***** End Shut-in 2

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tkt#10882 DST#4 Cox#1 Maxwell OPer. Co., Inc.

DATE: 12/10/97 TIME: 07:40:15

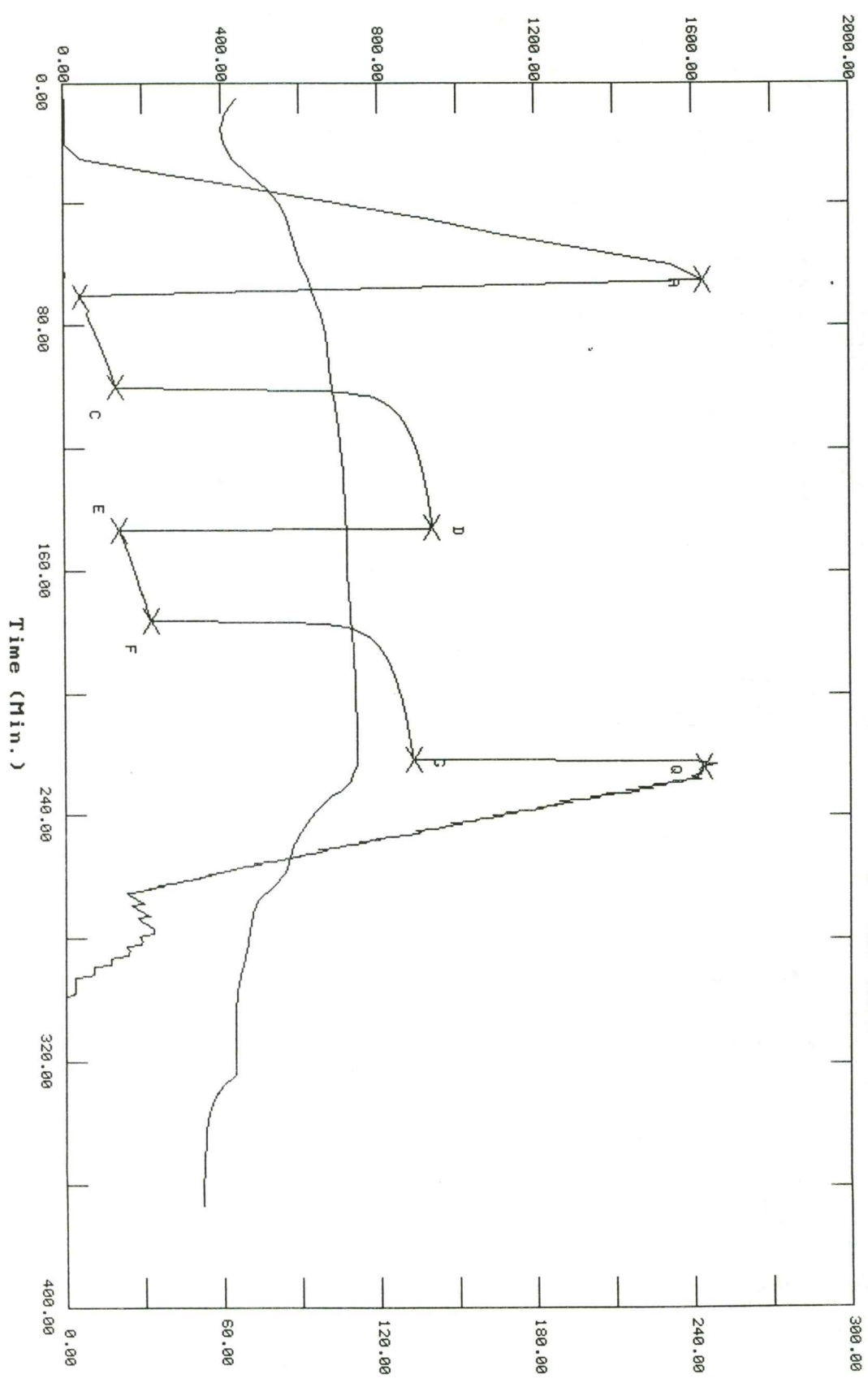
	Time	Pressure	delta P	Temp.	(T+dT)/dT	P^2/10^6
		PSig	PSig	DEG F		
***** Final Hydro.	224.00	1629.5	0.0	110.97		

TEST HISTORY

Tkt#10882 DST#4 Cox#1 Maxwelll 0Per. Co., Inc.

Flag Points

t(Min.)	P(PSIg)
R: 0.00	1629.88
B: 0.00	40.46
C: 29.50	132.32
D: 46.00	937.00
E: 0.00	140.38
F: 29.50	217.84
G: 45.00	885.61
Q: 0.00	1629.54



Temperature (DEG F)

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 10882

Well Name & No.	<u>Cox #1</u>	Test No.	<u>4</u>	Date	<u>12-10-97</u>
Company	<u>Maxwell Operating Co., Inc</u>	Zone Tested	<u>Arbuckle</u>		
Address	<u>P.O. Box 1213 Hays, Ks 67601</u>	Elevation	<u>1915</u>	KB	<u>1907</u> GL
Co. Rep / Geo.	<u>Ron Nelson</u>	Cont.	<u>Discovery Drllg</u>	Est. Ft. of Pay	<u> </u> Por. <u> </u> %
Location: Sec.	<u>10</u>	Twp.	<u>16</u>	Rge.	<u>12</u> Co. <u>BARTON</u> State <u>Ks</u>
No. of Copies	<u>Reg</u>	Distribution Sheet (Y, N)	<u> </u>	Turnkey (Y, N)	<u> </u> Evaluation (Y, N) <u> </u>

Interval Tested	<u>3329-3364</u>	Initial Str Wt./Lbs.	<u>32000</u>	Unseated Str Wt./Lbs.	<u>34000</u>
Anchor Length	<u>35</u>	Wt. Set Lbs.	<u>20000</u>	Wt. Pulled Loose/Lbs.	<u>35000</u>
Top Packer Depth	<u>3324</u>	Tool Weight	<u>2900</u>		
Bottom Packer Depth	<u>3329</u>	Hole Size — 7 7/8"	<u> </u>	Rubber Size — 6 3/4"	<u> </u>
Total Depth	<u>3364</u>	Wt. Pipe Run	<u> </u>	Drill Collar Run	<u>30</u>
Mud Wt. <u>9.2</u> LCM <u>—</u> Vis. <u>46</u> WL <u>8.8</u>		Drill Pipe Size	<u>4 1/2 XH</u>	Ft. Run	<u>3299</u>
Blow Description	<u>IFP-WEAK building To A Strong Blow in 4 min</u>				
	<u>FFP-WEAK building To A Strong Blow in 10 min</u>				

Recovery — Total Feet	<u>566</u>	GIP	<u>490</u>	Ft. in DC	<u>30</u>	Ft. in DP	<u>536</u>
Rec.	<u>380</u>	Feet Of	<u>CLEAN Oil</u>	%gas	<u> </u>	%oil	<u> </u>
Rec.	<u>186</u>	Feet Of	<u>Sl. muddy gassy oil</u>	%gas	<u>91</u>	%oil	<u>—</u>
Rec.	<u> </u>	Feet Of	<u> </u>	%gas	<u> </u>	%oil	<u> </u>
Rec.	<u> </u>	Feet Of	<u> </u>	%gas	<u> </u>	%oil	<u> </u>
Rec.	<u> </u>	Feet Of	<u> </u>	%gas	<u> </u>	%oil	<u> </u>
BHT	<u>111</u>	°F Gravity	<u>40</u>	°API D@	<u>60</u>	°F Corrected Gravity	<u>—</u>
RW	<u>—</u>	@	<u>—</u>	°F Chlorides	<u>—</u>	ppm Recovery	<u>6000</u>
(A) Initial Hydrostatic Mud	<u>1629</u>	PSI	Recorder No.	<u>3027</u>	T-Started	<u>7:45 AM</u>	
(B) First Initial Flow Pressure	<u>40</u>	PSI	(depth)	<u>3336</u>	T-Open	<u>8:50 AM</u>	
(C) First Final Flow Pressure	<u>132</u>	PSI	Recorder No.	<u>10270</u>	T-Pulled	<u>11:20 AM</u>	
(D) Initial Shut-in Pressure	<u>937</u>	PSI	(depth)	<u>3359</u>	T-Out	<u>2:00 PM</u>	
(E) Second Initial Flow Pressure	<u>140</u>	PSI	Recorder No.	<u>—</u>			
(F) Second Final Flow Pressure	<u>217</u>	PSI	(depth)	<u>—</u>			
(G) Final Shut-in Pressure	<u>885</u>	PSI	Initial Opening	<u>30</u>	Test	<u>✓</u>	<u>600</u>
(H) Final Hydrostatic Mud	<u>1629</u>	PSI	Initial Shut-in	<u>45</u>	Jars	<u> </u>	
			Final Flow	<u>30</u>	Safety Joint	<u> </u>	
			Final Shut-in	<u>45</u>	Straddle	<u> </u>	

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Approved By

Brian Karlin

Extra Packer

Elect. Rec

Other

150

1750