

**WELL NAME:** Moody #4  
**COMPANY:** Abercrombie Drilling  
**LOCATION:** Sec. 35 Twp.20S Rge. 35W  
Wichity County Kansas  
**DATE:** 6/26/97

TRILOBITE TESTING L.L.C.

OPERATOR : Abercrombie Drilling DATE 6-19-97  
 WELL NAME: Moody #4 KB 3157.00 ft TICKET NO: 9944 DST #1  
 LOCATION : 35-20-35 GR 3152.00 ft FORMATION: Marmaton  
 INTERVAL : 4510.00 To 4525.00 ft TD 4525.00 ft TEST TYPE: CONV

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	11057	11057	2342			PF Fr. 1200 to 1230 hr
SI 45 Range(Psi )	4500.0	4500.0	4995.0	0.0	0.0	IS Fr. 1230 to 1315 hr
SF 60 Clock(hrs)	12 hr	12 hr	Elec			SF Fr. 1315 to 1415 hr
FS 45 Depth(ft )	4520.0	4520.0	4511.0	0.0	0.0	FS Fr. 1415 to 1500 hr

	Field	1	2	3	4	
A. Init Hydro	2196.0	2171.0	2186.0	0.0	0.0	T STARTED 0935 hr
B. First Flow	44.0	17.0	17.0	0.0	0.0	T ON BOTM 1157 hr
B1. Final Flow	56.0	32.0	54.0	0.0	0.0	T OPEN 1200 hr
C. In Shut-in	1174.0	1142.0	1172.0	0.0	0.0	T PULLED 1500 hr
D. Init Flow	78.0	54.0	59.0	0.0	0.0	T OUT 1800 hr
E. Final Flow	123.0	95.0	109.0	0.0	0.0	
F. Fl Shut-in	1118.0	1099.0	1124.0	0.0	0.0	
G. Final Hydro	2174.0	2148.0	2146.0	0.0	0.0	
Inside/Outside	O	O	I			

TOOL DATA-----  
 Tool Wt. 4000.00 lbs  
 Wt Set On Packer 26000.00 lbs  
 Wt Pulled Loose 72000.00 lbs  
 Initial Str Wt 50000.00 lbs  
 Unseated Str Wt 52000.00 lbs  
 Bot Choke 0.75 in  
 Hole Size 7.88 in  
 D Col. ID 0.00 in  
 D. Pipe ID 3.80 in  
 D.C. Length 0.00 ft  
 D.P. Length 3925.00 ft  
 H.W. I.D 2.70 in  
 H.W. Length 590.00 ft

RECOVERY

Tot Fluid 270.00 ft of 0.00 ft in DC and 270.00 ft in DP  
 90.00 ft of Clean Gassy Oil  
 0.00 ft of 20%gas 80%oil  
 180.00 ft of Gassy Mud Cut Oil  
 0.00 ft of 10%gas 20%mud 70%oil  
 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 32.00

MUD DATA-----  
 Mud Type Chemical  
 Weight 9.20 lb/c  
 Vis. 46.00 S/L  
 W.L. 11.20 in3  
 F.C. 0.00 in  
 Mud Drop N

BLOW DESCRIPTION

Initial Flow:  
 Bottom of bucket in 19 mins  
 Initial Shut In:  
 Bled off blow return in 2 minutes  
 Built to 1.5", died back to 1"  
 Final Flow:  
 Bottom of bucket in 15 mins  
 Final Shut In:  
 Bled off blow return in 2 mins  
 Built to 2 "

Amt. of fill 0.00 ft  
 Btm. H. Temp. 115.00 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 Shane McBride  
 Co. Rep. Steve Davis  
 Contr. Abercrombie  
 Rig # 8  
 Unit #  
 Pump T.

SAMPLES:  
 SENT TO:

Test Successful: Y

\*\*\* TOOL DIAGRAM \*\*\* CONV

WELL NAME: Moody #4

LOCATION : 35-20-35

TICKET No. 9944 D.S.T. No. 1 DATE 6-19-97

TOTAL TOOL TO BOTTOM OF TOP PACKERS ..... 22

INTERVAL TOOL .....

TOTAL PACKERS AND ANCHOR ..... 15

TOTAL TOOL ..... 37

DRILL COLLAR ANCHOR IN INTERVAL .....

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY ..... 37

D.C. ABOVE TOOLS.Stands Single Total

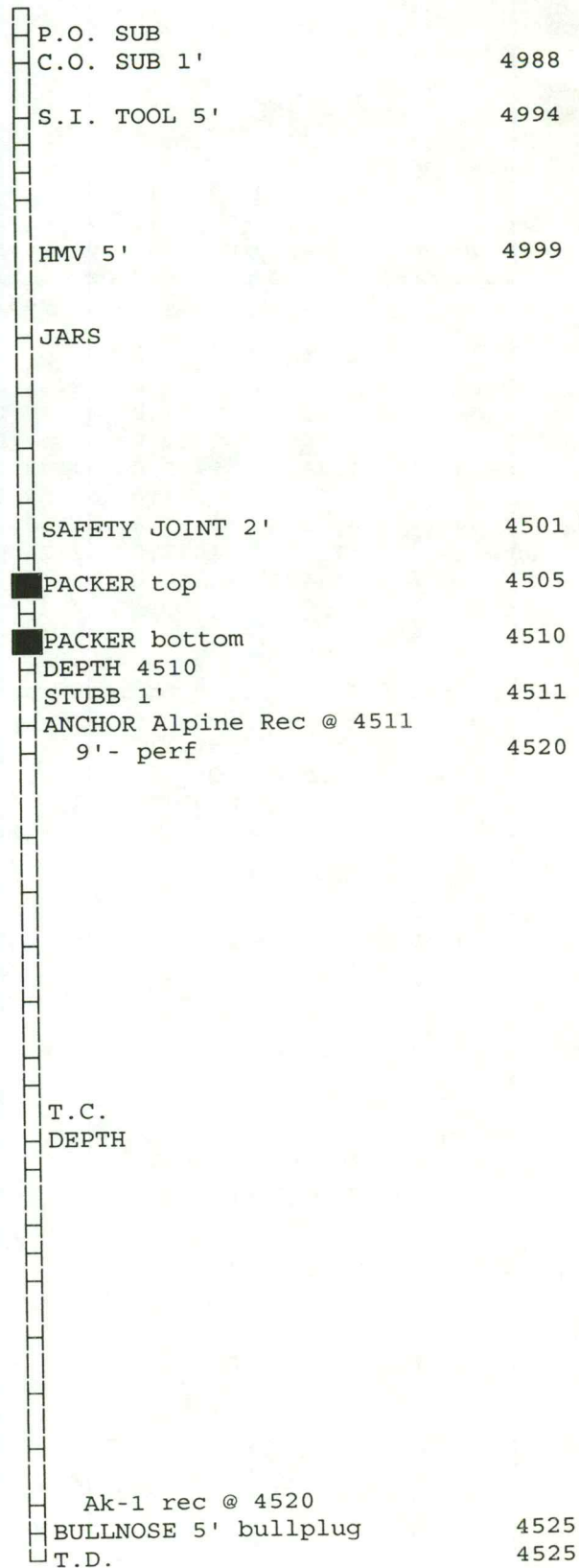
D.P. ABOVE TOOLS.Stands73 Single Total 4515

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 4552

TOTAL DEPTH ..... 4525

TOTAL DRILL PIPE ABOVE K.B. .... 27

REMARKS:



Operator.....: Abercrombie Drilling  
Well Name.....: Moody #4  
DST Number.....: 1

Location.: 35-20S-35W                      Recorder No...: 2342  
Test Type: conv                              Recorder Depth: 4511  
Formation: Marmaton                         Test Interval.: 4510-4525

RESERVOIR CALCULATIONS: Fluid calculations based on shut-in #2

RESERVOIR PARAMETERS USED:

Net Pay.....: 4.00 ft  
Porosity.....: 18.00 %  
Bottom Hole Temp.....: 115.00 F  
Specific Gravity.....: 0.034  
API Gravity.....: 32.00  
Compressibility.....: 0.000015 /psi  
Viscosity.....: 8.4800 cp  
Total Recovery.....: 270.00 ft  
Total Flowing Time.....: 90.00 min.  
Flow Rate.....: 28.70 bbls/d  
Final Flowing Pressure.....: 109.00 psi  
Horner Slope.....: 237.6627 psi/cycle  
Extrapolated Pressure.....: 1237.57 psi  
Formation Volume Factor.....: 1.03 Reservoir/Surface  
Well Bore Radius.....: 3.94 in

RESULTS:

Effective Permeability.....: 42.709514 md  
Flow Capacity.....: 170.8381 md.ft  
Transmissibility.....: 20.1460 md.ft/cp  
Skin Factor.....: 1.0845  
Radius of Investigation.....: 48.50943 ft  
Damage Ratio.....: 1.2475  
Productivity Index.....: 0.0254 bbls/psi.d  
Productivity Index W/O Damage.: 0.0317 bbls/psi.d

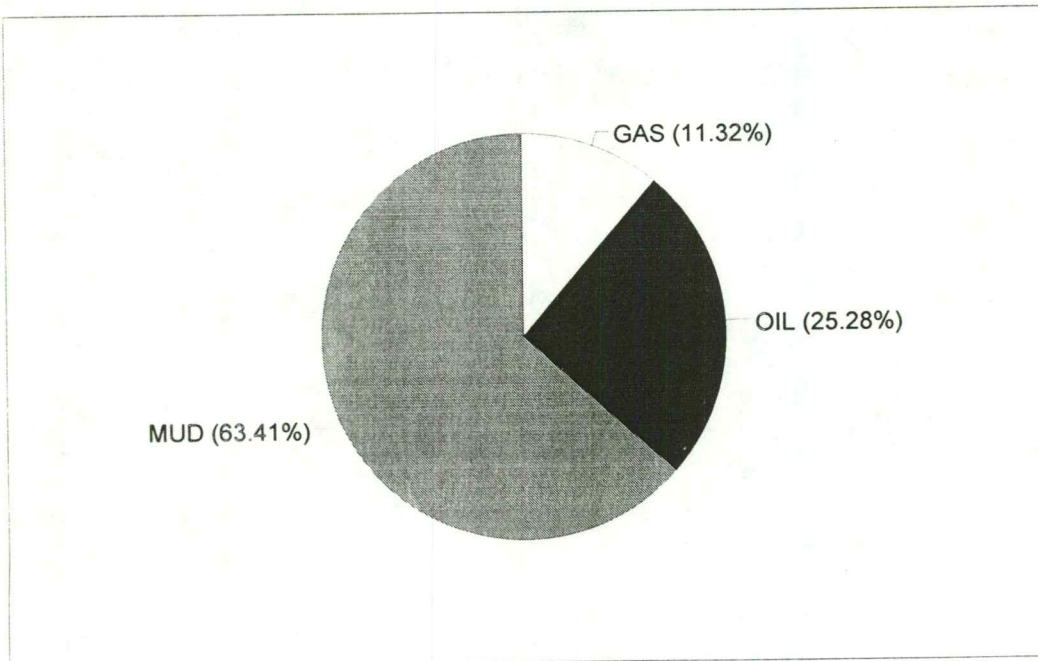
CALCULATED RECOVERY ANALYSIS

DST 1

TICKET 9944

SAMPLE	TOTAL	GAS		OIL		WATER		MUD		
		FEET	%	FEET	%	FEET	%	FEET	%	FEET
DRILL	1	90	20	30	80	0	0			120
PIPE	2	180	10	18	70	126	0	20		36
	3			0		0	0			0
	4			0		0	0			0
	5			0		0	0			0
	6			0		0	0			0
WEIGHT	1			0		0	0			0
PIPE	2			0		0	0			0
	3			0		0	0			0
	4			0		0	0			0
DRILL	1			24.5		0	0			465.5
COLLARS	2			0		0	0			0
	3			0		0	0			0
	4			0		0	0			0
	5			0		0	0			0
TOTAL		270		72.5		126		0		621.5

		HRS OPEN	BBL/DAY
BBL OIL=	1.79172	*	1.5 = 28.7
BBL WATER=	0	*	= 0
BBL MUD=	4.494615		
BBL GAS =	0.802365		



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 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9944 DST #1 Moody #4 AL Abercrombie

DATE: 06/19/97

TIME: 08:40:52  
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	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P <sup>2</sup> /10 <sup>6</sup>
***** Initial Hydro.	142.00	2186.3	0.0	109.24		
***** Start Flow 1	0.00	17.3	0.0	109.34		
	1.00	21.5	4.2	109.45		
	2.00	23.8	6.5	109.53		
	3.00	25.3	8.0	109.57		
	4.00	27.0	9.7	109.61		
	5.00	28.6	11.3	109.67		
	6.00	29.9	12.6	109.75		
	7.00	31.0	13.7	109.83		
	8.00	32.2	14.9	109.91		
	9.00	33.4	16.1	109.99		
	10.00	34.5	17.2	110.08		
	11.00	35.7	18.5	110.16		
	12.00	36.8	19.5	110.23		
	13.00	38.1	20.8	110.30		
	14.00	39.2	21.9	110.35		
	15.00	40.3	23.0	110.41		
	16.00	41.5	24.2	110.47		
	17.00	42.4	25.1	110.51		
	18.00	43.4	26.1	110.55		
	19.00	44.5	27.2	110.59		
	20.00	45.3	28.0	110.62		
	21.00	46.3	29.0	110.66		
	22.00	47.3	30.0	110.69		
	23.00	48.3	31.1	110.72		
	24.00	49.3	32.0	110.74		
	25.00	50.3	33.0	110.77		
	26.00	51.3	34.0	110.80		
	27.00	52.4	35.1	110.82		
	28.00	53.1	35.8	110.85		
***** End Flow 1	29.00	54.0	36.8	110.88		
***** Start Shutin 1	0.00	54.0	0.0	110.88	0.0000	0.003
	1.00	58.2	4.2	110.91	30.0000	0.003
	2.00	84.6	30.5	110.93	15.5000	0.007
	3.00	120.9	66.9	110.97	10.6667	0.015
	4.00	178.8	124.8	111.00	8.2500	0.032
	5.00	280.3	226.3	111.04	6.8000	0.079
	6.00	467.0	412.9	111.09	5.8333	0.218
	7.00	709.9	655.9	111.14	5.1429	0.504
	8.00	866.8	812.8	111.22	4.6250	0.751
	9.00	944.1	890.1	111.28	4.2222	0.891
	10.00	986.6	932.5	111.34	3.9000	0.973
	11.00	1013.8	959.8	111.41	3.6364	1.028
	12.00	1033.6	979.5	111.47	3.4167	1.068
	13.00	1048.8	994.7	111.54	3.2308	1.100
	14.00	1061.2	1007.1	111.60	3.0714	1.126
	15.00	1071.6	1017.5	111.64	2.9333	1.148
	16.00	1080.6	1026.5	111.70	2.8125	1.168
	17.00	1088.4	1034.3	111.74	2.7059	1.185
	18.00	1095.5	1041.5	111.78	2.6111	1.200
	19.00	1101.6	1047.6	111.82	2.5263	1.214

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9944 DST #1 Moody #4 AL Abercrombie  
 DATE: 06/19/97 TIME: 08:40:52

Time	Pressure PSig	delta P PSig	P	Temp. DEG F	(T+dT)/dT	P^2/10^6
20.00	1107.3	1053.3		111.86	2.4500	1.226
21.00	1112.5	1058.5		111.90	2.3810	1.238
22.00	1117.3	1063.3		111.93	2.3182	1.248
23.00	1121.8	1067.7		111.95	2.2609	1.258
24.00	1125.6	1071.6		111.98	2.2083	1.267
25.00	1129.3	1075.3		112.09	2.1600	1.275
26.00	1132.8	1078.8		112.04	2.1154	1.283
27.00	1136.0	1082.0		112.06	2.0741	1.291
28.00	1139.1	1085.1		112.09	2.0357	1.298
29.00	1142.0	1088.0		112.12	2.0000	1.304
30.00	1144.6	1090.6		112.14	1.9667	1.310
31.00	1147.2	1093.2		112.15	1.9355	1.316
32.00	1149.5	1095.4		112.19	1.9062	1.321
33.00	1151.7	1097.7		112.21	1.8788	1.326
34.00	1153.9	1099.9		112.23	1.8529	1.332
35.00	1155.8	1101.8		112.25	1.8286	1.336
36.00	1157.8	1103.7		112.26	1.8056	1.340
37.00	1159.7	1105.7		112.28	1.7838	1.345
38.00	1161.4	1107.3		112.30	1.7632	1.349
39.00	1163.0	1108.9		112.31	1.7436	1.353
40.00	1164.6	1110.5		112.34	1.7250	1.356
41.00	1166.1	1112.0		112.35	1.7073	1.360
42.00	1167.5	1113.5		112.37	1.6905	1.363
43.00	1168.9	1114.8		112.39	1.6744	1.366
44.00	1170.3	1116.2		112.40	1.6591	1.370
45.00	1171.5	1117.4		112.42	1.6444	1.372
46.00	1172.7	1118.7		112.43	1.6304	1.375
***** End Shut-in 1						
0.00	59.8	0.0		112.41		
***** Start Flow 2						
1.00	60.2	0.3		112.38		
2.00	60.5	0.7		112.37		
3.00	62.2	2.3		112.37		
4.00	64.6	4.8		112.39		
5.00	66.0	6.2		112.43		
6.00	67.0	7.1		112.51		
7.00	67.9	8.1		112.60		
8.00	69.0	9.1		112.70		
9.00	70.2	10.3		112.82		
10.00	71.4	11.6		112.93		
11.00	66.0	6.1		113.03		
12.00	67.2	7.4		113.13		
13.00	68.4	8.6		113.21		
14.00	69.3	9.5		113.30		
15.00	70.5	10.7		113.38		
16.00	71.5	11.7		113.44		
17.00	72.4	12.6		113.51		
18.00	73.3	13.5		113.57		
19.00	74.3	14.4		113.62		
20.00	74.8	14.9		113.66		
21.00	75.8	15.9		113.71		
22.00	77.0	17.2		113.75		
23.00	77.3	17.5		113.79		

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 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9944 DST #1 Moody #4 AL Abercrombie

DATE: 06/19/97 TIME: 08:40:52  
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	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P <sup>2</sup> /10 <sup>6</sup>
	24.00	78.5	18.6	113.82		
	25.00	78.9	19.1	113.85		
	26.00	79.7	19.9	113.89		
	27.00	80.4	20.6	113.92		
	28.00	81.4	21.6	113.95		
	29.00	82.2	22.4	113.98		
	30.00	83.1	23.2	114.01		
	31.00	83.8	23.9	114.05		
	32.00	84.6	24.8	114.09		
	33.00	85.4	25.6	114.12		
	34.00	86.4	26.5	114.16		
	35.00	87.1	27.3	114.19		
	36.00	88.0	28.2	114.22		
	37.00	89.0	29.1	114.24		
	38.00	89.8	30.0	114.26		
	39.00	90.7	30.9	114.29		
	40.00	91.6	31.8	114.31		
	41.00	92.7	32.9	114.33		
	42.00	93.3	33.5	114.35		
	43.00	94.3	34.5	114.37		
	44.00	95.2	35.4	114.39		
	45.00	96.0	36.2	114.39		
	46.00	96.9	37.1	114.41		
	47.00	97.8	37.9	114.42		
	48.00	99.0	39.2	114.43		
	49.00	99.7	39.9	114.44		
	50.00	100.5	40.7	114.46		
	51.00	101.6	41.8	114.46		
	52.00	102.5	42.6	114.47		
	53.00	103.3	43.5	114.48		
	54.00	104.2	44.4	114.48		
	55.00	105.3	45.5	114.49		
	56.00	106.2	46.3	114.50		
	57.00	107.0	47.2	114.51		
	58.00	108.0	48.2	114.51		
*****	End Flow 2	59.00	109.0	49.2	114.52	
*****	Start Shutin 2	0.00	109.0	0.0	114.52	0.0000
		1.00	130.3	21.3	114.53	89.0000
		2.00	171.7	62.7	114.54	45.0000
		3.00	242.6	133.6	114.55	30.3333
		4.00	367.3	258.3	114.57	23.0000
		5.00	546.4	437.4	114.61	18.6000
		6.00	719.6	610.6	114.65	15.6667
		7.00	831.3	722.3	114.70	13.5714
		8.00	894.7	785.6	114.76	12.0000
		9.00	933.3	824.3	114.82	10.7778
		10.00	959.0	850.0	114.88	9.8000
		11.00	978.1	869.1	114.93	9.0000
		12.00	993.1	884.1	114.98	8.3333
		13.00	1005.4	896.3	115.03	7.7692
		14.00	1015.9	906.8	115.07	7.2857

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

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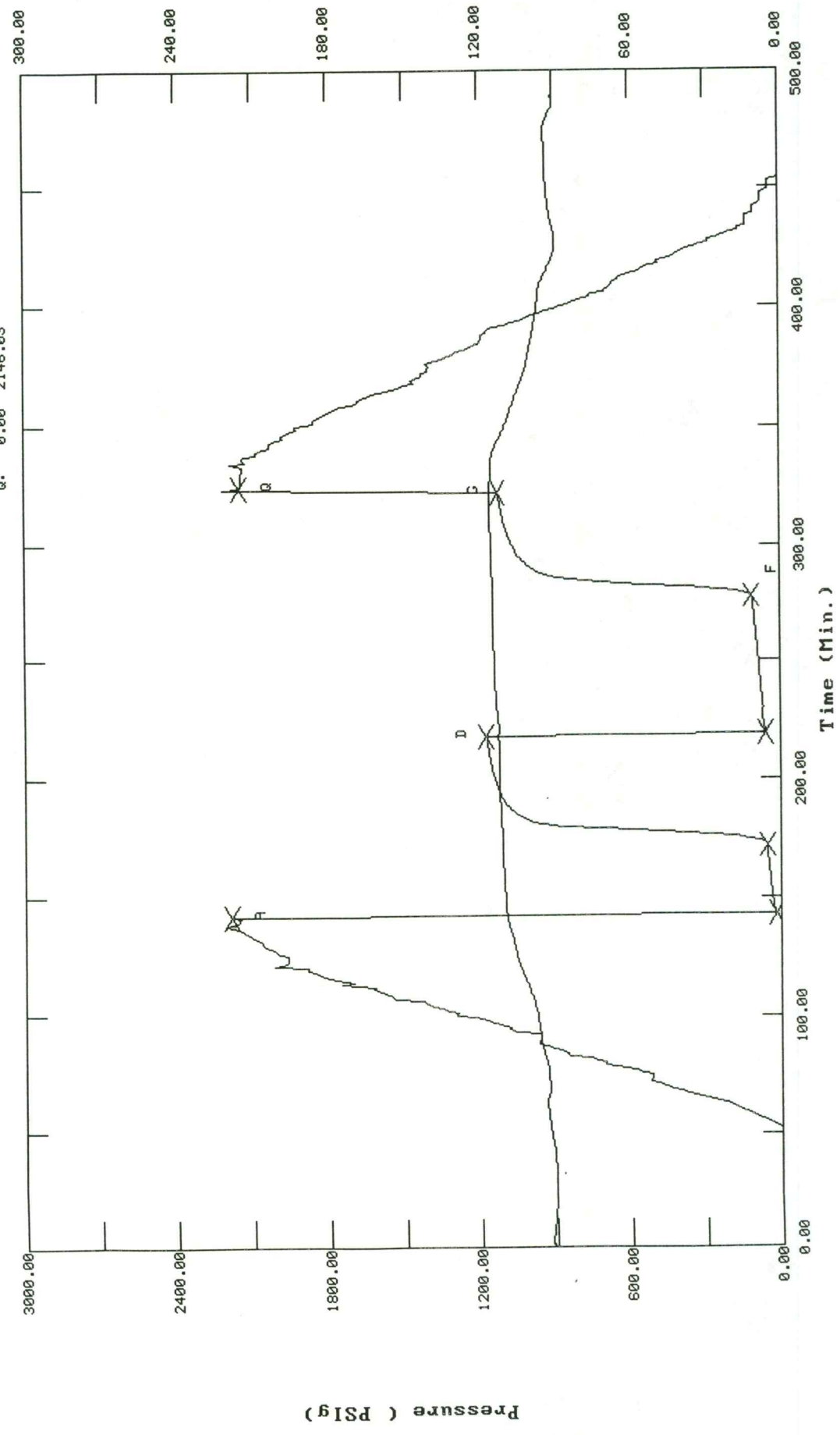
Time	Pressure PSig	delta PSig	P	Temp. DEG F	(T+dT)/dT	P^2/10^6
15.00	1024.9	915.9		115.11	6.8667	1.050
16.00	1032.9	923.9		115.14	6.5000	1.067
17.00	1040.1	931.1		115.17	6.1765	1.082
18.00	1046.5	937.5		115.21	5.8889	1.095
19.00	1052.4	943.4		115.24	5.6316	1.108
20.00	1057.9	948.9		115.26	5.4000	1.119
21.00	1062.9	953.8		115.28	5.1905	1.130
22.00	1067.4	958.4		115.31	5.0000	1.139
23.00	1071.7	962.7		115.33	4.8261	1.149
24.00	1075.9	966.8		115.35	4.6667	1.157
25.00	1079.6	970.6		115.37	4.5200	1.166
26.00	1083.2	974.2		115.38	4.3846	1.173
27.00	1086.5	977.5		115.40	4.2593	1.181
28.00	1089.7	980.7		115.43	4.1429	1.187
29.00	1092.6	983.6		115.44	4.0345	1.194
30.00	1095.6	986.6		115.45	3.9333	1.200
31.00	1098.3	989.3		115.47	3.8387	1.206
32.00	1100.8	991.8		115.49	3.7500	1.212
33.00	1103.3	994.3		115.50	3.6667	1.217
34.00	1105.6	996.6		115.52	3.5882	1.222
35.00	1107.8	998.7		115.50	3.5143	1.227
36.00	1109.9	1000.9		115.54	3.4444	1.232
37.00	1112.0	1002.9		115.55	3.3784	1.236
38.00	1113.9	1004.9		115.56	3.3158	1.241
39.00	1115.7	1006.7		115.58	3.2564	1.245
40.00	1117.6	1008.6		115.58	3.2000	1.249
41.00	1119.3	1010.3		115.60	3.1463	1.253
42.00	1120.9	1011.9		115.62	3.0952	1.256
43.00	1122.5	1013.5		115.64	3.0465	1.260
***** End Shut-in 2	44.00	1124.1	1015.1	115.64	3.0000	1.264
***** Final Hydro.	324.00	2146.0	0.0	115.67		

# TEST HISTORY

9944 DST #1 Moody #4 AL Abercrombie

## Flag Points

	t (Min.)	P (PSig)
A:	0.00	2186.31
B:	0.00	17.28
C:	29.00	54.04
D:	46.00	1172.71
E:	0.00	59.83
F:	59.00	109.01
G:	44.00	1124.12
Q:	0.00	2146.03

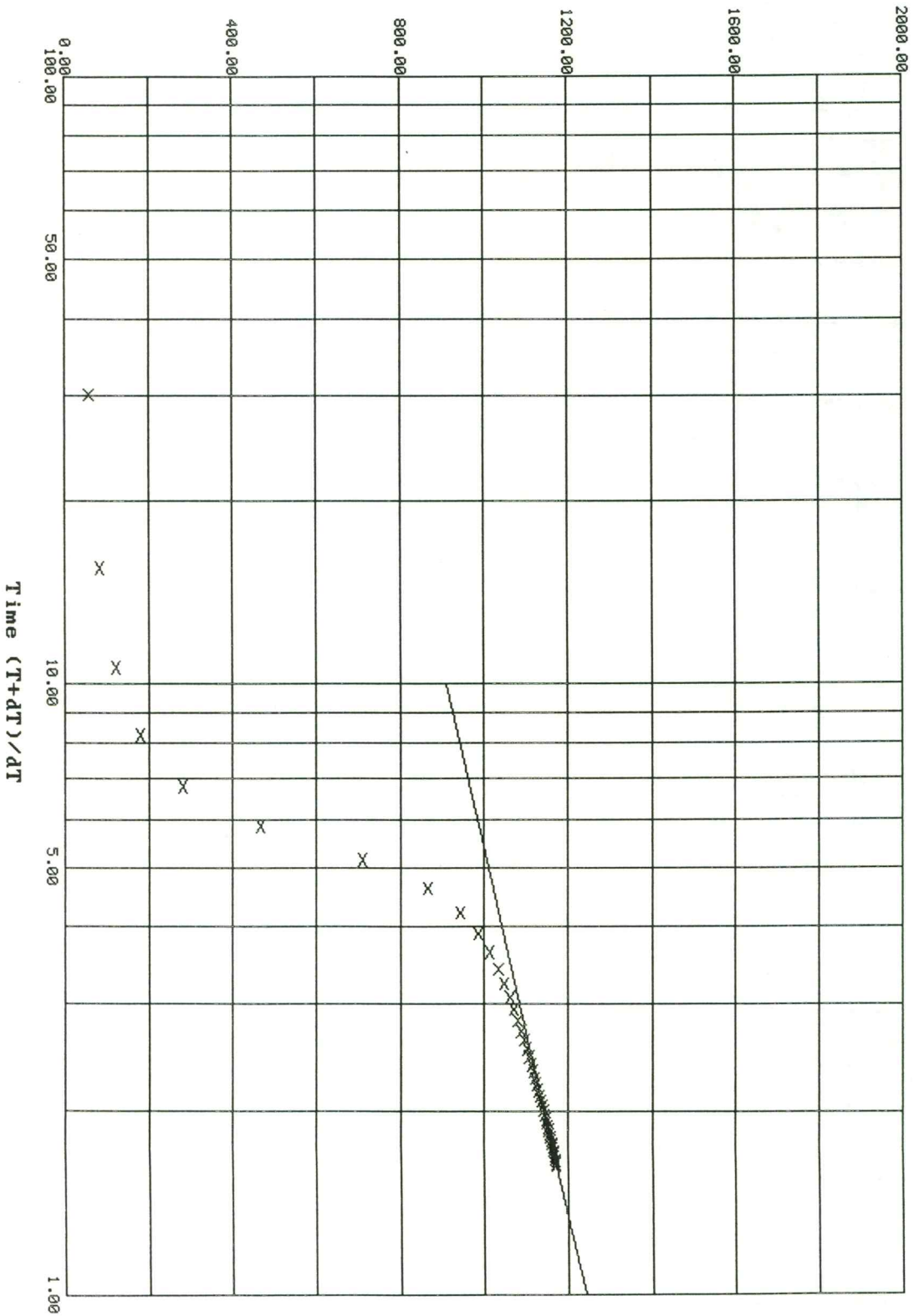




# Horner Plot: shut-in #1

9944 DST #1 Moody #4 AL Abercrombie

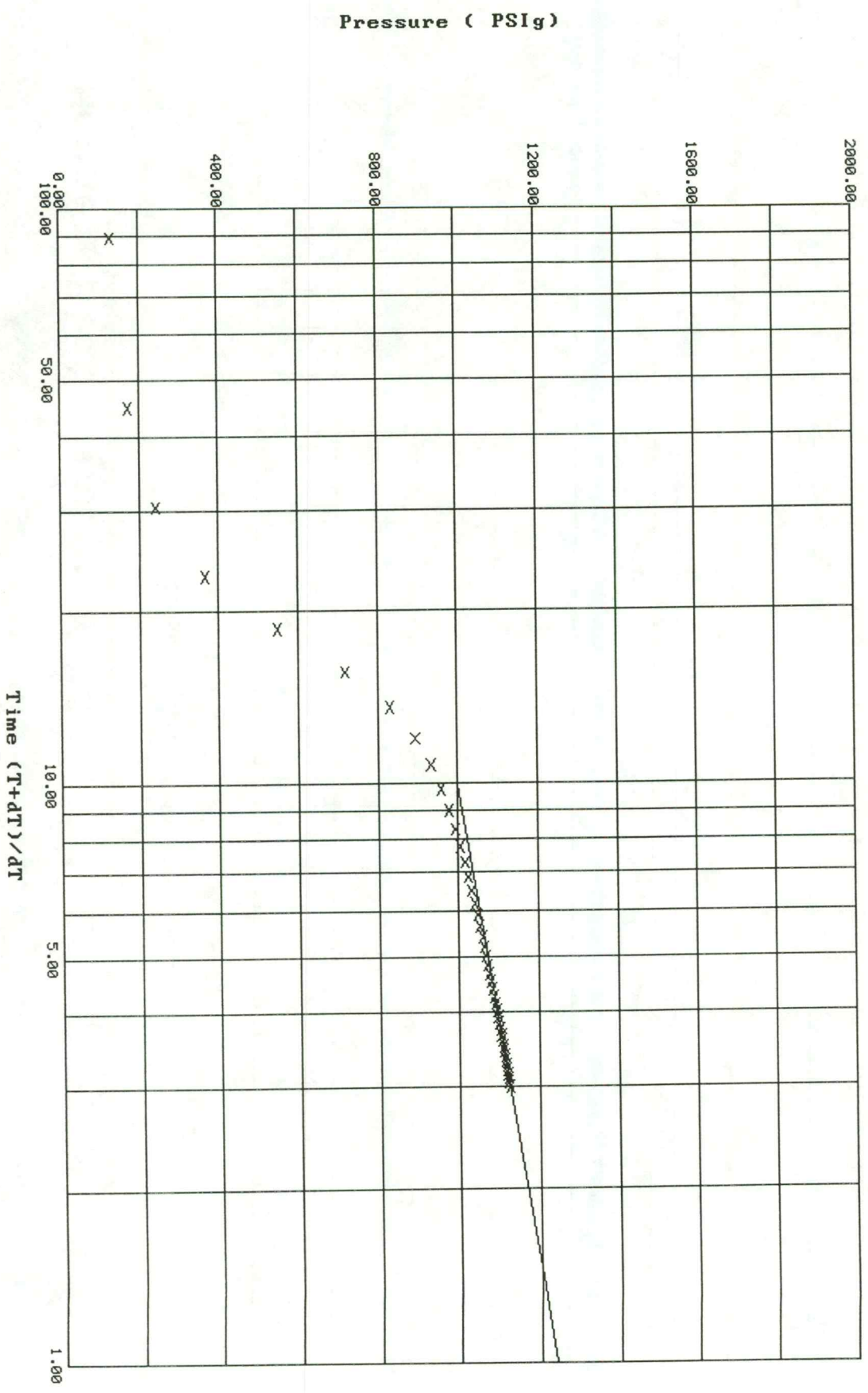
Slope: 334.0434 PSig/cycle  
Ext. Pressure: 1243.6600 PSig



# Horner Plot: shut-in #2

9944 DST #1 Moody #4 AL Abercrombie

Slope: 237.6627 PSig/cycle  
Ext. Pressure: 1237.5719 PSig



TRILOBITE TESTING L.L.C.

OPERATOR : Abercrombie Drilg. Co.  
 WELL NAME: Moody #4  
 LOCATION : 35-20-35  
 INTERVAL : 4525.00 To 4570.00 ft

DATE 6-20-97

KB 3157.00 ft TICKET NO: 9945 DST #2  
 GR 3152.00 ft FORMATION: Marmaton  
 TD 4570.00 ft TEST TYPE: CONV

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	11057	11057	2342			PF Fr. 0730 to 0800 hr
SI 30 Range(Psi )	4500.0	4500.0	4995.0	0.0	0.0	IS Fr. 0800 to 0830 hr
SF 30 Clock(hrs)	12 hr	12 hr	Elec			SF Fr. 0830 to 0900 hr
FS 30 Depth(ft )	4565.0	4565.0	4533.0	0.0	0.0	FS Fr. 0900 to 0930 hr

	Field	1	2	3	4	
A. Init Hydro	2230.0	2202.0	2197.0	0.0	0.0	T STARTED 0500 hr
B. First Flow	67.0	44.0	19.0	0.0	0.0	T ON BOTM 0726 hr
B1. Final Flow	56.0	42.0	24.0	0.0	0.0	T OPEN 0730 hr
C. In Shut-in	1029.0	1004.0	1034.0	0.0	0.0	T PULLED 0930 hr
D. Init Flow	78.0	54.0	25.0	0.0	0.0	T OUT 1140 hr
E. Final Flow	67.0	54.0	30.0	0.0	0.0	
F. Fl Shut-in	984.0	944.0	973.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2208.0	2215.0	2228.0	0.0	0.0	Tool Wt. 5000.00 lbs
Inside/Outside	0	0	I			Wt Set On Packer 26000.00 lbs
						Wt Pulled Loose 73000.00 lbs
						Initial Str Wt 52000.00 lbs
						Unseated Str Wt 52000.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.88 in
						D Col. ID 2.75 in
						D. Pipe ID 3.80 in
						D.C. Length 0.00 ft
						D.P. Length 3944.00 ft
						H.W. I.D 2.70 in
						H.W. Length 590.00 ft

RECOVERY

Tot Fluid 20.00 ft of 0.00 ft in DC and 20.00 ft in DP  
 20.00 ft of Drilling 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  
 0.00 ft of  
 SALINITY 0.00 P.P.M. A.P.I. Gravity 0.00

TOOL DATA-----  
 Tool Wt. 5000.00 lbs  
 Wt Set On Packer 26000.00 lbs  
 Wt Pulled Loose 73000.00 lbs  
 Initial Str Wt 52000.00 lbs  
 Unseated Str Wt 52000.00 lbs  
 Bot Choke 0.75 in  
 Hole Size 7.88 in  
 D Col. ID 2.75 in  
 D. Pipe ID 3.80 in  
 D.C. Length 0.00 ft  
 D.P. Length 3944.00 ft  
 H.W. I.D 2.70 in  
 H.W. Length 590.00 ft

BLOW DESCRIPTION

Initial Flow:  
 Blow died in 15 mins  
 Initial Shut In:  
 No return  
 Final Flow:  
 No blow, flush tool, good surge no blow  
 Final Shut In:  
 No return

MUD DATA-----  
 Mud Type Chemical  
 Weight 9.20 lb/c  
 Vis. 46.00 S/L  
 W.L. 11.20 in3  
 F.C. 0.00 in  
 Mud Drop N  
 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 N  
 Tool Chased N  
 Tester Shane McBride  
 Co. Rep. Steve Davis  
 Contr. Abercrombie  
 Rig # 8  
 Unit #  
 Pump T.

Test Successful: Y



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 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9945 DST #2 Moody #4 Abercrombie Drilg Co.

DATE: 06/20/97 TIME: 04:05:36  
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	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** Initial Hydro.	147.00	2197.6	0.0	106.62		
***** Start Flow 1	0.00	19.5	0.0	107.16		
	1.00	19.5	0.0	107.25		
	2.00	20.1	0.7	107.30		
	3.00	20.4	0.9	107.33		
	4.00	20.4	0.9	107.35		
	5.00	20.3	0.8	107.37		
	6.00	20.6	1.2	107.39		
	7.00	20.8	1.3	107.40		
	8.00	21.1	1.7	107.41		
	9.00	21.2	1.8	107.44		
	10.00	21.3	1.8	107.45		
	11.00	21.5	2.0	107.48		
	12.00	21.6	2.1	107.49		
	13.00	21.6	2.2	107.51		
	14.00	21.8	2.4	107.54		
	15.00	22.0	2.5	107.56		
	16.00	22.1	2.7	107.59		
	17.00	22.3	2.9	107.62		
	18.00	22.4	2.9	107.64		
	19.00	22.7	3.3	107.68		
	20.00	23.0	3.5	107.71		
	21.00	23.1	3.6	107.74		
	22.00	23.2	3.7	107.77		
	23.00	23.2	3.8	107.81		
	24.00	23.4	3.9	107.84		
	25.00	23.6	4.1	107.88		
	26.00	23.7	4.2	107.91		
	27.00	24.1	4.6	107.95		
	28.00	24.3	4.9	107.98		
***** End Flow 1	29.00	24.5	5.0	108.02		
***** Start Shutin 1	0.00	24.5	0.0	108.02	0.0000	0.001
	1.00	26.5	2.0	108.05	30.0000	0.001
	2.00	53.2	28.7	108.09	15.5000	0.003
	3.00	128.6	104.1	108.13	10.6667	0.017
	4.00	249.8	225.3	108.18	8.2500	0.062
	5.00	359.9	335.4	108.23	6.8000	0.130
	6.00	450.0	425.5	108.29	5.8333	0.203
	7.00	524.0	499.5	108.34	5.1429	0.275
	8.00	585.8	561.3	108.40	4.6250	0.343
	9.00	638.2	613.7	108.46	4.2222	0.407
	10.00	683.3	658.8	108.53	3.9000	0.467
	11.00	722.4	697.9	108.59	3.6364	0.522
	12.00	756.9	732.4	108.63	3.4167	0.573
	13.00	787.4	762.9	108.69	3.2308	0.620
	14.00	814.6	790.1	108.75	3.0714	0.664
	15.00	839.1	814.6	108.80	2.9333	0.704
	16.00	861.0	836.5	108.85	2.8125	0.741
	17.00	880.9	856.4	108.89	2.7059	0.776
	18.00	899.2	874.7	108.94	2.6111	0.809
	19.00	915.8	891.3	108.99	2.5263	0.839

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9945 DST #2 Moody #4 Abercrombie Drilg Co.

DATE: 06/20/97

TIME: 04:05:36

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P <sup>2</sup> /10 <sup>6</sup>
	20.00	931.3	906.8	109.04	2.4500	0.867
	21.00	945.4	920.9	109.10	2.3810	0.894
	22.00	959.0	934.5	109.13	2.3182	0.920
	23.00	970.7	946.2	109.18	2.2609	0.942
	24.00	981.9	957.4	109.21	2.2083	0.964
	25.00	992.3	967.8	109.26	2.1600	0.985
	26.00	1001.9	977.4	109.30	2.1154	1.004
	27.00	1011.0	986.5	109.33	2.0741	1.022
	28.00	1019.5	995.0	109.38	2.0357	1.039
	29.00	1027.4	1002.9	109.42	2.0000	1.056
***** End Shut-in 1	30.00	1035.0	1010.5	109.44	1.9667	1.071
***** Start Flow 2	0.00	25.9	0.0	109.44		
	1.00	26.1	0.2	109.44		
	2.00	26.2	0.3	109.44		
	3.00	26.3	0.3	109.43		
	4.00	26.4	0.5	109.43		
	5.00	2185.6	2159.7	109.51		
	6.00	1678.1	1652.2	109.56		
	7.00	29.3	3.4	109.54		
	8.00	29.5	3.6	109.56		
	9.00	29.6	3.7	109.56		
	10.00	29.6	3.7	109.56		
	11.00	29.8	3.9	109.57		
	12.00	29.8	3.9	109.57		
	13.00	29.9	3.9	109.59		
	14.00	30.0	4.0	109.61		
	15.00	30.0	4.1	109.61		
	16.00	30.1	4.2	109.64		
	17.00	30.3	4.4	109.67		
	18.00	30.3	4.4	109.68		
	19.00	30.4	4.4	109.71		
	20.00	30.2	4.3	109.74		
	21.00	30.3	4.4	109.76		
	22.00	30.4	4.4	109.79		
	23.00	30.5	4.5	109.82		
	24.00	30.6	4.7	109.84		
	25.00	30.7	4.8	109.88		
	26.00	30.7	4.8	109.90		
	27.00	30.8	4.9	109.93		
***** End Flow 2	28.00	31.0	5.0	109.96		
***** Start Shutin 2	0.00	31.0	0.0	109.96	0.0000	0.001
	1.00	31.0	0.1	109.99	58.0000	0.001
	2.00	45.6	14.7	110.01	29.5000	0.002
	3.00	85.1	54.1	110.04	20.0000	0.007
	4.00	161.8	130.8	110.07	15.2500	0.026
	5.00	260.2	229.2	110.12	12.4000	0.068
	6.00	350.6	319.6	110.15	10.5000	0.123
	7.00	426.8	395.9	110.20	9.1429	0.182
	8.00	490.5	459.5	110.25	8.1250	0.241
	9.00	544.5	513.6	110.29	7.3333	0.296
	10.00	590.8	559.8	110.34	6.7000	0.349

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 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9945 DST #2 Moody #4 Abercrombie Drilg Co.  
 DATE: 06/20/97 TIME: 04:05:36  
 -----

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
	11.00	631.0	600.0	110.40	6.1818	0.398
	12.00	666.1	635.2	110.42	5.7500	0.444
	13.00	697.1	666.1	110.47	5.3846	0.486
	14.00	724.9	693.9	110.51	5.0714	0.525
	15.00	749.6	718.6	110.56	4.8000	0.562
	16.00	772.0	741.0	110.59	4.5625	0.596
	17.00	792.5	761.6	110.63	4.3529	0.628
	18.00	811.1	780.1	110.67	4.1667	0.658
	19.00	828.0	797.1	110.70	4.0000	0.686
	20.00	843.8	812.8	110.74	3.8500	0.712
	21.00	858.3	827.4	110.77	3.7143	0.737
	22.00	871.7	840.7	110.80	3.5909	0.760
	23.00	884.6	853.6	110.83	3.4783	0.783
	24.00	896.0	865.0	110.87	3.3750	0.803
	25.00	907.0	876.0	110.90	3.2800	0.823
	26.00	917.1	886.1	110.92	3.1923	0.841
	27.00	926.7	895.8	110.95	3.1111	0.859
	28.00	935.6	904.7	110.98	3.0357	0.875
	29.00	944.0	913.1	111.01	2.9655	0.891
	30.00	952.0	921.0	111.04	2.9000	0.906
	31.00	959.5	928.5	111.06	2.8387	0.921
	32.00	966.6	935.6	111.10	2.7812	0.934
***** End Shut-in 2	33.00	973.4	942.4	111.13	2.7273	0.947
***** Final Hydro.	272.00	2228.9	0.0	111.21		

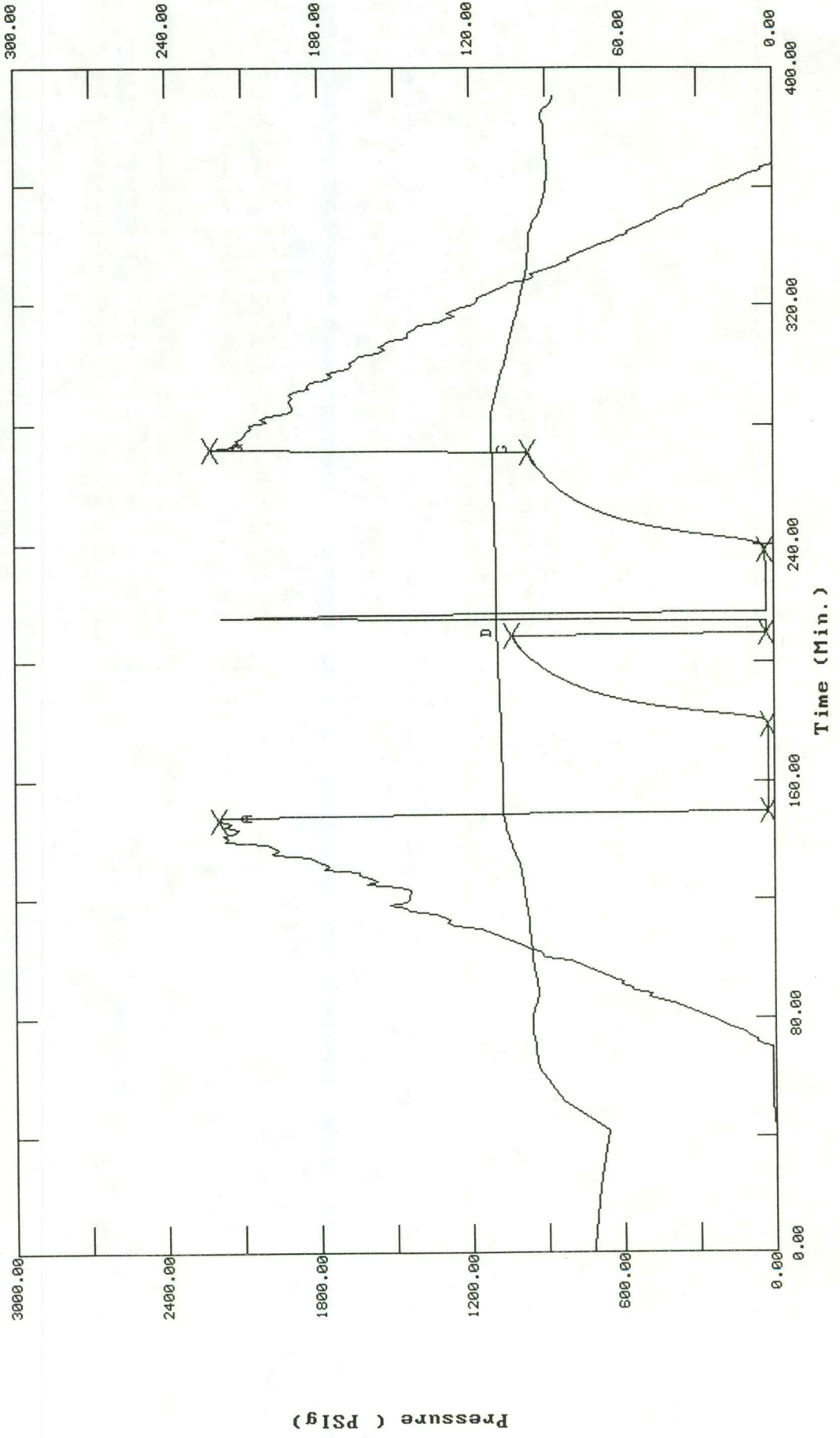
9945 DST #2 Moody #4 Abercrombie Drilg Co.

# TEST HISTORY

Flag Points

t (Min.) P (PSig)

A:	0.00	2197.64
B:	0.00	19.46
C:	29.00	24.50
D:	30.00	1034.99
E:	0.00	25.93
F:	28.00	30.96
G:	33.00	973.39
Q:	0.00	2228.86

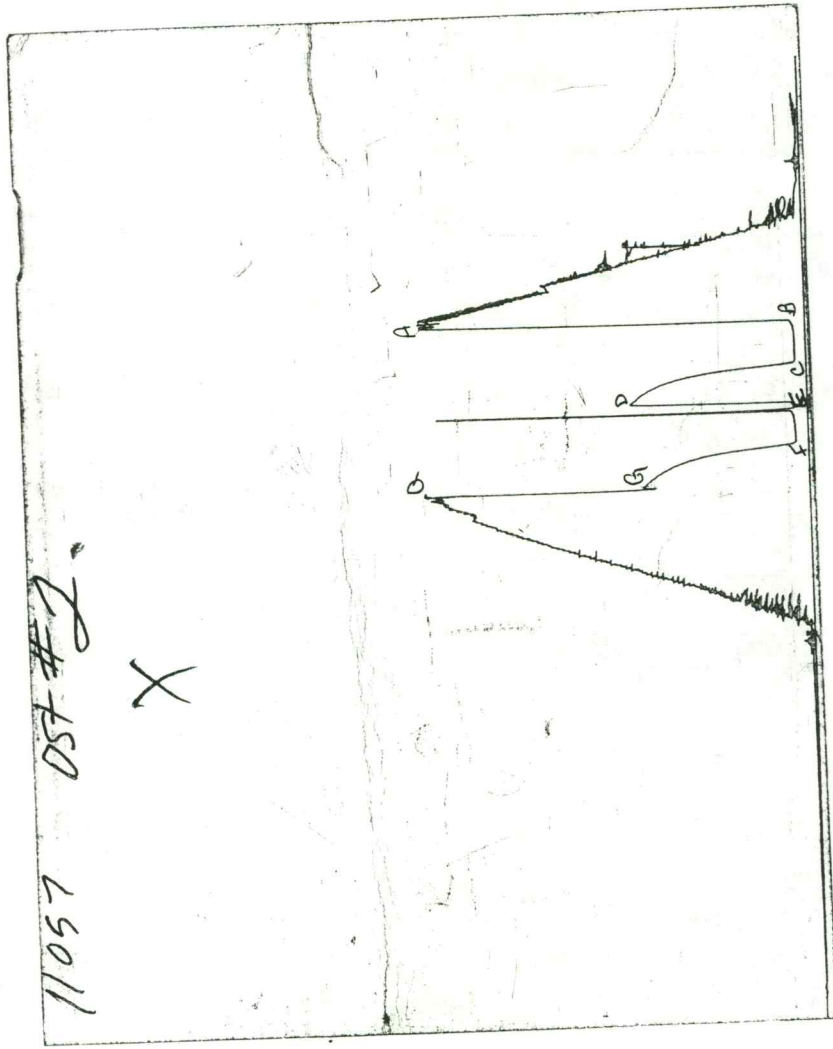


Temperature (DEG F)

Pressure (PSig)

Time (Min.)

CHART PAGE



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

TRILOBITE TESTING L.L.C.

OPERATOR : Abercrombie Drilling DATE 6-20-97  
 WELL NAME: Moody #4 KB 3157.00 ft TICKET NO: 9946 DST #3  
 LOCATION : 35-20-35 GR 3152.00 ft FORMATION: Beymer  
 INTERVAL : 4589.00 To 4606.00 ft TD 4606.00 ft TEST TYPE: CONV

RECORDER DATA

Mins		Field	1	2	3	4	TIME DATA-----
PF 30	Rec.	11057	11057	2342			PF Fr. 2205 to 2235 hr
SI 45	Range(Psi )	4500.0	4500.0	4995.0	0.0	0.0	IS Fr. 2235 to 2320 hr
SF 60	Clock(hrs)	12 hr	12 hr	Elec			SF Fr. 2320 to 1220 hr
FS 45	Depth(ft )	4601.0	4601.0	4595.0	0.0	0.0	FS Fr. 1220 to 0105 hr

	Field	1	2	3	4	
A. Init Hydro	2276.0	2278.0	2263.0	0.0	0.0	T STARTED 2018 hr
B. First Flow	89.0	77.0	28.0	0.0	0.0	T ON BOTM 1002 hr
B1. Final Flow	168.0	154.0	152.0	0.0	0.0	T OPEN 1005 hr
C. In Shut-in	649.0	632.0	610.0	0.0	0.0	T PULLED 0105 hr
D. Init Flow	213.0	204.0	158.0	0.0	0.0	T OUT 0345 hr
E. Final Flow	347.0	330.0	311.0	0.0	0.0	
F. Fl Shut-in	616.0	612.0	595.0	0.0	0.0	
G. Final Hydro	2253.0	2222.0	2168.0	0.0	0.0	
Inside/Outside	0	0	I			

RECOVERY

Tot Fluid 605.00 ft of 0.00 ft in DC and 605.00 ft in DP  
 65.00 ft of Slight Mud Cut Water with Oil scum  
 0.00 ft of 10% mud 90% water  
 540.00 ft of Salt Water  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of  
 SALINITY 32000.00 P.P.M. A.P.I. Gravity 0.00

TOOL DATA-----  
 Tool Wt. 4000.00 lbs  
 Wt Set On Packer 26000.00 lbs  
 Wt Pulled Loose 74000.00 lbs  
 Initial Str Wt 52000.00 lbs  
 Unseated Str Wt 55000.00 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 0.00 ft  
 D.P. Length 0.00 ft  
 H.W. I.D 2.70 in  
 H.W. Length 590.00 ft

MUD DATA-----

Mud Type Chemical  
 Weight 9.20 lb/c  
 Vis. 46.00 S/L  
 W.L. 11.20 in3  
 F.C. 0.00 in  
 Mud Drop N

BLOW DESCRIPTION

Initial Flow:  
 Bottom of bucket in 19 mins  
 Initial Shut In:  
 No return  
 Final Flow:  
 Surface blow in 2 mins, built to 9"  
 Final Shut In;  
 No return

Amt. of fill 0.00 ft  
 Btm. H. Temp. 121.00 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 Shane McBride  
 Co. Rep. Steve Davis  
 Contr. Abercrombie  
 Rig # 8  
 Unit #  
 Pump T.

SAMPLES:

SENT TO:

Test Successful: Y

\*\*\* TOOL DIAGRAM \*\*\* CONV

WELL NAME: Moody #4

LOCATION : 35-20-35

TICKET No. 9946 D.S.T. No. 3 DATE 6-20-97

TOTAL TOOL TO BOTTOM OF TOP PACKERS ..... 22

INTERVAL TOOL .....

TOTAL TOOL TO BOTTOM OF TOP PACKERS AND ANCHOR ..... 17

TOTAL TOOL ..... 39

DRILL COLLAR ANCHOR IN INTERVAL .....

D.C. ANCHOR STND.	Stands	Single	Total
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D.P. ANCHOR STND.	Stands	Single	Total
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TOTAL ASSEMBLY ..... 39

D.C. ABOVE TOOLS.	Stands	Single	Total
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D.P. ABOVE TOOLS.	Stands	74	Single	1	Total	4575
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TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 4614

TOTAL DEPTH ..... 4606

TOTAL DRILL PIPE ABOVE K.B. .... 8

REMARKS:

P.O. SUB	
C.O. SUB 1'	4568
S.I. TOOL 5'	4574
HMV 5'	4579
JARS	
SAFETY JOINT 2'	4581
PACKER top	4585
PACKER bottom	4589
DEPTH 4589	
STUBB 1'	4590
ANCHOR 5' perf	4595
Alpine Rec. @ 4595	
6'perf	4601
Ak-1 Rec. @ 4601	
T.C. DEPTH	
BULLNOSE 5' bullplug	4606
T.D.	4606

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9946 DST #3 Moody #4 Abercrombie Drilg. Co.

DATE: 06/20/97 TIME: 19:22:27

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P <sup>2</sup> /10 <sup>6</sup>
***** Initial Hydro.	106.00	2263.2	0.0	107.49		
***** Start Flow 1	0.00	28.9	0.0	107.89		
	1.00	35.6	6.6	108.04		
	2.00	42.5	13.6	108.17		
	3.00	48.9	20.0	108.31		
	4.00	55.1	26.2	108.43		
	5.00	60.8	31.8	108.53		
	6.00	66.4	37.4	108.63		
	7.00	71.7	42.7	108.72		
	8.00	76.5	47.6	108.79		
	9.00	81.2	52.3	108.86		
	10.00	85.7	56.7	108.93		
	11.00	90.0	61.0	109.01		
	12.00	94.1	65.1	109.09		
	13.00	98.1	69.2	109.17		
	14.00	102.0	73.1	109.26		
	15.00	106.1	77.1	109.36		
	16.00	110.0	81.1	109.47		
	17.00	114.0	85.1	109.59		
	18.00	117.7	88.7	109.72		
	19.00	121.2	92.2	109.84		
	20.00	124.5	95.6	109.99		
	21.00	127.8	98.9	110.13		
	22.00	131.1	102.1	110.29		
	23.00	134.5	105.6	110.44		
	24.00	138.3	109.4	110.61		
	25.00	142.2	113.2	110.77		
	26.00	145.8	116.8	110.94		
	27.00	149.4	120.4	111.11		
***** End Flow 1	28.00	152.9	124.0	111.28		
***** Start Shutin 1	0.00	152.9	0.0	111.28	0.0000	0.023
	1.00	288.5	135.5	111.46	29.0000	0.083
	2.00	426.6	273.7	111.64	15.0000	0.182
	3.00	487.4	334.5	111.83	10.3333	0.238
	4.00	516.1	363.2	112.02	8.0000	0.266
	5.00	532.7	379.8	112.21	6.6000	0.284
	6.00	543.8	390.9	112.40	5.6667	0.296
	7.00	552.2	399.2	112.59	5.0000	0.305
	8.00	558.7	405.8	112.77	4.5000	0.312
	9.00	564.2	411.2	112.95	4.1111	0.318
	10.00	562.1	409.2	113.12	3.8000	0.316
	11.00	566.1	413.2	113.30	3.5455	0.320
	12.00	569.6	416.7	113.47	3.3333	0.324
	13.00	572.7	419.8	113.63	3.1538	0.328
	14.00	575.4	422.5	113.80	3.0000	0.331
	15.00	577.9	425.0	113.95	2.8667	0.334
	16.00	580.2	427.3	114.11	2.7500	0.337
	17.00	582.3	429.4	114.26	2.6471	0.339
	18.00	584.3	431.4	114.41	2.5556	0.341
	19.00	586.1	433.2	114.55	2.4737	0.343
	20.00	587.7	434.8	114.70	2.4000	0.345

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 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9946 DST #3 Moody #4 Abercrombie Drilg. Co.  
 DATE: 06/20/97 TIME: 19:22:27  
 -----

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P <sup>2</sup> /10 <sup>6</sup>
21.00	589.3	436.4	114.82	2.3333	0.347
22.00	590.8	437.9	114.96	2.2727	0.349
23.00	592.1	439.2	115.08	2.2174	0.351
24.00	593.4	440.5	115.21	2.1667	0.352
25.00	594.6	441.7	115.33	2.1200	0.354
26.00	595.7	442.8	115.45	2.0769	0.355
27.00	596.8	443.9	115.57	2.0370	0.356
28.00	597.9	445.0	115.67	2.0000	0.357
29.00	598.8	445.9	115.78	1.9655	0.359
30.00	599.7	446.8	115.88	1.9333	0.360
31.00	600.7	447.8	115.98	1.9032	0.361
32.00	601.6	448.7	116.07	1.8750	0.362
33.00	602.4	449.5	116.17	1.8485	0.363
34.00	603.2	450.3	116.25	1.8235	0.364
35.00	603.9	451.0	116.34	1.8000	0.365
36.00	604.6	451.7	116.44	1.7778	0.366
37.00	605.4	452.5	116.50	1.7568	0.366
38.00	606.0	453.1	116.58	1.7368	0.367
39.00	606.7	453.8	116.66	1.7179	0.368
40.00	607.2	454.3	116.74	1.7000	0.369
41.00	607.9	455.0	116.79	1.6829	0.370
42.00	608.4	455.5	116.86	1.6667	0.370
43.00	609.0	456.1	116.92	1.6512	0.371
44.00	609.5	456.6	116.99	1.6364	0.371
45.00	610.1	457.2	117.05	1.6222	0.372
46.00	610.5	457.6	117.10	1.6087	0.373
47.00	610.7	457.8	117.16	1.5957	0.373

\*\*\*\*\* End Shut-in 1

\*\*\*\*\* Start Flow 2

0.00	158.4	0.0	117.18
1.00	163.5	5.1	117.21
2.00	168.0	9.7	117.24
3.00	172.5	14.1	117.28
4.00	176.9	18.5	117.30
5.00	181.1	22.7	117.33
6.00	185.1	26.7	117.36
7.00	188.7	30.4	117.40
8.00	192.5	34.2	117.44
9.00	196.0	37.7	117.47
10.00	199.6	41.2	117.51
11.00	203.1	44.7	117.55
12.00	206.7	48.3	117.59
13.00	210.2	51.9	117.63
14.00	213.6	55.2	117.68
15.00	216.6	58.2	117.72
16.00	219.7	61.4	117.77
17.00	222.7	64.3	117.82
18.00	225.7	67.3	117.88
19.00	228.4	70.1	117.93
20.00	231.2	72.8	117.99
21.00	234.2	75.8	118.03
22.00	237.0	78.6	118.09
23.00	239.8	81.4	118.15

-----  
 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING  
 TEST: 9946 DST #3 Moody #4 Abercrombie Drilg. Co.  
 DATE: 06/20/97 TIME: 19:22:27  
 -----

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	24.00	242.5	84.1	118.21		
	25.00	245.3	86.9	118.26		
	26.00	248.1	89.7	118.31		
	27.00	250.9	92.6	118.38		
	28.00	253.7	95.3	118.42		
	29.00	256.5	98.1	118.49		
	30.00	259.0	100.6	118.54		
	31.00	261.7	103.3	118.59		
	32.00	264.4	106.1	118.65		
	33.00	267.0	108.7	118.70		
	34.00	269.7	111.4	118.76		
	35.00	272.3	113.9	118.81		
	36.00	274.8	116.4	118.86		
	37.00	277.5	119.1	118.92		
	38.00	280.0	121.6	118.97		
	39.00	282.5	124.1	119.01		
	40.00	285.1	126.7	119.07		
	41.00	287.4	129.0	119.12		
	42.00	288.7	130.3	119.17		
	43.00	290.1	131.8	119.21		
	44.00	291.5	133.1	119.26		
	45.00	292.8	134.5	119.30		
	46.00	294.2	135.8	119.35		
	47.00	295.6	137.2	119.38		
	48.00	296.8	138.5	119.43		
	49.00	298.2	139.8	119.47		
	50.00	299.5	141.2	119.52		
	51.00	301.0	142.7	119.56		
	52.00	302.5	144.1	119.59		
	53.00	303.6	145.3	119.64		
	54.00	305.0	146.6	119.68		
	55.00	306.2	147.8	119.72		
	56.00	307.5	149.1	119.75		
	57.00	308.7	150.3	119.78		
	58.00	309.9	151.5	119.82		
*****	End Flow 2	59.00	311.2	152.8	119.86	
*****	Start Shutin 2	0.00	311.2	0.0	119.86	0.097
		1.00	458.2	147.0	119.90	88.0000 0.210
		2.00	500.5	189.3	119.94	44.5000 0.250
		3.00	518.9	207.7	119.97	30.0000 0.269
		4.00	529.8	218.6	120.02	22.7500 0.281
		5.00	537.3	226.1	120.06	18.4000 0.289
		6.00	543.0	231.8	120.10	15.5000 0.295
		7.00	547.5	236.3	120.14	13.4286 0.300
		8.00	551.5	240.3	120.17	11.8750 0.304
		9.00	554.8	243.6	120.20	10.6667 0.308
		10.00	557.7	246.5	120.23	9.7000 0.311
		11.00	560.3	249.1	120.27	8.9091 0.314
		12.00	562.6	251.4	120.29	8.2500 0.317
		13.00	564.7	253.5	120.32	7.6923 0.319
		14.00	566.7	255.5	120.35	7.2143 0.321

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9946 DST #3 Moody #4 Abercrombie Drilg. Co.

DATE: 06/20/97 TIME: 19:22:27

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P <sup>2</sup> /10 <sup>6</sup>
15.00	568.6	257.4	120.38	6.8000	0.323
16.00	570.2	259.0	120.40	6.4375	0.325
17.00	571.8	260.6	120.43	6.1176	0.327
18.00	573.2	262.0	120.45	5.8333	0.329
19.00	574.6	263.4	120.48	5.5789	0.330
20.00	575.9	264.7	120.49	5.3500	0.332
21.00	577.2	266.0	120.51	5.1429	0.333
22.00	578.3	267.1	120.53	4.9545	0.334
23.00	579.4	268.2	120.55	4.7826	0.336
24.00	580.4	269.2	120.57	4.6250	0.337
25.00	581.4	270.2	120.57	4.4800	0.338
26.00	582.5	271.3	120.60	4.3462	0.339
27.00	583.4	272.2	120.60	4.2222	0.340
28.00	584.3	273.1	120.62	4.1071	0.341
29.00	585.1	273.9	120.64	4.0000	0.342
30.00	585.9	274.7	120.65	3.9000	0.343
31.00	586.7	275.5	120.66	3.8065	0.344
32.00	587.5	276.3	120.67	3.7188	0.345
33.00	588.2	277.0	120.69	3.6364	0.346
34.00	588.9	277.7	120.69	3.5588	0.347
35.00	589.6	278.4	120.70	3.4857	0.348
36.00	590.3	279.1	120.71	3.4167	0.348
37.00	590.8	279.6	120.71	3.3514	0.349
38.00	591.5	280.3	120.71	3.2895	0.350
39.00	592.0	280.8	120.73	3.2308	0.350
40.00	592.6	281.4	120.74	3.1750	0.351
41.00	593.2	282.0	120.74	3.1220	0.352
42.00	593.8	282.6	120.74	3.0714	0.353
43.00	594.3	283.1	120.74	3.0233	0.353
44.00	594.8	283.6	120.75	2.9773	0.354
45.00	595.3	284.1	120.75	2.9333	0.354

\*\*\*\*\* End Shut-in 2

\*\*\*\*\* Final Hydro. 290.00 2168.7 0.0 120.90

9946 DST #3 Moody #4 Abercrombie Drilg. Co.

# TEST HISTORY

Flag Points

t (Min.) P (PSig)

- A: 0.00 2263.19
- B: 0.00 28.95
- C: 28.00 152.91
- D: 47.00 610.73
- E: 0.00 158.36
- F: 59.00 311.20
- G: 45.00 595.29
- H: 0.00 2168.69

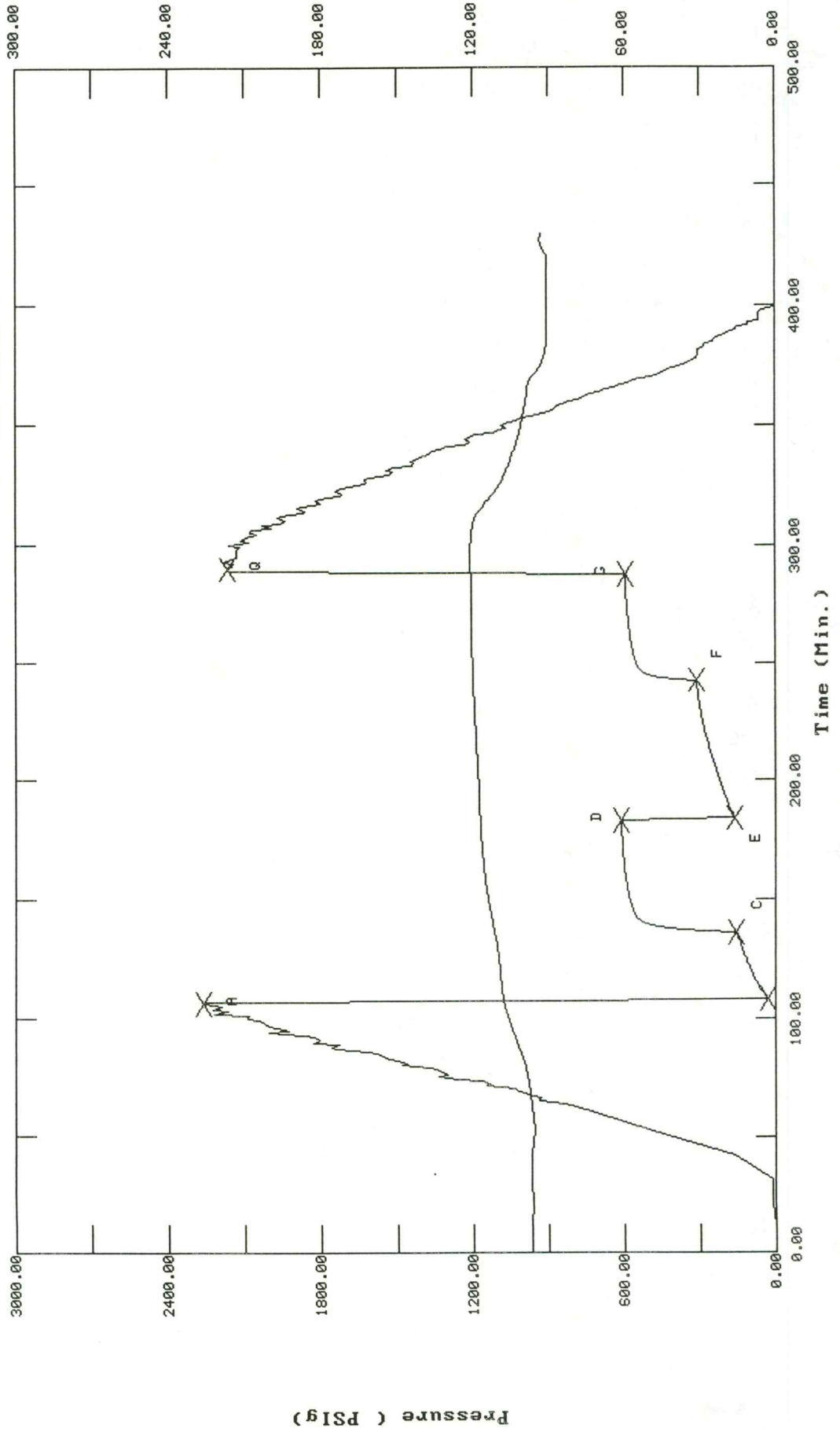
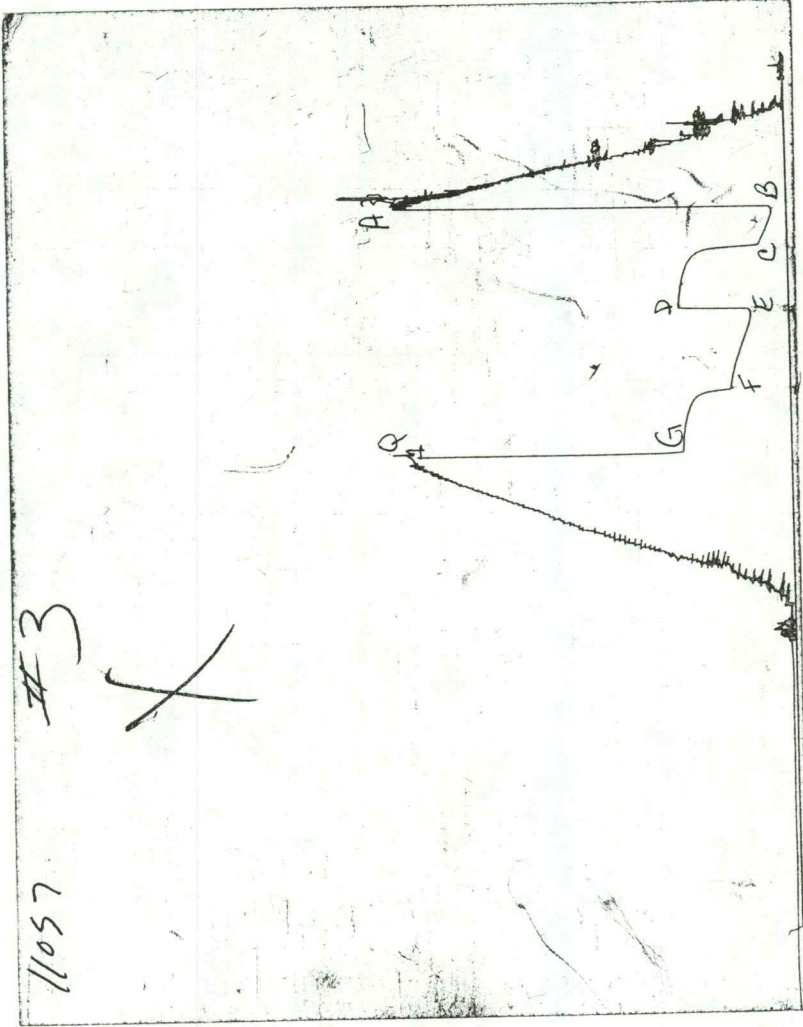


CHART PAGE



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

TRILOBITE TESTING L.L.C.

OPERATOR : Abercrombie Drilling Co  
 WELL NAME: Moody #4  
 LOCATION : 35-20-35  
 INTERVAL : 4618.00 To 4635.00 ft

DATE 6-21-97

KB 3157.00 ft TICKET NO: 9947 DST #4  
 GR 3152.00 ft FORMATION: JOHNSON  
 TD 4635.00 ft TEST TYPE: CONV

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	11057.	11057	2342			PF Fr. 1420 to 1450 hr
SI 30 Range(Psi )	4500.0	4500.0	4995.0	0.0	0.0	IS Fr. 1450 to 1520 hr
SF 30 Clock(hrs)	12	12 hr	alpin			SF Fr. 1520 to 1550 hr
FS 30 Depth(ft )	4630.0	4630.0	4624.0	0.0	0.0	FS Fr. 1550 to 1620 hr

	Field	1	2	3	4	
A. Init Hydro	2343.0	2335.0	2310.0	0.0	0.0	T STARTED 1225 hr
B. First Flow	44.0	42.0	16.0	0.0	0.0	T ON BOTM 1417 hr
B1. Final Flow	33.0	45.0	24.0	0.0	0.0	T OPEN 1420 hr
C. In Shut-in	347.0	353.0	369.0	0.0	0.0	T PULLED 1620 hr
D. Init Flow	44.0	53.0	28.0	0.0	0.0	T OUT 1845 hr
E. Final Flow	56.0	62.0	30.0	0.0	0.0	
F. Fl Shut-in	280.0	241.0	299.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2321.0	2277.0	2196.0	0.0	0.0	Tool Wt. 4000.00 lbs
Inside/Outside	i	I	o			Wt Set On Packer 26000.00 lbs
						Wt Pulled Loose 76000.00 lbs
						Initial Str Wt 54000.00 lbs
						Unseated Str Wt 54000.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.88 in
						D Col. ID 2.25 in
						D. Pipe ID 3.70 in
						D.C. Length 0.00 ft
						D.P. Length 4606.00 ft
						H.W. I.D 2.70 in
						H.W. Length 590.00 ft

RECOVERY

Tot Fluid 30.00 ft of 0.00 ft in DC and 30.00 ft in DP  
 30.00 ft of Slightly Gassy Watery Oil Cut Mud  
 0.00 ft of 10%water 10%gas 20%oil 60%mud  
 0.00 ft of  
 30.00 ft of Gas in pipe  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of  
 SALINITY 29000.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Flow:  
 Weak surface blow died in 13 mins

Initial Shut In:  
 No return

Final Flow:  
 Bubble to open tool, no blow, flushed tool, good surge, weak surface blow for rest of blow

Final Shut In:  
 No return

SAMPLES:  
 SENT TO:

MUD DATA-----  
 Mud Type Chemical  
 Weight 9.20 lb/c  
 Vis. 47.00 S/L  
 W.L. 11.20 in3  
 F.C. 0.00 in  
 Mud Drop N  
 Amt. of fill 0.00 ft  
 Btm. H. Temp. 114.00 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 Shane McBride  
 Co. Rep. Steve Davis  
 Contr. Abercrombie  
 Rig # 8  
 Unit #  
 Pump T.

Test Successful: Y

\*\*\* TOOL DIAGRAM \*\*\* CONV

WELL NAME: Moody #4

LOCATION : 35-20-35

TICKET No. 9947 D.S.T. No. 4 DATE 6-21-97

TOTAL TOOL TO BOTTOM OF TOP PACKERS ..... 22

INTERVAL TOOL .....

TOTAL PACKERS AND ANCHOR ..... 17

TOTAL TOOL ..... 39

DRILL COLLAR ANCHOR IN INTERVAL .....

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY ..... 39

D.C. ABOVE TOOLS.Stands Single Total

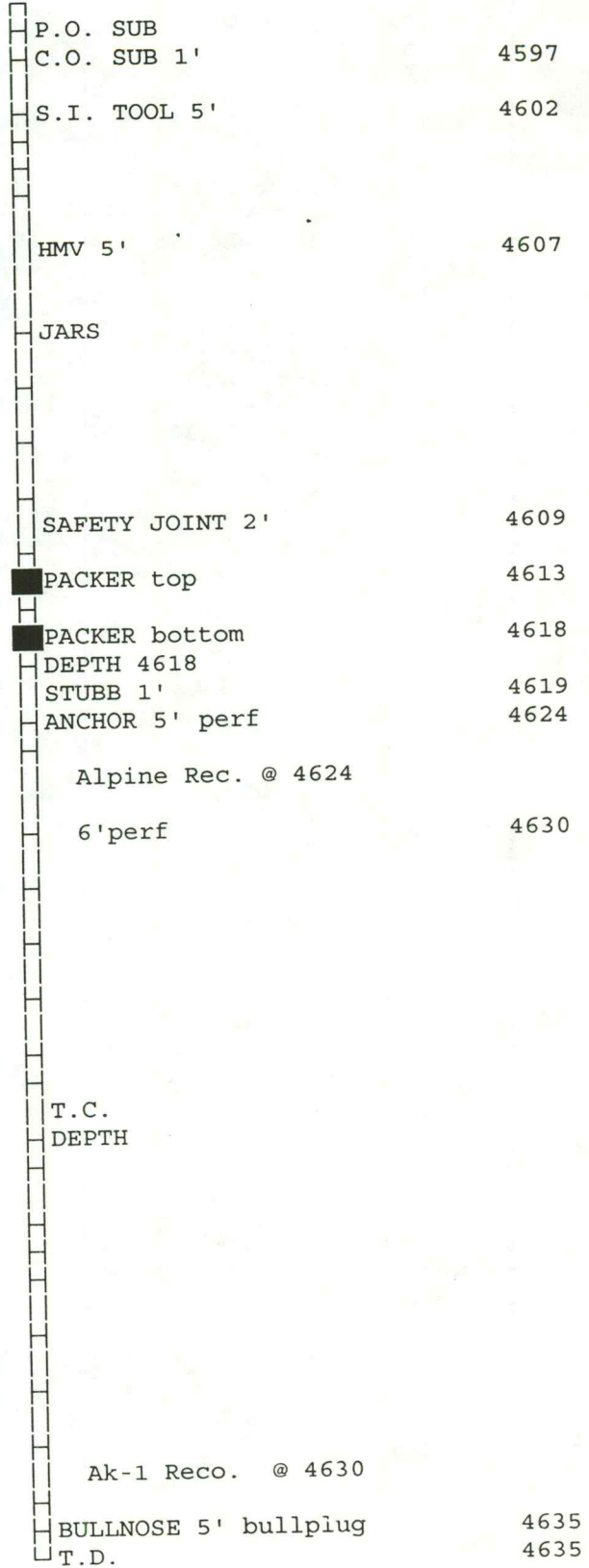
D.P. ABOVE TOOLS.Stands 75 Single Total 4606

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 4645

TOTAL DEPTH ..... 4635

TOTAL DRILL PIPE ABOVE K.B. .... 10

REMARKS:



ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9947 DST #4 Moody #4 Abercrombie Drilg. Co.

DATE: 06/21/97

TIME: 11:28:58

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P <sup>2</sup> /10 <sup>6</sup>
***** Initial Hydro.	114.00	2310.9	0.0	106.98		
***** Start Flow 1	0.00	16.9	0.0	107.58		
	1.00	18.6	1.8	107.83		
	2.00	17.9	1.0	108.09		
	3.00	18.5	1.6	108.36		
	4.00	19.3	2.4	108.58		
	5.00	19.7	2.9	108.77		
	6.00	19.8	2.9	108.93		
	7.00	20.4	3.5	109.05		
	8.00	21.0	4.1	109.14		
	9.00	21.2	4.4	109.22		
	10.00	21.2	4.4	109.27		
	11.00	21.5	4.6	109.31		
	12.00	21.9	5.0	109.35		
	13.00	22.1	5.2	109.38		
	14.00	21.8	5.0	109.42		
	15.00	22.3	5.5	109.46		
	16.00	22.6	5.7	109.51		
	17.00	22.8	6.0	109.59		
	18.00	22.8	6.0	109.67		
	19.00	23.0	6.1	109.79		
	20.00	23.2	6.3	109.92		
	21.00	23.2	6.4	110.07		
	22.00	23.5	6.6	110.22		
	23.00	23.8	7.0	110.36		
	24.00	24.0	7.1	110.49		
	25.00	24.2	7.4	110.61		
	26.00	24.6	7.7	110.72		
	27.00	24.7	7.8	110.83		
***** End Flow 1	28.00	24.8	8.0	110.92		
***** Start Shutin 1	0.00	24.8	0.0	110.92	0.0000	0.001
	1.00	25.1	0.3	111.03	29.0000	0.001
	2.00	27.3	2.4	111.13	15.0000	0.001
	3.00	31.6	6.8	111.23	10.3333	0.001
	4.00	36.2	11.3	111.33	8.0000	0.001
	5.00	41.1	16.3	111.43	6.6000	0.002
	6.00	46.5	21.7	111.52	5.6667	0.002
	7.00	52.3	27.4	111.61	5.0000	0.003
	8.00	58.7	33.9	111.69	4.5000	0.003
	9.00	66.0	41.2	111.78	4.1111	0.004
	10.00	74.4	49.6	111.85	3.8000	0.006
	11.00	84.1	59.3	111.94	3.5455	0.007
	12.00	94.9	70.1	112.00	3.3333	0.009
	13.00	107.5	82.7	112.07	3.1538	0.012
	14.00	121.8	96.9	112.15	3.0000	0.015
	15.00	137.9	113.1	112.22	2.8667	0.019
	16.00	155.9	131.1	112.29	2.7500	0.024
	17.00	176.2	151.3	112.34	2.6471	0.031
	18.00	198.2	173.4	112.40	2.5556	0.039
	19.00	221.2	196.4	112.45	2.4737	0.049
	20.00	244.2	219.4	112.50	2.4000	0.060

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9947 DST #4 Moody #4 Abercrombie Drilg. Co.

DATE: 06/21/97

TIME: 11:28:58

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	21.00	266.2	241.4	112.54	2.3333	0.071
	22.00	286.3	261.4	112.56	2.2727	0.082
	23.00	303.9	279.1	112.59	2.2174	0.092
	24.00	318.9	294.1	112.61	2.1667	0.102
	25.00	331.4	306.6	112.62	2.1200	0.110
	26.00	341.8	317.0	112.64	2.0769	0.117
	27.00	350.7	325.9	112.64	2.0370	0.123
	28.00	358.2	333.4	112.65	2.0000	0.128
	29.00	364.5	339.7	112.65	1.9655	0.133
***** End Shut-in 1	30.00	369.9	345.1	112.68	1.9333	0.137
***** Start Flow 2	0.00	28.2	0.0	112.66		
	1.00	28.2	0.0	112.67		
	2.00	28.6	0.4	112.69		
	3.00	28.9	0.8	112.72		
	4.00	29.3	1.1	112.76		
	5.00	29.5	1.3	112.80		
	6.00	29.7	1.5	112.84		
	7.00	29.9	1.7	112.90		
	8.00	30.0	1.8	112.94		
	9.00	2160.8	2132.6	113.09		
	10.00	29.0	0.8	113.08		
	11.00	27.8	-0.4	113.12		
	12.00	28.1	-0.1	113.15		
	13.00	28.2	-0.0	113.18		
	14.00	28.2	-0.0	113.21		
	15.00	28.3	0.1	113.25		
	16.00	28.3	0.1	113.29		
	17.00	28.4	0.3	113.32		
	18.00	28.7	0.5	113.36		
	19.00	28.9	0.8	113.39		
	20.00	29.0	0.8	113.43		
	21.00	29.2	1.0	113.46		
	22.00	29.2	1.0	113.49		
	23.00	29.5	1.3	113.52		
	24.00	29.5	1.3	113.54		
	25.00	29.8	1.6	113.57		
	26.00	29.9	1.7	113.60		
	27.00	30.0	1.8	113.61		
	28.00	30.1	1.9	113.64		
	29.00	30.4	2.2	113.67		
***** End Flow 2	30.00	30.6	2.4	113.69		
***** Start Shutin 2	0.00	30.6	0.0	113.69	0.0000	0.001
	1.00	34.0	3.4	113.72	59.0000	0.001
	2.00	38.4	7.8	113.74	30.0000	0.001
	3.00	43.0	12.4	113.76	20.3333	0.002
	4.00	47.7	17.0	113.79	15.5000	0.002
	5.00	52.5	21.9	113.81	12.6000	0.003
	6.00	57.6	27.0	113.83	10.6667	0.003
	7.00	63.1	32.5	113.86	9.2857	0.004
	8.00	68.8	38.2	113.89	8.2500	0.005
	9.00	75.0	44.4	113.92	7.4444	0.006

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9947 DST #4 Moody #4 Abercrombie Drilg. Co.

DATE: 06/21/97 TIME: 11:28:58

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P <sup>2</sup> /10 <sup>6</sup>
	10.00	81.7	51.0	113.93	6.8000	0.007
	11.00	88.7	58.1	113.95	6.2727	0.008
	12.00	96.3	65.6	113.96	5.8333	0.009
	13.00	104.2	73.6	113.99	5.4615	0.011
	14.00	112.9	82.2	114.01	5.1429	0.013
	15.00	122.2	91.6	114.03	4.8667	0.015
	16.00	132.2	101.6	114.05	4.6250	0.017
	17.00	142.8	112.1	114.08	4.4118	0.020
	18.00	153.9	123.3	114.11	4.2222	0.024
	19.00	165.7	135.0	114.13	4.0526	0.027
	20.00	177.8	147.1	114.16	3.9000	0.032
	21.00	190.1	159.5	114.18	3.7619	0.036
	22.00	202.7	172.1	114.19	3.6364	0.041
	23.00	215.3	184.6	114.21	3.5217	0.046
	24.00	227.8	197.1	114.22	3.4167	0.052
	25.00	239.9	209.3	114.23	3.3200	0.058
	26.00	251.6	221.0	114.24	3.2308	0.063
	27.00	262.5	231.9	114.24	3.1481	0.069
	28.00	272.9	242.3	114.26	3.0714	0.074
	29.00	282.4	251.8	114.26	3.0000	0.080
	30.00	291.1	260.5	114.27	2.9333	0.085
***** End Shut-in 2	31.00	299.3	268.7	114.28	2.8710	0.090
***** Final Hydro.	239.00	2196.2	0.0	114.47		

9947 DST #4 Moody #4 Abercrombie Drilg. Co.

Flag Points

t (Min.)	P (PSig)
A: 0.00	2310.86
B: 0.00	16.86
C: 28.00	24.83
D: 30.00	369.95
E: 0.00	28.19
F: 30.00	30.63
G: 31.00	299.28
Q: 0.00	2196.21

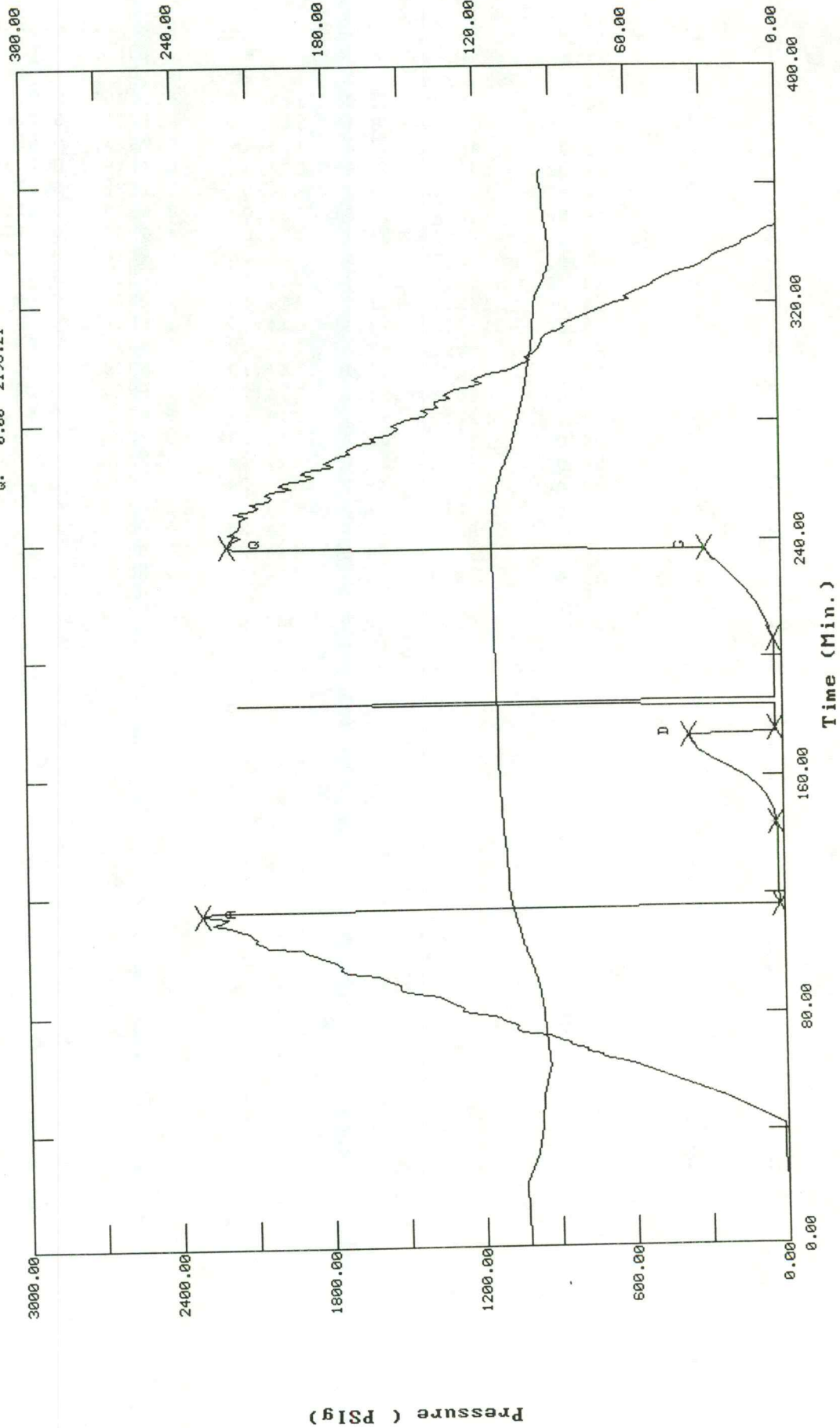
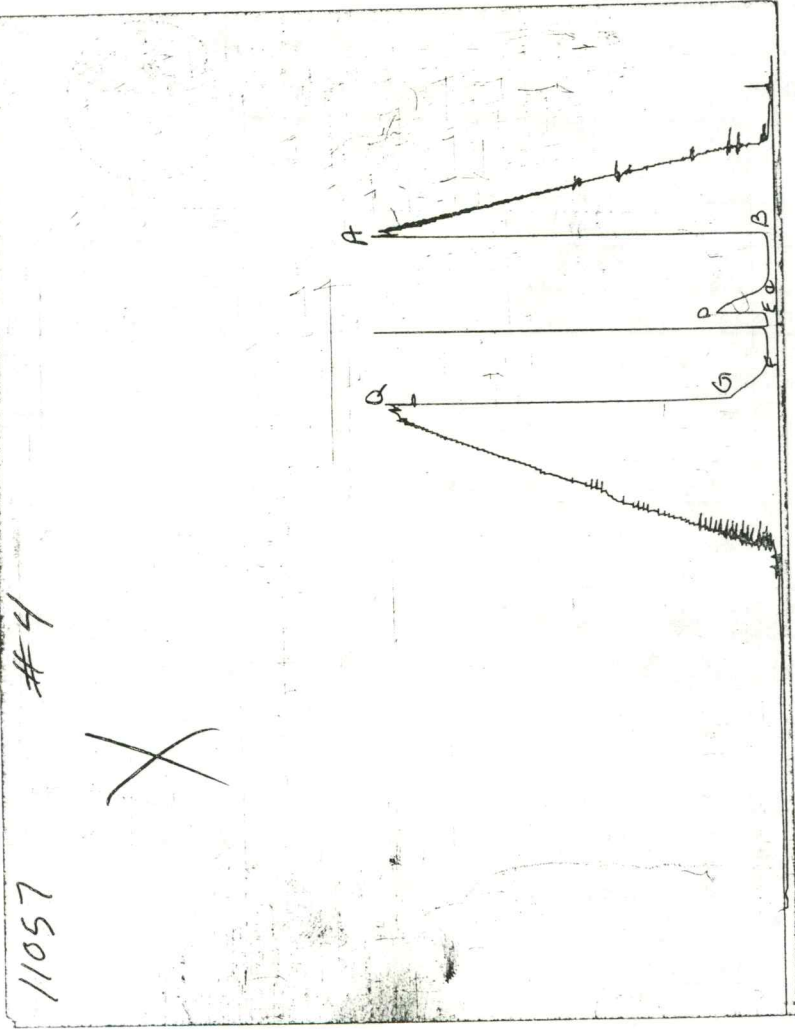


CHART PAGE



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