

Computer Inventoried

ORIGINAL

**WELL NAME:** Bergner # 1-16  
**COMPANY:** Imperial Oil Properties  
**LOCATION:** Sec. 16 Twp. 32S Rge. 18W  
Comanche County Kansas  
**DATE:** 03/03/97

15-033-20925

16-32-18W

**RECEIVED**  
KANSAS CORPORATION COMMISSION

MAY 09 1997

CONSERVATION DIVISION  
WICHITA, KS

TRILOBITE TESTING L.L.C.

OPERATOR : Imperial Oil Properties  
 WELL NAME: Bergner # 1-16  
 LOCATION : 16-32S-18W Comanche KS  
 INTERVAL : 4712.00 To 4738.00 ft

DATE 2/19/97

KB 2144.00 ft TICKET NO: 9685 DST #1  
 GR 2131.00 ft FORMATION: Drum  
 TD 4738.00 ft TEST TYPE: CONV

RECORDER DATA

Mins		Field	1	2	3	4	TIME DATA-----
PF 30	Rec.	11084	11084	10991			PF Fr. 1623 to 1653 hr
BI 60	Range(Psi )	4300.0	4300.0	4200.0	0.0	0.0	IS Fr. 1653 to 1753 hr
BF 60	Clock(hrs)	12 HR	12 HR	12 HR			SF Fr. 1753 to 1853 hr
FS 90	Depth(ft )	4735.0	4735.0	4725.0	0.0	0.0	FS Fr. 1853 to 2023 hr

	Field	1	2	3	4	
A. Init Hydro	2306.0	2304.0	0.0	0.0	0.0	T STARTED 1330 hr
B. First Flow	55.0	53.0	0.0	0.0	0.0	T ON BOTM 1623 hr
B1. Final Flow	55.0	53.0	0.0	0.0	0.0	T OPEN 2020 hr
C. In Shut-in	1681.0	1668.0	0.0	0.0	0.0	T PULLED 2023 hr
D. Init Flow	66.0	78.0	0.0	0.0	0.0	T OUT 2200 hr
E. Final Flow	77.0	75.0	0.0	0.0	0.0	
F. Fl Shut-in	1660.0	1646.0	0.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2252.0	2196.0	0.0	0.0	0.0	Tool Wt. 2100.00 lbs
Inside/Outside	0	0	I			Wt Set On Packer 20000.00 lbs
						Wt Pulled Loose 1020000.00 lbs
						Initial Str Wt 72000.00 lbs
						Unseated Str Wt 72000.00 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 241.00 ft
						D.P. Length 4471.00 ft

RECOVERY

Tot Fluid 190.00 ft of 190.00 ft in DC and 0.00 ft in DP  
 190.00 ft of Gas Cut Muddy Water  
 0.00 ft of 18%gas 40%water 42%mud  
 0.00 ft of  
 SALINITY 10000.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Flow:  
 Strong blow, bottom of bucket instant  
 Gas to surface in 8 mins.

Initial Shut In:

Bled down for 15 mins, blow built to  
 bottom of bucket

Final Flow:

Strong blow

Final Shut In:

Bled down for 15 min, built back to  
 bottom of bucket

SAMPLES:

SENT TO:

MUD DATA-----  
 Mud Type Chmical  
 Weight 9.10 lb/cf  
 Vis. 47.00 S/L  
 W.L. 13.20 in3  
 F.C. 0.00 in  
 Mud Drop  
 Amt. of fill 0.00 ft  
 Btm. H. Temp. 118.00 F  
 Hole Condition  
 % Porosity 0.00  
 Packer Size 6.75 in  
 No. of Packers 2  
 Cushion Amt. 0.00  
 Cushion Type  
 Reversed Out  
 Tool Chased  
 Tester Darren Amerine  
 Co. Rep. Jon T. Williams  
 Contr. Duke  
 Rig # 7  
 Unit #  
 Pump T.

Test Successful: Y



## NATURAL GAS ANALYSIS REPORT

Sampled by:  
Trilobite Testing, L.L.C.  
Hays, Kansas  
Scott City, Kansas  
Phone: 800-728-5369  
Fax: 913-625-5620

Analyzed by:  
Caraway Analytical, L.L.C.  
P. O. Box 2137  
Liberal, Kansas 67905  
Phone: 316-624-5389  
Fax: 316-626-7108

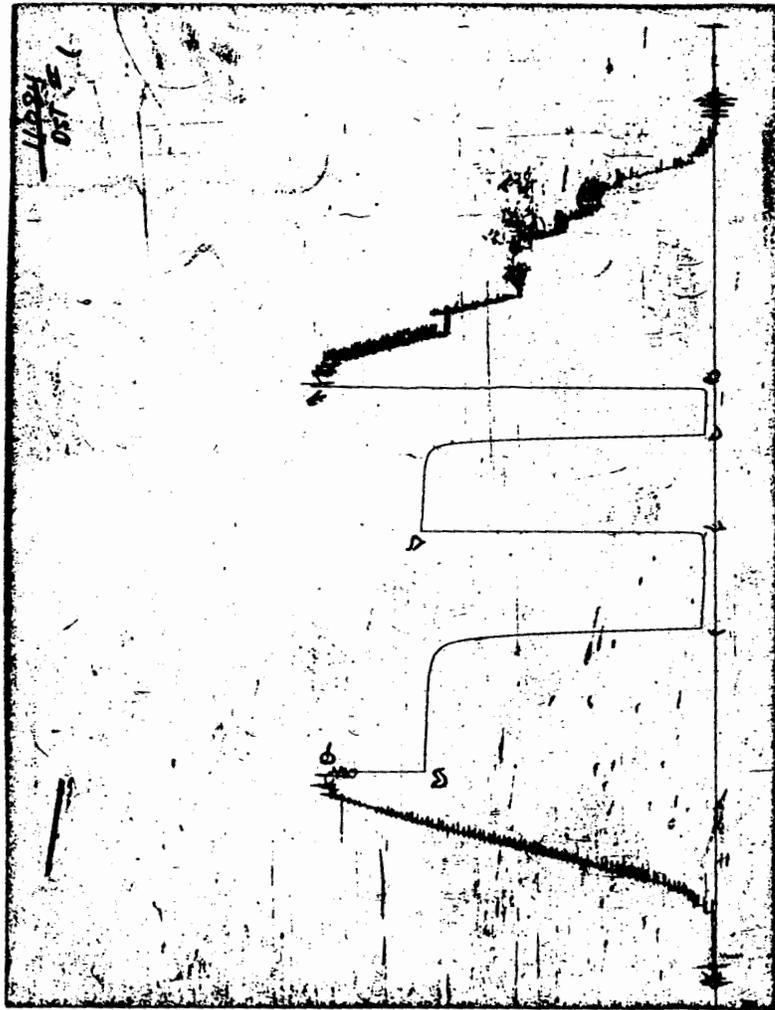
Lab Number:	970108	Analyzed:	02/21/97
Sample From:	Bergner 1-16 DST 1	Pressure:	
Producer:	Imperial Oil Prop.	Temperature:	
Date:		Location:	16-32-18
Time:		County:	Comanche
Sampler:		State:	Kansas
Source:		Formation:	Drum

	Mole %	GPM
Helium	He: 0.262	0.000
Oxygen	O2: 0.000	0.000
Nitrogen	N2: 10.655	0.000
Carbon Dioxide	CO2: 1.214	0.000
Methane	C1: 79.666	0.000
Ethane	C2: 4.184	1.119
Propane	C3: 2.170	0.598
Iso Butane	iC4: 0.317	0.104
Normal Butane	nC4: 0.754	0.238
Iso Pentane	iC5: 0.193	0.071
Normal Pentane	nC5: 0.205	0.074
Hexanes Plus	C6+: 0.380	0.166
TOTAL:	100.000	2.369
Z Fact:	0.9977	
SP.GR.:	0.6848	
BTU (SAT):	990.7 @ 14.73 psia	
BTU (DRY):	1008.2 @ 14.73 psia	
OCTANE RATING:	111.3	

COMMENTS:

0.000

CHART PAGE



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

TRILOBITE TESTING L.L.C.

OPERATOR : Imperial Oil Properties  
 WELL NAME: Bergner 1-16  
 LOCATION : 16-32S-18W Comanche KS  
 INTERVAL : 4904.00 To 4965.00 ft

DATE 2/20/97  
 KB 2144.00 ft TICKET NO: 9686 DST #2  
 GR 2131.00 ft FORMATION:  
 TD 4965.00 ft TEST TYPE: CONV

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	11084	11084	10991			PF Fr. to hr
SI 0 Range(Psi )	4300.0	4300.0	4200.0	0.0	0.0	IS Fr. to hr
SF 0 Clock(hrs)	12 HR	12 HR	12 HR			SF Fr. to hr
FS 0 Depth(ft )	4962.0	4962.0	4910.0	0.0	0.0	FS Fr. to hr

	Field	1	2	3	4	
A. Init Hydro	0.0	0.0	0.0	0.0	0.0	T STARTED 1830 hr
B. First Flow	0.0	0.0	0.0	0.0	0.0	T ON BOTM hr
Bl. Final Flow	0.0	0.0	0.0	0.0	0.0	T OPEN hr
C. In Shut-in	0.0	0.0	0.0	0.0	0.0	T PULLED hr
D. Init Flow	0.0	0.0	0.0	0.0	0.0	T OUT 2300 hr
E. Final Flow	0.0	0.0	0.0	0.0	0.0	
F. Fl Shut-in	0.0	0.0	0.0	0.0	0.0	
G. Final Hydro	0.0	0.0	0.0	0.0	0.0	TOOL DATA-----
Inside/Outside	0	0	I			Tool Wt. 2100.00 lbs
						Wt Set On Packer 25000.00 lbs
						Wt Pulled Loose 0.00 lbs
						Initial Str Wt 0.00 lbs
						Unseated Str Wt 0.00 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 241.00 ft
						D.P. Length 4677.00 ft

RECOVERY

Tot Fluid 0.00 ft of 0.00 ft in DC and 0.00 ft in DP  
 0.00 ft of  
 0.00 ft of

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

BLOW DESCRIPTION

Initial Flow:

Misrun : Hit bridge 4300'

Initial Shut In:

Final Flow:

Final Shut In:

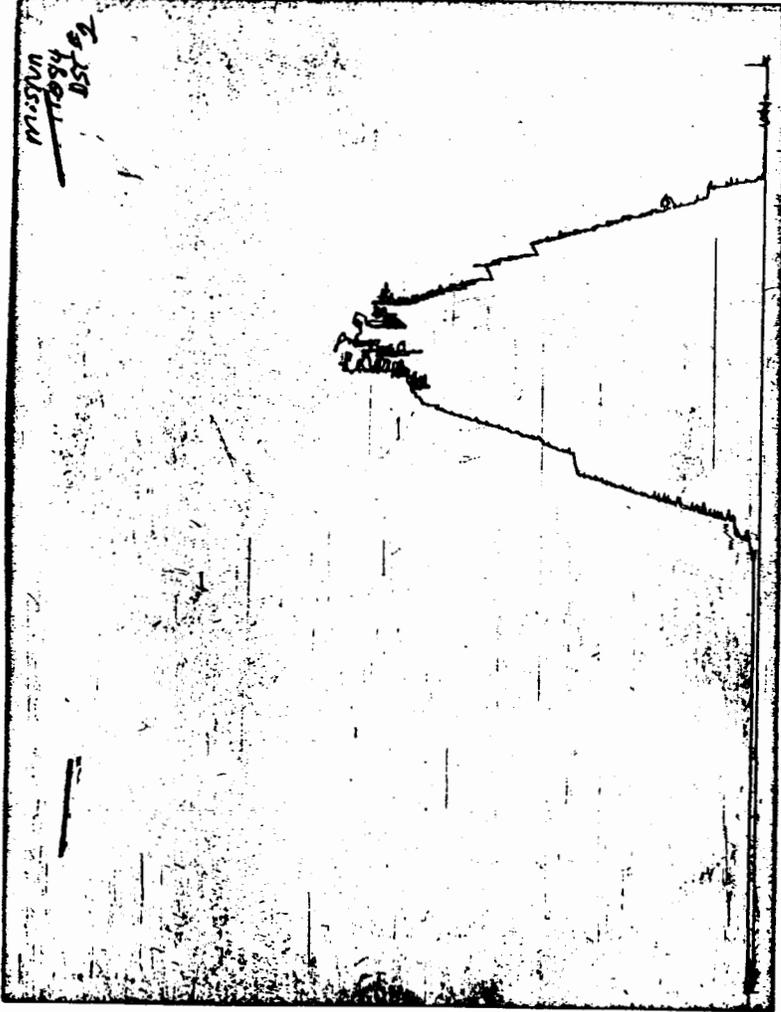
SAMPLES:

SENT TO:

MUD DATA-----  
 Mud Type Chemical  
 Weight 9.20 lb/cf  
 Vis. 49.00 S/L  
 W.L. 11.80 in3  
 F.C. 0.00 in  
 Mud Drop  
 Amt. of fill 0.00 ft  
 Btm. H. Temp. 0.00 F  
 Hole Condition  
 % Porosity 0.00  
 Packer Size 6.75 in  
 No. of Packers 2  
 Cushion Amt. 0.00  
 Cushion Type  
 Reversed Out  
 Tool Chased  
 Tester Darren Amerine  
 Co. Rep. Jon T Williams  
 Contr. Duke  
 Rig # 7  
 Unit #  
 Pump T.

Test Successful: Y

CHART PAGE



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

TRILOBITE TESTING L.L.C.

OPERATOR : Imperial Oil Properties  
 WELL NAME: Bergner 1-16  
 LOCATION : 16-32S-18W Comanche KS  
 INTERVAL : 4904.00 To 4965.00 ft

DATE 2/21/97  
 KB 2144.00 ft TICKET NO: 9687 DST #3  
 GR 2131.00 ft FORMATION: Hertha  
 TD 4965.00 ft TEST TYPE: CONV

RECORDER DATA

Mins		Field	1	2	3	4	TIME DATA-----
PF 30	Rec.	13849	13849	10991			PF Fr. 1219 to 1249 hr
SI 45	Range(Psi )	4375.0	4375.0	4200.0	0.0	0.0	IS Fr. 1249 to 1334 hr
SF 45	Clock(hrs)	12 HR	12 HR	12 HR			SF Fr. 1334 to 1419 hr
FS 45	Depth(ft )	4902.0	4902.0	4962.0	0.0	0.0	FS Fr. 1419 to 1504 hr

	Field	1	2	3	4	
A. Init Hydro	2587.0	2636.0	0.0	0.0	0.0	T STARTED 1015 hr
B. First Flow	67.0	78.0	0.0	0.0	0.0	T ON BOTM 1215 hr
B1. Final Flow	67.0	68.0	0.0	0.0	0.0	T OPEN 1219 hr
C. In Shut-in	1657.0	1662.0	0.0	0.0	0.0	T PULLED 1504 hr
D. Init Flow	78.0	95.0	0.0	0.0	0.0	T OUT 1800 hr
E. Final Flow	78.0	86.0	0.0	0.0	0.0	
F. Fl Shut-in	1591.0	1600.0	0.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2478.0	2426.0	0.0	0.0	0.0	Tool Wt. 2100.00 lbs
Inside/Outside	I	I	O			Wt Set On Packer 25000.00 lbs
						Wt Pulled Loose 100000.00 lbs
						Initial Str Wt 75000.00 lbs
						Unseated Str Wt 75000.00 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 241.00 ft
						D.P. Length 4677.00 ft

RECOVERY

Tot Fluid 90.00 ft of 90.00 ft in DC and 0.00 ft in DP  
 90.00 ft of Water Cut Mud 40%water 60% mud  
 0.00 ft of  
 0.00 ft of .3 @ 52F  
 SALINITY 30000.00 P.P.M. A.P.I. Gravity 0.00

MUD DATA-----

Mud Type	Chemical
Weight	9.00 lb/cf
Vis.	65.00 S/L
W.L.	10.40 in3
F.C.	0.00 in
Mud Drop	
Amt. of fill	0.00 ft
Btm. H. Temp.	0.00 F
Hole Condition	
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out	
Tool Chased	
Tester	Darren Amerine
Co. Rep.	Jon T Williams
Contr.	Duke
Rig #	7
Unit #	
Pump T.	

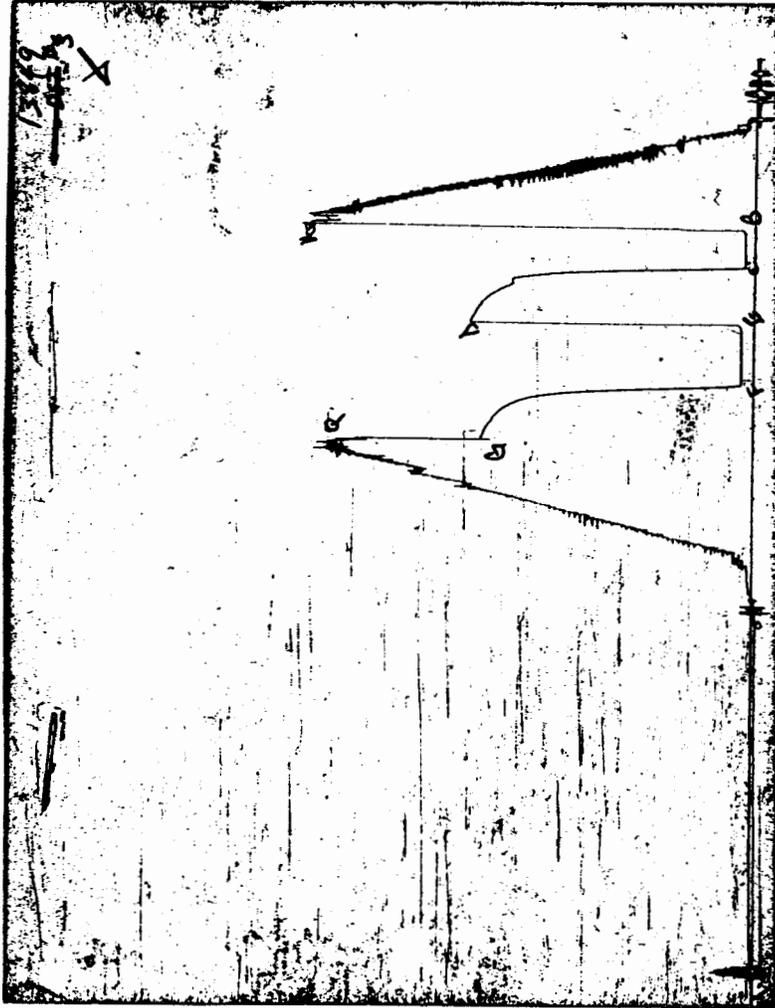
BLOW DESCRIPTION

Initial Flow:  
 Weak surface blow, built to 1" in water.  
 Initial Shut In:  
 No blow back  
 Final Flow:  
 Weak surface blow, built to .75"- .5" in water  
 Final Shut In:  
 Slight blow back, surface blow

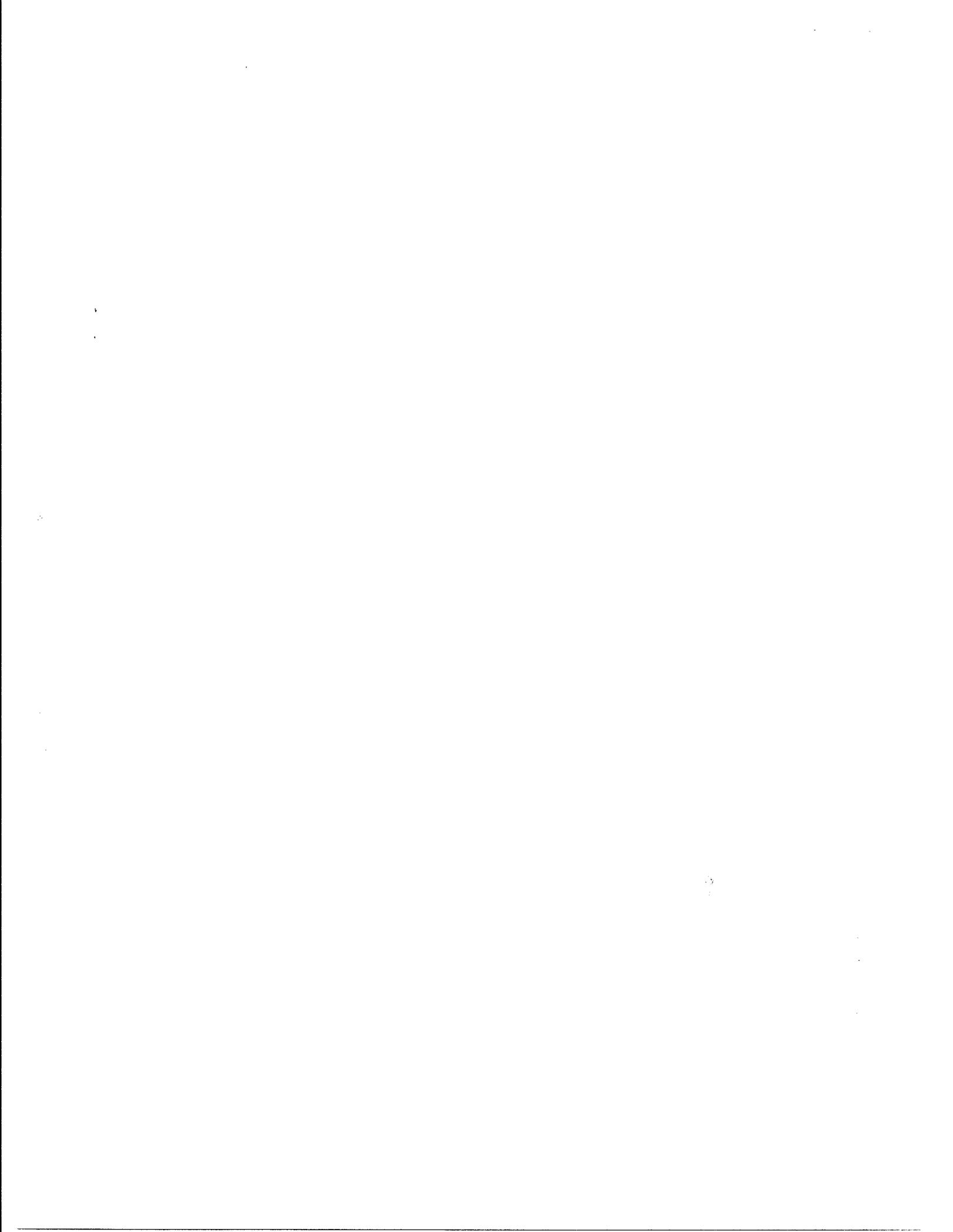
SAMPLES:  
 SENT TO:

Test Successful: Y

CHART PAGE



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



TRILOBITE TESTING L.L.C.

OPERATOR : Imperial Oil Properties  
 WELL NAME: Bergner #1-16  
 LOCATION : 16-32s-18w  
 INTERVAL : 5035.00 To 5059.00 ft

DATE 2/22/97

KB 2144.00 ft TICKET NO: 9688 DST #4  
 GR 2131.00 ft FORMATION: Marmaton(Altamont)  
 TD 5059.00 ft TEST TYPE: CONV.

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	11084	11084	2350			PF Fr. 0826 to 0856 hr
SI 60 Range(Psi )	4300.0	4300.0	4995.0	0.0	0.0	IS Fr. 0856 to 0956 hr
SF 60 Clock(hrs)	12 hr	12 hr	Elec			SF Fr. 0956 to 1056 hr
FS 90 Depth(ft )	5056.0	5056.0	5040.0	0.0	0.0	FS Fr. 1056 to 1226 hr

	Field	1	2	3	4	
A. Init Hydro	2511.0	2497.0	2467.0	0.0	0.0	T STARTED 0613 hr
B. First Flow	66.0	59.0	34.0	0.0	0.0	T ON BOTM 0824 hr
B1. Final Flow	66.0	50.0	47.0	0.0	0.0	T OPEN 0826 hr
C. In Shut-in	395.0	397.0	404.0	0.0	0.0	T PULLED 1226 hr
D. Init Flow	66.0	58.0	45.0	0.0	0.0	T OUT 1430 hr
E. Final Flow	66.0	58.0	58.0	0.0	0.0	
F. Fl Shut-in	710.0	696.0	696.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2371.0	2327.0	2382.0	0.0	0.0	Tool Wt. 2100.00 lbs
Inside/Outside	0	0	I			Wt Set On Packer 25000.00 lbs
						Wt Pulled Loose 98000.00 lbs
						Initial Str Wt 75000.00 lbs
						Unseated Str Wt 77000.00 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 241.00 ft
						D.P. Length 4775.00 ft

RECOVERY

Tot Fluid 70.00 ft of 70.00 ft in DC and 0.00 ft in DP  
 70.00 ft of Very Slight Oil Cut Watery Mud  
 0.00 ft of 10%gas 4%oil 14%water 72%mud  
 0.00 ft of  
 13300.00 ft of Gas in pipe  
 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:  
 Strong blow, bottom of bucket in  
 1 1/2 mins

Initial Shut In:  
 Bled down for 10 mins, came back to  
 1/2 inch in water

Final Flow:  
 Strong blow, bottom of bucket in 25sec

Final Shut In:  
 Bled down for 10 mins, came back to  
 3 1/2 inches in water

SAMPLES:  
 SENT TO:

MUD DATA-----

Mud Type	Chemical
Weight	9.10 lb/ci
Vis.	56.00 S/L
W.L.	10.50 in3
F.C.	0.00 in
Mud Drop	
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	
Tool Chased	
Tester	Darren Amerine
Co. Rep.	Jon T. Williams
Contr.	Duke
Rig #	7
Unit #	
Pump T.	

Test Successful: Y



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 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: #9688 Bergner #1-16 DST#4 Imperial Oil Prop.

DATE: 02/22/97 TIME: 06:14:30  
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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.	133.00	2467.2	0.0	101.64		
***** Start Flow 1	0.00	34.3	0.0	102.58		
	1.00	35.0	0.7	103.35		
	2.00	35.9	1.6	104.13		
	3.00	37.1	2.8	104.79		
	4.00	38.3	3.9	105.31		
	5.00	38.8	4.5	105.72		
	6.00	39.4	5.1	106.01		
	7.00	39.9	5.5	106.24		
	8.00	40.0	5.7	106.41		
	9.00	40.2	5.9	106.54		
	10.00	40.3	6.0	106.65		
	11.00	42.1	7.8	106.74		
	12.00	42.5	8.2	106.80		
	13.00	42.0	7.6	106.88		
	14.00	41.5	7.2	106.93		
	15.00	41.7	7.4	106.99		
	16.00	42.5	8.1	107.03		
	17.00	42.6	8.3	107.07		
	18.00	43.1	8.8	107.10		
	19.00	43.2	8.9	107.15		
	20.00	42.7	8.4	107.19		
	21.00	42.2	7.9	107.23		
	22.00	42.6	8.3	107.27		
	23.00	43.7	9.4	107.30		
	24.00	42.7	8.4	107.32		
	25.00	42.9	8.6	107.35		
	26.00	44.5	10.2	107.37		
	27.00	44.3	10	107.41		
	28.00	43.9	9.6	107.45		
***** End Flow 1	29.00	47.2	12.8	107.49		
***** Start Shutin 1	0.00	47.2	0.0	107.49	0.0000	0.002
	1.00	54.4	7.2	107.54	30.0000	0.003
	2.00	61.2	14.0	107.58	15.5000	0.004
	3.00	68.2	21.1	107.61	10.6667	0.005
	4.00	74.5	27.4	107.64	8.2500	0.006
	5.00	81.1	33.9	107.68	6.8000	0.007
	6.00	87.7	40.5	107.70	5.8333	0.008
	7.00	94.2	47.1	107.74	5.1429	0.009
	8.00	100.7	53.5	107.79	4.6250	0.010
	9.00	107.3	60.1	107.83	4.2222	0.012
	10.00	113.7	66.6	107.88	3.9000	0.013
	11.00	120.1	72.9	107.92	3.6364	0.014
	12.00	126.3	79.1	107.98	3.4167	0.016
	13.00	132.6	85.4	108.03	3.2308	0.018
	14.00	139.1	91.9	108.09	3.0714	0.019
	15.00	145.4	98.2	108.14	2.9333	0.021
	16.00	151.7	104.6	108.20	2.8125	0.023
	17.00	158.1	111.0	108.25	2.7059	0.025
	18.00	164.1	116.9	108.31	2.6111	0.027
	19.00	170.8	123.6	108.36	2.5263	0.029

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: #9688 Bergner #1-16 DST#4 Imperial Oil Prop.

DATE: 02/22/97 TIME: 06:14:30

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
	20.00	176.7	129.6	108.41	2.4500	0.031
	21.00	182.7	135.5	108.46	2.3810	0.033
	22.00	189.2	142.1	108.51	2.3182	0.036
	23.00	195.5	148.3	108.57	2.2609	0.038
	24.00	201.5	154.3	108.62	2.2083	0.041
	25.00	207.7	160.6	108.67	2.1600	0.043
	26.00	213.9	166.8	108.72	2.1154	0.046
	27.00	220.1	173.0	108.76	2.0741	0.048
	28.00	226.2	179.0	108.82	2.0357	0.051
	29.00	232.4	185.2	108.86	2.0000	0.054
	30.00	238.7	191.5	108.91	1.9667	0.057
	31.00	244.8	197.6	108.96	1.9355	0.060
	32.00	251.1	203.9	109.01	1.9062	0.063
	33.00	257.1	210.0	109.05	1.8788	0.066
	34.00	263.3	216.1	109.09	1.8529	0.069
	35.00	269.7	222.5	109.14	1.8286	0.073
	36.00	275.7	228.5	109.19	1.8056	0.076
	37.00	281.8	234.7	109.23	1.7838	0.079
	38.00	287.8	240.6	109.28	1.7632	0.083
	39.00	294.0	246.8	109.32	1.7436	0.086
	40.00	300.0	252.9	109.36	1.7250	0.090
	41.00	306.0	258.8	109.40	1.7073	0.094
	42.00	311.9	264.7	109.45	1.6905	0.097
	43.00	317.9	270.8	109.49	1.6744	0.101
	44.00	323.7	276.5	109.53	1.6591	0.105
	45.00	329.4	282.2	109.58	1.6444	0.109
	46.00	335.3	288.1	109.61	1.6304	0.112
	47.00	341.1	293.9	109.66	1.6170	0.116
	48.00	346.9	299.7	109.69	1.6042	0.120
	49.00	352.6	305.4	109.74	1.5918	0.124
	50.00	358.1	311.0	109.78	1.5800	0.128
	51.00	363.7	316.5	109.82	1.5686	0.132
	52.00	369.1	321.9	109.86	1.5577	0.136
	53.00	374.6	327.5	109.90	1.5472	0.140
	54.00	380.0	332.9	109.94	1.5370	0.144
	55.00	385.1	338.0	109.97	1.5273	0.148
	56.00	390.2	343.0	110.02	1.5179	0.152
	57.00	395.0	347.9	110.06	1.5088	0.156
	58.00	399.9	352.7	110.10	1.5000	0.160
***** End Shut-in 1	59.00	404.3	357.1	110.13	1.4915	0.163
***** Start Flow 2	0.00	45.5	0.0	110.16		
	1.00	46.7	1.2	110.16		
	2.00	49.6	4.1	110.16		
	3.00	49.8	4.4	110.16		
	4.00	50.0	4.5	110.17		
	5.00	51.4	5.9	110.19		
	6.00	50.7	5.2	110.22		
	7.00	50.7	5.2	110.24		
	8.00	50.8	5.3	110.28		
	9.00	51.0	5.5	110.32		
	10.00	51.4	5.9	110.35		

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 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: #9688 Bergner #1-16 DST#4 Imperial Oil Prop.

DATE: 02/22/97 TIME: 06:14:30  
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	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
	11.00	51.9	6.5	110.39		
	12.00	53.0	7.6	110.43		
	13.00	51.7	6.2	110.48		
	14.00	51.4	5.9	110.52		
	15.00	51.9	6.4	110.57		
	16.00	52.3	6.8	110.62		
	17.00	52.2	6.7	110.67		
	18.00	52.7	7.2	110.71		
	19.00	52.5	7.0	110.75		
	20.00	52.4	7.0	110.79		
	21.00	52.7	7.2	110.81		
	22.00	52.7	7.2	110.84		
	23.00	51.9	6.5	110.87		
	24.00	53.0	7.6	110.91		
	25.00	53.7	8.2	110.95		
	26.00	52.9	7.5	110.99		
	27.00	52.8	7.3	111.05		
	28.00	53.0	7.6	111.10		
	29.00	52.9	7.5	111.14		
	30.00	53.1	7.6	111.20		
	31.00	54.0	8.6	111.26		
	32.00	53.5	8.1	111.30		
	33.00	53.1	7.6	111.35		
	34.00	53.5	8.1	111.40		
	35.00	54.6	9.1	111.45		
	36.00	54.3	8.8	111.51		
	37.00	54.4	8.9	111.56		
	38.00	54.7	9.2	111.61		
	39.00	54.6	9.1	111.66		
	40.00	54.3	8.8	111.71		
	41.00	55.5	10	111.77		
	42.00	55.0	9.5	111.81		
	43.00	54.5	9.0	111.86		
	44.00	54.7	9.2	111.91		
	45.00	54.9	9.4	111.96		
	46.00	55.4	9.9	112.00		
	47.00	55.4	9.9	112.06		
	48.00	55.6	10.2	112.10		
	49.00	56.3	10.8	112.15		
	50.00	55.5	10	112.20		
	51.00	56.1	10.6	112.24		
	52.00	56.1	10.6	112.29		
	53.00	56.0	10.6	112.33		
	54.00	56.0	10.5	112.39		
	55.00	55.7	10.2	112.43		
	56.00	56.2	10.7	112.47		
	57.00	56.4	10.9	112.52		
	58.00	57.2	11.7	112.57		
***** End Flow 2	59.00	57.9	12.4	112.61		
***** Start Shutin 2	0.00	57.9	0.0	112.61	0.0000	0.003
	1.00	63.7	5.8	112.65	89.0000	0.004

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: #9688 Bergner #1-16 DST#4 Imperial Oil Prop.

DATE: 02/22/97

TIME: 06:14:30

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P <sup>2</sup> /10 <sup>6</sup>
2.00	71.9	14.0	112.70	45.0000	0.005
3.00	79.8	21.9	112.75	30.3333	0.006
4.00	87.7	29.8	112.79	23.0000	0.008
5.00	95.3	37.4	112.83	18.6000	0.009
6.00	102.9	45.0	112.88	15.6667	0.011
7.00	110.6	52.7	112.93	13.5714	0.012
8.00	117.9	60.0	112.96	12.0000	0.014
9.00	118.2	60.3	113.01	10.7778	0.014
10.00	125.7	67.8	113.05	9.8000	0.016
11.00	132.9	75.0	113.10	9.0000	0.018
12.00	140.2	82.2	113.15	8.3333	0.020
13.00	147.3	89.4	113.19	7.7692	0.022
14.00	154.4	96.5	113.23	7.2857	0.024
15.00	161.5	103.6	113.26	6.8667	0.026
16.00	168.5	110.6	113.32	6.5000	0.028
17.00	175.5	117.6	113.34	6.1765	0.031
18.00	182.5	124.5	113.38	5.8889	0.033
19.00	189.5	131.6	113.42	5.6316	0.036
20.00	196.4	138.5	113.47	5.4000	0.039
21.00	203.3	145.4	113.50	5.1905	0.041
22.00	210.1	152.2	113.54	5.0000	0.044
23.00	216.9	159.0	113.57	4.8261	0.047
24.00	223.6	165.7	113.61	4.6667	0.050
25.00	230.1	172.2	113.64	4.5200	0.053
26.00	236.7	178.8	113.67	4.3846	0.056
27.00	243.2	185.3	113.71	4.2593	0.059
28.00	249.7	191.8	113.74	4.1429	0.062
29.00	256.1	198.2	113.76	4.0345	0.066
30.00	262.5	204.6	113.79	3.9333	0.069
31.00	269.0	211.1	113.82	3.8387	0.072
32.00	275.3	217.4	113.86	3.7500	0.076
33.00	281.4	223.5	113.89	3.6667	0.079
34.00	287.4	229.5	113.91	3.5882	0.083
35.00	293.4	235.5	113.95	3.5143	0.086
36.00	299.4	241.5	113.97	3.4444	0.090
37.00	305.2	247.3	114.01	3.3784	0.093
38.00	311.0	253.1	114.04	3.3158	0.097
39.00	316.7	258.8	114.06	3.2564	0.100
40.00	322.3	264.4	114.09	3.2000	0.104
41.00	327.9	270.0	114.11	3.1463	0.108
42.00	333.4	275.5	114.14	3.0952	0.111
43.00	338.8	280.9	114.17	3.0465	0.115
44.00	344.3	286.4	114.20	3.0000	0.119
45.00	349.5	291.6	114.22	2.9556	0.122
46.00	354.6	296.7	114.24	2.9130	0.126
47.00	359.8	301.9	114.27	2.8723	0.129
48.00	364.8	306.9	114.30	2.8333	0.133
49.00	369.8	311.9	114.32	2.7959	0.137
50.00	374.7	316.8	114.35	2.7600	0.140
51.00	379.8	321.9	114.37	2.7255	0.144
52.00	384.5	326.6	114.40	2.6923	0.148

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 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: #9688 Bergner #1-16 DST#4 Imperial Oil Prop.

DATE: 02/22/97 TIME: 06:14:30  
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	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P <sup>2</sup> /10 <sup>6</sup>	
	53.00	389.4	331.5	114.42	2.6604	0.152	
	54.00	394.5	336.6	114.44	2.6296	0.156	
	55.00	399.2	341.3	114.47	2.6000	0.159	
	56.00	403.8	345.9	114.49	2.5714	0.163	
	57.00	408.3	350.4	114.51	2.5439	0.167	
	58.00	412.4	354.5	114.54	2.5172	0.170	
	59.00	416.3	358.4	114.56	2.4915	0.173	
	60.00	420.1	362.2	114.59	2.4667	0.177	
	61.00	424.0	366.1	114.61	2.4426	0.180	
	62.00	427.9	370.0	114.62	2.4194	0.183	
	63.00	431.6	373.7	114.66	2.3968	0.186	
	64.00	435.2	377.3	114.68	2.3750	0.189	
	65.00	438.9	381.0	114.70	2.3538	0.193	
	66.00	442.5	384.6	114.72	2.3333	0.196	
	67.00	446.0	388.1	114.74	2.3134	0.199	
	68.00	449.3	391.4	114.77	2.2941	0.202	
	69.00	456.6	398.7	114.80	2.2754	0.208	
	70.00	465.0	407.0	114.81	2.2571	0.216	
	71.00	474.4	416.5	114.83	2.2394	0.225	
	72.00	485.3	427.4	114.85	2.2222	0.236	
	73.00	497.6	439.7	114.88	2.2055	0.248	
	74.00	509.3	451.4	114.89	2.1892	0.259	
	75.00	520.7	462.8	114.93	2.1733	0.271	
	76.00	528.0	470.1	114.95	2.1579	0.279	
	77.00	535.4	477.5	114.96	2.1429	0.287	
	78.00	544.3	486.4	115.00	2.1282	0.296	
	79.00	553.7	495.8	115.02	2.1139	0.307	
	80.00	564.9	507.0	115.04	2.1000	0.319	
	81.00	576.5	518.6	115.06	2.0864	0.332	
	82.00	587.9	530.0	115.07	2.0732	0.346	
	83.00	599.2	541.3	115.11	2.0602	0.359	
	84.00	610.1	552.2	115.13	2.0476	0.372	
	85.00	621.2	563.3	115.15	2.0353	0.386	
	86.00	632.1	574.2	115.17	2.0233	0.400	
	87.00	643.0	585.1	115.20	2.0115	0.413	
	88.00	653.7	595.8	115.21	2.0000	0.427	
	89.00	664.3	606.4	115.24	1.9888	0.441	
	90.00	675.1	617.2	115.27	1.9778	0.456	
	91.00	685.4	627.5	115.28	1.9670	0.470	
*****	End Shut-in 2	92.00	696.1	638.2	115.31	1.9565	0.485
*****	Final Hydro.	376.00	2382.1	0.0	115.37		



# TEST HISTORY

#9688 Bergner #1-16 DST#4 Imperial Oil Prop.

## Flag Points

t (Min.)	P (PSig)
A: 0.00	2467.22
B: 0.00	34.32
C: 29.00	47.16
D: 59.00	404.27
E: 0.00	45.48
F: 59.00	57.98
G: 92.00	696.09
Q: 0.00	2382.11

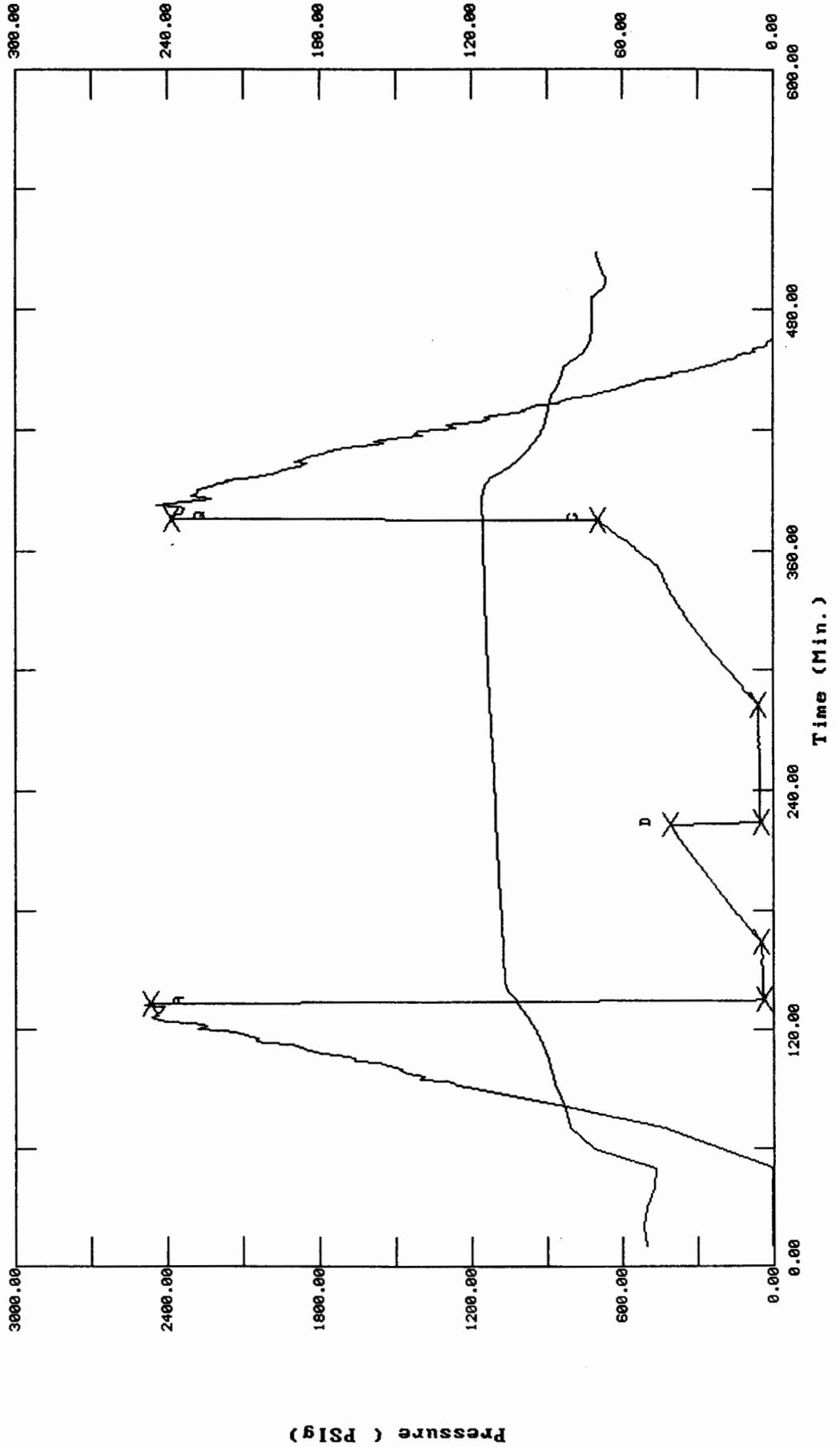
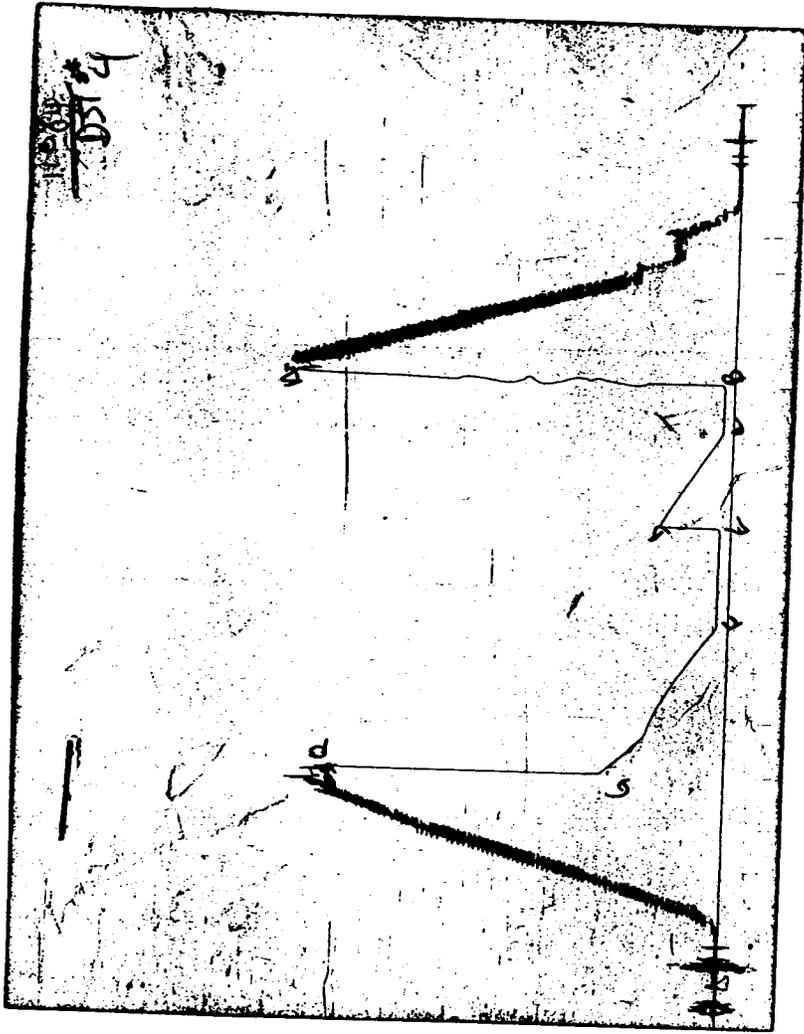


CHART PAGE



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

TRILOBITE TESTING L.L.C.

OPERATOR : Imperial Oil Properties  
 WELL NAME: Bergner # 1-16  
 LOCATION : 16-32S-18W Comanche KS  
 INTERVAL : 5080.00 To 5116.00 ft

DATE 2/23/97  
 KB 2144.00 ft TICKET NO: 9689 DST #5  
 GR 2131.00 ft FORMATION: Pawnee  
 TD 5116.00 ft TEST TYPE: CONV

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	11084	11084	2350			PF Fr. 0240 to 0310 hr
SI 60 Range (Psi )	4300.0	4300.0	4995.0	0.0	0.0	IS Fr. 0210 to 0410 hr
SF 60 Clock (hrs)	12 HR	12 HR	12 HR			SF Fr. 0410 to 0510 hr
FS 60 Depth (ft )	5113.0	5113.0	5085.0	0.0	0.0	FS Fr. 0510 to 0610 hr

	Field	1	2	3	4	
A. Init Hydro	2414.0	2508.0	240.0	0.0	0.0	T STARTED 1227 hr
B. First Flow	77.0	77.0	41.0	0.0	0.0	T ON BOTM 0230 hr
B1. Final Flow	88.0	80.0	73.0	0.0	0.0	T OPEN 0240 hr
C. In Shut-in	1099.0	1095.0	1098.0	0.0	0.0	T PULLED 0610 hr
D. Init Flow	99.0	99.0	72.0	0.0	0.0	T OUT 0830 hr
E. Final Flow	121.0	113.0	104.0	0.0	0.0	
F. Fl Shut-in	1024.0	1015.0	1000.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2425.0	2421.0	2428.0	0.0	0.0	Tool Wt. 2100.00 lbs
Inside/Outside	0	0	I			Wt Set On Packer 25000.00 lbs
						Wt Pulled Loose 110000.00 lbs
						Initial Str Wt 75000.00 lbs
						Unseated Str Wt 75000.00 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 241.00 ft
						D.P. Length 4842.00 ft

RECOVERY

Tot Fluid 130.00 ft of 130.00 ft in DC and 0.00 ft in DP  
 100.00 ft of Very slight Gas Cut Mud  
 0.00 ft of 2%water 98%mud  
 0.00 ft of  
 30.00 ft of Slight Gassy Watery Mud  
 0.00 ft of 10%gas 30%water 60%mud  
 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 surface blow

Initial Shut In:  
 Bled down, went back to check, Suspect  
 some plugging action

Final Flow:  
 Strong blow, bottom of bucket in  
 1.5 mins

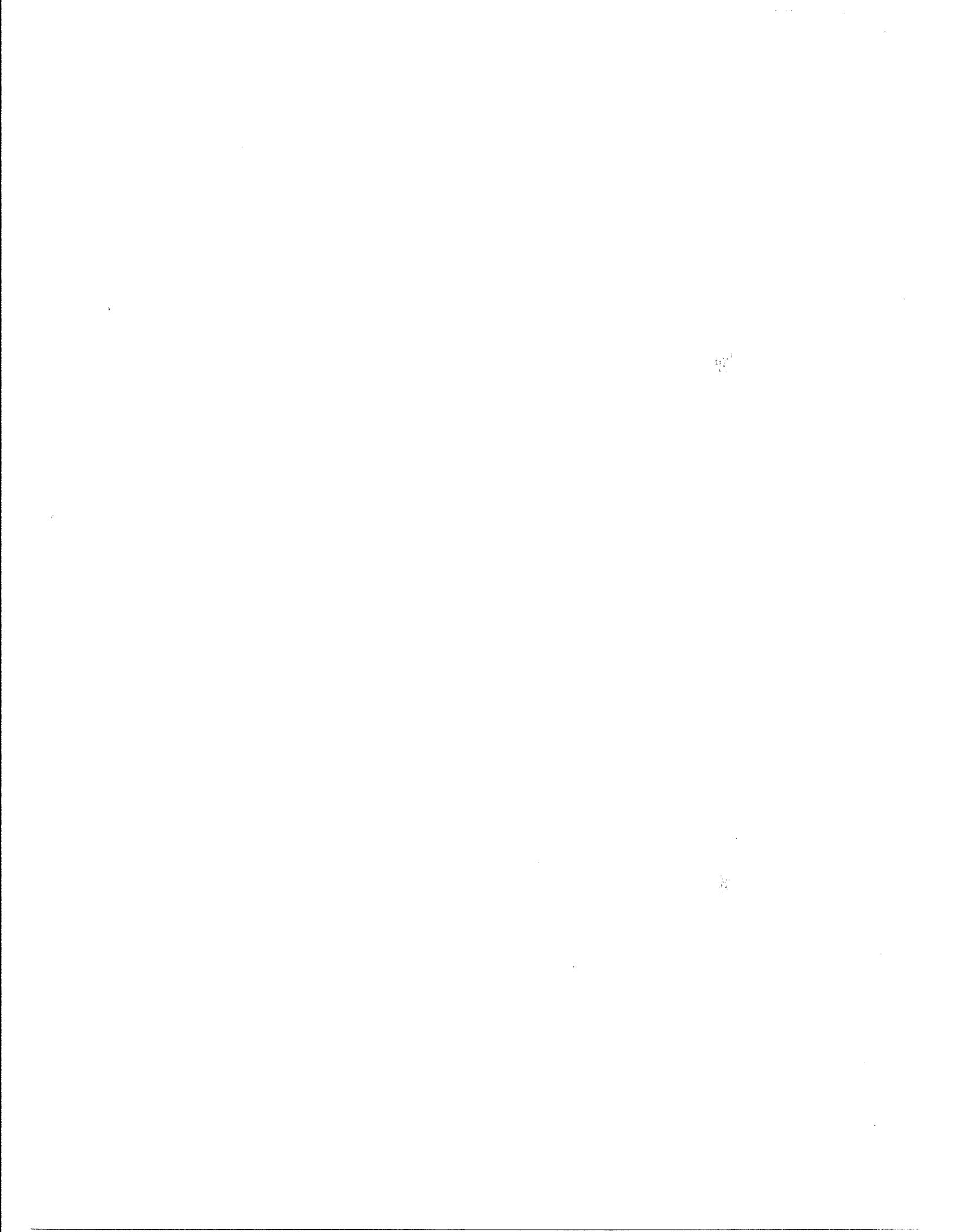
Final Shut In:  
 Bled down for 10 mins, weak surface  
 blow.

SAMPLES:  
 SENT TO:

Test Successful: Y

MUD DATA-----

Mud Type	Chemical
Weight	9.00 lb/cf
Vis.	51.00 S/L
W.L.	11.10 in3
F.C.	0.00 in
Mud Drop	
Amt. of fill	0.00 ft
Btm. H. Temp.	118.00 F
Hole Condition	
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out	
Tool Chased	
Tester	Darren Amerine
Co. Rep.	Jon T Williams
Contr.	Duke
Rig #	7
Unit #	
Pump T.	



ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: #9689 Bergner #1-16 DST#5 Imperial Oil.Prop.

DATE: 02/23/97 TIME: 00:28:13

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** Initial Hydro.	132.00	2450.3	0.0	103.96		
***** Start Flow 1	0.00	41.3	0.0	104.44		
	1.00	42.5	1.2	105.03		
	2.00	43.5	2.2	105.63		
	3.00	46.1	4.8	106.14		
	4.00	46.5	5.2	106.53		
	5.00	48.5	7.2	106.80		
	6.00	50.4	9.1	106.99		
	7.00	51.4	10.1	107.14		
	8.00	51.5	10.2	107.25		
	9.00	53.1	11.8	107.33		
	10.00	53.8	12.5	107.41		
	11.00	54.7	13.4	107.49		
	12.00	55.7	14.4	107.56		
	13.00	56.6	15.3	107.63		
	14.00	56.7	15.4	107.72		
	15.00	58.7	17.5	107.83		
	16.00	58.2	17.0	107.93		
	17.00	59.6	18.3	108.03		
	18.00	59.4	18.1	108.14		
	19.00	60.1	18.8	108.25		
	20.00	60.7	19.4	108.35		
	21.00	61.2	19.9	108.47		
	22.00	61.9	20.6	108.58		
	23.00	62.9	21.6	108.69		
	24.00	63.5	22.2	108.80		
	25.00	63.9	22.7	108.91		
	26.00	64.7	23.4	109.02		
	27.00	65.4	24.1	109.13		
	28.00	66.0	24.7	109.25		
	29.00	66.6	25.3	109.35		
	30.00	67.0	25.7	109.47		
	31.00	67.6	26.4	109.58		
	32.00	68.1	26.9	109.68		
***** End Flow 1	33.00	72.6	31.3	109.79		
***** Start Shutin 1	0.00	72.6	0.0	109.79	0.0000	0.005
	1.00	92.2	19.6	109.90	34.0000	0.009
	2.00	111.5	38.9	110.00	17.5000	0.012
	3.00	130.7	58.1	110.10	12.0000	0.017
	4.00	150.1	77.5	110.21	9.2500	0.023
	5.00	169.3	96.7	110.31	7.6000	0.029
	6.00	188.2	115.7	110.41	6.5000	0.035
	7.00	206.8	134.2	110.52	5.7143	0.043
	8.00	225.3	152.7	110.61	5.1250	0.051
	9.00	243.9	171.3	110.71	4.6667	0.059
	10.00	262.7	190.1	110.80	4.3000	0.069
	11.00	281.6	209.0	110.89	4.0000	0.079
	12.00	300.6	228.0	110.97	3.7500	0.090
	13.00	319.8	247.3	111.06	3.5385	0.102
	14.00	339.0	266.4	111.12	3.3571	0.115
	15.00	358.2	285.6	111.21	3.2000	0.128

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: #9689 Bergner #1-16 DST#5 Imperial Oil.Prop.

DATE: 02/23/97 TIME: 00:28:13

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P <sup>2</sup> /10 <sup>6</sup>
16.00	377.5	304.9	111.28	3.0625	0.143
17.00	396.6	324.0	111.35	2.9412	0.157
18.00	415.9	343.3	111.42	2.8333	0.173
19.00	435.0	362.4	111.48	2.7368	0.189
20.00	453.9	381.3	111.55	2.6500	0.206
21.00	472.3	399.7	111.61	2.5714	0.223
22.00	491.0	418.4	111.66	2.5000	0.241
23.00	514.0	441.5	111.72	2.4348	0.264
24.00	537.0	464.5	111.77	2.3750	0.288
25.00	559.3	486.7	111.83	2.3200	0.313
26.00	581.0	508.4	111.87	2.2692	0.338
27.00	602.3	529.7	111.92	2.2222	0.363
28.00	623.2	550.6	111.97	2.1786	0.388
29.00	644.1	571.5	112.02	2.1379	0.415
30.00	664.6	592.0	112.06	2.1000	0.442
31.00	684.8	612.3	112.20	2.0645	0.469
32.00	704.8	632.2	112.15	2.0312	0.497
33.00	724.5	651.9	112.20	2.0000	0.525
34.00	743.7	671.1	112.23	1.9706	0.553
35.00	762.8	690.2	112.27	1.9429	0.582
36.00	781.7	709.1	112.30	1.9167	0.611
37.00	800.2	727.7	112.34	1.8919	0.640
38.00	818.5	745.9	112.38	1.8684	0.670
39.00	836.3	763.7	112.42	1.8462	0.699
40.00	853.9	781.3	112.45	1.8250	0.729
41.00	871.2	798.6	112.49	1.8049	0.759
42.00	888.1	815.5	112.52	1.7857	0.789
43.00	904.8	832.2	112.55	1.7674	0.819
44.00	921.3	848.7	112.59	1.7500	0.849
45.00	937.6	865.0	112.62	1.7333	0.879
46.00	953.6	881.0	112.64	1.7174	0.909
47.00	969.2	896.6	112.67	1.7021	0.939
48.00	984.6	912.0	112.70	1.6875	0.970
49.00	999.6	927.0	112.73	1.6735	0.999
50.00	1014.3	941.7	112.77	1.6600	1.029
51.00	1028.8	956.2	112.78	1.6471	1.058
52.00	1043.3	970.7	112.82	1.6346	1.088
53.00	1057.4	984.8	112.85	1.6226	1.118
54.00	1071.3	998.7	112.88	1.6111	1.148
55.00	1084.8	1012.3	112.90	1.6000	1.177
56.00	1098.4	1025.8	112.95	1.5893	1.206
***** End Shut-in 1					
***** Start Flow 2					
0.00	72.6	0.0	112.92		
1.00	75.4	2.9	112.90		
2.00	79.8	7.2	112.88		
3.00	81.8	9.2	112.89		
4.00	82.4	9.8	112.91		
5.00	82.9	10.3	112.94		
6.00	83.6	11.0	112.98		
7.00	76.9	4.3	113.05		
8.00	77.5	5.0	113.14		
9.00	77.8	5.2	113.22		

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 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: #9689 Bergner #1-16 DST#5 Imperial Oil.Prop.

DATE: 02/23/97 TIME: 00:28:13  
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Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P <sup>2</sup> /10 <sup>6</sup>
10.00	78.1	5.5	113.30		
11.00	78.2	5.6	113.40		
12.00	78.5	6.0	113.49		
13.00	79.1	6.5	113.57		
14.00	79.3	6.7	113.65		
15.00	79.8	7.2	113.73		
16.00	79.9	7.3	113.81		
17.00	80.2	7.6	113.90		
18.00	80.5	7.9	113.98		
19.00	81.2	8.6	114.06		
20.00	81.6	9.0	114.14		
21.00	81.7	9.1	114.22		
22.00	82.0	9.4	114.30		
23.00	82.2	9.7	114.38		
24.00	82.9	10.3	114.45		
25.00	83.0	10.4	114.52		
26.00	83.4	10.8	114.58		
27.00	83.8	11.2	114.64		
28.00	84.2	11.6	114.70		
29.00	84.3	11.7	114.76		
30.00	84.7	12.1	114.82		
31.00	84.9	12.3	114.88		
32.00	85.0	12.4	114.93		
33.00	85.6	13.0	114.99		
34.00	85.7	13.1	115.04		
35.00	86.1	13.5	115.09		
36.00	86.4	13.8	115.14		
37.00	86.6	14.0	115.19		
38.00	87.1	14.5	115.23		
39.00	87.4	14.9	115.29		
40.00	87.6	15.0	115.34		
41.00	88.2	15.6	115.38		
42.00	88.4	15.8	115.43		
43.00	88.6	16.0	115.47		
44.00	88.7	16.1	115.52		
45.00	89.0	16.4	115.56		
46.00	89.2	16.6	115.60		
47.00	89.7	17.1	115.64		
48.00	90.1	17.5	115.69		
49.00	90.3	17.7	115.73		
50.00	90.5	18.0	115.78		
51.00	91.0	18.4	115.83		
52.00	91.2	18.6	115.89		
53.00	91.3	18.7	115.95		
54.00	91.6	19.1	116.01		
55.00	92.1	19.5	116.07		
56.00	92.1	19.5	116.12		
57.00	92.6	20.1	116.19		
58.00	92.8	20.2	116.23		
59.00	93.0	20.4	116.28		
60.00	103.8	31.2	116.33		

\*\*\*\*\* End Flow 2

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: #9689 Bergner #1-16 DST#5 Imperial Oil.Prop.

DATE: 02/23/97

TIME: 00:28:13

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P <sup>2</sup> /10 <sup>6</sup>
***** Start Shutin 2	0.00	103.8	0.0	116.33	0.0000	0.011
	1.00	123.0	19.2	116.37	94.0000	0.015
	2.00	142.6	38.8	116.41	47.5000	0.020
	3.00	162.0	58.2	116.45	32.0000	0.026
	4.00	181.8	78.0	116.48	24.2500	0.033
	5.00	201.8	97.9	116.51	19.6000	0.041
	6.00	221.5	117.7	116.53	16.5000	0.049
	7.00	241.5	137.6	116.56	14.2857	0.058
	8.00	261.3	157.4	116.59	12.6250	0.068
	9.00	281.2	177.4	116.61	11.3333	0.079
	10.00	301.0	197.1	116.62	10.3000	0.091
	11.00	320.5	216.7	116.66	9.4545	0.103
	12.00	339.7	235.9	116.67	8.7500	0.115
	13.00	358.5	254.7	116.69	8.1538	0.129
	14.00	377.2	273.4	116.72	7.6429	0.142
	15.00	395.7	291.9	116.74	7.2000	0.157
	16.00	414.2	310.4	116.76	6.8125	0.172
	17.00	432.1	328.3	116.78	6.4706	0.187
	18.00	449.8	346.0	116.79	6.1667	0.202
	19.00	467.4	363.6	116.82	5.8947	0.218
	20.00	484.7	380.9	116.84	5.6500	0.235
	21.00	502.0	398.2	116.86	5.4286	0.252
	22.00	519.5	415.7	116.88	5.2273	0.270
	23.00	536.7	432.9	116.90	5.0435	0.288
	24.00	553.5	449.7	116.92	4.8750	0.306
	25.00	569.9	466.1	116.94	4.7200	0.325
	26.00	585.6	481.7	116.96	4.5769	0.343
	27.00	600.7	496.9	116.99	4.4444	0.361
	28.00	615.9	512.0	116.99	4.3214	0.379
	29.00	630.6	526.8	117.01	4.2069	0.398
	30.00	645.1	541.3	117.03	4.1000	0.416
	31.00	659.2	555.4	117.04	4.0000	0.435
	32.00	673.3	569.5	117.05	3.9062	0.453
	33.00	687.0	583.2	117.07	3.8182	0.472
	34.00	700.4	596.6	117.09	3.7353	0.491
	35.00	713.8	610.0	117.10	3.6571	0.510
	36.00	726.9	623.1	117.11	3.5833	0.528
	37.00	739.4	635.6	117.15	3.5135	0.547
	38.00	752.8	649.0	117.14	3.4474	0.567
	39.00	766.8	663.0	117.17	3.3846	0.588
	40.00	780.5	676.7	117.18	3.3250	0.609
	41.00	793.6	689.8	117.18	3.2683	0.630
	42.00	806.5	702.6	117.21	3.2143	0.650
	43.00	819.0	715.2	117.22	3.1628	0.671
	44.00	831.7	727.9	117.25	3.1136	0.692
	45.00	844.1	740.3	117.24	3.0667	0.713
	46.00	856.1	752.3	117.26	3.0217	0.733
	47.00	868.1	764.2	117.28	2.9787	0.754
	48.00	879.8	776.0	117.29	2.9375	0.774
	49.00	891.3	787.5	117.31	2.8980	0.794
	50.00	902.8	799.0	117.38	2.8600	0.815

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 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: #9689 Bergner #1-16 DST#5 Imperial Oil.Prop.

DATE: 02/23/97 TIME: 00:28:13  
 -----

	Time	Pressure PSig	delta P PSig	P	Temp. DEG F	(T+dT)/dT	P <sup>2</sup> /10 <sup>6</sup>
	51.00	914.1	810.3		117.33	2.8235	0.836
	52.00	925.4	821.6		117.35	2.7885	0.856
	53.00	936.5	832.7		117.36	2.7547	0.877
	54.00	947.5	843.6		117.38	2.7222	0.898
	55.00	958.2	854.4		117.38	2.6909	0.918
	56.00	969.0	865.2		117.40	2.6607	0.939
	57.00	979.4	875.6		117.41	2.6316	0.959
	58.00	989.8	885.9		117.44	2.6034	0.980
***** End Shut-in 2	59.00	1000.1	896.3		117.48	2.5763	1.000
***** Final Hydro.	347.00	2428.8	0.0		117.65		



# TEST HISTORY

#9689 Bergner #1-16 DST#5 Imperial Oil.Prop.

## Flag Points

t (Min.)	P (PSig)
A: 0.00	2450.26
B: 0.00	41.28
C: 33.00	72.59
D: 56.00	1098.35
E: 0.00	72.59
F: 60.00	103.61
G: 59.00	1000.08
Q: 0.00	2428.78

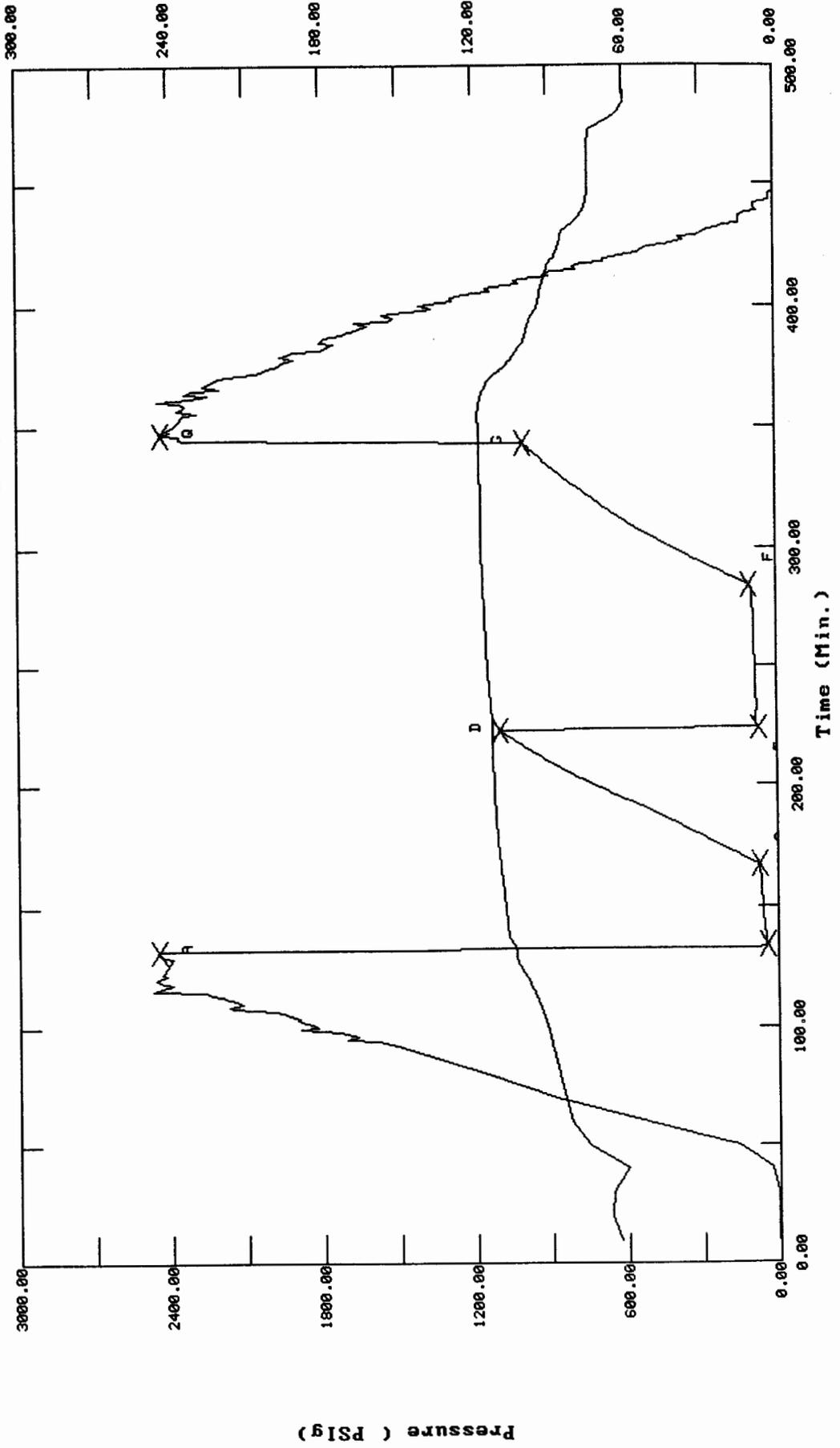
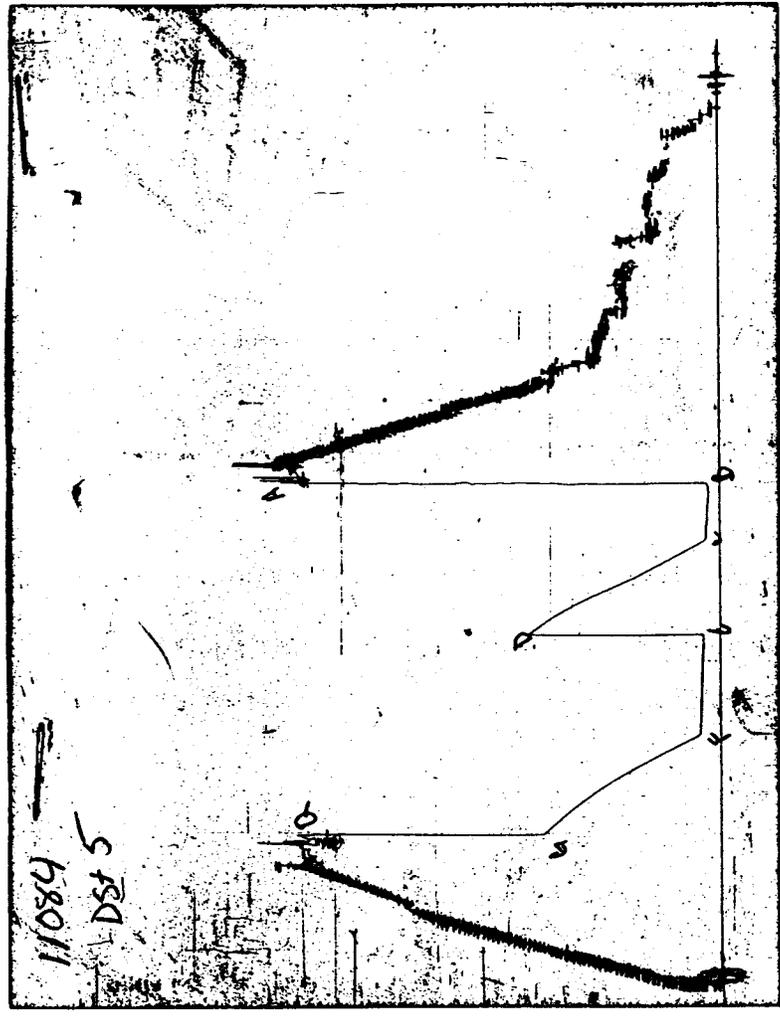


CHART PAGE



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

TRILOBITE TESTING L.L.C.

OPERATOR : Imperial Oil Properties  
 WELL NAME: Bergner #1-16  
 LOCATION : 16-32s-18w  
 INTERVAL : 5186.00 To 5240.00 ft

DATE 2/23/97

KB 2144.00 ft TICKET NO: 9690 DST #6  
 GR 2131.00 ft FORMATION: Mississippi  
 TD 5240.00 ft TEST TYPE: CONV

RECORDER DATA

Mins		Field	1	2	3	4	TIME DATA-----
PF 30	Rec.	11084	11084	2350			PF Fr. 0129 to 0201 hr
SI 60	Range(Psi )	4300.0	4300.0	4995.0	0.0	0.0	IS Fr. 0201 to 0301 hr
SF 90	Clock(hrs)	12 hr	12 hr	Elec			SF Fr. 0301 to 0431 hr
FS 90	Depth(ft )	5234.0	5234.0	5191.0	0.0	0.0	FS Fr. 0431 to 0601 hr

	Field	1	2	3	4	
A. Init Hydro	2619.0	2597.0	2572.0	0.0	0.0	T STARTED 2322 hr
B. First Flow	88.0	90.0	49.0	0.0	0.0	T ON BOTM 0127 hr
B1. Final Flow	99.0	74.0	52.0	0.0	0.0	T OPEN 0129 hr
C. In Shut-in	351.0	336.0	327.0	0.0	0.0	T PULLED 0601 hr
D. Init Flow	88.0	71.0	44.0	0.0	0.0	T OUT 0830 hr
E. Final Flow	99.0	75.0	54.0	0.0	0.0	
F. Fl Shut-in	340.0	327.0	316.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2619.0	2563.0	2457.0	0.0	0.0	Tool Wt. 2100.00 lbs
Inside/Outside	0	0	I			Wt Set On Packer 28000.00 lbs
						Wt Pulled Loose 89000.00 lbs
						Initial Str Wt 78000.00 lbs
						Unseated Str Wt 79000.00 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 211.00 ft
						D.P. Length 4959.00 ft

RECOVERY

Tot Fluid 90.00 ft of 90.00 ft in DC and 0.00 ft in DP  
 60.00 ft of Very Slight Gassy Cut Mud  
 0.00 ft of  
 0.00 ft of  
 30.00 ft of Gas Cut Mud Water  
 0.00 ft of 90% mud 8% water 2% gas  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of  
 SALINITY 0.00 P.P.M. A.P.I. Gravity 0.00

MUD DATA-----

Mud Type	Chemical
Weight	9.00 lb/cf
Vis.	61.00 S/L
W.L.	12.60 in3
F.C.	0.00 in
Mud Drop	
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	
Tool Chased	
Tester	Darren Amerine
Co. Rep.	Jon T. Williams
Contr.	Duke
Rig #	7
Unit #	
Pump T.	

BLOW DESCRIPTION

Initial Flow:  
 Strong blow, bottom of water bucket in  
 30 sec

Initial Shut In:

Bled down for 5 mins, blow back to  
 1.5 inches in water bucket

Final Shut In:

Strong blow, Merla Gauge 59,500 MCF/D

Final Shut In:

Bled down for 15 min, blow back to  
 1" in water bucket

SAMPLES: YES

SENT TO: Caraway Analytical

Test Successful: Y

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

WELL NAME: Bergner #1-16

LOCATION : 16-32s-18w

TICKET No. 9690 D.S.T. No. 6 DATE 2/23/97

TOTAL TOOL TO BOTTOM OF TOP PACKERS ..... 29'

INTERVAL TOOL .....

BOTTOM PACKERS AND ANCHOR ..... 24'

TOTAL TOOL ..... 53'

DRILL COLLAR ANCHOR IN INTERVAL .....

D.C. ANCHOR STND.Stands Single 1 Total 30'

D.P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY ..... 83

D.C. ABOVE TOOLS.Stands 4 Single Total 211'

D.P. ABOVE TOOLS.Stands80 Single Total 4959'

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5253'

TOTAL DEPTH ..... 5240'

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

REMARKS:

P.O. SUB	
C.O. SUB	5159'
S.I. TOOL	5164'
HMV	5169'
JARS	5175'
SAFETY JOINT	5177'
PACKER 5181'	5181'
PACKER 5186'	5186'
DEPTH	
STUBB 1'	5187'
ANCHOR	
Alpine rec.@5191'	
15'of perms.to	5187' 5202'
T.C.	
DEPTH	
30'DRILL COLLAR TO	5232'
Ak-1 rec.@	5234'
5'PERFS.TO	5237'
BULLNOSE 3'Bullnose to	5240'
T.D.	

GAS RECOVERY  
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COMPANY: Imperial Oil Properties

DATE: 2/23/97

WELL NAME: Bergner #1-16

KB Elev: 2144.00 ft TICKET #9690 DST #6

WELL LOCATION: 16-32s-18w

GR Elev: 2131.00 ft FORMATION: Mississippi

INTERVAL Fr.: 5186.00 To 5240.00 T.D.: 5240.00 ft TEST TYPE: CONV

GAS RECOVERY MEASURED WITH MERLA GAUGE

\*\*\*\*\* GAS RATES FOR FLOW #1

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
5	0.50	0	58	47000.0
10	0.50	0	66	50900.0
15	0.50	0	72	53200.0
20	0.50	0	74	53900.0

\*\*\*\*\* GAS RATES FOR FLOW #2

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
10	0.50	0	70	52400.0
20	0.50	0	78	55300.0
30	0.50	0	82	56800.0
40	0.50	0	83	57000.0
50	0.50	0	85	57800.0
60	0.50	0	86	58100.0
70	0.50	0	88	58800.0
80	0.50	0	88	58800.0
90	0.50	0	90	59500.0

## NATURAL GAS ANALYSIS REPORT

Sampled by:  
Trilobite Testing, L.L.C.  
Hays, Kansas  
Scott City, Kansas  
Phone: 800-728-5369  
Fax: 913-625-5620

Analyzed by:  
Caraway Analytical, L.L.C.  
P. O. Box 2137  
Liberal, Kansas 67905  
Phone: 316-624-5389  
Fax: 316-626-7108

Lab Number:	970111	Analyzed:	02/26/97
Sample From:	Bergner 1-16 DST 6	Pressure:	
Producer:	Imperial Oil Prop.	Temperature:	
Date:		Location:	16-32-18
Time:		County:	Comanche
Sampler:		State:	Kansas
Source:		Formation:	Miss.

	Mole %	GPM
Helium	He: 0.114	0.000
Oxygen	O2: 0.000	0.000
Nitrogen	N2: 1.822	0.000
Carbon Dioxide	CO2: 0.497	0.000
Methane	C1: 92.142	0.000
Ethane	C2: 3.155	0.844
Propane	C3: 1.048	0.289
Iso Butane	iC4: 0.194	0.063
Normal Butane	nC4: 0.351	0.111
Iso Pentane	iC5: 0.130	0.048
Normal Pentane	nC5: 0.133	0.048
Hexanes Plus	C6+: 0.414	0.181

TOTAL: 100.000 1.583  
Z Fact: 0.9977  
SP.GR.: 0.6167  
BTU (SAT): 1048.7 @ 14.73 psia  
BTU (DRY): 1067.2 @ 14.73 psia  
OCTANE RATING: 124.8

COMMENTS:

0.000

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: #9690 Bergner #1-16 DST#6 Imperial Oil.Prop.

DATE: 02/23/97 TIME: 23:24:34

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P <sup>2</sup> /10 <sup>6</sup>
***** Initial Hydro.	125.00	2572.0	0.0	102.35		
***** Start Flow 1	0.00	49.0	0.0	102.54		
	1.00	44.6	-4.4	102.85		
	2.00	44.6	-4.4	103.42		
	3.00	45.6	-3.4	104.07		
	4.00	44.6	-4.4	104.68		
	5.00	44.3	-4.7	105.21		
	6.00	45.1	-3.9	105.63		
	7.00	44.9	-4.1	105.98		
	8.00	44.6	-4.4	106.26		
	9.00	45.6	-3.4	106.50		
	10.00	45.6	-3.4	106.71		
	11.00	46.6	-2.4	106.90		
	12.00	46.2	-2.9	107.08		
	13.00	45.1	-3.9	107.23		
	14.00	45.8	-3.2	107.38		
	15.00	46.5	-2.5	107.51		
	16.00	46.9	-2.1	107.62		
	17.00	47.9	-1.1	107.73		
	18.00	47.5	-1.5	107.82		
	19.00	48.3	-0.7	107.90		
	20.00	48.3	-0.7	107.97		
	21.00	49.6	0.6	108.03		
	22.00	49.4	0.4	108.10		
	23.00	48.8	-0.2	108.16		
	24.00	49.5	0.5	108.23		
	25.00	49.3	0.3	108.28		
	26.00	49.6	0.6	108.34		
	27.00	50.7	1.7	108.38		
	28.00	50.1	1.1	108.44		
	29.00	50.4	1.4	108.49		
***** End Flow 1	30.00	51.9	2.9	108.53		
***** Start Shutin 1	0.00	51.9	0.0	108.53	0.0000	0.003
	1.00	195.0	143.2	108.58	31.0000	0.038
	2.00	266.0	214.2	108.64	16.0000	0.071
	3.00	281.7	229.9	108.68	11.0000	0.079
	4.00	291.6	239.8	108.72	8.5000	0.085
	5.00	298.7	246.8	108.76	7.0000	0.089
	6.00	303.7	251.9	108.79	6.0000	0.092
	7.00	307.7	255.8	108.82	5.2857	0.095
	8.00	310.6	258.7	108.83	4.7500	0.096
	9.00	312.9	261.0	108.85	4.3333	0.098
	10.00	314.7	262.9	108.87	4.0000	0.099
	11.00	316.1	264.3	108.89	3.7273	0.10
	12.00	317.3	265.5	108.91	3.5000	0.101
	13.00	318.3	266.5	108.94	3.3077	0.101
	14.00	319.0	267.1	108.95	3.1429	0.102
	15.00	319.6	267.7	108.97	3.0000	0.102
	16.00	320.1	268.2	108.99	2.8750	0.102
	17.00	320.7	268.8	109.01	2.7647	0.103
	18.00	321.0	269.2	109.03	2.6667	0.103

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: #9690 Bergner #1-16 DST#6 Imperial Oil.Prop.

DATE: 02/23/97 TIME: 23:24:34

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P <sup>2</sup> /10 <sup>6</sup>	
19.00	321.4	269.6	109.05	2.5789	0.103	
20.00	321.7	269.8	109.08	2.5000	0.103	
21.00	321.9	270.1	109.10	2.4286	0.104	
22.00	322.3	270.4	109.12	2.3636	0.104	
23.00	322.5	270.7	109.14	2.3043	0.104	
24.00	322.7	270.8	109.17	2.2500	0.104	
25.00	322.9	271.0	109.19	2.2000	0.104	
26.00	323.2	271.3	109.21	2.1538	0.104	
27.00	323.4	271.5	109.24	2.1111	0.105	
28.00	323.5	271.7	109.26	2.0714	0.105	
29.00	323.6	271.8	109.29	2.0345	0.105	
30.00	323.7	271.8	109.31	2.0000	0.105	
31.00	324.0	272.1	109.34	1.9677	0.105	
32.00	324.2	272.3	109.38	1.9375	0.105	
33.00	324.3	272.4	109.40	1.9091	0.105	
34.00	324.4	272.5	109.42	1.8824	0.105	
35.00	324.6	272.8	109.45	1.8571	0.105	
36.00	324.7	272.8	109.48	1.8333	0.105	
37.00	324.8	272.9	109.51	1.8108	0.105	
38.00	324.9	273.0	109.52	1.7895	0.106	
39.00	325.0	273.1	109.56	1.7692	0.106	
40.00	325.1	273.3	109.58	1.7500	0.106	
41.00	325.1	273.3	109.62	1.7317	0.106	
42.00	325.5	273.6	109.64	1.7143	0.106	
43.00	325.5	273.6	109.67	1.6977	0.106	
44.00	325.6	273.8	109.70	1.6818	0.106	
45.00	325.6	273.8	109.73	1.6667	0.106	
46.00	325.7	273.8	109.76	1.6522	0.106	
47.00	325.8	273.9	109.78	1.6383	0.106	
48.00	325.9	274.0	109.81	1.6250	0.106	
49.00	326.0	274.1	109.84	1.6122	0.106	
50.00	326.1	274.3	109.87	1.6000	0.106	
51.00	326.2	274.3	109.90	1.5882	0.106	
52.00	326.2	274.3	109.93	1.5769	0.106	
53.00	326.2	274.3	109.96	1.5660	0.106	
54.00	326.4	274.5	109.99	1.5556	0.107	
55.00	326.5	274.6	110.02	1.5455	0.107	
56.00	326.5	274.7	110.06	1.5357	0.107	
57.00	326.5	274.7	110.08	1.5263	0.107	
58.00	326.6	274.8	110.10	1.5172	0.107	
59.00	326.7	274.8	110.14	1.5085	0.107	
60.00	326.8	274.9	110.18	1.5000	0.107	
***** End Shut-in 1	61.00	326.8	274.9	110.20	1.4918	0.107
***** Start Flow 2	0.00	43.9	0.0	110.22		
	1.00	43.0	-0.8	110.32		
	2.00	44.2	0.3	110.49		
	3.00	45.0	1.1	110.66		
	4.00	46.6	2.7	110.82		
	5.00	46.3	2.4	110.94		
	6.00	47.9	4.0	111.05		
	7.00	48.2	4.3	111.13		

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 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: #9690 Bergner #1-16 DST#6 Imperial Oil.Prop.

DATE: 02/23/97                    TIME: 23:24:34  
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Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P <sup>2</sup> /10 <sup>6</sup>
8.00	47.8	3.9	111.19		
9.00	47.8	3.9	111.24		
10.00	48.2	4.4	111.28		
11.00	47.7	3.9	111.32		
12.00	48.9	5.0	111.34		
13.00	48.4	4.5	111.35		
14.00	50.2	6.3	111.38		
15.00	51.0	7.1	111.39		
16.00	51.0	7.1	111.43		
17.00	51.3	7.4	111.44		
18.00	50.5	6.6	111.43		
19.00	51.3	7.4	111.44		
20.00	49.8	6.0	111.46		
21.00	50.2	6.3	111.47		
22.00	49.9	6.0	111.48		
23.00	50.2	6.3	111.50		
24.00	49.9	6.0	111.51		
25.00	51.2	7.3	111.53		
26.00	51.6	7.7	111.54		
27.00	50.8	6.9	111.55		
28.00	51.2	7.3	111.57		
29.00	51.5	7.6	111.57		
30.00	51.5	7.6	111.59		
31.00	53.5	9.6	111.59		
32.00	51.2	7.3	111.60		
33.00	53.0	9.1	111.62		
34.00	51.5	7.6	111.63		
35.00	51.9	8.0	111.64		
36.00	51.9	8.0	111.66		
37.00	51.7	7.8	111.67		
38.00	52.3	8.4	111.68		
39.00	52.3	8.4	111.68		
40.00	52.5	8.6	111.69		
41.00	52.0	8.1	111.70		
42.00	53.0	9.1	111.71		
43.00	52.8	8.9	111.71		
44.00	52.6	8.7	111.71		
45.00	53.4	9.5	111.72		
46.00	52.5	8.6	111.73		
47.00	52.7	8.8	111.73		
48.00	53.3	9.4	111.75		
49.00	53.3	9.4	111.76		
50.00	53.8	9.9	111.77		
51.00	52.9	9.1	111.79		
52.00	53.3	9.4	111.80		
53.00	53.6	9.7	111.81		
54.00	54.4	10.5	111.83		
55.00	53.8	9.9	111.84		
56.00	53.3	9.4	111.86		
57.00	54.5	10.6	111.88		
58.00	55.0	11.2	111.88		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: #9690 Bergner #1-16 DST#6 Imperial Oil.Prop.

DATE: 02/23/97 TIME: 23:24:34

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
59.00	54.1	10.2	111.89		
60.00	54.8	10.9	111.91		
61.00	54.0	10.1	111.92		
62.00	54.0	10.1	111.94		
63.00	54.1	10.2	111.96		
64.00	54.4	10.5	111.97		
65.00	55.9	12.0	111.98		
66.00	54.3	10.4	112.00		
67.00	54.8	10.9	112.02		
68.00	54.5	10.6	112.04		
69.00	54.8	10.9	112.05		
70.00	55.0	11.1	112.07		
71.00	54.9	11.0	112.08		
72.00	54.8	10.9	112.09		
73.00	55.3	11.4	112.10		
74.00	55.4	11.5	112.12		
75.00	55.4	11.5	112.14		
76.00	55.6	11.7	112.15		
77.00	55.5	11.6	112.17		
78.00	55.8	11.9	112.19		
79.00	55.6	11.7	112.19		
80.00	55.9	12.0	112.20		
81.00	56.1	12.2	112.21		
82.00	56.4	12.5	112.23		
83.00	56.0	12.1	112.24		
84.00	56.7	12.8	112.26		
85.00	56.0	12.1	112.27		
86.00	56.7	12.8	112.29		
87.00	56.4	12.5	112.30		
88.00	56.6	12.7	112.32		
***** End Flow 2	89.00	54.5	10.6	112.35	
***** Start Shutin 2	0.00	54.5	0.0	112.35	0.0000 0.003
	1.00	228.4	174.0	112.36	120.0000 0.052
	2.00	258.2	203.8	112.39	60.5000 0.067
	3.00	272.3	217.9	112.40	40.6667 0.074
	4.00	282.0	227.5	112.45	30.7500 0.080
	5.00	288.7	234.2	112.48	24.8000 0.083
	6.00	293.7	239.2	112.50	20.8333 0.086
	7.00	297.7	243.2	112.52	18.0000 0.089
	8.00	300.6	246.2	112.54	15.8750 0.090
	9.00	303.0	248.5	112.56	14.2222 0.092
	10.00	304.9	250.4	112.57	12.9000 0.093
	11.00	306.4	252.0	112.60	11.8182 0.094
	12.00	307.8	253.4	112.62	10.9167 0.095
	13.00	308.8	254.3	112.62	10.1538 0.095
	14.00	309.6	255.1	112.64	9.5000 0.096
	15.00	310.4	255.9	112.65	8.9333 0.096
	16.00	311.0	256.6	112.65	8.4375 0.097
	17.00	311.6	257.2	112.67	8.0000 0.097
	18.00	312.0	257.6	112.69	7.6111 0.097
	19.00	312.4	257.9	112.70	7.2632 0.098

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: #9690 Bergner #1-16 DST#6 Imperial Oil Prop.

DATE: 02/23/97

TIME: 23:24:34

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P <sup>2</sup> /10 <sup>6</sup>
20.00	312.9	258.4	112.71	6.9500	0.098
21.00	313.2	258.7	112.74	6.6667	0.098
22.00	313.6	259.2	112.76	6.4091	0.098
23.00	313.9	259.4	112.79	6.1739	0.099
24.00	314.4	259.9	112.82	5.9583	0.099
25.00	314.6	260.1	112.85	5.7600	0.099
26.00	315.0	260.5	112.89	5.5769	0.099
27.00	315.1	260.7	112.93	5.4074	0.099
28.00	315.5	261.0	112.96	5.2500	0.10
29.00	315.7	261.3	112.99	5.1034	0.10
30.00	308.7	254.2	113.03	4.9667	0.095
31.00	309.0	254.6	113.08	4.8387	0.095
32.00	309.1	254.6	113.11	4.7188	0.096
33.00	309.4	255.0	113.15	4.6061	0.096
34.00	309.7	255.2	113.19	4.5000	0.096
35.00	309.8	255.3	113.21	4.4000	0.096
36.00	310.0	255.6	113.25	4.3056	0.096
37.00	310.3	255.8	113.28	4.2162	0.096
38.00	310.4	255.9	113.31	4.1316	0.096
39.00	310.5	256.1	113.33	4.0513	0.096
40.00	310.8	256.3	113.37	3.9750	0.097
41.00	310.9	256.4	113.39	3.9024	0.097
42.00	311.1	256.7	113.41	3.8333	0.097
43.00	311.3	256.8	113.44	3.7674	0.097
44.00	311.4	257.0	113.47	3.7045	0.097
45.00	311.6	257.2	113.51	3.6444	0.097
46.00	311.8	257.3	113.53	3.5870	0.097
47.00	311.9	257.4	113.56	3.5319	0.097
48.00	312.0	257.6	113.58	3.4792	0.097
49.00	312.2	257.7	113.61	3.4286	0.097
50.00	312.3	257.8	113.64	3.3800	0.098
51.00	312.5	258.1	113.66	3.3333	0.098
52.00	312.6	258.2	113.69	3.2885	0.098
53.00	312.8	258.3	113.71	3.2453	0.098
54.00	312.9	258.4	113.74	3.2037	0.098
55.00	313.0	258.5	113.77	3.1636	0.098
56.00	313.0	258.6	113.79	3.1250	0.098
57.00	313.3	258.8	113.81	3.0877	0.098
58.00	313.5	259.0	113.84	3.0517	0.098
59.00	313.5	259.1	113.86	3.0169	0.098
60.00	313.6	259.2	113.88	2.9833	0.098
61.00	313.8	259.3	113.92	2.9508	0.098
62.00	313.9	259.4	113.95	2.9194	0.099
63.00	314.0	259.6	113.96	2.8889	0.099
64.00	314.1	259.7	113.98	2.8594	0.099
65.00	314.2	259.8	114.00	2.8308	0.099
66.00	314.3	259.8	114.03	2.8030	0.099
67.00	314.5	260.0	114.06	2.7761	0.099
68.00	314.6	260.1	114.08	2.7500	0.099
69.00	314.7	260.3	114.11	2.7246	0.099
70.00	314.9	260.4	114.14	2.7000	0.099

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 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: #9690 Bergner #1-16 DST#6 Imperial Oil.Prop.

DATE: 02/23/97                      TIME: 23:24:34  
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	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P <sup>2</sup> /10 <sup>6</sup>
	71.00	314.8	260.3	114.16	2.6761	0.099
	72.00	315.0	260.5	114.18	2.6528	0.099
	73.00	315.0	260.6	114.20	2.6301	0.099
	74.00	315.0	260.6	114.22	2.6081	0.099
	75.00	315.2	260.8	114.26	2.5867	0.099
	76.00	315.3	260.8	114.28	2.5658	0.099
	77.00	315.4	260.9	114.31	2.5455	0.099
	78.00	315.5	261.0	114.34	2.5256	0.10
	79.00	315.5	261.0	114.36	2.5063	0.10
	80.00	315.6	261.2	114.39	2.4875	0.10
	81.00	315.6	261.2	114.41	2.4691	0.10
	82.00	315.8	261.4	114.44	2.4512	0.10
	83.00	316.0	261.5	114.46	2.4337	0.10
	84.00	316.0	261.5	114.48	2.4167	0.10
	85.00	316.1	261.6	114.51	2.4000	0.10
	86.00	316.1	261.7	114.53	2.3837	0.10
	87.00	316.1	261.7	114.56	2.3678	0.10
	88.00	316.4	261.9	114.58	2.3523	0.100
	89.00	316.4	261.9	114.61	2.3371	0.100
***** End Shut-in 2	90.00	316.5	262.0	114.64	2.3222	0.100
***** Final Hydro.	399.00	2456.6	0.0	114.79		

# TEST HISTORY

#9690 Bergner #1-16 DST#6 Imperial Oil.Prop.

## Flag Points

t(Min.) P(PSig)

R:	0.00	2572.04
B:	0.00	49.01
C:	30.00	51.86
D:	61.00	326.79
E:	0.00	43.89
F:	89.00	54.46
G:	90.00	316.47
Q:	0.00	2456.64

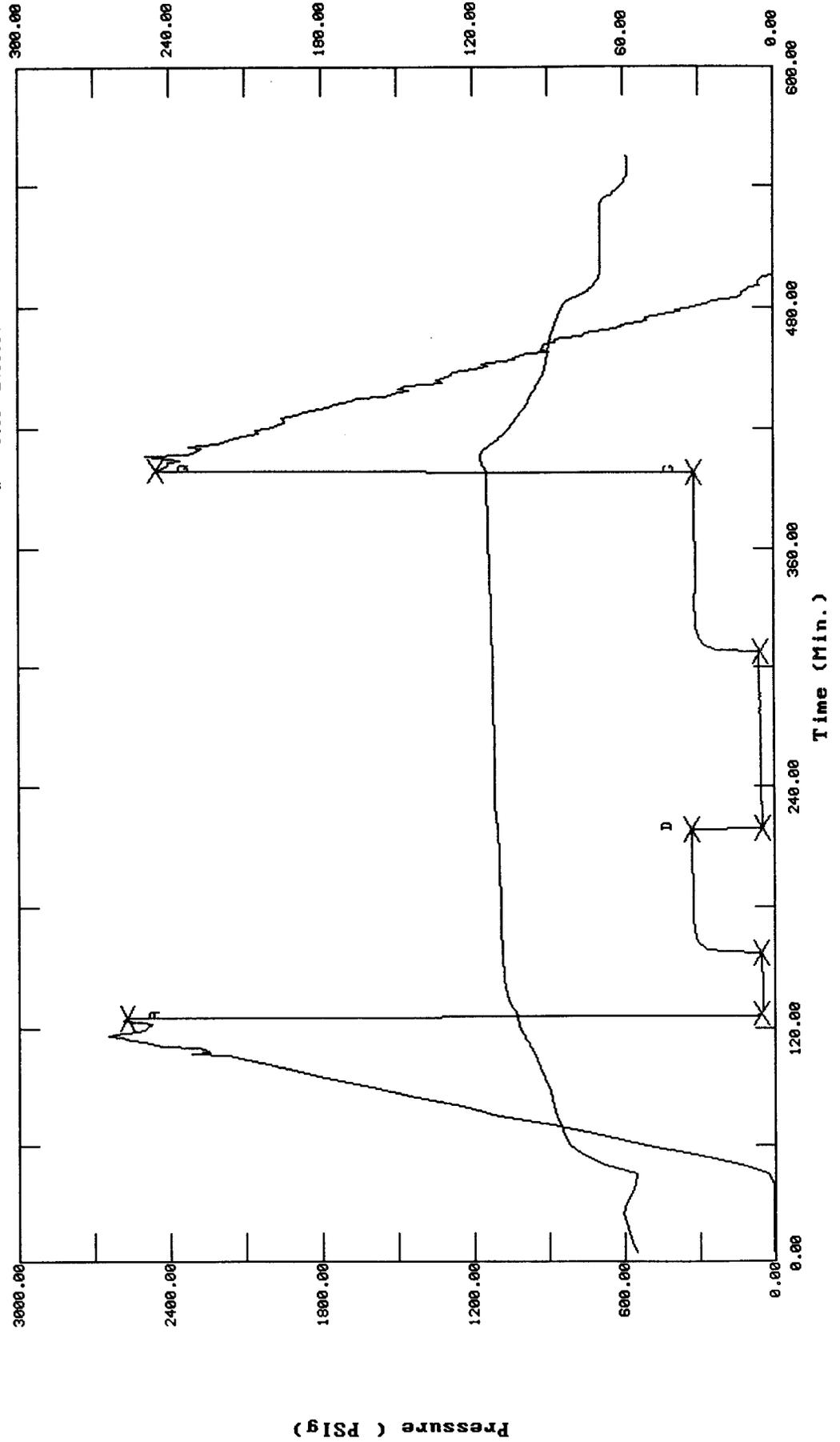
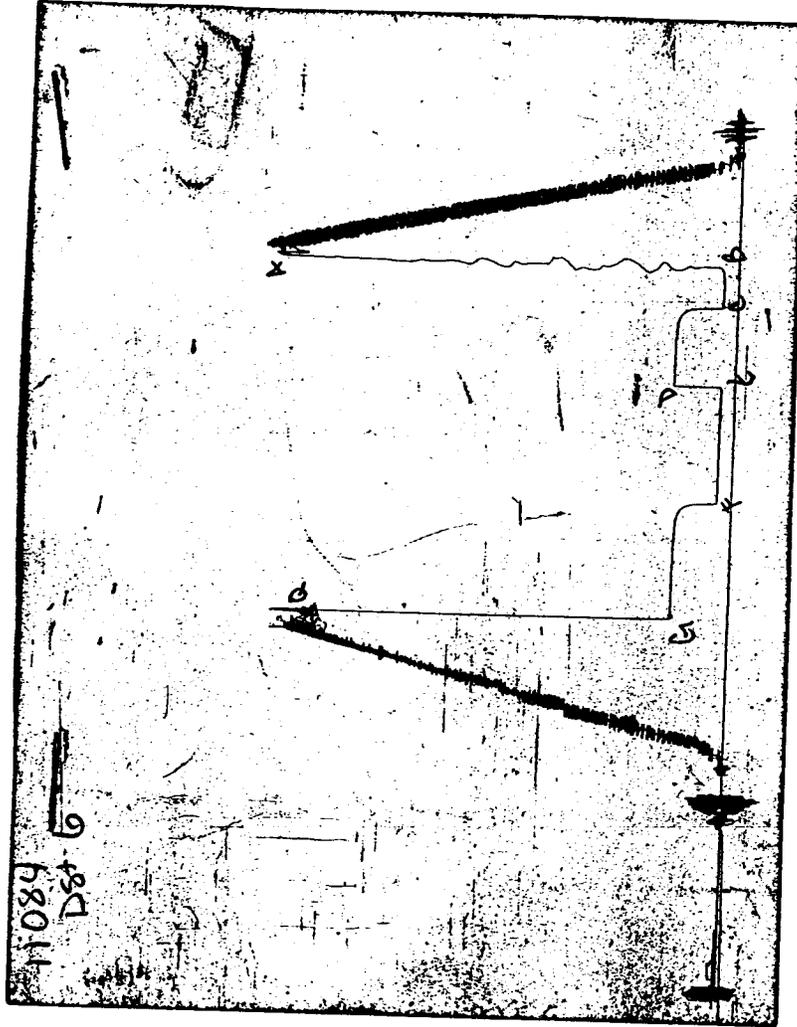


CHART PAGE



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

TRILOBITE TESTING L.L.C.

OPERATOR : Imperial Oil Properties  
 WELL NAME: Bergner #1-16  
 LOCATION : 16-32s-18w  
 INTERVAL : 5680.00 To 5710.00 ft

DATE 2/26/97  
 KB 2144.00 ft TICKET NO: 9691 DST #7  
 GR 2131.00 ft FORMATION: Viola  
 TD 5710.00 ft TEST TYPE: CONV.

RECORDER DATA

Mins		Field	1	2	3	4	TIME DATA-----
PF 15	Rec.	11084	11084	Alpine			PF Fr. 1738 to 1756 hr
SI 30	Range(Psi )	4300.0	4300.0	4995.0	0.0	0.0	IS Fr. 1756 to 1826 hr
SF 30	Clock(hrs)	12 hr	12 hr	Elec.			SF Fr. 1826 to 1856 hr
FS 45	Depth(ft )	5707.0	5707.0	5685.0	0.0	0.0	FS Fr. 1856 to 1941 hr

	Field	1	2	3	4	
A. Init Hydro	0.0	0.0	2900.0	0.0	0.0	T STARTED 1520 hr
B. First Flow	0.0	0.0	1614.0	0.0	0.0	T ON BOTM 1736 hr
B1. Final Flow	0.0	0.0	1735.0	0.0	0.0	T OPEN 1738 hr
C. In Shut-in	0.0	0.0	2005.0	0.0	0.0	T PULLED 1841 hr
D. Init Flow	0.0	0.0	1594.0	0.0	0.0	T OUT 2000 hr
E. Final Flow	0.0	0.0	1700.0	0.0	0.0	
F. Fl Shut-in	0.0	0.0	2000.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	0.0	0.0	2657.0	0.0	0.0	Tool Wt. 2100.00 lbs
Inside/Outside	0	0	I			Wt Set On Packer 25000.00 lbs
						Wt Pulled Loose 105000.00 lbs
						Initial Str Wt 79000.00 lbs
						Unseated Str Wt 79000.00 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 241.00 ft
						D.P. Length 5426.00 ft

RECOVERY

Tot Fluid 5650.00 ft of 0.00 ft in DC and 0.00 ft in DP  
 5650.00 ft of Gas in the pipe  
 0.00 ft of  
 0.00 ft of

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

BLOW DESCRIPTION

Initial Flow:  
 Strong blow, Gas to surface in 60 sec

Initial Shut In:

Final Flow:  
 Strong blow, Big gas!

Final Shut In:

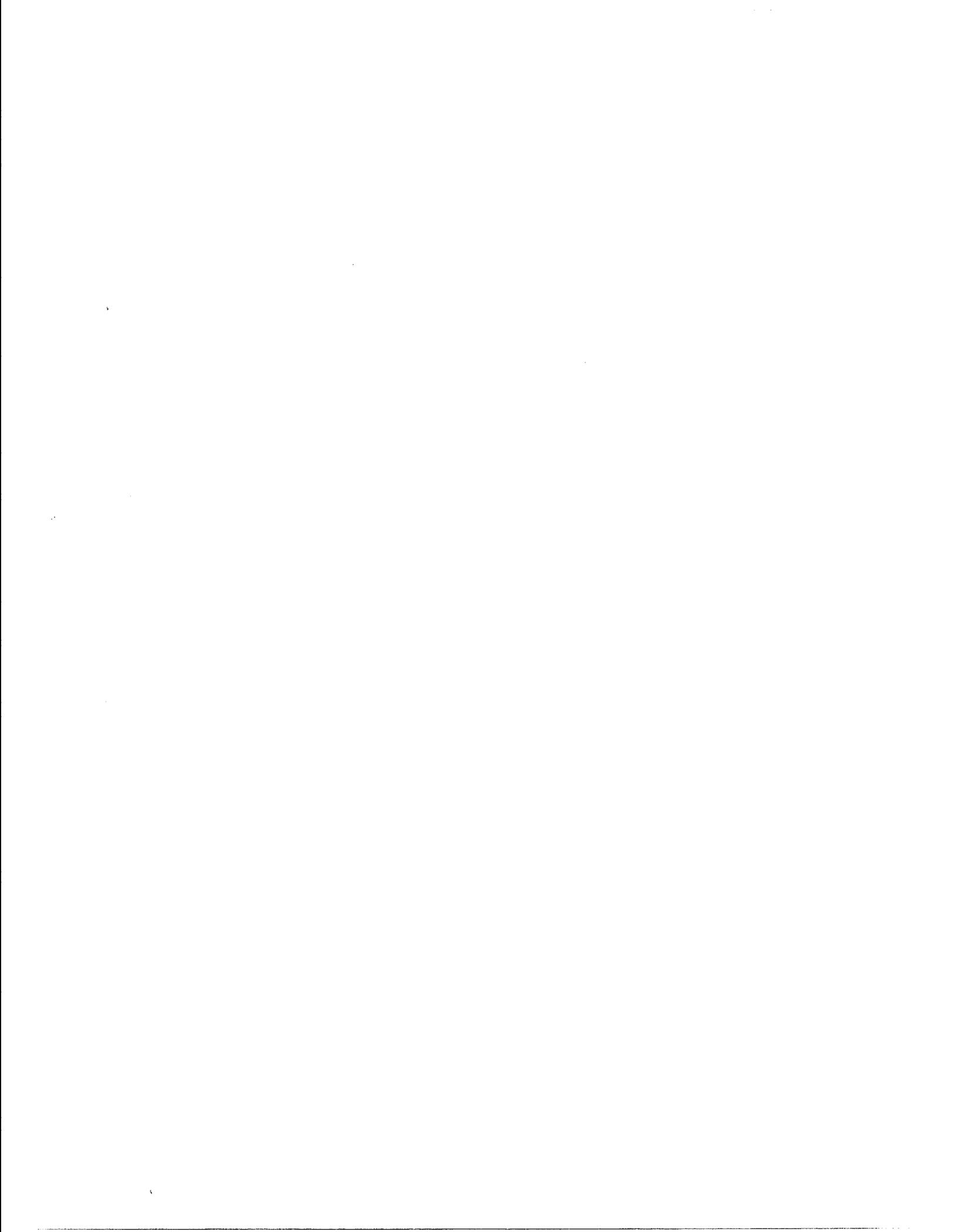
SAMPLES:  
 SENT TO:

MUD DATA-----  
 Mud Type Chemical  
 Weight 9.30 lb/cf  
 Vis. 49.00 S/L  
 W.L. 7.80 in3  
 F.C. 0.00 in  
 Mud Drop  
 Amt. of fill 0.00 ft  
 Btm. H. Temp. 132.00 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 Darren Amerine  
 Co. Rep. Jon T. Williams  
 Contr. Duke  
 Rig # 7  
 Unit #  
 Pump T.

Test Successful: Y







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 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: #9691 Bergner #1-16 DST#7 Imperial Oil.Prop.

DATE: 02/26/97 TIME: 15:21:50  
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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.	138.00	2900.3	0.0	109.40		
***** Start Flow 1	0.00	1614.3	0.0	111.88		
	1.00	1615.8	1.5	113.72		
	2.00	1637.1	22.8	115.53		
	3.00	1656.4	42.1	117.20		
	4.00	1672.8	58.5	118.67		
	5.00	1685.9	71.7	120.00		
	6.00	1697.8	83.5	121.13		
	7.00	1713.8	99.5	122.11		
	8.00	1721.6	107.3	122.95		
	9.00	1728.8	114.6	123.74		
	10.00	1732.7	118.4	124.41		
	11.00	1734.8	120.5	125.00		
	12.00	1736.0	121.7	125.52		
	13.00	1736.7	122.5	125.95		
	14.00	1737.1	122.9	126.34		
***** End Flow 1	15.00	1735.9	121.6	126.69		
***** Start Shutin 1	0.00	1735.9	0.0	126.69	0.0000	3.013
	1.00	1991.1	255.2	127.00	16.0000	3.964
	2.00	1996.0	260.1	127.67	8.5000	3.984
	3.00	1997.7	261.9	128.60	6.0000	3.991
	4.00	1999.2	263.3	129.42	4.7500	3.997
	5.00	2000.3	264.5	129.99	4.0000	4.001
	6.00	2001.1	265.2	130.28	3.5000	4.004
	7.00	2001.8	265.9	130.47	3.1429	4.007
	8.00	2002.1	266.2	130.56	2.8750	4.008
	9.00	2002.5	266.6	130.54	2.6667	4.010
	10.00	2002.8	266.9	130.51	2.5000	4.011
	11.00	2002.9	267.1	130.47	2.3636	4.012
	12.00	2003.3	267.5	130.39	2.2500	4.013
	13.00	2003.4	267.6	130.34	2.1538	4.014
	14.00	2003.6	267.7	130.23	2.0714	4.014
	15.00	2003.9	268.0	130.11	2.0000	4.015
	16.00	2004.0	268.1	129.98	1.9375	4.016
	17.00	2004.0	268.1	129.85	1.8824	4.016
	18.00	2004.1	268.2	129.72	1.8333	4.016
	19.00	2004.3	268.4	129.60	1.7895	4.017
	20.00	2004.4	268.5	129.47	1.7500	4.017
	21.00	2004.4	268.6	129.38	1.7143	4.018
	22.00	2004.5	268.7	129.24	1.6818	4.018
	23.00	2004.8	268.9	129.12	1.6522	4.019
	24.00	2004.9	269.0	129.00	1.6250	4.020
	25.00	2004.9	269.0	128.94	1.6000	4.020
	26.00	2005.0	269.1	128.78	1.5769	4.020
	27.00	2005.0	269.1	128.68	1.5556	4.020
	28.00	2005.0	269.2	128.60	1.5357	4.020
	29.00	2005.2	269.3	128.50	1.5172	4.021
***** End Shut-in 1	30.00	2005.2	269.3	128.40	1.5000	4.021
***** Start Flow 2	0.00	1594.4	0.0	128.05		
	1.00	1595.4	1.0	127.55		
	2.00	1610.2	15.9	127.08		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: #9691 Bergner #1-16 DST#7 Imperial Oil.Prop.

DATE: 02/26/97

TIME: 15:21:50

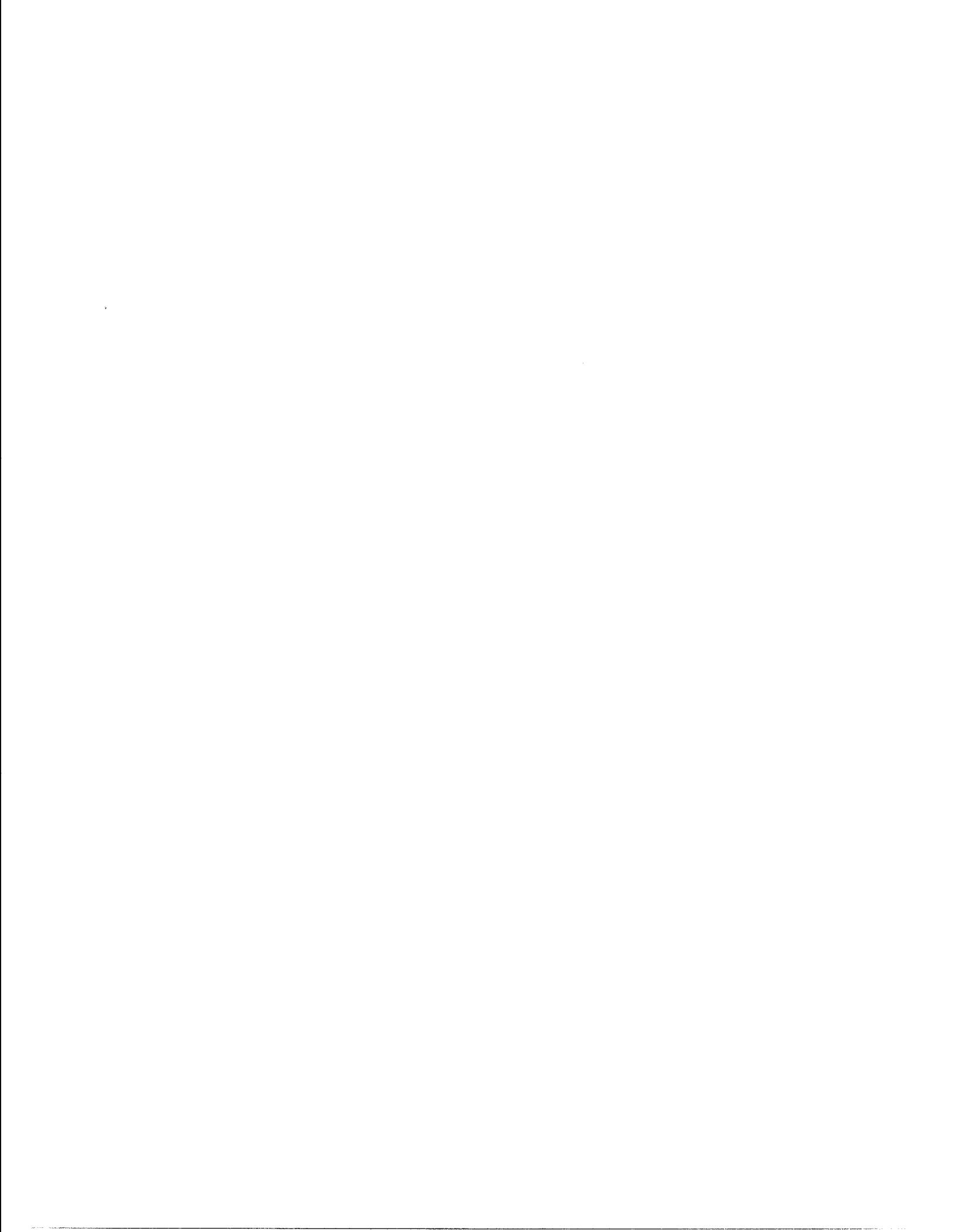
Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P <sup>2</sup> /10 <sup>6</sup>	
3.00	1629.4	35.1	126.72			
4.00	1648.7	54.3	126.51			
5.00	1671.5	77.1	126.44			
6.00	1688.6	94.3	126.50			
7.00	1701.7	107.3	126.67			
8.00	1710.8	116.4	126.88			
9.00	1718.3	124.0	127.12			
10.00	1722.8	128.4	127.42			
11.00	1728.3	133.9	127.65			
12.00	1733.3	138.9	127.90			
13.00	1734.4	140.1	128.08			
14.00	1735.9	141.5	128.33			
15.00	1736.9	142.5	128.53			
16.00	1735.2	140.8	128.70			
17.00	1735.2	140.8	128.85			
18.00	1732.9	138.6	128.96			
19.00	1728.1	133.7	129.15			
20.00	1723.8	129.4	129.13			
21.00	1718.2	123.8	129.21			
22.00	1715.6	121.3	129.20			
23.00	1710.4	116.1	129.22			
24.00	1707.6	113.2	129.22			
25.00	1705.7	111.4	129.21			
26.00	1703.2	108.9	129.23			
27.00	1701.5	107.2	129.22			
28.00	1700.3	105.9	129.22			
***** End Flow 2						
***** Start Shutin 2	0.00	1700.3	0.0	129.22	0.0000	2.891
	1.00	1982.7	282.4	129.24	44.0000	3.931
	2.00	1987.2	286.9	129.73	22.5000	3.949
	3.00	1989.2	289.0	130.52	15.3333	3.957
	4.00	1990.9	290.6	131.22	11.7500	3.964
	5.00	1992.0	291.7	131.71	9.6000	3.968
	6.00	1993.0	292.7	132.08	8.1667	3.972
	7.00	1993.7	293.4	132.25	7.1429	3.975
	8.00	1994.3	294.0	132.35	6.3750	3.977
	9.00	1994.7	294.4	132.36	5.7778	3.979
	10.00	1995.2	294.9	132.35	5.3000	3.981
	11.00	1995.5	295.3	132.30	4.9091	3.982
	12.00	1995.9	295.6	132.24	4.5833	3.984
	13.00	1996.1	295.8	132.17	4.3077	3.985
	14.00	1996.3	296.0	132.13	4.0714	3.985
	15.00	1996.6	296.3	132.05	3.8667	3.987
	16.00	1996.8	296.5	131.97	3.6875	3.987
	17.00	1996.9	296.6	131.91	3.5294	3.988
	18.00	1997.2	296.9	131.83	3.3889	3.989
	19.00	1997.5	297.2	131.75	3.2632	3.990
	20.00	1997.6	297.4	131.67	3.1500	3.991
	21.00	1997.7	297.4	131.60	3.0476	3.991
	22.00	1997.9	297.6	131.51	2.9545	3.992
	23.00	1998.0	297.7	131.43	2.8696	3.992
	24.00	1998.1	297.9	131.35	2.7917	3.993

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 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: #9691 Bergner #1-16 DST#7 Imperial Oil.Prop.

DATE: 02/26/97 TIME: 15:21:50  
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	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
	25.00	1998.4	298.1	131.26	2.7200	3.994
	26.00	1998.6	298.3	131.21	2.6538	3.994
	27.00	1998.5	298.2	131.14	2.5926	3.994
	28.00	1998.6	298.4	131.07	2.5357	3.995
	29.00	1998.8	298.5	130.99	2.4828	3.995
	30.00	1998.8	298.5	130.93	2.4333	3.995
	31.00	1998.9	298.6	130.85	2.3871	3.996
	32.00	1999.1	298.8	130.78	2.3438	3.996
	33.00	1999.2	298.9	130.72	2.3030	3.997
	34.00	1999.2	299.0	130.66	2.2647	3.997
	35.00	1999.3	299.0	130.59	2.2286	3.997
	36.00	1999.5	299.2	130.53	2.1944	3.998
	37.00	1999.4	299.1	130.48	2.1622	3.998
	38.00	1999.6	299.3	130.41	2.1316	3.998
	39.00	1999.7	299.4	130.36	2.1026	3.999
	40.00	1999.8	299.6	130.30	2.0750	3.999
	41.00	1999.8	299.6	130.27	2.0488	3.999
	42.00	1999.9	299.6	130.26	2.0238	4.000
	43.00	1999.9	299.6	130.19	2.0000	4.000
	44.00	2000.0	299.7	130.14	1.9773	4.000
	45.00	2000.2	299.9	130.09	1.9556	4.001
***** End Shut-in 2	46.00	2000.1	299.8	130.04	1.9348	4.000
***** Final Hydro.	262.00	2656.8	0.0	130.02		



# TEST HISTORY

#9691 Bergner #1-16 DST#7 Imperial Oil.Prop.

## Flag Points

t (Min.) P (PSig)

R:	0.00	2900.29
B:	0.00	1614.26
C:	15.00	1735.87
D:	30.00	2005.19
E:	0.00	1594.37
F:	28.00	1700.29
G:	46.00	2000.08
Q:	0.00	2656.81

