WELL NAME:	Graber "B" #1
COMPANY:	MTM Petroleum, Inc.
LOCATION:	21-29S-7W
	Kingman County, Kansas
DATE:	2/23/98

TRILOBITE TESTING L.L.C.

OPERATOR : MTM Petroleum,Inc. DATE 2/14/98
WELL NAME: Graber (B}-#1 KB 1547.00 ft TICKET NO: 10615 DST #1
LOCATION : 21-29s-7w CO Kingman KS GR 1539.00 ft FORMATION: Mississippi
INTERVAL : 4110.00 To 4135.00 ft TD 4135.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins		Field	1	2	3	4
PF 30	Rec.	10332	10332	2350		
SI 45	Range(Psi)	4025.0	4025.0	4995.0	0.0	0.0
SF 60	Clock(hrs)	12hr.	12hr.	elec.		
FS 60	Depth(ft)	4132.0	4132.0	4117.0	0.0	0.0

TIME DATA----------
PF Fr. 0257 to 0327 hr
IS Fr. 0327 to 0412 hr
SF Fr. 0412 to 0512 hr
FS Fr. 0512 to 0612 hr

	Field	1	2	3	4
A. Init Hydro	2108.0	2093.0	2083.0	0.0	0.0
B. First Flow	91.0	101.0	23.0	0.0	0.0
B1. Final Flow	81.0	88.0	29.0	0.0	0.0
C. In Shut-in	486.0	485.0	465.0	0.0	0.0
D. Init Flow	91.0	104.0	27.0	0.0	0.0
E. Final Flow	71.0	67.0	30.0	0.0	0.0
F. Fl Shut-in	456.0	463.0	433.0	0.0	0.0
G. Final Hydro	2008.0	2008.0	1832.0	0.0	0.0
Inside/Outside	O	O	I		

T STARTED 0043 hr
T ON BOTM 0255 hr
T OPEN 0257 hr
T PULLED 0612 hr
T OUT 0800 hr

RECOVERY
Tot Fluid 35.00 ft of 0.00 ft in DC and 35.00 ft in DP
35.00 ft of Very slight gas cut mud
0.00 ft of 99% mud less than 1% gas
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.	2100.00 lbs
Wt Set On Packer	20000.00 lbs
Wt Pulled Loose	70000.00 lbs
Initial Str Wt	48000.00 lbs
Unseated Str Wt	48000.00 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	4096.00 ft

MUD DATA----------

Mud Type	Chemical
Weight	9.50 lb/c
Vis.	48.00 S/L
W.L.	16.80 in3
F.C.	0.32 in
Mud Drop N	
Amt. of fill	0.00 ft
Btm. H. Temp.	122.00 F
Hole Condition	good
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00 n
Cushion Type	
Reversed Out N	
Tool Chased N	
Tester	Darren Amerine
Co. Rep.	Jerry Smith
Contr.	Duke
Rig #	1
Unit #	
Pump T.	

BLOW DESCRIPTION
Initial Flow:
Strong blow bottom of the bucket in 1 1/2 mins.
Initial Shut-in:
Bled down in under 2 mins

Final Flow:
Strong blow Bottom of bucket

small to measure
Final Shut-in:
Bled down for 3 mins. bottom of bucket in 15 mins
SAMPLES:
SENT TO:

Test Successful: Y

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Graber (B}-#1

LOCATION : 21-29s-7w CO Kingman KS

TICKET No. 10615 D.S.T. No. 1 DATE 2/14/98

TOTAL TOOL TO BOTTOM OF TOP PACKERS 22

INTERVAL TOOL .....

BOTTOM PACKERS AND ANCHOR 25

TOTAL TOOL 47

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 Total

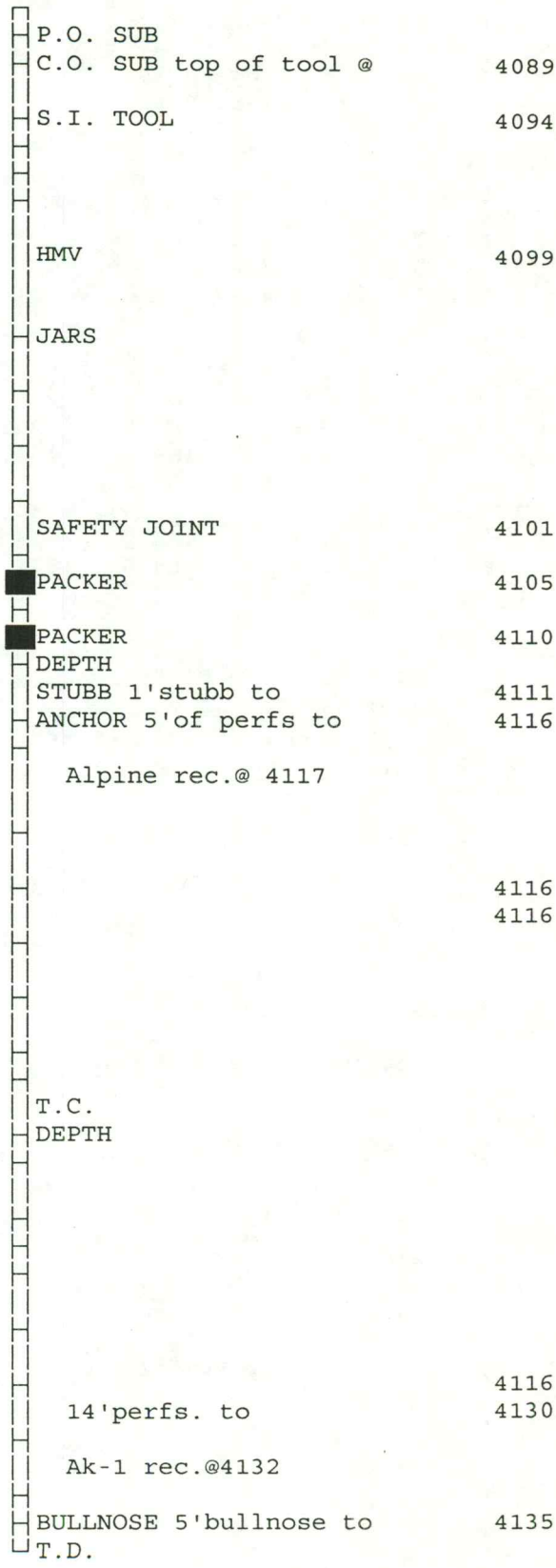
D.P. ABOVE TOOLS.Stands65 Single 1 Total 4096

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 4143

TOTAL DEPTH 4135

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

REMARKS:

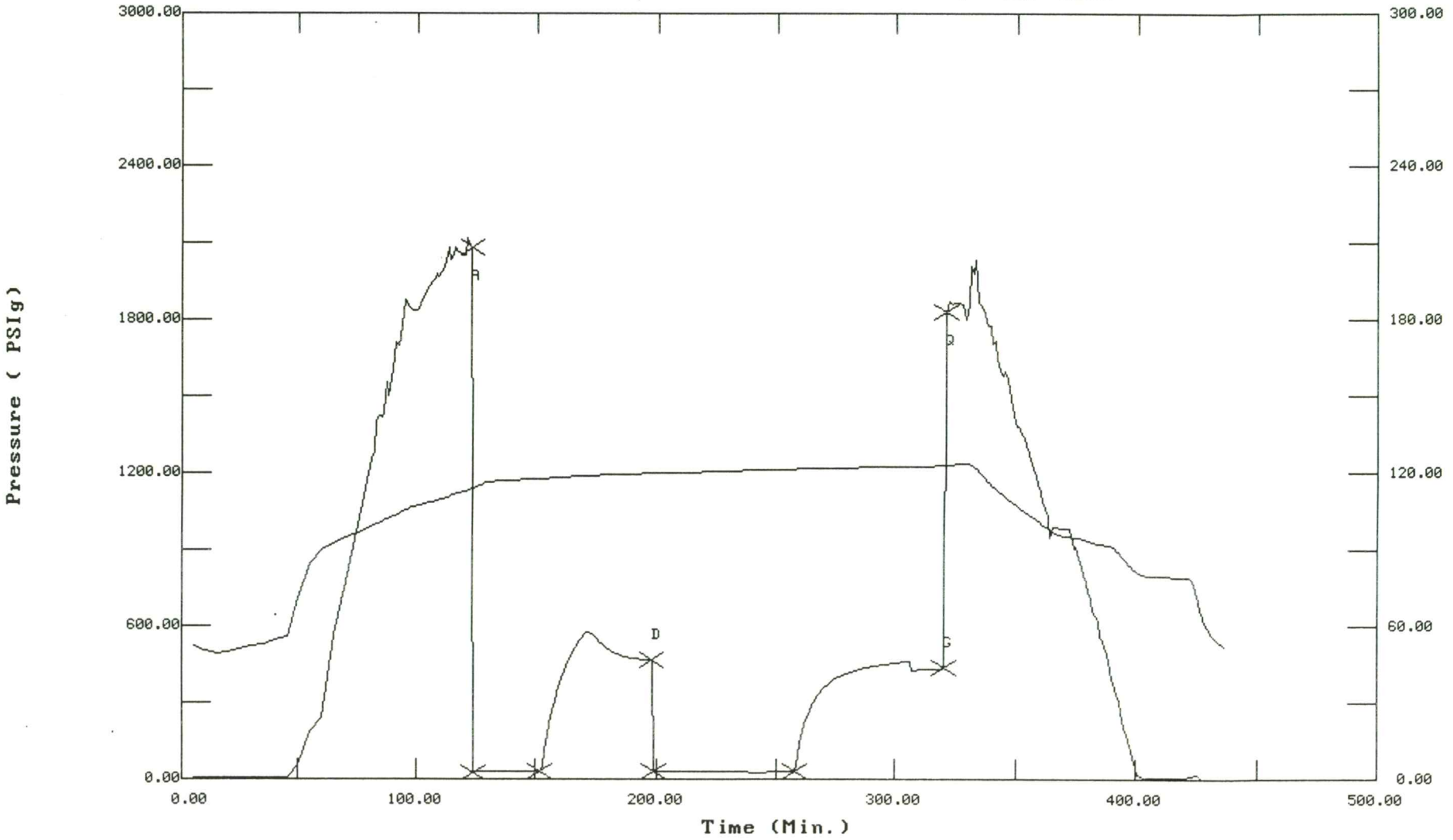


TEST HISTORY

Tk#10615 DST#1 Graber (B)#1 MTM Pet,Inc.

Flag Points

	t(Min.)	P(PSIg)
A:	0.00	2082.83
B:	0.00	22.65
C:	28.00	28.69
D:	46.00	464.53
E:	0.00	27.18
F:	59.00	29.79
G:	62.00	433.48
Q:	0.00	1831.97



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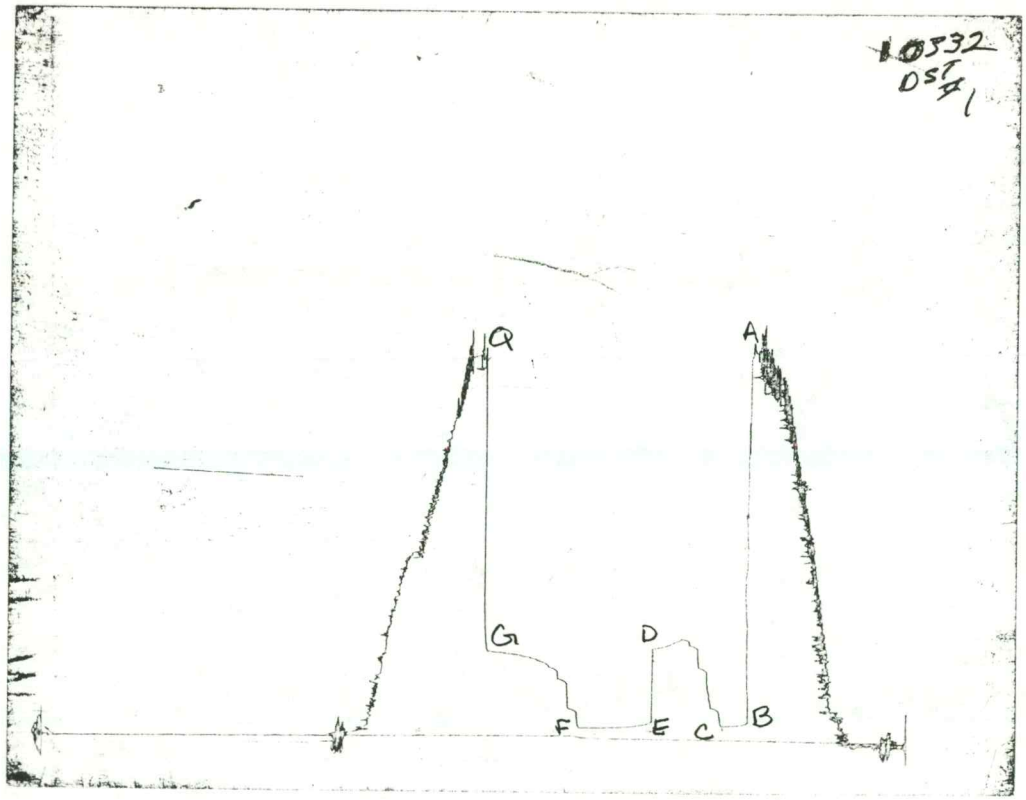


This is a photocopy of the actual AK-1 recorder chart

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk#10615 DST#1 Graber (B)#1 MTM Pet,Inc.

DATE: 02/14/98 TIME: 00:48:31

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
****** Initial Hydro.	123.00	2082.8	0.0	113.62		
****** Start Flow 1	0.00	22.7	0.0	113.93		
	1.00	25.7	3.0	114.40		
	2.00	26.2	3.5	114.90		
	3.00	26.3	3.7	115.36		
	4.00	26.7	4.0	115.74		
	5.00	27.0	4.4	116.02		
	6.00	27.5	4.9	116.24		
	7.00	27.6	5.0	116.41		
	8.00	27.8	5.1	116.54		
	9.00	27.9	5.2	116.63		
	10.00	27.9	5.3	116.71		
	11.00	27.9	5.3	116.79		
	12.00	28.1	5.5	116.84		
	13.00	28.1	5.5	116.91		
	14.00	29.2	6.5	116.96		
	15.00	28.1	5.5	117.01		
	16.00	28.1	5.5	117.05		
	17.00	28.0	5.4	117.10		
	18.00	28.0	5.4	117.15		
	19.00	28.3	5.6	117.20		
	20.00	28.7	6.0	117.25		
	21.00	28.5	5.9	117.30		
	22.00	28.5	5.9	117.34		
	23.00	29.4	6.7	117.39		
	24.00	29.3	6.6	117.44		
	25.00	28.8	6.1	117.50		
	26.00	28.7	6.0	117.54		
	27.00	28.6	6.0	117.60		
****** End Flow 1	28.00	28.7	6.0	117.65		
****** Start Shutin 1	0.00	28.7	0.0	117.65	0.0000	0.001
	1.00	45.7	17.0	117.70	29.0000	0.002
	2.00	113.6	84.9	117.74	15.0000	0.013
	3.00	171.4	142.7	117.77	10.3333	0.029
	4.00	222.1	193.4	117.82	8.0000	0.049
	5.00	266.7	238.0	117.88	6.6000	0.071
	6.00	306.4	277.7	117.95	5.6667	0.094
	7.00	341.7	313.0	118.03	5.0000	0.117
	8.00	373.2	344.5	118.10	4.5000	0.139
	9.00	401.4	372.7	118.18	4.1111	0.161
	10.00	427.0	398.3	118.26	3.8000	0.182
	11.00	450.2	421.5	118.33	3.5455	0.203
	12.00	471.1	442.4	118.41	3.3333	0.222
	13.00	490.2	461.5	118.47	3.1538	0.240
	14.00	507.5	478.8	118.53	3.0000	0.258
	15.00	523.2	494.5	118.58	2.8667	0.274
	16.00	537.6	508.9	118.64	2.7500	0.289
	17.00	550.9	522.2	118.69	2.6471	0.303
	18.00	562.9	534.2	118.75	2.5556	0.317
	19.00	573.7	545.0	118.79	2.4737	0.329
	20.00	574.8	546.1	118.84	2.4000	0.330

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk#10615 DST#1 Graber (B)#1 MTM Pet,Inc.

DATE: 02/14/98 TIME: 00:48:31

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	21.00	569.9	541.2	118.87	2.3333	0.325
	22.00	563.6	534.9	118.91	2.2727	0.318
	23.00	553.7	525.1	118.95	2.2174	0.307
	24.00	543.6	514.9	119.00	2.1667	0.295
	25.00	533.5	504.8	119.03	2.1200	0.285
	26.00	523.7	495.0	119.08	2.0769	0.274
	27.00	515.3	486.6	119.11	2.0370	0.266
	28.00	507.9	479.2	119.14	2.0000	0.258
	29.00	501.5	472.8	119.20	1.9655	0.251
	30.00	495.9	467.2	119.23	1.9333	0.246
	31.00	491.4	462.7	119.26	1.9032	0.241
	32.00	487.4	458.7	119.30	1.8750	0.238
	33.00	483.9	455.2	119.33	1.8485	0.234
	34.00	480.9	452.2	119.37	1.8235	0.231
	35.00	478.4	449.7	119.41	1.8000	0.229
	36.00	476.1	447.4	119.44	1.7778	0.227
	37.00	474.1	445.4	119.48	1.7568	0.225
	38.00	472.4	443.7	119.51	1.7368	0.223
	39.00	470.8	442.1	119.54	1.7179	0.222
	40.00	469.6	440.9	119.57	1.7000	0.220
	41.00	468.4	439.7	119.61	1.6829	0.219
	42.00	467.5	438.8	119.65	1.6667	0.219
	43.00	466.5	437.8	119.67	1.6512	0.218
	44.00	465.8	437.1	119.71	1.6364	0.217
	45.00	465.1	436.4	119.74	1.6222	0.216
****** End Shut-in 1	46.00	464.5	435.8	119.77	1.6087	0.216
****** Start Flow 2	0.00	27.2	0.0	119.80		
	1.00	27.1	-0.1	119.80		
	2.00	27.3	0.1	119.79		
	3.00	27.4	0.3	119.78		
	4.00	27.8	0.6	119.78		
	5.00	27.8	0.6	119.78		
	6.00	27.9	0.7	119.82		
	7.00	28.8	1.6	119.83		
	8.00	28.8	1.6	119.86		
	9.00	28.8	1.6	119.90		
	10.00	28.7	1.5	119.92		
	11.00	28.9	1.7	119.96		
	12.00	29.2	2.0	120.01		
	13.00	29.2	2.0	120.04		
	14.00	29.3	2.1	120.07		
	15.00	29.4	2.2	120.10		
	16.00	29.4	2.3	120.14		
	17.00	29.4	2.3	120.16		
	18.00	29.8	2.6	120.18		
	19.00	29.5	2.3	120.22		
	20.00	29.5	2.4	120.24		
	21.00	29.6	2.4	120.26		
	22.00	29.8	2.6	120.30		
	23.00	29.5	2.3	120.33		
	24.00	29.5	2.3	120.38		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk#10615 DST#1 Graber (B)#1 MTM Pet,Inc.

DATE: 02/14/98 TIME: 00:48:31

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	25.00	29.6	2.4	120.41		
	26.00	29.8	2.6	120.45		
	27.00	29.9	2.7	120.49		
	28.00	29.7	2.5	120.53		
	29.00	29.8	2.6	120.57		
	30.00	29.6	2.4	120.61		
	31.00	29.9	2.7	120.63		
	32.00	29.7	2.5	120.67		
	33.00	29.7	2.5	120.70		
	34.00	30.1	2.9	120.75		
	35.00	29.8	2.6	120.77		
	36.00	30.1	2.9	120.81		
	37.00	30.4	3.2	120.84		
	38.00	30.0	2.8	120.87		
	39.00	30.0	2.8	120.90		
	40.00	20.7	-6.5	120.89		
	41.00	20.7	-6.5	120.92		
	42.00	21.0	-6.2	120.95		
	43.00	20.3	-6.9	120.98		
	44.00	20.6	-6.6	121.01		
	45.00	20.5	-6.7	121.03		
	46.00	20.6	-6.5	121.05		
	47.00	20.6	-6.5	121.08		
	48.00	29.5	2.3	121.14		
	49.00	30.0	2.8	121.16		
	50.00	30.0	2.9	121.18		
	51.00	29.9	2.7	121.22		
	52.00	29.9	2.7	121.24		
	53.00	30.0	2.9	121.26		
	54.00	30.2	3.0	121.29		
	55.00	30.0	2.9	121.31		
	56.00	30.0	2.9	121.34		
	57.00	30.0	2.8	121.36		
	58.00	30.0	2.8	121.39		
****** End Flow 2	59.00	29.8	2.6	121.40		
****** Start Shutin 2	0.00	29.8	0.0	121.40	0.0000	0.001
	1.00	84.8	55.1	121.43	88.0000	0.007
	2.00	140.2	110.4	121.45	44.5000	0.020
	3.00	183.0	153.2	121.48	30.0000	0.033
	4.00	217.3	187.5	121.50	22.7500	0.047
	5.00	245.5	215.7	121.53	18.4000	0.060
	6.00	269.0	239.2	121.56	15.5000	0.072
	7.00	289.0	259.3	121.58	13.4286	0.084
	8.00	306.2	276.5	121.61	11.8750	0.094
	9.00	320.9	291.1	121.64	10.6667	0.103
	10.00	333.9	304.1	121.66	9.7000	0.111
	11.00	345.3	315.5	121.68	8.9091	0.119
	12.00	355.4	325.6	121.71	8.2500	0.126
	13.00	364.5	334.7	121.73	7.6923	0.133
	14.00	372.5	342.8	121.76	7.2143	0.139
	15.00	379.7	349.9	121.78	6.8000	0.144

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk#10615 DST#1 Graber (B)#1 MTM Pet,Inc.

DATE: 02/14/98 TIME: 00:48:31

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	16.00	386.1	356.3	121.79	6.4375	0.149
	17.00	391.8	362.0	121.81	6.1176	0.153
	18.00	397.1	367.4	121.84	5.8333	0.158
	19.00	401.9	372.1	121.86	5.5789	0.162
	20.00	406.4	376.6	121.89	5.3500	0.165
	21.00	410.3	380.5	121.90	5.1429	0.168
	22.00	414.1	384.3	121.93	4.9545	0.171
	23.00	417.5	387.7	121.93	4.7826	0.174
	24.00	420.7	390.9	121.96	4.6250	0.177
	25.00	423.7	393.9	121.98	4.4800	0.179
	26.00	426.5	396.7	122.00	4.3462	0.182
	27.00	428.9	399.2	122.02	4.2222	0.184
	28.00	431.5	401.7	122.05	4.1071	0.186
	29.00	433.6	403.9	122.05	4.0000	0.188
	30.00	435.8	406.0	122.08	3.9000	0.190
	31.00	437.7	407.9	122.10	3.8065	0.192
	32.00	439.6	409.8	122.12	3.7188	0.193
	33.00	441.5	411.7	122.14	3.6364	0.195
	34.00	443.1	413.3	122.16	3.5588	0.196
	35.00	444.6	414.9	122.18	3.4857	0.198
	36.00	446.3	416.5	122.20	3.4167	0.199
	37.00	447.8	418.0	122.23	3.3514	0.201
	38.00	449.2	419.4	122.25	3.2895	0.202
	39.00	450.6	420.8	122.26	3.2308	0.203
	40.00	451.9	422.2	122.29	3.1750	0.204
	41.00	453.1	423.3	122.31	3.1220	0.205
	42.00	454.4	424.6	122.33	3.0714	0.206
	43.00	455.5	425.7	122.34	3.0233	0.207
	44.00	456.6	426.8	122.37	2.9773	0.208
	45.00	457.6	427.9	122.39	2.9333	0.209
	46.00	458.7	428.9	122.41	2.8913	0.210
	47.00	459.5	429.7	122.43	2.8511	0.211
	48.00	460.5	430.7	122.44	2.8125	0.212
	49.00	425.2	395.4	122.44	2.7755	0.181
	50.00	425.9	396.1	122.45	2.7400	0.181
	51.00	426.7	396.9	122.47	2.7059	0.182
	52.00	427.4	397.6	122.49	2.6731	0.183
	53.00	428.0	398.2	122.50	2.6415	0.183
	54.00	428.8	399.0	122.53	2.6111	0.184
	55.00	429.5	399.7	122.55	2.5818	0.184
	56.00	430.1	400.3	122.56	2.5536	0.185
	57.00	430.6	400.8	122.58	2.5263	0.185
	58.00	431.1	401.3	122.60	2.5000	0.186
	59.00	431.8	402.0	122.63	2.4746	0.186
	60.00	432.4	402.6	122.65	2.4500	0.187
	61.00	432.9	403.1	122.67	2.4262	0.187
***** End Shut-in 2	62.00	433.5	403.7	122.68	2.4032	0.188
***** Final Hydro.	321.00	1832.0	0.0	122.81		

TRILOBITE TESTING L.L.C.

OPERATOR : MTM Petroleum,Inc. DATE 2/16/98
WELL NAME: Graber (B}-#1 KB 1547.00 ft TICKET NO: 10616 DST #2
LOCATION : 21-29s-7w CO Kingman KS GR 1539.00 ft FORMATION: Simpson
INTERVAL : 4497.00 To 4511.00 ft TD 4511.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins		Field	1	2	3	4
PF 30	Rec.	10332	10332	2350		
SI 30	Range(Psi)	4025.0	4025.0	4995.0	0.0	0.0
SF 40	Clock(hrs)	12hr.	12hr.	elec.		
FS 30	Depth(ft)	4508.0	4508.0	4503.0	0.0	0.0

TIME DATA----------
PF Fr. 0131 to 0201 hr
IS Fr. 0201 to 0231 hr
SF Fr. 0231 to 0311 hr
FS Fr. 0311 to 0341 hr

	Field	1	2	3	4
A. Init Hydro	2208.0	2221.0	2221.0	0.0	0.0
B. First Flow	20.0	45.0	23.0	0.0	0.0
B1. Final Flow	20.0	45.0	21.0	0.0	0.0
C. In Shut-in	30.0	49.0	31.0	0.0	0.0
D. Init Flow	20.0	45.0	20.0	0.0	0.0
E. Final Flow	20.0	45.0	22.0	0.0	0.0
F. Fl Shut-in	30.0	49.0	26.0	0.0	0.0
G. Final Hydro	2158.0	2165.0	2182.0	0.0	0.0
Inside/Outside	O	O	I		

T STARTED 2353 hr
T ON BOTM 0129 hr
T OPEN 0131 hr
T PULLED 0341 hr
T OUT 0515 hr

RECOVERY
Tot Fluid 10.00 ft of 0.00 ft in DC and 10.00 ft in DP
10.00 ft of Very slight oil cut mud 94%mud 6%oil
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.	2100.00 lbs
Wt Set On Packer	20000.00 lbs
Wt Pulled Loose	80000.00 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	0.00 in
D. Pipe ID	3.80 in
D.C. Length	0.00 ft
D.P. Length	4500.00 ft

BLOW DESCRIPTION
Initial Flow:
Weak blow, built ot 1 1/2"

Initial Shut-in:
No blow back

Final Flow:
No blow.Flush tool.Dead blow.

Final Shut-in:
No blow back

SAMPLES:
SENT TO:

MUD DATA----------

Mud Type	Chemical
Weight	9.30 lb/c
Vis.	44.00 S/L
W.L.	11.20 in3
F.C.	0.32 in
Mud Drop Y	25.0 ft
Amt. of fill	2.00 ft
Btm. H. Temp.	128.00 F
Hole Condition	fair
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00 n
Cushion Type	none
Reversed Out	N
Tool Chased	N
Tester	Darren Amerine
Co. Rep.	Jerry Smith
Contr.	Duke
Rig #	1
Unit #	none
Pump T.	

Test Successful: Y

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Graber (B}-#1

LOCATION : 21-29s-7w CO Kingman KS

TICKET No. 10616 D.S.T. No. 2 DATE 2/16/98

TOTAL TOOL TO BOTTOM OF TOP PACKERS 22

INTERVAL TOOL .....

BOTTOM PACKERS AND ANCHOR 14

TOTAL TOOL 36

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 Total

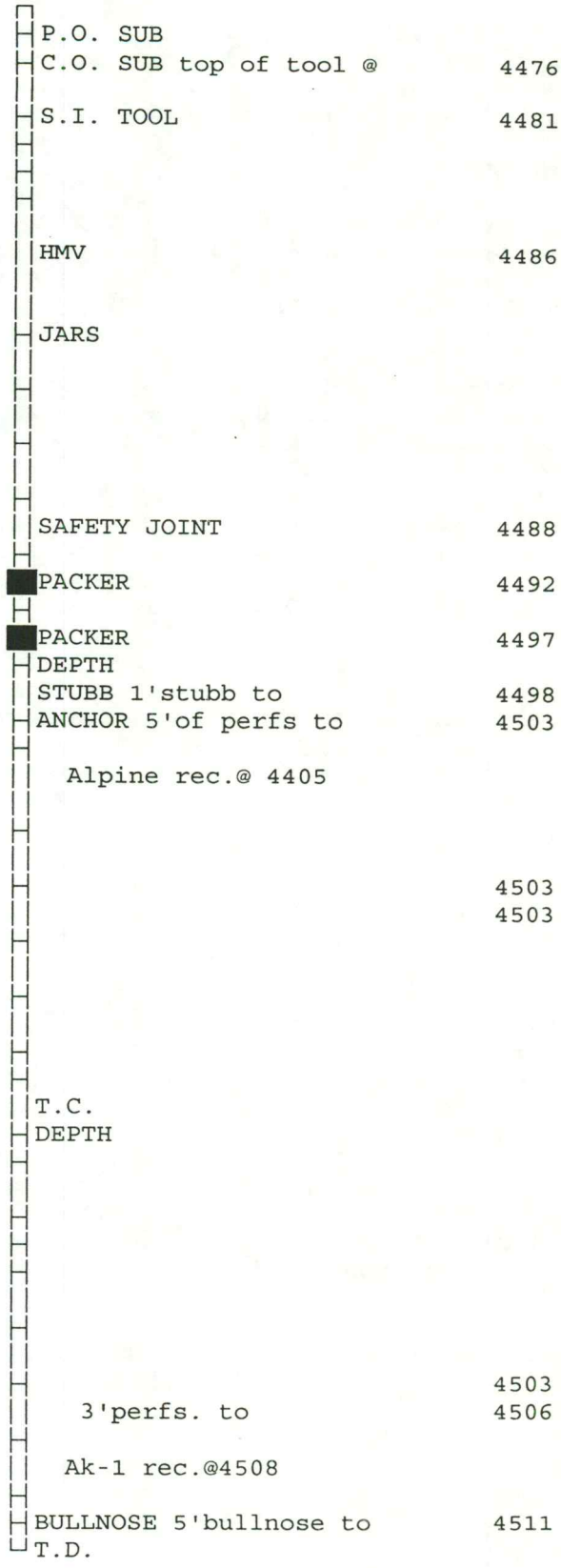
D.P. ABOVE TOOLS.Stands69 Single Total 4500

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 4536

TOTAL DEPTH 4511

TOTAL DRILL PIPE ABOVE K.B. 25

REMARKS:

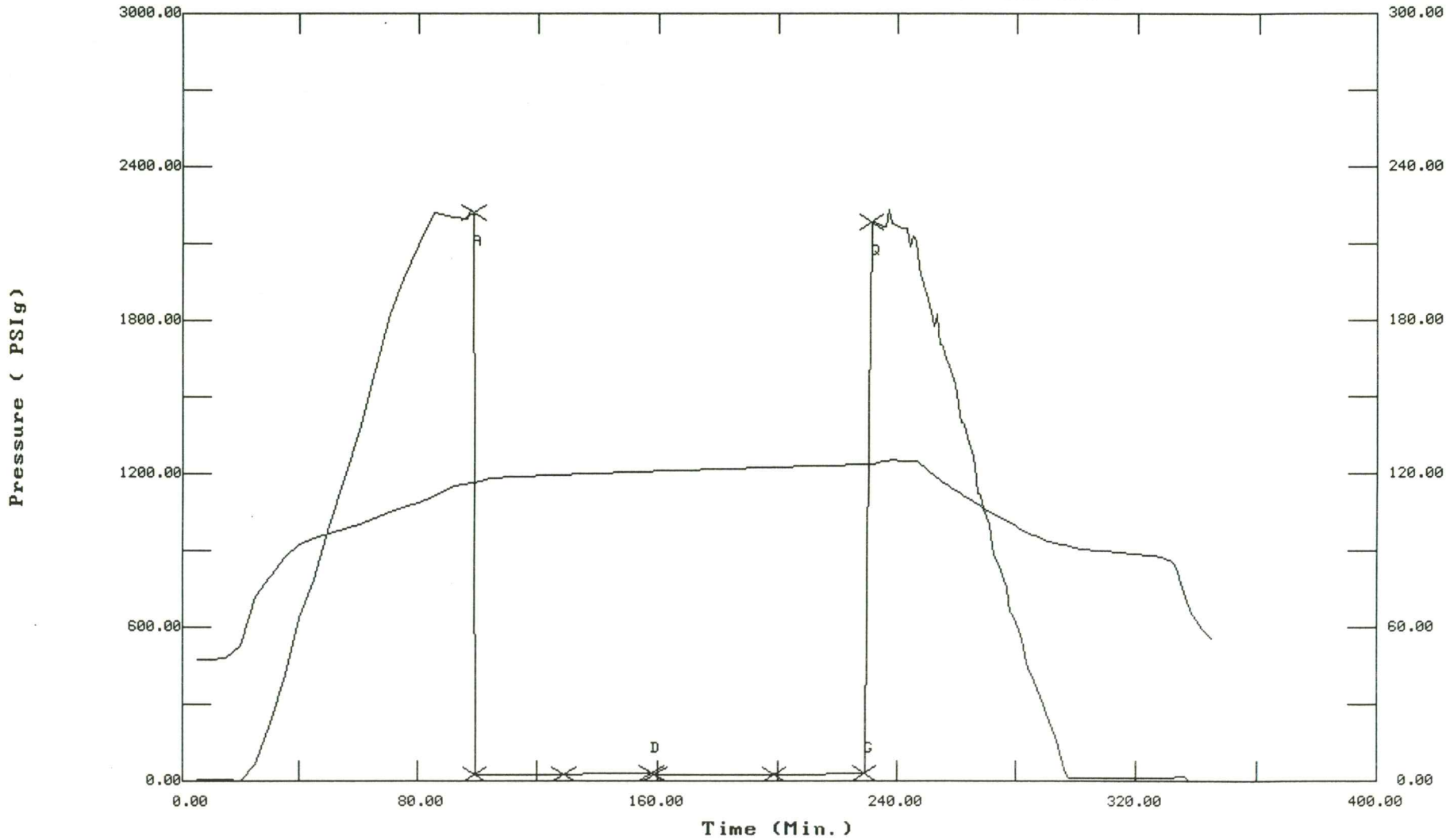


TEST HISTORY

Tk#10616 DST#2 Graber "B"#1 MTM Pet,Inc.

Flag Points

	t(Min.)	P(PSIg)
A:	0.00	2221.06
B:	0.00	23.07
C:	30.00	21.39
D:	29.00	30.54
E:	0.00	20.13
F:	40.00	21.90
G:	30.00	26.09
Q:	0.00	2182.45



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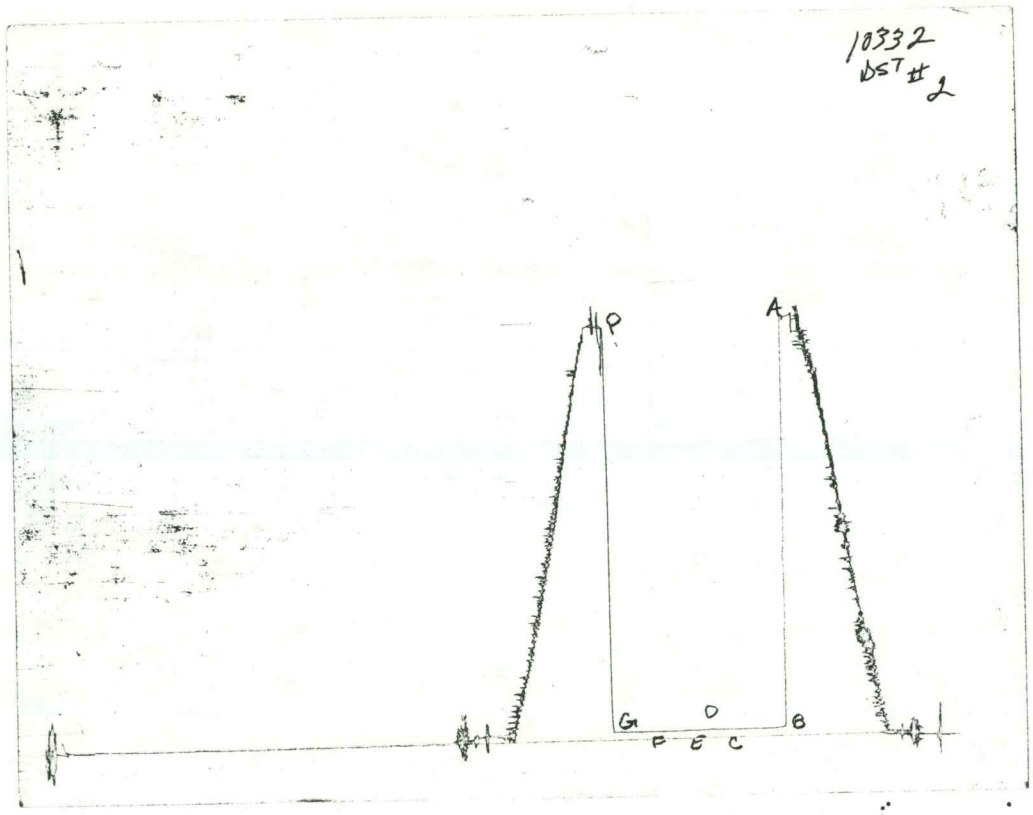


This is a photocopy of the actual AK-1 recorder chart

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk#10616 DST#2 Graber "B"#1 MTM Pet,Inc.

DATE: 02/14/98 TIME: 23:54:26

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
****** Initial Hydro.	98.00	2221.1	0.0	116.18		
****** Start Flow 1	0.00	23.1	0.0	116.37		
	1.00	18.7	-4.4	116.62		
	2.00	21.4	-1.7	116.94		
	3.00	21.7	-1.3	117.30		
	4.00	22.0	-1.1	117.61		
	5.00	21.6	-1.5	117.85		
	6.00	21.4	-1.7	118.05		
	7.00	22.0	-1.1	118.21		
	8.00	20.4	-2.7	118.32		
	9.00	20.8	-2.3	118.42		
	10.00	21.0	-2.1	118.49		
	11.00	20.5	-2.6	118.56		
	12.00	22.6	-0.5	118.61		
	13.00	20.8	-2.3	118.67		
	14.00	22.1	-1.0	118.72		
	15.00	22.3	-0.8	118.78		
	16.00	22.7	-0.4	118.82		
	17.00	22.7	-0.3	118.87		
	18.00	20.6	-2.5	118.92		
	19.00	22.6	-0.5	118.97		
	20.00	22.5	-0.6	119.02		
	21.00	22.1	-1.0	119.07		
	22.00	22.7	-0.4	119.12		
	23.00	22.3	-0.8	119.17		
	24.00	20.9	-2.2	119.21		
	25.00	22.3	-0.8	119.26		
	26.00	20.9	-2.2	119.31		
	27.00	22.5	-0.6	119.37		
	28.00	21.1	-1.9	119.41		
	29.00	22.5	-0.6	119.46		
****** End Flow 1	30.00	21.4	-1.7	119.50		
****** Start Shutin 1	0.00	21.4	0.0	119.50	0.0000	0.000
	1.00	22.1	0.7	119.55	31.0000	0.000
	2.00	22.7	1.3	119.60	16.0000	0.001
	3.00	23.0	1.6	119.63	11.0000	0.001
	4.00	23.6	2.2	119.67	8.5000	0.001
	5.00	24.1	2.7	119.71	7.0000	0.001
	6.00	24.6	3.2	119.75	6.0000	0.001
	7.00	24.8	3.4	119.80	5.2857	0.001
	8.00	25.2	3.8	119.84	4.7500	0.001
	9.00	25.6	4.2	119.89	4.3333	0.001
	10.00	25.8	4.4	119.93	4.0000	0.001
	11.00	25.8	4.4	119.99	3.7273	0.001
	12.00	26.3	5.0	120.03	3.5000	0.001
	13.00	26.8	5.4	120.08	3.3077	0.001
	14.00	27.2	5.8	120.12	3.1429	0.001
	15.00	27.2	5.8	120.17	3.0000	0.001
	16.00	27.4	6.0	120.21	2.8750	0.001
	17.00	27.8	6.4	120.27	2.7647	0.001
	18.00	27.8	6.4	120.31	2.6667	0.001

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk#10616 DST#2 Graber "B"#1 MTM Pet,Inc.

DATE: 02/14/98 TIME: 23:54:26

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	19.00	28.1	6.7	120.35	2.5789	0.001
	20.00	28.5	7.1	120.41	2.5000	0.001
	21.00	28.6	7.2	120.44	2.4286	0.001
	22.00	29.0	7.6	120.49	2.3636	0.001
	23.00	29.2	7.8	120.54	2.3043	0.001
	24.00	29.5	8.1	120.58	2.2500	0.001
	25.00	29.7	8.3	120.62	2.2000	0.001
	26.00	30.0	8.6	120.66	2.1538	0.001
	27.00	30.2	8.8	120.71	2.1111	0.001
	28.00	30.4	9.0	120.75	2.0714	0.001
****** End Shut-in 1	29.00	30.5	9.1	120.79	2.0345	0.001
****** Start Flow 2	0.00	20.1	0.0	120.84		
	1.00	21.4	1.3	120.87		
	2.00	21.8	1.7	120.91		
	3.00	20.8	0.7	120.95		
	4.00	21.7	1.6	120.99		
	5.00	22.1	1.9	121.03		
	6.00	22.5	2.4	121.07		
	7.00	21.9	1.8	121.10		
	8.00	22.1	1.9	121.15		
	9.00	22.3	2.2	121.19		
	10.00	22.7	2.5	121.22		
	11.00	23.0	2.9	121.27		
	12.00	23.2	3.0	121.30		
	13.00	22.9	2.8	121.34		
	14.00	22.9	2.8	121.38		
	15.00	23.0	2.9	121.42		
	16.00	23.0	2.9	121.44		
	17.00	23.1	2.9	121.49		
	18.00	23.1	2.9	121.53		
	19.00	21.0	0.8	121.58		
	20.00	21.2	1.1	121.61		
	21.00	21.6	1.4	121.64		
	22.00	21.8	1.7	121.69		
	23.00	22.0	1.8	121.73		
	24.00	21.5	1.3	121.76		
	25.00	21.7	1.6	121.80		
	26.00	21.9	1.8	121.84		
	27.00	22.1	1.9	121.88		
	28.00	22.3	2.2	121.92		
	29.00	22.0	1.8	121.96		
	30.00	22.0	1.8	122.00		
	31.00	22.1	1.9	122.04		
	32.00	22.2	2.1	122.07		
	33.00	22.3	2.2	122.11		
	34.00	22.4	2.3	122.14		
	35.00	20.9	0.8	122.18		
	36.00	21.4	1.3	122.22		
	37.00	21.6	1.4	122.26		
	38.00	21.6	1.5	122.29		
	39.00	21.8	1.7	122.33		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk#10616 DST#2 Graber "B"#1 MTM Pet,Inc.

DATE: 02/14/98 TIME: 23:54:26

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
****** End Flow 2	40.00	21.9	1.8	122.37		
****** Start Shutin 2	0.00	21.9	0.0	122.37	0.0000	0.000
	1.00	22.1	0.3	122.41	71.0000	0.000
	2.00	22.3	0.4	122.44	36.0000	0.000
	3.00	22.5	0.6	122.48	24.3333	0.001
	4.00	22.7	0.8	122.52	18.5000	0.001
	5.00	22.8	0.9	122.56	15.0000	0.001
	6.00	22.9	1.0	122.60	12.6667	0.001
	7.00	23.1	1.2	122.63	11.0000	0.001
	8.00	23.3	1.4	122.67	9.7500	0.001
	9.00	23.4	1.5	122.70	8.7778	0.001
	10.00	23.6	1.7	122.74	8.0000	0.001
	11.00	23.7	1.8	122.78	7.3636	0.001
	12.00	23.8	1.9	122.81	6.8333	0.001
	13.00	24.0	2.1	122.84	6.3846	0.001
	14.00	24.2	2.3	122.89	6.0000	0.001
	15.00	24.3	2.4	122.92	5.6667	0.001
	16.00	24.5	2.6	122.96	5.3750	0.001
	17.00	24.6	2.7	122.99	5.1176	0.001
	18.00	24.7	2.8	123.02	4.8889	0.001
	19.00	24.8	2.9	123.06	4.6842	0.001
	20.00	24.9	3.0	123.09	4.5000	0.001
	21.00	25.0	3.1	123.12	4.3333	0.001
	22.00	25.1	3.2	123.16	4.1818	0.001
	23.00	25.3	3.4	123.19	4.0435	0.001
	24.00	25.3	3.4	123.23	3.9167	0.001
	25.00	25.4	3.5	123.27	3.8000	0.001
	26.00	25.8	3.9	123.31	3.6923	0.001
	27.00	25.8	3.9	123.34	3.5926	0.001
	28.00	25.9	4.0	123.37	3.5000	0.001
	29.00	26.0	4.1	123.40	3.4138	0.001
****** End Shut-in 2	30.00	26.1	4.2	123.44	3.3333	0.001
****** Final Hydro.	231.00	2182.5	0.0	123.57		

TRILOBITE TESTING L.L.C.

OPERATOR : M.T.M Petroleum,Inc.
WELL NAME: Graber "B" #1
LOCATION : 21-29s-7w
INTERVAL : 4507.00 To 4517.00 ft

DATE 2/17/98
KB 1547.00 ft TICKET NO: 10617 DST #3
GR 1539.00 ft FORMATION: Simpson
TD 4517.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins			Field	1	2	3	4
PF	30	Rec.	10332	10332	2350		
SI	45	Range(Psi)	4025.0	4025.0	4995.0	0.0	0.0
SF	30	Clock(hrs)	12hr.	12hr.	elec.		
FS	30	Depth(ft)	4514.0	4514.0	4513.0	0.0	0.0

TIME DATA----------
PF Fr. 1316 to 1346 hr
IS Fr. 1346 to 1431 hr
SF Fr. 1431 to 1501 hr
FS Fr. 1501 to 1531 hr

	Field	1	2	3	4
A. Init Hydro	2278.0	2268.0	2264.0	0.0	0.0
B. First Flow	20.0	22.0	30.0	0.0	0.0
B1. Final Flow	20.0	10.0	35.0	0.0	0.0
C. In Shut-in	1610.0	1594.0	1651.0	0.0	0.0
D. Init Flow	30.0	35.0	30.0	0.0	0.0
E. Final Flow	30.0	35.0	35.0	0.0	0.0
F. Fl Shut-in	1590.0	1583.0	1508.0	0.0	0.0
G. Final Hydro	2108.0	2107.0	2077.0	0.0	0.0
Inside/Outside	O	O	I		

T STARTED 1150 hr
T ON BOTM 1314 hr
T OPEN 1316 hr
T PULLED 1531 hr
T OUT 1730 hr

RECOVERY
Tot Fluid 50.00 ft of 0.00 ft in DC and 50.00 ft in DP
50.00 ft of Slightly oil and gas cut mud
0.00 ft of 16% gas 8% oil 6% water 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

TOOL DATA----------

Tool Wt.	2100.00 lbs
Wt Set On Packer	20000.00 lbs
Wt Pulled Loose	65000.00 lbs
Initial Str Wt	54000.00 lbs
Unseated Str Wt	54000.00 lbs
Bot Choke	0.75 in
Hole Size	0.00 in
D Col. ID	0.00 in
D. Pipe ID	3.80 in
D.C. Length	0.00 ft
D.P. Length	4507.00 ft

BLOW DESCRIPTION
Initial Flow:
Weak blow, built to 7 1/2"
Initial Shut-in:
Bled down for 5 mins.No blow back

Final Flow:
Fair blow.Built to 5 ins.

Final Shut-in:
Bled down for 3 mins.No blow back

MUD DATA----------

Mud Type	Chemical
Weight	9.20 lb/c
Vis.	65.00 S/L
W.L.	17.60 in3
F.C.	0.32 in
Mud Drop	N

Amt. of fill	0.00 ft
Btm. H. Temp.	127.00 F
Hole Condition	Good
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00 n
Cushion Type	none
Reversed Out	N
Tool Chased	N
Tester	Darren Amerine
Co. Rep.	Jerry Smith
Contr.	Duke
Rig #	1
Unit #	
Pump T.	

SAMPLES:
SENT TO:

Test Successful: Y

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Graber "B" #1

LOCATION : 21-29s-7w

TICKET No. 10617 D.S.T. No. 3 DATE 2/17/98

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

INTERVAL TOOL .....

BOTTOM PACKERS AND ANCHOR ..... 10'

TOTAL TOOL ..... 32'

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 Total

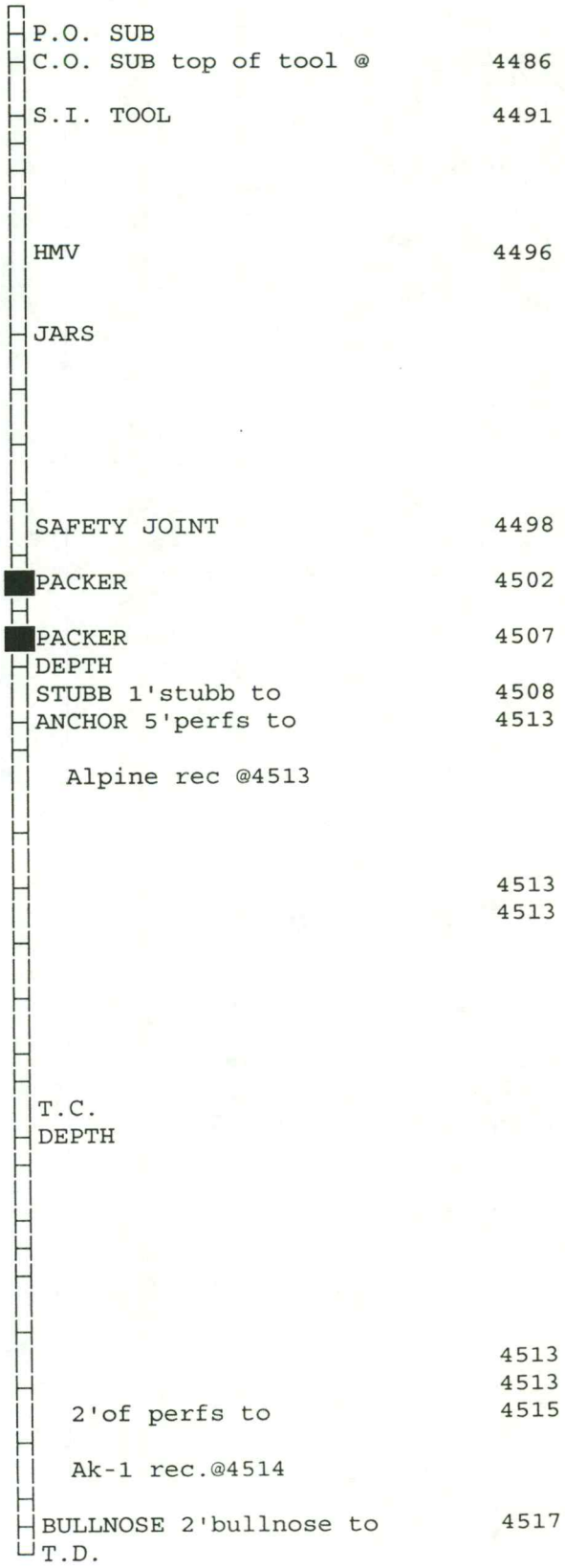
D.P. ABOVE TOOLS.Stands73 Single Total 4507'

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 4539'

TOTAL DEPTH ..... 4517'

TOTAL DRILL PIPE ABOVE K.B. ..... 22'

REMARKS:

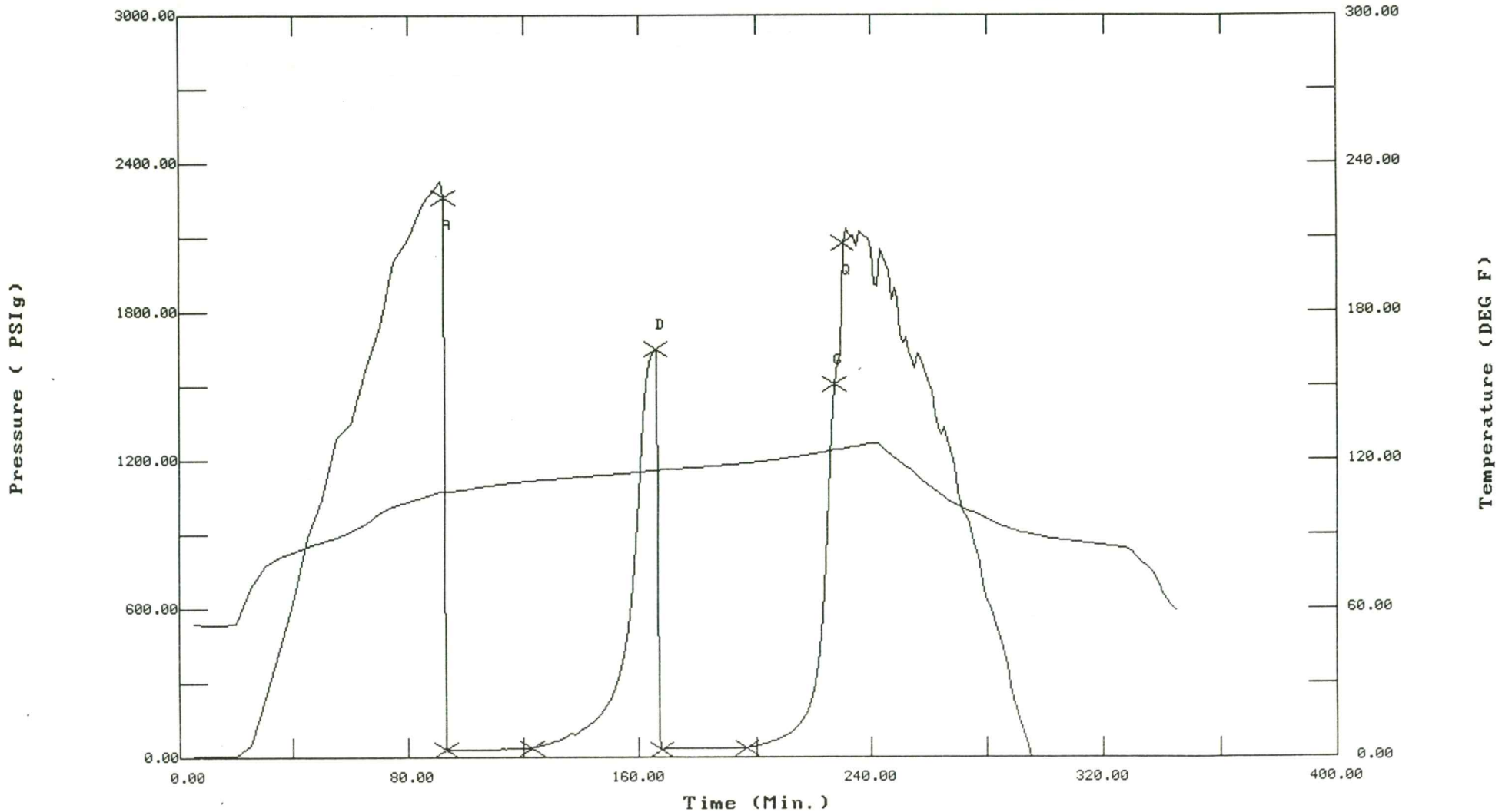


TEST HISTORY

Tk#10617 DST#3 Graber "B" #1 M.T.M Pet,Inc.

Flag Points

	t(Min.)	P(PSIg)
A:	0.00	2264.36
B:	0.00	29.87
C:	30.00	34.57
D:	43.00	1651.02
E:	0.00	29.45
F:	29.00	35.07
G:	30.00	1508.01
Q:	0.00	2077.46



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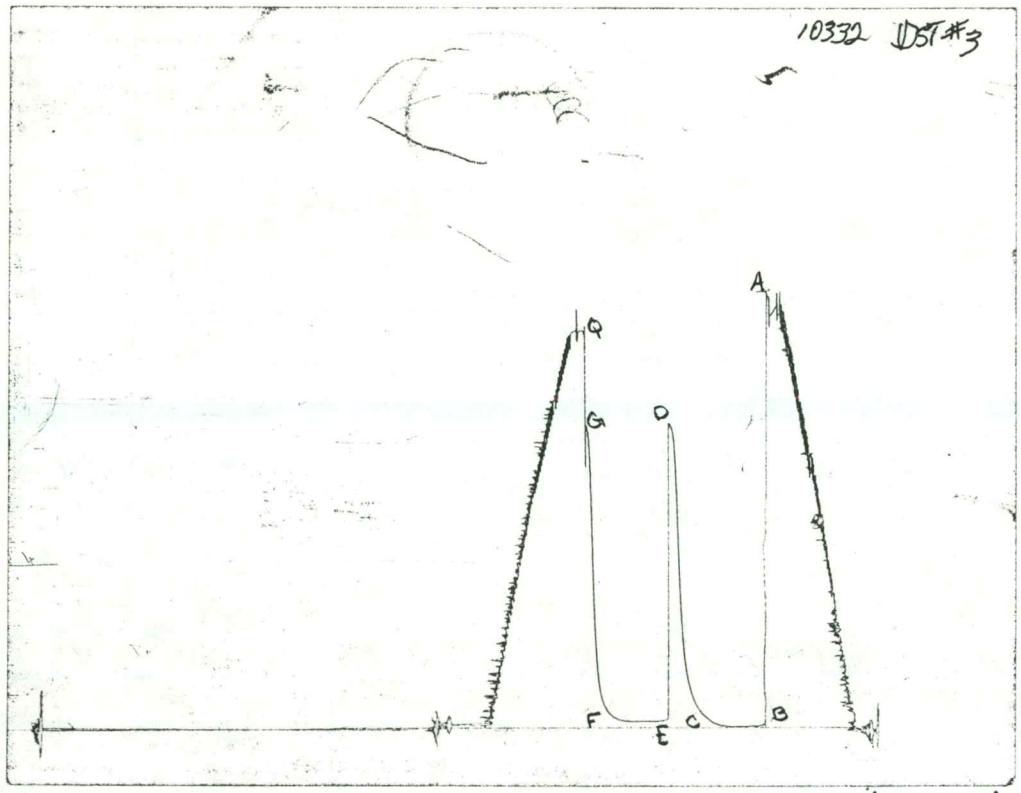


This is a photocopy of the actual AK-1 recorder chart

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk#10617 DST#3 Graber "B" #1 M.T.M Pet,Inc.

DATE: 02/15/98 . TIME: 11:45:31

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
****** Initial Hydro.	92.00	2264.4	0.0	107.22		
****** Start Flow 1	0.00	29.9	0.0	107.33		
	1.00	26.3	-3.6	107.42		
	2.00	26.3	-3.5	107.51		
	3.00	28.5	-1.3	107.59		
	4.00	26.8	-3.0	107.70		
	5.00	27.4	-2.4	107.81		
	6.00	27.5	-2.4	107.94		
	7.00	26.8	-3.0	108.09		
	8.00	27.5	-2.4	108.26		
	9.00	28.2	-1.7	108.47		
	10.00	28.0	-1.8	108.68		
	11.00	27.6	-2.3	108.89		
	12.00	28.5	-1.3	109.08		
	13.00	28.5	-1.3	109.27		
	14.00	28.5	-1.3	109.45		
	15.00	29.8	-0.1	109.63		
	16.00	28.8	-1.1	109.79		
	17.00	29.7	-0.2	109.95		
	18.00	30.1	0.3	110.11		
	19.00	29.7	-0.2	110.25		
	20.00	30.7	0.8	110.40		
	21.00	30.5	0.6	110.54		
	22.00	30.8	0.9	110.68		
	23.00	31.6	1.8	110.81		
	24.00	32.2	2.4	110.94		
	25.00	31.7	1.8	111.06		
	26.00	31.8	1.9	111.19		
	27.00	32.1	2.3	111.30		
	28.00	32.3	2.4	111.41		
	29.00	33.6	3.7	111.51		
****** End Flow 1	30.00	34.6	4.7	111.62		
****** Start Shutin 1	0.00	34.6	0.0	111.62	0.0000	0.001
	1.00	37.2	2.6	111.73	31.0000	0.001
	2.00	40.4	5.8	111.82	16.0000	0.002
	3.00	43.8	9.2	111.93	11.0000	0.002
	4.00	46.7	12.1	112.03	8.5000	0.002
	5.00	49.9	15.4	112.13	7.0000	0.002
	6.00	53.6	19.1	112.22	6.0000	0.003
	7.00	57.5	22.9	112.32	5.2857	0.003
	8.00	61.3	26.7	112.41	4.7500	0.004
	9.00	65.3	30.7	112.50	4.3333	0.004
	10.00	69.7	35.2	112.59	4.0000	0.005
	11.00	74.2	39.6	112.68	3.7273	0.006
	12.00	79.6	45.1	112.77	3.5000	0.006
	13.00	85.3	50.7	112.86	3.3077	0.007
	14.00	91.1	56.6	112.95	3.1429	0.008
	15.00	90.0	55.4	113.04	3.0000	0.008
	16.00	96.3	61.7	113.12	2.8750	0.009
	17.00	103.4	68.8	113.21	2.7647	0.011
	18.00	110.8	76.2	113.30	2.6667	0.012

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk#10617 DST#3 Graber "B" #1 M.T.M Pet,Inc.

DATE: 02/15/98 TIME: 11:45:31

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	19.00	118.7	84.2	113.40	2.5789	0.014
	20.00	127.6	93.1	113.49	2.5000	0.016
	21.00	137.5	102.9	113.57	2.4286	0.019
	22.00	148.6	114.1	113.67	2.3636	0.022
	23.00	160.9	126.3	113.76	2.3043	0.026
	24.00	174.6	140.0	113.85	2.2500	0.030
	25.00	189.7	155.1	113.95	2.2000	0.036
	26.00	206.9	172.3	114.04	2.1538	0.043
	27.00	227.1	192.5	114.12	2.1111	0.052
	28.00	251.0	216.4	114.21	2.0714	0.063
	29.00	279.6	245.1	114.31	2.0345	0.078
	30.00	314.0	279.4	114.41	2.0000	0.099
	31.00	357.0	322.5	114.50	1.9677	0.127
	32.00	410.6	376.0	114.59	1.9375	0.169
	33.00	480.0	445.4	114.69	1.9091	0.230
	34.00	572.9	538.3	114.79	1.8824	0.328
	35.00	696.3	661.8	114.89	1.8571	0.485
	36.00	859.0	824.4	115.00	1.8333	0.738
	37.00	1057.7	1023.2	115.11	1.8108	1.119
	38.00	1266.5	1232.0	115.23	1.7895	1.604
	39.00	1445.0	1410.4	115.37	1.7692	2.088
	40.00	1560.6	1526.1	115.50	1.7500	2.436
	41.00	1616.8	1582.2	115.61	1.7317	2.614
	42.00	1639.3	1604.7	115.75	1.7143	2.687
***** End Shut-in 1	43.00	1651.0	1616.4	115.87	1.6977	2.726
***** Start Flow 2	0.00	29.5	0.0	116.06		
	1.00	29.2	-0.3	116.15		
	2.00	31.3	1.8	116.24		
	3.00	31.4	1.9	116.31		
	4.00	31.5	2.1	116.38		
	5.00	31.8	2.4	116.45		
	6.00	31.4	1.9	116.51		
	7.00	32.0	2.5	116.58		
	8.00	31.7	2.3	116.65		
	9.00	32.1	2.7	116.73		
	10.00	31.9	2.4	116.81		
	11.00	32.3	2.9	116.89		
	12.00	32.7	3.3	116.97		
	13.00	32.6	3.1	117.06		
	14.00	32.9	3.4	117.15		
	15.00	32.4	2.9	117.24		
	16.00	33.2	3.8	117.34		
	17.00	33.0	3.5	117.43		
	18.00	33.4	3.9	117.54		
	19.00	33.2	3.8	117.64		
	20.00	33.5	4.0	117.74		
	21.00	33.7	4.3	117.84		
	22.00	33.7	4.3	117.94		
	23.00	34.0	4.5	118.05		
	24.00	34.2	4.7	118.16		
	25.00	34.4	5.0	118.26		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk#10617 DST#3 Graber "B" #1 M.T.M Pet,Inc.

DATE: 02/15/98 TIME: 11:45:31

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	26.00	34.5	5.0	118.36		
	27.00	34.7	5.2	118.47		
	28.00	34.7	5.3	118.58		
****** End Flow 2	29.00	35.1	5.6	118.68		
****** Start Shutin 2	0.00	35.1	0.0	118.68	0.0000	0.001
	1.00	36.9	1.8	118.78	60.0000	0.001
	2.00	39.3	4.2	118.91	30.5000	0.002
	3.00	41.8	6.7	119.03	20.6667	0.002
	4.00	44.5	9.4	119.14	15.7500	0.002
	5.00	47.4	12.3	119.27	12.8000	0.002
	6.00	50.4	15.4	119.40	10.8333	0.003
	7.00	53.7	18.6	119.54	9.4286	0.003
	8.00	57.3	22.2	119.68	8.3750	0.003
	9.00	61.3	26.2	119.83	7.5556	0.004
	10.00	65.6	30.5	119.99	6.9000	0.004
	11.00	70.6	35.5	120.15	6.3636	0.005
	12.00	75.6	40.5	120.33	5.9167	0.006
	13.00	81.8	46.7	120.49	5.5385	0.007
	14.00	88.7	53.6	120.66	5.2143	0.008
	15.00	96.5	61.4	120.85	4.9333	0.009
	16.00	106.0	70.9	121.03	4.6875	0.011
	17.00	116.8	81.7	121.21	4.4706	0.014
	18.00	130.0	94.9	121.41	4.2778	0.017
	19.00	145.9	110.9	121.60	4.1053	0.021
	20.00	165.9	130.8	121.79	3.9500	0.028
	21.00	191.8	156.7	121.98	3.8095	0.037
	22.00	225.3	190.3	122.18	3.6818	0.051
	23.00	270.7	235.7	122.36	3.5652	0.073
	24.00	334.7	299.6	122.55	3.4583	0.112
	25.00	428.7	393.6	122.74	3.3600	0.184
	26.00	571.7	536.6	122.93	3.2692	0.327
	27.00	784.2	749.1	123.13	3.1852	0.615
	28.00	1059.4	1024.3	123.35	3.1071	1.122
	29.00	1321.1	1286.0	123.56	3.0345	1.745
****** End Shut-in 2	30.00	1508.0	1472.9	123.83	2.9667	2.274
****** Final Hydro.	230.00	2077.5	0.0	124.41		

TRILOBITE TESTING L.L.C.

OPERATOR : M.T.M Petroleum,Inc. DATE 2/18/98
WELL NAME: Graber "B" #1 KB 1547.00 ft TICKET NO: 10618 DST #4
LOCATION : 21-29s-7w CO Kingman KS GR 1539.00 ft FORMATION: Miss.
INTERVAL : 4000.00 To 4125.00 ft TD 4517.00 ft TEST TYPE: CONVENTIONAL/STRADDL

RECORDER DATA

Mins		Field	1	2	3	4
PF 30	Rec.	10332	10332	2350		
SI 45	Range(Psi)	4025.0	4025.0	4995.0	0.0	0.0
SF 60	Clock(hrs)	12hr.	12hr.	elec.		
FS 60	Depth(ft)	4117.0	4117.0	4007.0	0.0	0.0

TIME DATA----------
PF Fr. 0333 to 0403 hr
IS Fr. 0403 to 0448 hr
SF Fr. 0448 to 0548 hr
FS Fr. 0548 to 0648 hr

	Field	1	2	3	4
A. Init Hydro	2128.0	2138.0	1997.0	0.0	0.0
B. First Flow	223.0	291.0	202.0	0.0	0.0
B1. Final Flow	385.0	399.0	364.0	0.0	0.0
C. In Shut-in	1702.0	1697.0	1672.0	0.0	0.0
D. Init Flow	456.0	456.0	411.0	0.0	0.0
E. Final Flow	598.0	605.0	571.0	0.0	0.0
F. Fl Shut-in	1600.0	1604.0	1573.0	0.0	0.0
G. Final Hydro	1916.0	1908.0	1817.0	0.0	0.0
Inside/Outside	O	O	I		

T STARTED 0147 hr
T ON BOTM 0330 hr
T OPEN 0333 hr
T PULLED 0648 hr
T OUT 0930 hr

RECOVERY
Tot Fluid 1200.00 ft of 0.00 ft in DC and 1200.00 ft in DP
800.00 ft of Very slight gas cut mud 2%gas 98% mud
400.00 ft of Gas cut water mud 10%gas 30%water 60%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 20000.00 P.P.M. A.P.I. Gravity 0.00

TOOL DATA----------

Tool Wt.	2100.00 lbs
Wt Set On Packer	20000.00 lbs
Wt Pulled Loose	75000.00 lbs
Initial Str Wt	54000.00 lbs
Unseated Str Wt	69000.00 lbs
Bot Choke	0.75 in
Hole Size	0.00 in
D Col. ID	0.00 in
D. Pipe ID	3.80 in
D.C. Length	0.00 ft
D.P. Length	4471.00 ft

BLOW DESCRIPTION
IF;Strong blow.B.O.B in 1 mins..

ISI;Bled down for 3 mins.No b.b.

FF;Strong Blow.built to B.O.B in 5 mins.

FSI;Bled down for 3 mins.No b.b.

MUD DATA----------

Mud Type	Chemical
Weight	9.20 lb/c
Vis.	65.00 S/L
W.L.	17.60 in3
F.C.	0.32 in
Mud Drop	N
Amt. of fill	0.00 ft
Btm. H. Temp.	126.00 F
Hole Condition	Good
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	3
Cushion Amt.	0.00 n
Cushion Type	none
Reversed Out	N
Tool Chased	N
Tester	Darren Amerine
Co. Rep.	Jerry Smith
Contr.	Duke
Rig #	1
Unit #	
Pump T.	

SAMPLES:
SENT TO:

Test Successful: Y

*** TOOL DIAGRAM *** CONVENTIONAL/STRADDL

WELL NAME: Graber "B" #1

LOCATION : 21-29s-7w CO Kingman KS

TICKET No. 10618 D.S.T. No. 4 DATE 2/18/98

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

INTERVAL TOOL .....

BOTTOM PACKERS AND ANCHOR ..... 10'

TOTAL TOOL ..... 32'

DRILL COLLAR ANCHOR IN INTERVAL .....

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands 7 Single 1 Total 476'

TOTAL ASSEMBLY .....

D.C. ABOVE TOOLS.Stands Single Total

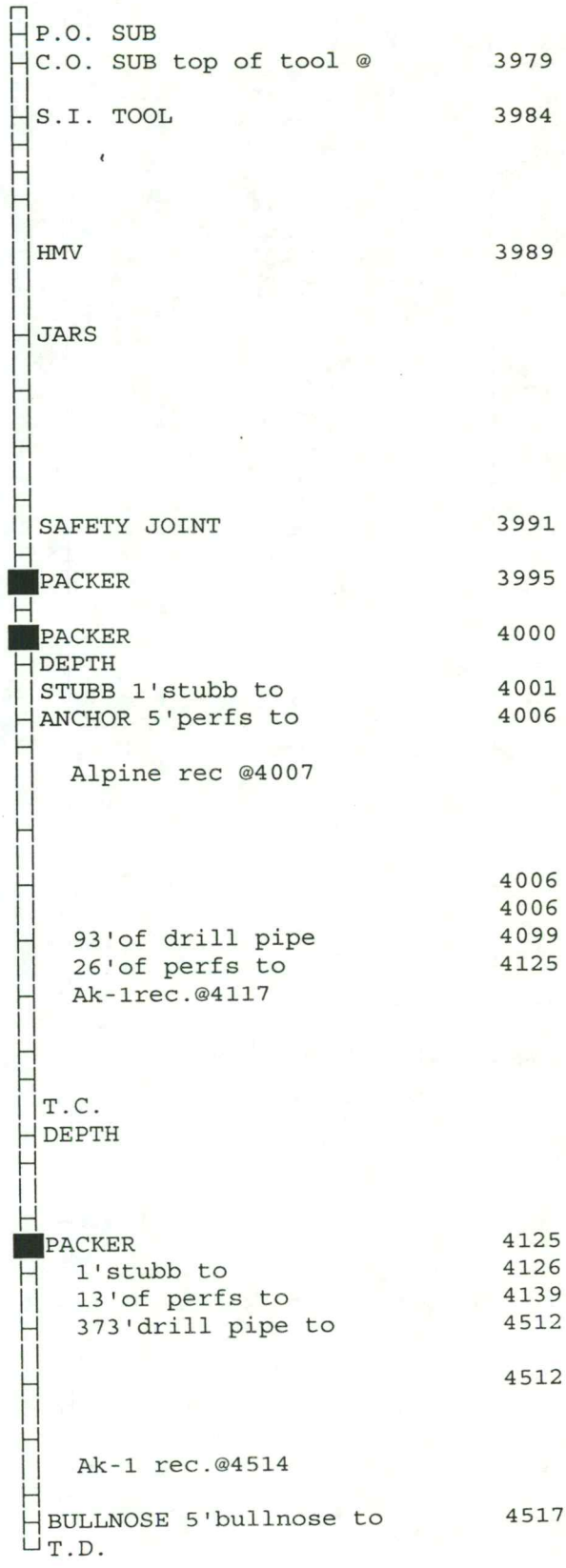
D.P. ABOVE TOOLS.Stands66 Single Total 4471'

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 4530'

TOTAL DEPTH ..... 4517'

TOTAL DRILL PIPE ABOVE K.B. ..... 13'

REMARKS:



TEST HISTORY

Tk#10618 DST#4 Graber "B"-#1 M.T.M Pet,Inc.

Flag Points

	t(Min.)	P(PSIg)
A:	0.00	1997.14
B:	0.00	201.92
C:	27.00	364.32
D:	45.00	1671.75
E:	0.00	411.24
F:	59.00	570.95
G:	61.00	1573.47
Q:	0.00	1816.94

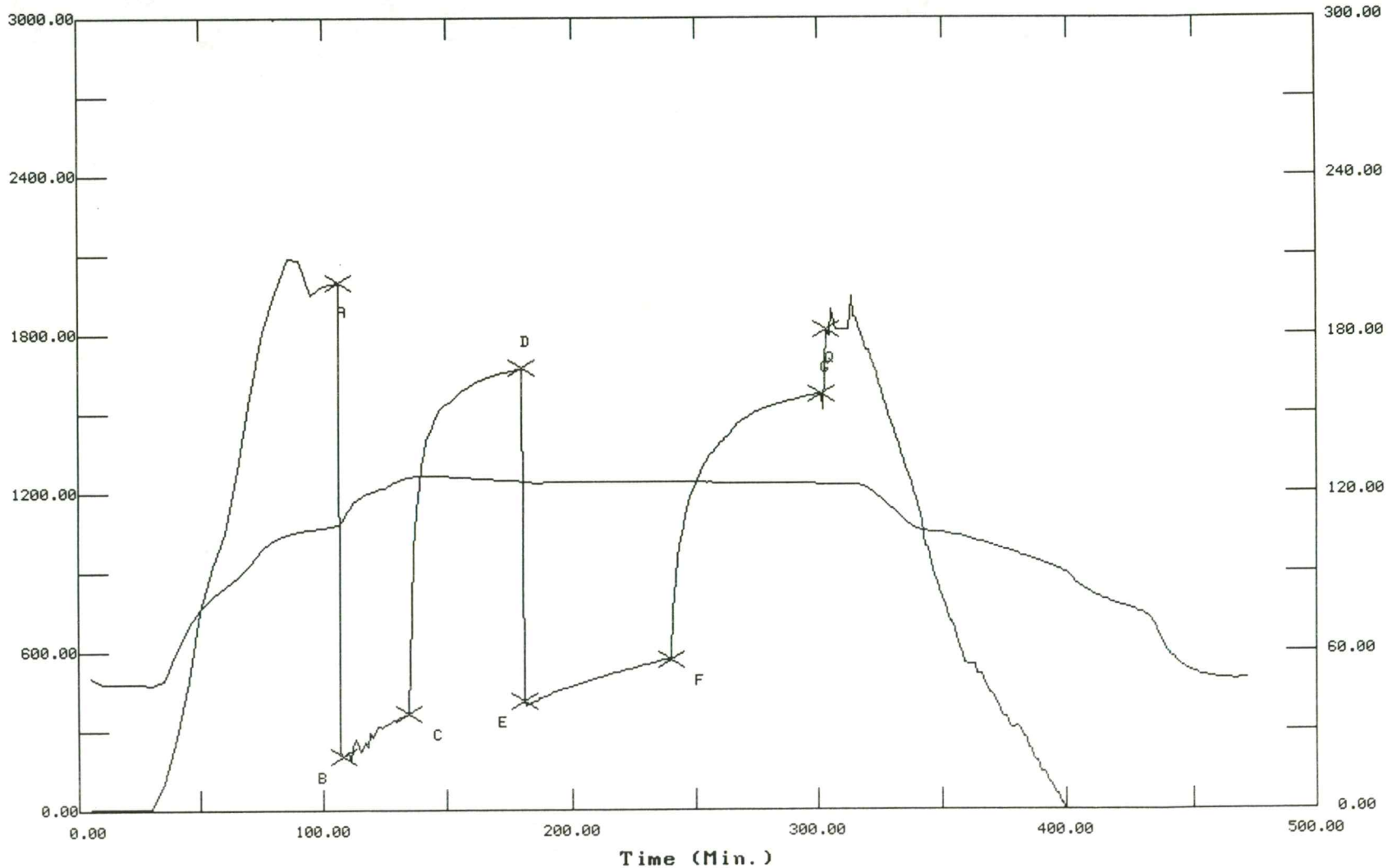
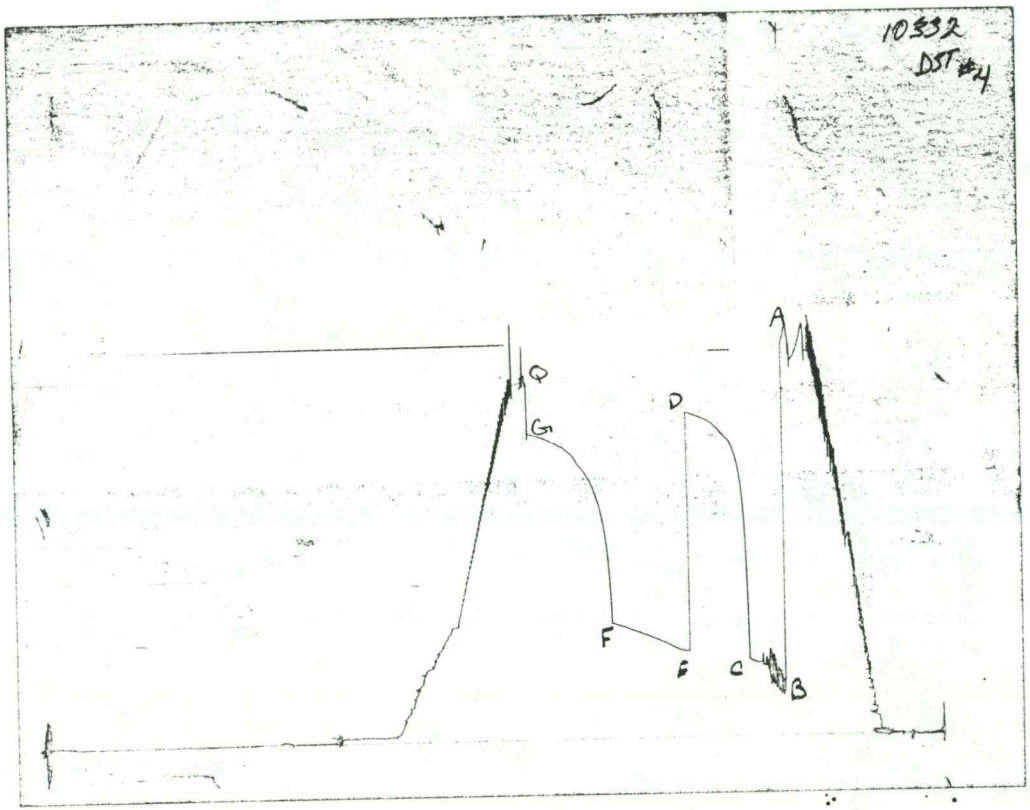


CHART PAGE



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

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk#10618 DST#4 Graber "B"-#1 M.T.M Pet,Inc.

DATE: 02/16/98 TIME: 01:49:59

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
****** Initial Hydro.	106.00	1997.1	0.0	107.96		
****** Start Flow 1	0.00	201.9	0.0	109.52		
	1.00	206.0	4.0	111.36		
	2.00	216.9	15.0	113.23		
	3.00	182.6	-19.3	114.80		
	4.00	235.2	33.3	116.02		
	5.00	270.0	68.1	116.96		
	6.00	258.0	56.1	117.75		
	7.00	221.6	19.7	118.41		
	8.00	226.0	24.1	118.95		
	9.00	256.6	54.6	119.41		
	10.00	239.8	37.9	119.78		
	11.00	289.5	87.6	120.12		
	12.00	274.5	72.6	120.49		
	13.00	291.6	89.6	120.81		
	14.00	315.6	113.7	121.13		
	15.00	314.1	112.2	121.44		
	16.00	311.9	109.9	121.74		
	17.00	320.2	118.3	122.00		
	18.00	321.9	120.0	122.29		
	19.00	327.5	125.6	122.77		
	20.00	335.4	133.4	123.30		
	21.00	338.8	136.9	123.85		
	22.00	342.6	140.7	124.35		
	23.00	349.8	147.9	124.79		
	24.00	350.3	148.4	125.18		
	25.00	355.4	153.5	125.52		
	26.00	359.9	158.0	125.78		
****** End Flow 1	27.00	364.3	162.4	125.99		
****** Start Shutin 1	0.00	364.3	0.0	125.99	0.0000	0.133
	1.00	746.9	382.6	126.15	28.0000	0.558
	2.00	984.8	620.5	126.29	14.5000	0.970
	3.00	1134.7	770.4	126.40	10.0000	1.288
	4.00	1235.4	871.1	126.49	7.7500	1.526
	5.00	1306.2	941.8	126.56	6.4000	1.706
	6.00	1356.4	992.1	126.58	5.5000	1.840
	7.00	1395.9	1031.6	126.60	4.8571	1.948
	8.00	1427.9	1063.5	126.59	4.3750	2.039
	9.00	1454.1	1089.8	126.59	4.0000	2.114
	10.00	1475.5	1111.2	126.53	3.7000	2.177
	11.00	1493.7	1129.4	126.52	3.4545	2.231
	12.00	1510.4	1146.1	126.46	3.2500	2.281
	13.00	1523.9	1159.5	126.40	3.0769	2.322
	14.00	1529.0	1164.7	126.34	2.9286	2.338
	15.00	1535.4	1171.0	126.28	2.8000	2.357
	16.00	1542.8	1178.4	126.20	2.6875	2.380
	17.00	1550.3	1186.0	126.13	2.5882	2.403
	18.00	1557.0	1192.7	126.05	2.5000	2.424
	19.00	1565.7	1201.3	125.97	2.4211	2.451
	20.00	1575.3	1211.0	125.91	2.3500	2.482
	21.00	1583.3	1219.0	125.84	2.2857	2.507

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk#10618 DST#4 Graber "B"-#1 M.T.M Pet,Inc.

DATE: 02/16/98 TIME: 01:49:59

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	22.00	1590.1	1225.8	125.78	2.2273	2.528
	23.00	1596.3	1232.0	125.70	2.1739	2.548
	24.00	1602.6	1238.3	125.63	2.1250	2.568
	25.00	1607.8	1243.5	125.55	2.0800	2.585
	26.00	1613.1	1248.8	125.50	2.0385	2.602
	27.00	1618.0	1253.7	125.41	2.0000	2.618
	28.00	1623.4	1259.1	125.35	1.9643	2.635
	29.00	1628.2	1263.9	125.25	1.9310	2.651
	30.00	1632.6	1268.3	125.20	1.9000	2.666
	31.00	1636.4	1272.1	125.15	1.8710	2.678
	32.00	1639.4	1275.1	125.09	1.8438	2.688
	33.00	1642.6	1278.3	125.04	1.8182	2.698
	34.00	1645.2	1280.9	124.96	1.7941	2.707
	35.00	1647.7	1283.4	124.89	1.7714	2.715
	36.00	1650.4	1286.1	124.84	1.7500	2.724
	37.00	1652.9	1288.5	124.79	1.7297	2.732
	38.00	1655.3	1291.0	124.73	1.7105	2.740
	39.00	1657.9	1293.6	124.66	1.6923	2.749
	40.00	1660.3	1295.9	124.59	1.6750	2.756
	41.00	1662.3	1298.0	124.58	1.6585	2.763
	42.00	1664.8	1300.5	124.51	1.6429	2.772
	43.00	1667.4	1303.1	124.45	1.6279	2.780
	44.00	1669.7	1305.3	124.40	1.6136	2.788
****** End Shut-in 1	45.00	1671.7	1307.4	124.36	1.6000	2.795
****** Start Flow 2	0.00	411.2	0.0	124.29		
	1.00	395.3	-15.9	124.13		
	2.00	400.9	-10.3	123.89		
	3.00	404.3	-7.0	123.69		
	4.00	412.9	1.7	123.56		
	5.00	414.7	3.4	123.54		
	6.00	422.1	10.8	123.59		
	7.00	425.4	14.2	123.70		
	8.00	429.1	17.9	123.83		
	9.00	431.9	20.6	123.95		
	10.00	437.0	25.8	124.04		
	11.00	440.3	29.0	124.10		
	12.00	445.6	34.3	124.16		
	13.00	448.7	37.4	124.18		
	14.00	452.3	41.0	124.20		
	15.00	455.4	44.1	124.23		
	16.00	458.7	47.5	124.27		
	17.00	461.9	50.7	124.28		
	18.00	465.4	54.1	124.30		
	19.00	468.5	57.2	124.31		
	20.00	471.5	60.3	124.31		
	21.00	474.7	63.4	124.31		
	22.00	477.5	66.2	124.32		
	23.00	480.3	69.1	124.33		
	24.00	483.9	72.7	124.36		
	25.00	486.1	74.9	124.37		
	26.00	489.0	77.7	124.37		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk#10618 DST#4 Graber "B"-#1 M.T.M Pet,Inc.

DATE: 02/16/98 TIME: 01:49:59

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	27.00	493.1	81.8	124.40		
	28.00	495.8	84.6	124.40		
	29.00	498.3	87.0	124.40		
	30.00	500.4	89.1	124.40		
	31.00	502.9	91.6	124.36		
	32.00	506.0	94.8	124.33		
	33.00	509.5	98.3	124.28		
	34.00	512.2	101.0	124.24		
	35.00	514.8	103.6	124.20		
	36.00	517.3	106.1	124.25		
	37.00	520.2	108.9	124.13		
	38.00	522.6	111.4	124.10		
	39.00	524.9	113.6	124.06		
	40.00	527.4	116.2	124.04		
	41.00	529.7	118.4	124.02		
	42.00	532.5	121.3	124.00		
	43.00	535.3	124.0	123.98		
	44.00	537.8	126.6	123.96		
	45.00	540.5	129.2	123.95		
	46.00	543.0	131.8	123.94		
	47.00	546.3	135.0	123.94		
	48.00	548.5	137.2	123.93		
	49.00	550.6	139.4	123.92		
	50.00	552.2	140.9	123.93		
	51.00	554.2	142.9	123.90		
	52.00	556.7	145.4	123.90		
	53.00	559.3	148.0	123.90		
	54.00	561.4	150.1	123.89		
	55.00	563.7	152.4	123.89		
	56.00	565.6	154.3	123.88		
	57.00	567.7	156.4	123.87		
	58.00	569.8	158.5	123.86		
****** End Flow 2	59.00	571.0	159.7	123.85		
****** Start Shutin 2	0.00	571.0	0.0	123.85	0.0000	0.326
	1.00	754.3	183.3	123.85	87.0000	0.569
	2.00	873.5	302.6	123.86	44.0000	0.763
	3.00	958.9	387.9	123.87	29.6667	0.919
	4.00	1022.0	451.0	123.88	22.5000	1.044
	5.00	1072.9	502.0	123.89	18.2000	1.151
	6.00	1115.5	544.5	123.89	15.3333	1.244
	7.00	1154.8	583.8	123.91	13.2857	1.333
	8.00	1185.8	614.9	123.91	11.7500	1.406
	9.00	1212.0	641.0	123.92	10.5556	1.469
	10.00	1235.6	664.6	123.91	9.6000	1.527
	11.00	1256.0	685.0	123.87	8.8182	1.577
	12.00	1277.5	706.5	123.89	8.1667	1.632
	13.00	1295.1	724.1	123.88	7.6154	1.677
	14.00	1311.3	740.3	123.86	7.1429	1.719
	15.00	1326.1	755.2	123.82	6.7333	1.759
	16.00	1340.4	769.5	123.83	6.3750	1.797
	17.00	1351.6	780.7	123.76	6.0588	1.827

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk#10618 DST#4 Graber "B"-#1 M.T.M Pet,Inc.

DATE: 02/16/98 TIME: 01:49:59

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	18.00	1362.3	791.4	123.76	5.7778	1.856
	19.00	1372.5	801.6	123.73	5.5263	1.884
	20.00	1382.9	811.9	123.71	5.3000	1.912
	21.00	1392.7	821.7	123.68	5.0952	1.940
	22.00	1401.2	830.2	123.69	4.9091	1.963
	23.00	1409.4	838.4	123.64	4.7391	1.986
	24.00	1420.0	849.0	123.61	4.5833	2.016
	25.00	1430.5	859.6	123.61	4.4400	2.046
	26.00	1444.9	873.9	123.58	4.3077	2.088
	27.00	1455.5	884.5	123.56	4.1852	2.118
	28.00	1462.9	892.0	123.54	4.0714	2.140
	29.00	1469.0	898.0	123.52	3.9655	2.158
	30.00	1475.4	904.5	123.49	3.8667	2.177
	31.00	1482.5	911.5	123.51	3.7742	2.198
	32.00	1488.2	917.2	123.49	3.6875	2.215
	33.00	1493.2	922.3	123.48	3.6061	2.230
	34.00	1498.4	927.5	123.48	3.5294	2.245
	35.00	1503.5	932.5	123.47	3.4571	2.260
	36.00	1507.6	936.6	123.47	3.3889	2.273
	37.00	1511.2	940.2	123.38	3.3243	2.284
	38.00	1514.8	943.9	123.43	3.2632	2.295
	39.00	1518.3	947.4	123.42	3.2051	2.305
	40.00	1521.9	950.9	123.42	3.1500	2.316
	41.00	1525.0	954.1	123.41	3.0976	2.326
	42.00	1528.0	957.0	123.41	3.0476	2.335
	43.00	1530.8	959.8	123.37	3.0000	2.343
	44.00	1533.8	962.8	123.37	2.9545	2.352
	45.00	1537.1	966.2	123.36	2.9111	2.363
	46.00	1540.2	969.2	123.34	2.8696	2.372
	47.00	1543.1	972.1	123.34	2.8298	2.381
	48.00	1545.9	975.0	123.32	2.7917	2.390
	49.00	1548.0	977.1	123.32	2.7551	2.396
	50.00	1550.6	979.6	123.31	2.7200	2.404
	51.00	1553.4	982.5	123.29	2.6863	2.413
	52.00	1556.1	985.1	123.29	2.6538	2.421
	53.00	1558.3	987.3	123.28	2.6226	2.428
	54.00	1560.4	989.4	123.27	2.5926	2.435
	55.00	1562.2	991.3	123.25	2.5636	2.441
	56.00	1564.2	993.2	123.24	2.5357	2.447
	57.00	1566.2	995.2	123.24	2.5088	2.453
	58.00	1568.4	997.4	123.24	2.4828	2.460
	59.00	1570.1	999.2	123.20	2.4576	2.465
	60.00	1571.7	1000.8	123.22	2.4333	2.470
****** End Shut-in 2	61.00	1573.5	1002.5	123.21	2.4098	2.476
****** Final Hydro.	303.00	1816.9	0.0	123.20		