WELL NAME:	Willbanks #17-1
COMPANY:	Imperial Oil Properties Inc.
LOCATION:	17-32S-18W
	Comanche County, Kansas
DATE:	3/4/98

TRILOBITE TESTING L.L.C.

ERATOR : Imperial Oil Prop.Inc.
LL NAME: Willbanks #17-1
CATION : 17-32s-18w CO Comahcne
TERVAL : 4719.00 To 4746.00 ft

DATE 02-25-98
KB 2148.00 ft
GR 2137.00 ft
TD 4746.00 ft

TICKET NO: 10626 DST #1
FORMATION: Drum
TEST TYPE: CONVENTIONAL

CORDER DATA

ins		Field	1	2	3	4
30	Rec.	10248	10248	2342		
60	Range(Psi)	4400.0	4400.0	4995.0	0.0	0.0
60	Clock(hrs)	12 hr	12 hr	batt.		
90	Depth(ft)	4743.0	4743.0	4725.0	0.0	0.0

TIME DATA----------
PF Fr. 0352 to 0422 hr
IS Fr. 0422 to 0522 hr
SF Fr. 0522 to 0622 hr
FS Fr. 0622 to 0752 hr

	Field	1	2	3	4
Init Hydro	2315.0	2335.0	2322.0	0.0	0.0
First Flow	80.0	98.0	75.0	0.0	0.0
Final Flow	477.0	476.0	485.0	0.0	0.0
In Shut-in	1666.0	1663.0	1675.0	0.0	0.0
Init Flow	506.0	510.0	496.0	0.0	0.0
Final Flow	964.0	960.0	979.0	0.0	0.0
Fl Shut-in	1666.0	1661.0	1676.0	0.0	0.0
Final Hydro	2283.0	2279.0	2266.0	0.0	0.0
iside/Outside	O	O	I	T	

T STARTED 0153 hr
T ON BOTM 0340 hr
T OPEN 0352 hr
T PULLED 0752 hr
T OUT 1030 hr

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

Tool Wt.	2100.00 lbs
Wt Set On Packer	20000.00 lbs
Wt Pulled Loose	72000.00 lbs
Initial Str Wt	48000.00 lbs
Unseated Str Wt	58000.00 lbs
Bot Choke	0.75 in
Hole Size	7.88 in
D Col. ID	2.25 in
D. Pipe ID	3.80 in
D.C. Length	0.00 ft
D.P. Length	4699.00 ft

ECOVERY
ot Fluid 1890.00 ft of 0.00 ft in DC and 1890.00 ft in DP
20.00 ft of Muddy water30%m 70%w
770.00 ft of Salt water.
.00 ft of
.00 ft of
.00 ft of
.00 ft of
.00 ft of Rw .06 ohms @ 78 degrees F.
.00 ft of EST FT. of PAY----------10
ALINITY 119000.00 P.P.M. A.P.I. Gravity 0.00

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

Mud Type	Chemical
Weight	9.20 lb/c
Vis.	45.00 S/L
W.L.	12.80 in3
F.C.	0.20 in
Mud Drop N	
Amt. of fill	3.00 ft
Btm. H. Temp.	124.00 F
Hole Condition	good
% Porosity	15.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00 N
Cushion Type	None
Reversed Out N	
Tool Chased Y	3.00 ft
Tester	Gary Pevoteaux
Co. Rep.	Jon T Williams
Contr.	Duke Drlg.
Rig #	5
Unit #	
Pump T.	LCM 3 #/bl

LOW DESCRIPTION
nitial Flow:
Strong blow bottom of bucket in 3.5 min
nitial Shut-in:
No blow.

inal Flow:
Strong blow. Btm. of bucket in 4 mins.

inal Shut-in:
No blow.

AMPLES:
ENT TO:Caraway/Liberal

Test Successful: Y

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Willbanks #17-1

LOCATION : 17-32s-18w CO Comahcne

TICKET No. 10626 D.S.T. No. 1 DATE 02-25-98

TOTAL TOOL TO BOTTOM OF TOP PACKERS 27

INTERVAL TOOL .....

BOTTOM PACKERS AND ANCHOR 27

TOTAL TOOL 54

DRILL COLLAR ANCHOR IN INTERVAL .....

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY 54

D.C. ABOVE TOOLS.Stands Single Total

D.P. ABOVE TOOLS.Stands75 Single 1 Total 4699

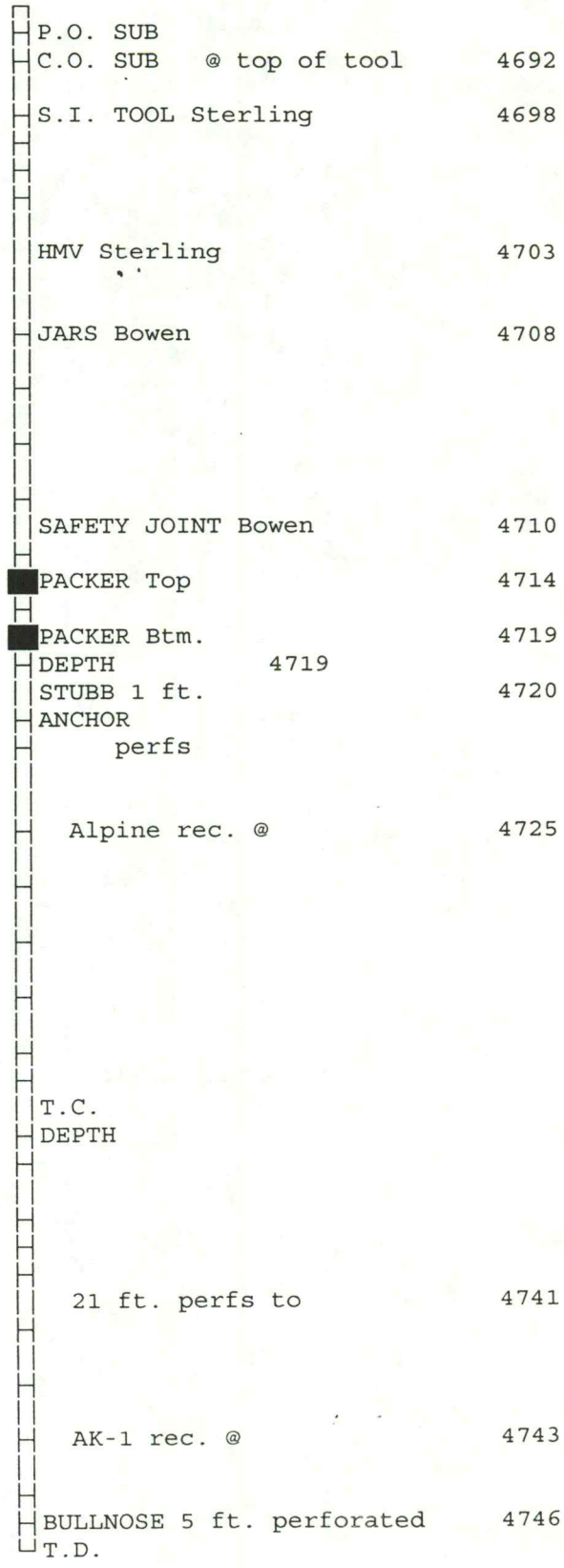
TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 4753

TOTAL DEPTH 4646

TOTAL DRILL PIPE ABOVE K.B. 7

REMARKS:
Comments:

Slid tool 3 - 4 ft. to btm.



TEST HISTORY

10626 DST#1 WILLBANKS#17-1 IMPERIAL OIL PROP.

Flag Points

	t(Min.)	P(PSIg)
A:	0.00	2321.94
B:	0.00	75.27
C:	29.00	484.59
D:	60.50	1674.77
E:	0.00	496.34
F:	56.00	978.84
G:	90.50	1675.61
Q:	0.00	2265.79

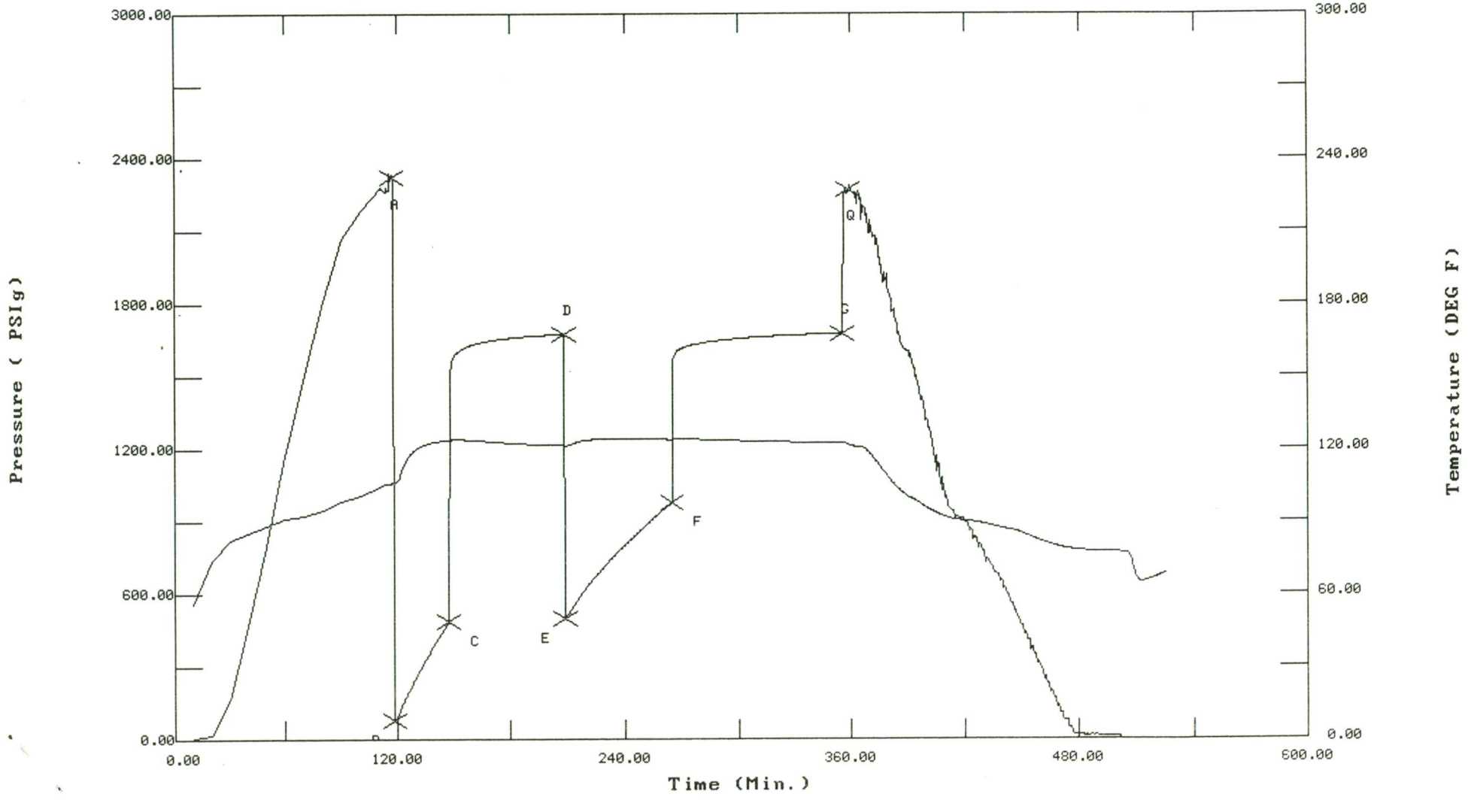
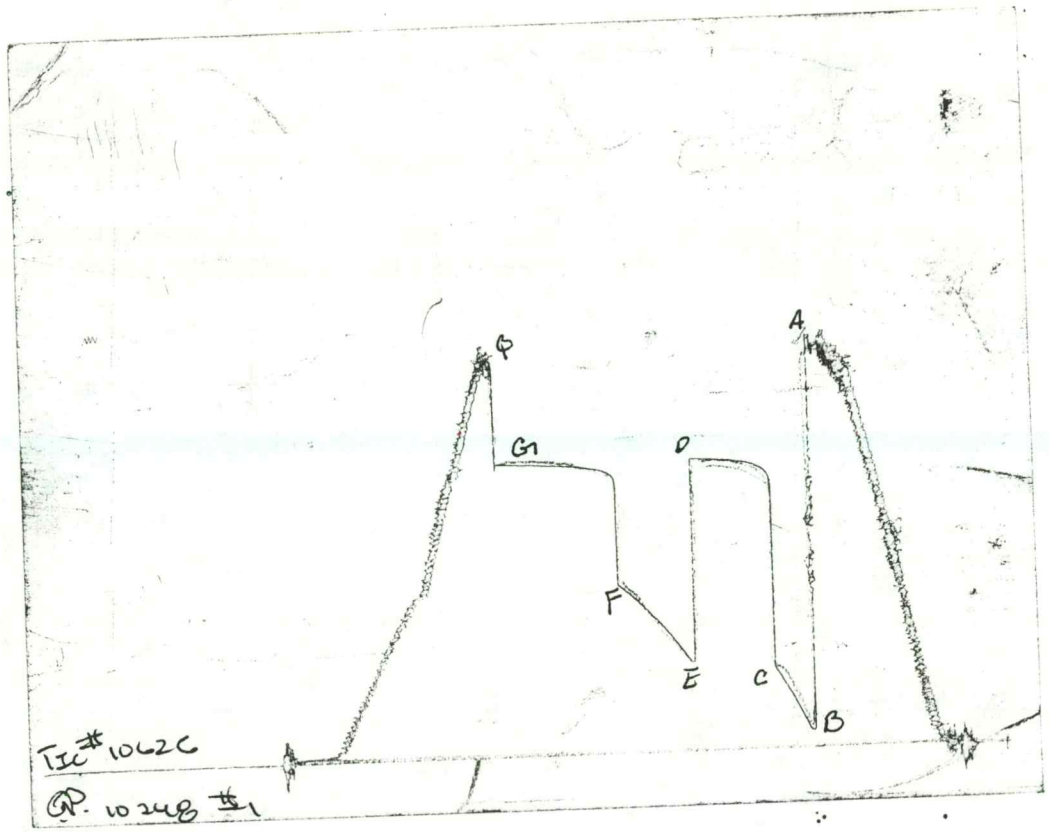


CHART PAGE



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

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10626 DST#1 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/25/98 TIME: 01:53:44

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
****** Initial Hydro.	117.00	2321.9	0.0	105.85		
****** Start Flow 1	0.00	75.3	0.0	106.15		
	0.50	79.6	4.4	106.24		
	1.00	88.2	12.9	106.47		
	1.50	96.1	20.8	106.92		
	2.00	105.1	29.8	107.59		
	2.50	113.9	38.6	108.44		
	3.00	123.2	47.9	109.41		
	3.50	132.3	57.0	110.43		
	4.00	141.9	66.6	111.45		
	4.50	150.5	75.2	112.41		
	5.00	157.0	81.7	113.33		
	5.50	164.6	89.3	114.16		
	6.00	172.6	97.4	114.93		
	6.50	179.9	104.7	115.63		
	7.00	188.2	112.9	116.28		
	7.50	195.5	120.3	116.86		
	8.00	203.5	128.2	117.38		
	8.50	210.8	135.5	117.85		
	9.00	219.0	143.7	118.30		
	9.50	227.1	151.8	118.70		
	10.00	235.2	160.0	119.08		
	10.50	243.6	168.3	119.42		
	11.00	251.7	176.4	119.74		
	11.50	258.9	183.6	120.03		
	12.00	265.9	190.6	120.28		
	12.50	273.2	197.9	120.52		
	13.00	280.0	204.7	120.77		
	13.50	287.3	212.0	120.97		
	14.00	294.1	218.8	121.15		
	14.50	301.0	225.7	121.34		
	15.00	308.4	233.2	121.51		
	15.50	316.1	240.9	121.69		
	16.00	323.0	247.8	121.81		
	16.50	329.1	253.8	121.98		
	17.00	336.0	260.7	122.11		
	17.50	342.4	267.1	122.25		
	18.00	348.8	273.5	122.36		
	18.50	355.3	280.1	122.48		
	19.00	362.7	287.5	122.58		
	19.50	369.4	294.2	122.67		
	20.00	376.4	301.1	122.76		
	20.50	382.3	307.0	122.83		
	21.00	388.2	313.0	122.91		
	21.50	394.6	319.3	122.98		
	22.00	400.6	325.3	123.04		
	22.50	407.3	332.0	123.11		
	23.00	413.5	338.2	123.17		
	23.50	419.7	344.4	123.22		
	24.00	426.0	350.7	123.28		
	24.50	431.7	356.4	123.32		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING
TEST: 10626 DST#1 WILLBANKS#17-1 IMPERIAL OIL PROP.
DATE: 02/25/98 TIME: 01:53:44

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	25.00	438.1	362.8	123.37		
	25.50	444.2	368.9	123.41		
	26.00	450.6	375.3	123.45		
	26.50	456.1	380.9	123.48		
	27.00	461.6	386.3	123.51		
	27.50	467.4	392.1	123.55		
	28.00	473.2	397.9	123.58		
	28.50	478.8	403.5	123.60		
****** End Flow 1	29.00	484.6	409.3	123.64		
****** Start Shutin 1	0.00	484.6	0.0	123.64	0.0000	0.235
	0.50	1518.1	1033.5	123.68	59.0000	2.305
	1.00	1551.7	1067.1	123.73	30.0000	2.408
	1.50	1566.3	1081.7	123.83	20.3333	2.453
	2.00	1575.8	1091.2	123.83	15.5000	2.483
	2.50	1582.8	1098.2	123.86	12.6000	2.505
	3.00	1588.5	1103.9	123.90	10.6667	2.523
	3.50	1593.3	1108.7	123.91	9.2857	2.539
	4.00	1597.3	1112.7	123.93	8.2500	2.551
	4.50	1600.9	1116.3	123.93	7.4444	2.563
	5.00	1604.1	1119.5	123.93	6.8000	2.573
	5.50	1607.0	1122.4	123.95	6.2727	2.582
	6.00	1609.6	1125.1	123.89	5.8333	2.591
	6.50	1612.2	1127.6	123.88	5.4615	2.599
	7.00	1614.4	1129.8	123.87	5.1429	2.606
	7.50	1616.5	1131.9	123.85	4.8667	2.613
	8.00	1618.5	1133.9	123.83	4.6250	2.620
	8.50	1620.3	1135.7	123.81	4.4118	2.625
	9.00	1622.1	1137.6	123.78	4.2222	2.631
	9.50	1623.7	1139.1	123.76	4.0526	2.636
	10.00	1625.3	1140.7	123.73	3.9000	2.642
	10.50	1626.8	1142.3	123.71	3.7619	2.647
	11.00	1628.2	1143.6	123.75	3.6364	2.651
	11.50	1629.6	1145.0	123.61	3.5217	2.656
	12.00	1630.9	1146.3	123.62	3.4167	2.660
	12.50	1632.1	1147.5	123.60	3.3200	2.664
	13.00	1633.2	1148.6	123.57	3.2308	2.667
	13.50	1634.4	1149.8	123.55	3.1481	2.671
	14.00	1635.4	1150.8	123.52	3.0714	2.675
	14.50	1636.5	1151.9	123.50	3.0000	2.678
	15.00	1637.6	1153.0	123.47	2.9333	2.682
	15.50	1638.4	1153.8	123.46	2.8710	2.684
	16.00	1639.4	1154.8	123.41	2.8125	2.688
	16.50	1640.4	1155.8	123.40	2.7576	2.691
	17.00	1641.3	1156.7	123.38	2.7059	2.694
	17.50	1642.1	1157.5	123.32	2.6571	2.697
	18.00	1643.0	1158.4	123.30	2.6111	2.699
	18.50	1643.7	1159.1	123.28	2.5676	2.702
	19.00	1644.6	1160.0	123.24	2.5263	2.705
	19.50	1645.3	1160.7	123.21	2.4872	2.707
	20.00	1646.0	1161.4	123.18	2.4500	2.709
	20.50	1646.7	1162.1	123.16	2.4146	2.712

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10626 DST#1 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/25/98 TIME: 01:53:44

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
21.00	1647.4	1162.8	123.11	2.3810	2.714
21.50	1648.1	1163.5	123.08	2.3488	2.716
22.00	1648.7	1164.1	123.05	2.3182	2.718
22.50	1649.4	1164.8	123.01	2.2889	2.721
23.00	1650.0	1165.4	122.98	2.2609	2.723
23.50	1650.6	1166.0	122.95	2.2340	2.724
24.00	1651.3	1166.7	122.93	2.2083	2.727
24.50	1651.9	1167.3	122.87	2.1837	2.729
25.00	1652.4	1167.8	122.87	2.1600	2.730
25.50	1652.9	1168.4	122.84	2.1373	2.732
26.00	1653.5	1168.9	122.81	2.1154	2.734
26.50	1654.0	1169.5	122.79	2.0943	2.736
27.00	1654.5	1169.9	122.76	2.0741	2.737
27.50	1655.0	1170.4	122.72	2.0545	2.739
28.00	1655.5	1170.9	122.68	2.0357	2.741
28.50	1656.0	1171.4	122.66	2.0175	2.742
29.00	1656.5	1171.9	122.63	2.0000	2.744
29.50	1657.0	1172.4	122.62	1.9831	2.746
30.00	1657.4	1172.8	122.59	1.9667	2.747
30.50	1657.9	1173.3	122.58	1.9508	2.749
31.00	1658.2	1173.6	122.55	1.9355	2.750
31.50	1658.7	1174.2	122.54	1.9206	2.751
32.00	1659.1	1174.5	122.51	1.9062	2.753
32.50	1659.6	1175.0	122.46	1.8923	2.754
33.00	1660.0	1175.4	122.45	1.8788	2.756
33.50	1660.4	1175.8	122.43	1.8657	2.757
34.00	1660.8	1176.2	122.41	1.8529	2.758
34.50	1661.2	1176.6	122.38	1.8406	2.760
35.00	1661.5	1176.9	122.36	1.8286	2.761
35.50	1661.9	1177.3	122.33	1.8169	2.762
36.00	1662.3	1177.7	122.31	1.8056	2.763
36.50	1662.6	1178.0	122.28	1.7945	2.764
37.00	1663.0	1178.4	122.26	1.7838	2.766
37.50	1663.4	1178.8	122.22	1.7733	2.767
38.00	1663.7	1179.1	122.20	1.7632	2.768
38.50	1664.0	1179.4	122.18	1.7532	2.769
39.00	1664.3	1179.7	122.15	1.7436	2.770
39.50	1664.6	1180.0	122.13	1.7342	2.771
40.00	1665.0	1180.4	122.11	1.7250	2.772
40.50	1665.3	1180.7	122.10	1.7160	2.773
41.00	1665.6	1181.0	122.06	1.7073	2.774
41.50	1665.9	1181.3	122.02	1.6988	2.775
42.00	1666.2	1181.6	122.01	1.6905	2.776
42.50	1666.5	1182.0	122.00	1.6824	2.777
43.00	1666.8	1182.2	121.98	1.6744	2.778
43.50	1667.0	1182.5	121.96	1.6667	2.779
44.00	1667.3	1182.7	121.94	1.6591	2.780
44.50	1667.6	1183.0	121.93	1.6517	2.781
45.00	1667.9	1183.3	121.92	1.6444	2.782
45.50	1668.1	1183.6	121.89	1.6374	2.783
46.00	1668.5	1183.9	121.85	1.6304	2.784

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10626 DST#1 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/25/98 TIME: 01:53:44

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	46.50	1668.6	1184.1	121.82	1.6237	2.784
	47.00	1668.9	1184.3	121.81	1.6170	2.785
	47.50	1669.1	1184.6	121.79	1.6105	2.786
	48.00	1669.4	1184.8	121.78	1.6042	2.787
	48.50	1669.7	1185.1	121.77	1.5979	2.788
	49.00	1669.9	1185.3	121.74	1.5918	2.789
	49.50	1670.2	1185.6	121.73	1.5859	2.790
	50.00	1670.4	1185.8	121.71	1.5800	2.790
	50.50	1670.7	1186.1	121.70	1.5743	2.791
	51.00	1670.9	1186.3	121.68	1.5686	2.792
	51.50	1671.1	1186.5	121.66	1.5631	2.793
	52.00	1671.3	1186.7	121.65	1.5577	2.793
	52.50	1671.6	1187.0	121.63	1.5524	2.794
	53.00	1671.8	1187.2	121.61	1.5472	2.795
	53.50	1672.0	1187.4	121.60	1.5421	2.796
	54.00	1672.2	1187.6	121.59	1.5370	2.796
	54.50	1672.4	1187.8	121.56	1.5321	2.797
	55.00	1672.6	1188.0	121.55	1.5273	2.798
	55.50	1672.8	1188.3	121.54	1.5225	2.798
	56.00	1673.1	1188.5	121.52	1.5179	2.799
	56.50	1673.3	1188.8	121.51	1.5133	2.800
	57.00	1673.5	1188.9	121.50	1.5088	2.801
	57.50	1673.7	1189.1	121.49	1.5043	2.801
	58.00	1673.8	1189.3	121.48	1.5000	2.802
	58.50	1674.0	1189.4	121.47	1.4957	2.802
	59.00	1674.3	1189.7	121.46	1.4915	2.803
	59.50	1674.5	1189.9	121.45	1.4874	2.804
	60.00	1674.6	1190.0	121.44	1.4833	2.804
****** End Shut-in 1	60.50	1674.8	1190.2	121.42	1.4793	2.805
****** Start Flow 2	0.00	496.3	0.0	121.38		
	0.50	502.4	6.0	121.35		
	1.00	508.7	12.3	121.37		
	1.50	515.1	18.7	121.44		
	2.00	521.4	25.1	121.55		
	2.50	527.4	31.1	121.72		
	3.00	533.6	37.3	121.90		
	3.50	539.6	43.2	122.09		
	4.00	545.6	49.3	122.28		
	4.50	551.8	55.5	122.46		
	5.00	557.9	61.6	122.61		
	5.50	564.4	68.1	122.77		
	6.00	570.1	73.8	122.90		
	6.50	576.2	79.8	123.02		
	7.00	581.7	85.4	123.12		
	7.50	587.1	90.7	123.21		
	8.00	592.4	96.1	123.30		
	8.50	597.5	101.1	123.38		
	9.00	602.5	106.2	123.44		
	9.50	607.9	111.5	123.50		
	10.00	612.8	116.5	123.55		
	10.50	617.7	121.4	123.60		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10626 DST#1 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/25/98 TIME: 01:53:44

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
11.00	623.1	126.7	123.65		
11.50	627.6	131.3	123.67		
12.00	632.5	136.1	123.71		
12.50	637.7	141.3	123.74		
13.00	642.3	146.0	123.77		
13.50	646.9	150.6	123.80		
14.00	651.4	155.1	123.83		
14.50	657.1	160.7	123.84		
15.00	662.3	166.0	123.86		
15.50	667.5	171.1	123.88		
16.00	672.2	175.8	123.90		
16.50	676.5	180.2	123.91		
17.00	680.9	184.6	123.92		
17.50	685.5	189.2	123.94		
18.00	690.0	193.6	123.94		
18.50	694.4	198.1	123.95		
19.00	699.0	202.7	123.97		
19.50	703.4	207.0	123.95		
20.00	707.8	211.4	123.97		
20.50	712.0	215.7	123.97		
21.00	716.8	220.5	123.98		
21.50	721.4	225.0	123.99		
22.00	725.9	229.5	123.99		
22.50	730.9	234.6	123.99		
23.00	735.5	239.1	123.99		
23.50	740.0	243.6	123.99		
24.00	744.8	248.4	123.99		
24.50	748.7	252.4	123.99		
25.00	752.5	256.1	123.99		
25.50	756.4	260.1	123.99		
26.00	760.5	264.1	123.99		
26.50	764.2	267.8	123.99		
27.00	767.9	271.6	123.99		
27.50	771.8	275.5	123.99		
28.00	776.1	279.7	124.00		
28.50	779.9	283.6	123.99		
29.00	783.7	287.4	123.99		
29.50	787.5	291.1	123.98		
30.00	791.6	295.3	123.98		
30.50	795.5	299.1	123.98		
31.00	799.2	302.9	123.99		
31.50	803.1	306.8	123.98		
32.00	807.1	310.8	123.98		
32.50	810.9	314.6	123.98		
33.00	814.7	318.3	123.98		
33.50	818.4	322.0	123.98		
34.00	822.3	326.0	123.98		
34.50	825.8	329.5	123.97		
35.00	829.4	333.0	123.97		
35.50	832.9	336.6	123.97		
36.00	837.2	340.8	123.97		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10626 DST#1 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/25/98 TIME: 01:53:44

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	36.50	841.0	344.7	123.96		
	37.00	844.8	348.5	123.97		
	37.50	848.6	352.2	123.96		
	38.00	852.6	356.3	123.96		
	38.50	856.2	359.9	123.95		
	39.00	859.7	363.4	123.96		
	39.50	863.1	366.8	123.95		
	40.00	867.0	370.7	123.95		
	40.50	870.7	374.3	123.95		
	41.00	874.4	378.0	123.93		
	41.50	877.9	381.5	123.94		
	42.00	881.7	385.4	123.94		
	42.50	885.2	388.8	123.91		
	43.00	888.6	392.3	123.92		
	43.50	892.0	395.6	123.91		
	44.00	895.7	399.3	123.92		
	44.50	899.6	403.3	123.91		
	45.00	903.3	407.0	123.89		
	45.50	907.0	410.7	123.90		
	46.00	911.1	414.8	123.89		
	46.50	914.6	418.3	123.89		
	47.00	918.1	421.7	123.89		
	47.50	921.5	425.2	123.88		
	48.00	925.0	428.6	123.86		
	48.50	928.5	432.1	123.87		
	49.00	931.7	435.3	123.88		
	49.50	934.7	438.4	123.85		
	50.00	937.9	441.5	123.86		
	50.50	941.4	445.1	123.85		
	51.00	944.3	448.0	123.84		
	51.50	947.4	451.0	123.85		
	52.00	950.3	454.0	123.84		
	52.50	953.2	456.9	123.84		
	53.00	956.8	460.4	123.83		
	53.50	960.0	463.7	123.81		
	54.00	963.4	467.1	123.82		
	54.50	966.7	470.3	123.82		
	55.00	969.9	473.6	123.82		
	55.50	973.4	477.0	123.82		
****** End Flow 2	56.00	978.8	482.5	123.81		
****** Start Shutin 2	0.00	978.8	0.0	123.81	0.0000	0.958
	0.50	1569.3	590.4	123.80	171.0000	2.463
	1.00	1585.3	606.5	123.83	86.0000	2.513
	1.50	1592.9	614.0	123.83	57.6667	2.537
	2.00	1598.0	619.1	123.85	43.5000	2.554
	2.50	1601.9	623.1	123.87	35.0000	2.566
	3.00	1605.0	626.2	123.88	29.3333	2.576
	3.50	1607.9	629.0	123.89	25.2857	2.585
	4.00	1610.2	631.4	123.90	22.2500	2.593
	4.50	1612.4	633.6	123.91	19.8889	2.600
	5.00	1614.3	635.5	123.92	18.0000	2.606

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10626 DST#1 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/25/98 TIME: 01:53:44

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
5.50	1616.0	637.2	123.93	16.4545	2.612
6.00	1617.7	638.9	123.96	15.1667	2.617
6.50	1619.2	640.4	123.94	14.0769	2.622
7.00	1620.6	641.8	123.93	13.1429	2.626
7.50	1622.0	643.1	123.94	12.3333	2.631
8.00	1623.2	644.4	123.94	11.6250	2.635
8.50	1624.5	645.7	123.94	11.0000	2.639
9.00	1625.6	646.7	123.95	10.4444	2.643
9.50	1626.7	647.8	123.97	9.9474	2.646
10.00	1627.7	648.8	123.92	9.5000	2.649
10.50	1628.8	649.9	123.89	9.0952	2.653
11.00	1629.7	650.9	123.91	8.7273	2.656
11.50	1630.6	651.8	123.91	8.3913	2.659
12.00	1631.5	652.7	123.90	8.0833	2.662
12.50	1632.4	653.5	123.89	7.8000	2.665
13.00	1633.1	654.3	123.88	7.5385	2.667
13.50	1634.0	655.1	123.86	7.2963	2.670
14.00	1634.7	655.9	123.84	7.0714	2.672
14.50	1635.5	656.7	123.82	6.8621	2.675
15.00	1636.2	657.4	123.81	6.6667	2.677
15.50	1637.0	658.2	123.81	6.4839	2.680
16.00	1637.7	658.8	123.77	6.3125	2.682
16.50	1638.3	659.5	123.76	6.1515	2.684
17.00	1638.8	660.0	123.75	6.0000	2.686
17.50	1639.6	660.8	123.73	5.8571	2.688
18.00	1640.2	661.4	123.70	5.7222	2.690
18.50	1640.9	662.0	123.69	5.5946	2.692
19.00	1641.5	662.6	123.68	5.4737	2.694
19.50	1642.0	663.2	123.67	5.3590	2.696
20.00	1642.6	663.8	123.66	5.2500	2.698
20.50	1643.1	664.3	123.64	5.1463	2.700
21.00	1643.7	664.9	123.64	5.0476	2.702
21.50	1644.1	665.3	123.63	4.9535	2.703
22.00	1644.7	665.9	123.60	4.8636	2.705
22.50	1645.2	666.4	123.60	4.7778	2.707
23.00	1645.6	666.8	123.58	4.6957	2.708
23.50	1646.1	667.2	123.57	4.6170	2.710
24.00	1646.6	667.7	123.55	4.5417	2.711
24.50	1647.0	668.1	123.53	4.4694	2.713
25.00	1647.5	668.7	123.53	4.4000	2.714
25.50	1647.9	669.1	123.51	4.3333	2.716
26.00	1648.4	669.6	123.49	4.2692	2.717
26.50	1648.8	670.0	123.47	4.2075	2.719
27.00	1649.3	670.4	123.47	4.1481	2.720
27.50	1649.7	670.8	123.45	4.0909	2.721
28.00	1650.1	671.3	123.44	4.0357	2.723
28.50	1650.4	671.6	123.43	3.9825	2.724
29.00	1650.9	672.0	123.42	3.9310	2.725
29.50	1651.3	672.4	123.40	3.8814	2.727
30.00	1651.7	672.8	123.37	3.8333	2.728
30.50	1652.0	673.2	123.36	3.7869	2.729

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10626 DST#1 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/25/98 TIME: 01:53:44

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
31.00	1652.4	673.5	123.35	3.7419	2.730
31.50	1652.8	673.9	123.34	3.6984	2.732
32.00	1653.2	674.4	123.32	3.6562	2.733
32.50	1653.5	674.7	123.31	3.6154	2.734
33.00	1653.9	675.0	123.30	3.5758	2.735
33.50	1654.3	675.5	123.29	3.5373	2.737
34.00	1654.6	675.8	123.29	3.5000	2.738
34.50	1654.9	676.0	123.27	3.4638	2.739
35.00	1655.2	676.4	123.23	3.4286	2.740
35.50	1655.6	676.7	123.23	3.3944	2.741
36.00	1655.9	677.0	123.22	3.3611	2.742
36.50	1656.2	677.4	123.22	3.3288	2.743
37.00	1656.5	677.6	123.21	3.2973	2.744
37.50	1656.8	678.0	123.19	3.2667	2.745
38.00	1657.1	678.3	123.19	3.2368	2.746
38.50	1657.4	678.6	123.17	3.2078	2.747
39.00	1657.6	678.8	123.16	3.1795	2.748
39.50	1658.0	679.1	123.15	3.1519	2.749
40.00	1658.2	679.4	123.13	3.1250	2.750
40.50	1658.5	679.6	123.11	3.0988	2.751
41.00	1658.8	680.0	123.11	3.0732	2.752
41.50	1659.1	680.2	123.09	3.0482	2.753
42.00	1659.3	680.5	123.08	3.0238	2.753
42.50	1659.7	680.8	123.07	3.0000	2.754
43.00	1659.9	681.1	123.06	2.9767	2.755
43.50	1660.2	681.3	123.04	2.9540	2.756
44.00	1660.4	681.6	123.02	2.9318	2.757
44.50	1660.7	681.8	123.01	2.9101	2.758
45.00	1660.9	682.1	123.00	2.8889	2.759
45.50	1661.2	682.3	123.00	2.8681	2.760
46.00	1661.4	682.6	122.98	2.8478	2.760
46.50	1661.6	682.8	122.97	2.8280	2.761
47.00	1661.8	683.0	122.95	2.8085	2.762
47.50	1662.1	683.3	122.95	2.7895	2.763
48.00	1662.3	683.5	122.94	2.7708	2.763
48.50	1662.5	683.7	122.91	2.7526	2.764
49.00	1662.9	684.0	122.88	2.7347	2.765
49.50	1663.1	684.3	122.87	2.7172	2.766
50.00	1663.3	684.4	122.87	2.7000	2.766
50.50	1663.4	684.5	122.86	2.6832	2.767
51.00	1663.7	684.9	122.85	2.6667	2.768
51.50	1663.9	685.0	122.83	2.6505	2.768
52.00	1664.1	685.3	122.82	2.6346	2.769
52.50	1664.3	685.4	122.82	2.6190	2.770
53.00	1664.5	685.7	122.80	2.6038	2.771
53.50	1664.8	685.9	122.79	2.5888	2.772
54.00	1665.0	686.1	122.77	2.5741	2.772
54.50	1665.2	686.4	122.77	2.5596	2.773
55.00	1665.4	686.5	122.75	2.5455	2.773
55.50	1665.5	686.7	122.75	2.5315	2.774
56.00	1665.8	686.9	122.74	2.5179	2.775

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10626 DST#1 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/25/98 TIME: 01:53:44

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
56.50	1666.0	687.1	122.73	2.5044	2.775
57.00	1666.1	687.3	122.71	2.4912	2.776
57.50	1666.3	687.5	122.71	2.4783	2.777
58.00	1666.5	687.6	122.69	2.4655	2.777
58.50	1666.7	687.9	122.69	2.4530	2.778
59.00	1666.9	688.0	122.68	2.4407	2.778
59.50	1667.0	688.2	122.67	2.4286	2.779
60.00	1667.2	688.4	122.66	2.4167	2.780
60.50	1667.5	688.6	122.65	2.4050	2.780
61.00	1667.6	688.7	122.65	2.3934	2.781
61.50	1667.8	689.0	122.64	2.3821	2.782
62.00	1667.9	689.0	122.64	2.3710	2.782
62.50	1668.1	689.2	122.62	2.3600	2.782
63.00	1668.3	689.5	122.61	2.3492	2.783
63.50	1668.5	689.6	122.59	2.3386	2.784
64.00	1668.6	689.8	122.55	2.3281	2.784
64.50	1668.8	690.0	122.55	2.3178	2.785
65.00	1669.0	690.1	122.57	2.3077	2.785
65.50	1669.1	690.3	122.55	2.2977	2.786
66.00	1669.2	690.4	122.55	2.2879	2.786
66.50	1669.4	690.6	122.54	2.2782	2.787
67.00	1669.6	690.7	122.53	2.2687	2.787
67.50	1669.7	690.9	122.52	2.2593	2.788
68.00	1669.9	691.1	122.52	2.2500	2.789
68.50	1670.1	691.2	122.51	2.2409	2.789
69.00	1670.2	691.4	122.50	2.2319	2.790
69.50	1670.3	691.5	122.49	2.2230	2.790
70.00	1670.5	691.6	122.48	2.2143	2.791
70.50	1670.7	691.8	122.47	2.2057	2.791
71.00	1670.8	692.0	122.46	2.1972	2.792
71.50	1671.0	692.2	122.46	2.1888	2.792
72.00	1671.2	692.3	122.45	2.1806	2.793
72.50	1671.2	692.4	122.44	2.1724	2.793
73.00	1671.4	692.6	122.43	2.1644	2.794
73.50	1671.5	692.7	122.42	2.1565	2.794
74.00	1671.7	692.8	122.42	2.1486	2.794
74.50	1671.8	693.0	122.40	2.1409	2.795
75.00	1672.0	693.2	122.40	2.1333	2.796
75.50	1672.1	693.2	122.39	2.1258	2.796
76.00	1672.3	693.4	122.38	2.1184	2.796
76.50	1672.3	693.5	122.38	2.1111	2.797
77.00	1672.5	693.7	122.36	2.1039	2.797
77.50	1672.6	693.7	122.36	2.0968	2.798
78.00	1672.7	693.8	122.34	2.0897	2.798
78.50	1672.8	694.0	122.33	2.0828	2.798
79.00	1673.0	694.2	122.33	2.0759	2.799
79.50	1673.1	694.3	122.33	2.0692	2.799
80.00	1673.2	694.3	122.32	2.0625	2.800
80.50	1673.3	694.5	122.32	2.0559	2.800
81.00	1673.5	694.7	122.31	2.0494	2.801
81.50	1673.6	694.8	122.30	2.0429	2.801

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10626 DST#1 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/25/98 TIME: 01:53:44

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	82.00	1673.7	694.8	122.29	2.0366	2.801
	82.50	1673.8	695.0	122.27	2.0303	2.802
	83.00	1674.0	695.2	122.25	2.0241	2.802
	83.50	1674.1	695.3	122.24	2.0180	2.803
	84.00	1674.2	695.3	122.22	2.0119	2.803
	84.50	1674.4	695.5	122.22	2.0059	2.803
	85.00	1674.4	695.5	122.21	2.0000	2.803
	85.50	1674.5	695.7	122.22	1.9942	2.804
	86.00	1674.7	695.8	122.21	1.9884	2.805
	86.50	1674.8	695.9	122.19	1.9827	2.805
	87.00	1674.9	696.0	122.19	1.9770	2.805
	87.50	1675.0	696.2	122.19	1.9714	2.806
	88.00	1675.1	696.3	122.18	1.9659	2.806
	88.50	1675.2	696.3	122.17	1.9605	2.806
	89.00	1675.4	696.5	122.16	1.9551	2.807
	89.50	1675.4	696.6	122.17	1.9497	2.807
	90.00	1675.5	696.7	122.16	1.9444	2.807
****** End Shut-in 2	90.50	1675.6	696.8	122.15	1.9392	2.808
****** Final Hydro.	358.00	2265.8	0.0	121.78		

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

№ 10626

Well Name & No. WILLBANKS #17-1 Test No. 1 Date 2-25-98

Company IMPERIAL OIL PROPERTIES INC. Zone Tested DRUM

Address 212 N. MARKET STE. 513 / WICHITA KS. 67202 Elevation 2148 KB 2137 est GL

Co. Rep / Geo. JON T. WILLIAMS Cont. DUKE DRLG. #5 Est. Ft. of Pay 10 Por. 15 %

Location: Sec. 17 Twp. 32S Rge. 18W Co. COMANCHE State KS.

No. of Copies 5 Distribution Sheet (Y, N) N Turnkey (Y, N) — Evaluation (Y, N) —

Interval Tested 4719 - 4746'

Anchor Length 27'

Top Packer Depth 4714'

Bottom Packer Depth 4719'

Total Depth 4746'

Mud Wt. 9.2 LCM 3# Vis. 45 WL 12.8cc.

Initial Str Wt./Lbs. 48,000 Unseated Str Wt./Lbs. 58,000

Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 72,000

Tool Weight 2,100#

Hole Size — 7 7/8" ✓ Rubber Size — 6 3/4" ✓

Wt. Pipe Run NONE Drill Collar Run NONE

Drill Pipe Size 4½" X.H. Ft. Run 4699'

Blow Description IF: Strong blow. Btm. of bucket in 3½ mins.

FF: Strong blow. Btm. of bucket in 4 mins.

COMMENT: Slid tool 3-4' to btm.

Recovery — Total Feet 1890' GIP — Ft. in DC — Ft. in DP 1890

Rec.	Feet Of		%gas	%oil	%water	%mud
120	M.W.				70	30
1770	Salt Water					

BHT 124 °F Gravity N/A °API D@ — °F Corrected Gravity N/A °API

RW .06 @ 78 °F Chlorides 119,000 ppm Recovery Chlorides 7,000 ppm System

	AK-1	ALPINE	
(A) Initial Hydrostatic Mud	2315	2322	PSI
(B) First Initial Flow Pressure	80	75	PSI
(C) First Final Flow Pressure	477	485	PSI
(D) Initial Shut-in Pressure	1666	1675	PSI
(E) Second Initial Flow Pressure	506	496	PSI
(F) Second Final Flow Pressure	964	979	PSI
(G) Final Shut-in Pressure	1666	1676	PSI
(H) Final Hydrostatic Mud	2283	2266	PSI

Recorder No. 10248 (depth) 4743'

alpine Recorder No. 2342 (depth) 4725'

Recorder No. — (depth) —

T-Started 0153

T-Open 0352

T-Pulled 0752

T-Out 1030

Initial Opening 30

Initial Shut-in 60

Final Flow 60

Final Shut-in 90

4

Test ✓ 700.00

Jars ✓ 200.00

Safety Joint ✓ 50

Straddle

Circ. Sub

Sampler

Extra Packer

Elect. Rec. ✓ 150.00

Other

TOTAL PRICE $ ✓ 1100.00

Approved By [signature] agent.

Our Representative [signature]

TRILOBITE TESTING L.L.C.

OPERATOR : Imperial Oil Prop.Inc. DATE 02-26-98
WELL NAME: Willbanks #17-1 KB 2148.00 ft TICKET NO: 10627 DST #2
LOCATION : 17-32s-18w CO Comanche KS GR 2137.00 ft FORMATION: Altamont
INTERVAL : 5048.00 To 5070.00 ft TD 5070.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins			Field	1	2	3	4
PF	30	Rec.	10248	10248	2342		
SI	60	Range(Psi)	4400.0	4400.0	4995.0	0.0	0.0
SF	60	Clock(hrs)	12 hr	12 hr	batt.		
FS	60	Depth(ft)	5067.0	5067.0	5054.0	0.0	0.0

TIME DATA----------
PF Fr. 1430 to 1500 hr
IS Fr. 1500 to 1600 hr
SF Fr. 1600 to 1700 hr
FS Fr. 1700 to 1800 hr

	Field	1	2	3	4
A. Init Hydro	2470.0	2490.0	2514.0	0.0	0.0
B. First Flow	55.0	25.0	37.0	0.0	0.0
B1. Final Flow	60.0	32.0	41.0	0.0	0.0
C. In Shut-in	1172.0	1151.0	1190.0	0.0	0.0
D. Init Flow	69.0	44.0	42.0	0.0	0.0
E. Final Flow	80.0	53.0	59.0	0.0	0.0
F. Fl Shut-in	1089.0	1086.0	1106.0	0.0	0.0
G. Final Hydro	2437.0	2452.0	2489.0	0.0	0.0
Inside/Outside	O	O	I	T	

T STARTED 1242 hr
T ON BOTM 1424 hr
T OPEN 1430 hr
T PULLED 1802 hr
T OUT 2020 hr

RECOVERY
Tot Fluid 100.00 ft of 0.00 ft in DC and 100.00 ft in DP
2420.00 ft of Gas in pipe.
40.00 ft of Gassy oil cut mud 10%g 12%o 78%m
60.00 ft of Slightly oil cut gassy mud
0.00 ft of 22% gas 3% oil 10% water 65% mud
0.00 ft of Clean oil at top of tool
0.00 ft of
0.00 ft of Rw n/c ohms @ degrees F.
0.00 ft of EST FT. of PAY----------6
SALINITY 6000.00 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	2.25 in
D. Pipe ID	3.80 in
D.C. Length	0.00 ft
D.P. Length	5039.00 ft

BLOW DESCRIPTION
Initial Flow:
Strong blow. Bottom of bucket in 15 min.
Initial Shut-in:
No blow.

Final Flow:
Strong blow. Btm. of bucket in 5 - 10 secs.

Final Shut-in:
No blow.

SAMPLES:
SENT TO:Caraway/Liberal

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

Mud Type	Chemical
Weight	9.20 lb/c
Vis.	46.00 S/L
W.L.	12.80 in3
F.C.	0.20 in
Mud Drop	N
Amt. of fill	3.00 ft
Btm. H. Temp.	119.00 F
Hole Condition	good
% Porosity	10.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00 N
Cushion Type	None
Reversed Out	N
Tool Chased	N
Tester	Gary Pevoteaux
Co. Rep.	Jon T Williams
Contr.	Duke Drlg.
Rig #	5
Unit #	
Pump T.	LCM 2 #/bl

Test Successful: Y

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Willbanks #17-1

LOCATION : 17-32s-18w CO Comanche KS

TICKET No. 10627 D.S.T. No. 2 DATE 02-26-98

TOTAL TOOL TO BOTTOM OF TOP PACKERS 27

INTERVAL TOOL .....

BOTTOM PACKERS AND ANCHOR 22

TOTAL TOOL 49

DRILL COLLAR ANCHOR IN INTERVAL .....

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY 49

D.C. ABOVE TOOLS.Stands Single Total

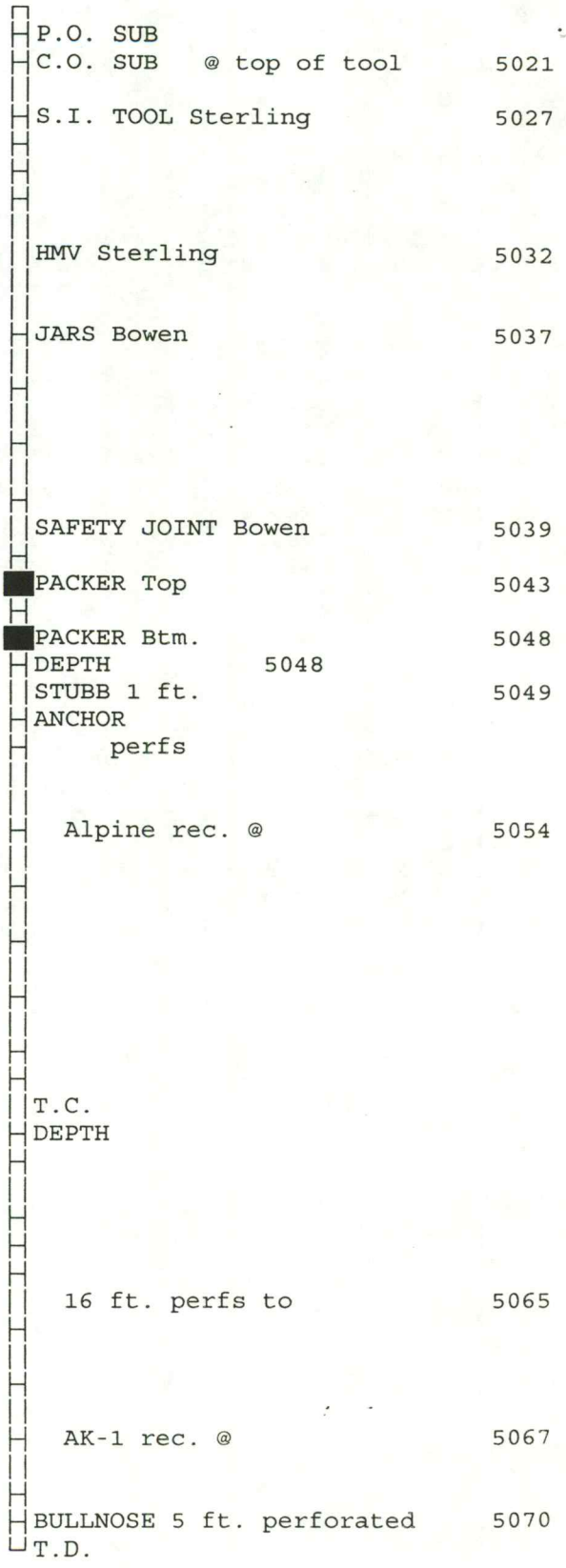
D.P. ABOVE TOOLS.Stands81 Single Total 5039

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5088

TOTAL DEPTH 5070

TOTAL DRILL PIPE ABOVE K.B. 18

REMARKS:
Comments:



TEST HISTORY

10627 DST#2 WILLBANKS#17-1 IMPERIAL OIL PROP.

Flag Points

	t(Min.)	P(PSIg)
A:	0.00	2513.63
B:	0.00	37.34
C:	31.00	41.37
D:	59.00	1189.58
E:	0.00	42.46
F:	58.00	59.33
G:	64.50	1105.91
Q:	0.00	2489.29

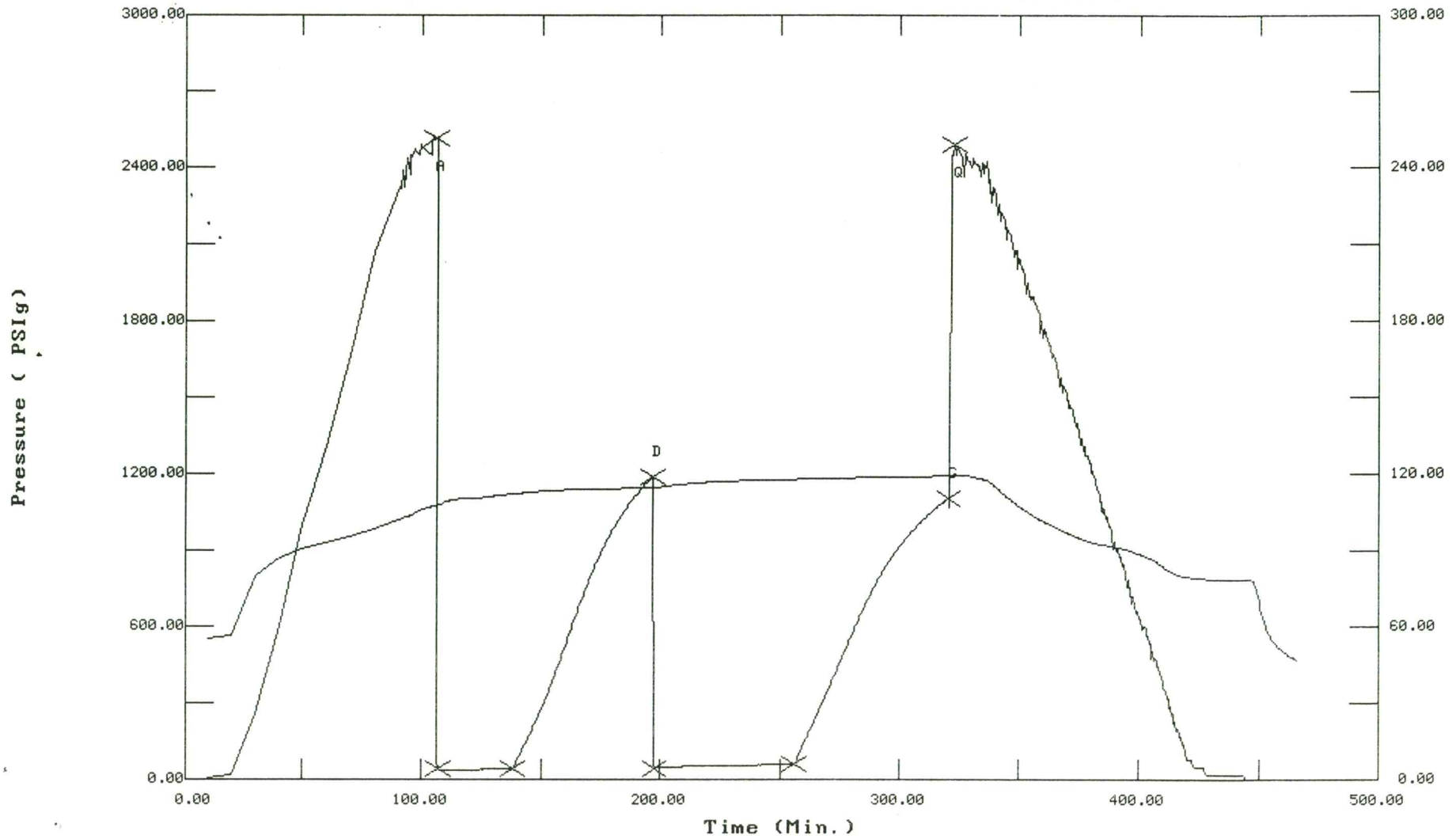
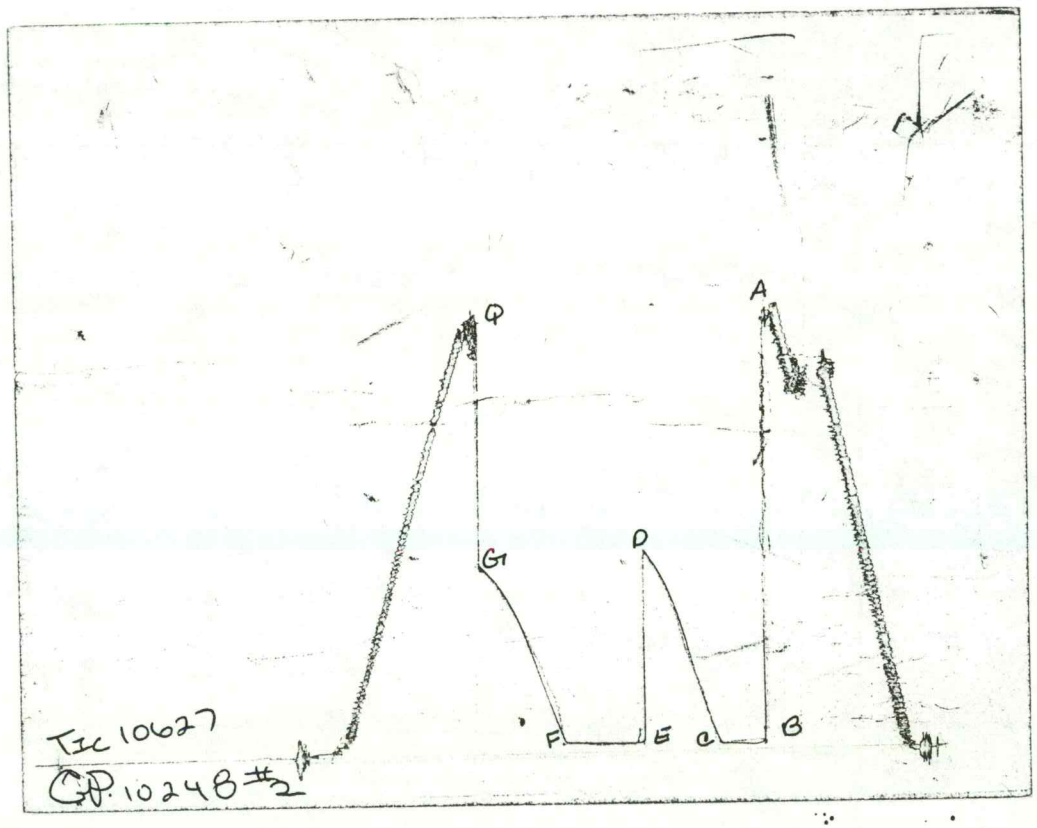


CHART PAGE



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

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10627 DST#2 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/26/98 TIME: 12:42:27

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
****** Initial Hydro.	105.50	2513.6	0.0	107.36		
****** Start Flow 1	0.00	37.3	0.0	107.71		
	0.50	32.3	-5.0	107.88		
	1.00	31.8	-5.5	108.11		
	1.50	32.6	-4.7	108.37		
	2.00	32.5	-4.9	108.63		
	2.50	32.6	-4.7	108.86		
	3.00	32.7	-4.6	109.07		
	3.50	32.5	-4.9	109.25		
	4.00	32.6	-4.7	109.40		
	4.50	32.1	-5.2	109.53		
	5.00	32.2	-5.1	109.64		
	5.50	32.1	-5.3	109.74		
	6.00	32.3	-5.0	109.82		
	6.50	32.2	-5.1	109.88		
	7.00	32.5	-4.9	109.95		
	7.50	32.7	-4.6	109.99		
	8.00	32.8	-4.5	110.04		
	8.50	33.1	-4.3	110.08		
	9.00	33.3	-4.0	110.12		
	9.50	33.7	-3.6	110.15		
	10.00	33.6	-3.8	110.17		
	10.50	34.3	-3.0	110.20		
	11.00	34.2	-3.2	110.24		
	11.50	34.5	-2.9	110.26		
	12.00	34.7	-2.6	110.29		
	12.50	34.7	-2.6	110.32		
	13.00	35.1	-2.3	110.34		
	13.50	35.2	-2.2	110.37		
	14.00	35.6	-1.8	110.39		
	14.50	35.6	-1.8	110.42		
	15.00	35.9	-1.4	110.44		
	15.50	35.9	-1.4	110.46		
	16.00	36.2	-1.1	110.49		
	16.50	36.5	-0.8	110.52		
	17.00	36.4	-0.9	110.55		
	17.50	36.7	-0.7	110.59		
	18.00	36.8	-0.6	110.63		
	18.50	36.6	-0.8	110.67		
	19.00	37.0	-0.3	110.72		
	19.50	37.2	-0.2	110.78		
	20.00	37.1	-0.3	110.84		
	20.50	37.4	0.1	110.89		
	21.00	37.3	0.0	110.96		
	21.50	37.6	0.3	111.02		
	22.00	38.0	0.7	111.09		
	22.50	38.0	0.7	111.15		
	23.00	38.1	0.8	111.22		
	23.50	38.1	0.8	111.28		
	24.00	38.4	1.1	111.35		
	24.50	38.8	1.4	111.40		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10627 DST#2 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/26/98 TIME: 12:42:27

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	25.00	38.6	1.3	111.47		
	25.50	39.0	1.7	111.53		
	26.00	38.9	1.6	111.58		
	26.50	39.2	1.8	111.64		
	27.00	39.1	1.8	111.70		
	27.50	39.6	2.3	111.75		
	28.00	39.6	2.3	111.81		
	28.50	39.8	2.4	111.86		
	29.00	39.9	2.5	111.91		
	29.50	39.9	2.6	111.96		
	30.00	40.1	2.8	112.01		
	30.50	40.4	3.1	112.06		
****** End Flow 1	31.00	41.4	4.0	112.10		
****** Start Shutin 1	0.00	41.4	0.0	112.10	0.0000	0.002
	0.50	51.4	10.1	112.15	63.0000	0.003
	1.00	60.9	19.6	112.20	32.0000	0.004
	1.50	70.5	29.1	112.24	21.6667	0.005
	2.00	79.9	38.5	112.29	16.5000	0.006
	2.50	89.5	48.1	112.32	13.4000	0.008
	3.00	98.9	57.6	112.37	11.3333	0.01
	3.50	108.4	67.1	112.41	9.8571	0.012
	4.00	117.8	76.5	112.45	8.7500	0.014
	4.50	127.2	85.9	112.49	7.8889	0.016
	5.00	136.7	95.3	112.53	7.2000	0.019
	5.50	146.1	104.7	112.59	6.6364	0.021
	6.00	155.5	114.1	112.63	6.1667	0.024
	6.50	164.7	123.3	112.68	5.7692	0.027
	7.00	174.3	132.9	112.71	5.4286	0.030
	7.50	184.3	142.9	112.77	5.1333	0.034
	8.00	194.6	153.3	112.82	4.8750	0.038
	8.50	205.0	163.7	112.86	4.6471	0.042
	9.00	215.6	174.2	112.90	4.4444	0.046
	9.50	226.1	184.7	112.94	4.2632	0.051
	10.00	236.7	195.3	112.98	4.1000	0.056
	10.50	245.3	203.9	113.03	3.9524	0.060
	11.00	256.3	214.9	113.07	3.8182	0.066
	11.50	267.3	225.9	113.11	3.6957	0.071
	12.00	278.4	237.0	113.15	3.5833	0.077
	12.50	289.5	248.2	113.20	3.4800	0.084
	13.00	300.8	259.4	113.23	3.3846	0.090
	13.50	312.3	270.9	113.26	3.2963	0.098
	14.00	324.0	282.6	113.32	3.2143	0.105
	14.50	335.9	294.5	113.33	3.1379	0.113
	15.00	348.1	306.8	113.34	3.0667	0.121
	15.50	360.3	318.9	113.39	3.0000	0.130
	16.00	372.4	331.0	113.42	2.9375	0.139
	16.50	384.8	343.4	113.45	2.8788	0.148
	17.00	397.3	355.9	113.47	2.8235	0.158
	17.50	409.9	368.5	113.49	2.7714	0.168
	18.00	422.6	381.2	113.51	2.7222	0.179
	18.50	435.4	394.0	113.53	2.6757	0.190

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10627 DST#2 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/26/98 TIME: 12:42:27

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
19.00	448.3	407.0	113.54	2.6316	0.201
19.50	461.3	420.0	113.58	2.5897	0.213
20.00	474.4	433.0	113.59	2.5500	0.225
20.50	487.5	446.2	113.60	2.5122	0.238
21.00	500.7	459.3	113.61	2.4762	0.251
21.50	514.0	472.6	113.62	2.4419	0.264
22.00	527.1	485.8	113.63	2.4091	0.278
22.50	540.5	499.1	113.63	2.3778	0.292
23.00	553.8	512.5	113.64	2.3478	0.307
23.50	567.3	525.9	113.65	2.3191	0.322
24.00	580.6	539.2	113.65	2.2917	0.337
24.50	593.9	552.6	113.66	2.2653	0.353
25.00	607.4	566.0	113.66	2.2400	0.369
25.50	620.7	579.4	113.66	2.2157	0.385
26.00	634.1	592.7	113.66	2.1923	0.402
26.50	647.2	605.9	113.67	2.1698	0.419
27.00	660.4	619.1	113.69	2.1481	0.436
27.50	673.5	632.1	113.70	2.1273	0.454
28.00	686.6	645.2	113.72	2.1071	0.471
28.50	699.4	658.1	113.72	2.0877	0.489
29.00	712.2	670.8	113.73	2.0690	0.507
29.50	724.9	683.5	113.74	2.0508	0.525
30.00	737.4	696.0	113.75	2.0333	0.544
30.50	749.8	708.4	113.76	2.0164	0.562
31.00	762.0	720.6	113.78	2.0000	0.581
31.50	774.0	732.6	113.79	1.9841	0.599
32.00	785.8	744.4	113.80	1.9688	0.617
32.50	797.3	755.9	113.80	1.9538	0.636
33.00	808.7	767.4	113.83	1.9394	0.654
33.50	820.1	778.7	113.85	1.9254	0.672
34.00	831.0	789.7	113.86	1.9118	0.691
34.50	841.9	800.5	113.86	1.8986	0.709
35.00	852.6	811.2	113.86	1.8857	0.727
35.50	863.1	821.7	113.90	1.8732	0.745
36.00	873.4	832.1	113.92	1.8611	0.763
36.50	883.6	842.2	113.93	1.8493	0.781
37.00	893.4	852.0	113.95	1.8378	0.798
37.50	903.1	861.8	113.96	1.8267	0.816
38.00	912.7	871.3	113.99	1.8158	0.833
38.50	922.0	880.7	113.99	1.8052	0.850
39.00	931.3	889.9	114.01	1.7949	0.867
39.50	940.2	898.9	114.02	1.7848	0.884
40.00	949.0	907.7	114.04	1.7750	0.901
40.50	957.7	916.3	114.06	1.7654	0.917
41.00	966.2	924.8	114.08	1.7561	0.933
41.50	974.6	933.2	114.10	1.7470	0.950
42.00	982.7	941.3	114.10	1.7381	0.966
42.50	990.8	949.4	114.12	1.7294	0.982
43.00	998.6	957.2	114.14	1.7209	0.997
43.50	1006.2	964.8	114.15	1.7126	1.012
44.00	1013.7	972.3	114.18	1.7045	1.028

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10627 DST#2 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/26/98 TIME: 12:42:27

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	44.50	1021.1	979.8	114.20	1.6966	1.043
	45.00	1028.5	987.2	114.20	1.6889	1.058
	45.50	1035.7	994.3	114.22	1.6813	1.073
	46.00	1042.8	1001.4	114.24	1.6739	1.087
	46.50	1049.7	1008.3	114.25	1.6667	1.102
	47.00	1056.5	1015.1	114.27	1.6596	1.116
	47.50	1063.2	1021.8	114.29	1.6526	1.130
	48.00	1069.7	1028.3	114.30	1.6458	1.144
	48.50	1076.1	1034.7	114.32	1.6392	1.158
	49.00	1082.4	1041.0	114.33	1.6327	1.172
	49.50	1088.6	1047.3	114.34	1.6263	1.185
	50.00	1094.7	1053.3	114.35	1.6200	1.198
	50.50	1100.7	1059.3	114.37	1.6139	1.212
	51.00	1106.5	1065.1	114.39	1.6078	1.224
	51.50	1112.3	1070.9	114.40	1.6019	1.237
	52.00	1118.0	1076.6	114.43	1.5962	1.250
	52.50	1123.7	1082.3	114.45	1.5905	1.263
	53.00	1129.2	1087.8	114.44	1.5849	1.275
	53.50	1134.6	1093.2	114.46	1.5794	1.287
	54.00	1140.0	1098.6	114.48	1.5741	1.300
	54.50	1145.2	1103.8	114.49	1.5688	1.311
	55.00	1150.5	1109.1	114.51	1.5636	1.324
	55.50	1155.6	1114.2	114.51	1.5586	1.335
	56.00	1160.7	1119.3	114.54	1.5536	1.347
	56.50	1165.6	1124.2	114.55	1.5487	1.359
	57.00	1170.5	1129.2	114.56	1.5439	1.370
	57.50	1175.4	1134.0	114.57	1.5391	1.382
	58.00	1180.2	1138.8	114.57	1.5345	1.393
	58.50	1184.9	1143.5	114.58	1.5299	1.404
****** End Shut-in 1	59.00	1189.6	1148.2	114.61	1.5254	1.415
****** Start Flow 2	0.00	42.5	0.0	114.59		
	0.50	45.4	2.9	114.60		
	1.00	45.8	3.4	114.64		
	1.50	46.1	3.6	114.71		
	2.00	46.1	3.6	114.80		
	2.50	46.1	3.7	114.88		
	3.00	46.3	3.9	114.96		
	3.50	46.4	3.9	115.04		
	4.00	46.4	3.9	115.11		
	4.50	46.6	4.1	115.18		
	5.00	46.7	4.3	115.24		
	5.50	46.9	4.4	115.29		
	6.00	46.9	4.4	115.36		
	6.50	47.2	4.7	115.41		
	7.00	47.3	4.9	115.45		
	7.50	47.3	4.9	115.49		
	8.00	47.2	4.8	115.54		
	8.50	47.6	5.1	115.58		
	9.00	47.6	5.1	115.62		
	9.50	47.8	5.4	115.66		
	10.00	48.1	5.6	115.70		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10627 DST#2 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/26/98 TIME: 12:42:27

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
10.50	48.3	5.9	115.75		
11.00	48.5	6.0	115.79		
11.50	48.6	6.1	115.83		
12.00	48.9	6.5	115.88		
12.50	48.8	6.3	115.92		
13.00	48.8	6.4	115.98		
13.50	49.0	6.5	116.02		
14.00	48.9	6.5	116.06		
14.50	49.3	6.9	116.12		
15.00	48.9	6.5	116.16		
15.50	49.3	6.8	116.19		
16.00	49.4	7.0	116.24		
16.50	49.4	7.0	116.28		
17.00	49.6	7.1	116.32		
17.50	49.4	7.0	116.35		
18.00	49.6	7.1	116.39		
18.50	49.9	7.5	116.42		
19.00	49.6	7.1	116.46		
19.50	50.0	7.6	116.49		
20.00	50.1	7.6	116.53		
20.50	49.9	7.5	116.56		
21.00	50.1	7.6	116.59		
21.50	50.4	8.0	116.62		
22.00	50.6	8.1	116.65		
22.50	50.3	7.8	116.68		
23.00	50.8	8.3	116.71		
23.50	51.0	8.6	116.73		
24.00	50.9	8.4	116.76		
24.50	51.1	8.6	116.79		
25.00	52.0	9.6	116.83		
25.50	50.9	8.5	116.84		
26.00	51.3	8.8	116.87		
26.50	51.0	8.6	116.89		
27.00	51.5	9.1	116.91		
27.50	51.6	9.1	116.94		
28.00	52.3	9.8	116.96		
28.50	52.4	10	116.99		
29.00	51.8	9.3	117.00		
29.50	51.4	9.0	117.02		
30.00	52.4	9.9	117.05		
30.50	51.8	9.3	117.07		
31.00	52.8	10.3	117.09		
31.50	52.4	9.9	117.11		
32.00	52.4	10	117.12		
32.50	52.6	10.2	117.14		
33.00	52.6	10.2	117.17		
33.50	52.9	10.5	117.18		
34.00	53.0	10.6	117.20		
34.50	52.9	10.4	117.22		
35.00	52.8	10.3	117.23		
35.50	53.4	11.0	117.25		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10627 DST#2 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/26/98 TIME: 12:42:27

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	36.00	53.4	11.0	117.26		
	36.50	53.5	11.1	117.28		
	37.00	53.5	11.1	117.30		
	37.50	53.8	11.3	117.31		
	38.00	53.8	11.3	117.33		
	38.50	53.9	11.4	117.34		
	39.00	54.0	11.5	117.35		
	39.50	53.8	11.3	117.37		
	40.00	53.7	11.2	117.38		
	40.50	54.1	11.7	117.40		
	41.00	54.2	11.7	117.42		
	41.50	54.5	12.1	117.44		
	42.00	54.5	12.1	117.44		
	42.50	54.5	12.1	117.45		
	43.00	54.6	12.2	117.46		
	43.50	55.0	12.6	117.48		
	44.00	54.5	12.1	117.49		
	44.50	54.8	12.3	117.50		
	45.00	55.0	12.6	117.51		
	45.50	55.4	12.9	117.53		
	46.00	54.8	12.3	117.54		
	46.50	54.8	12.3	117.55		
	47.00	55.3	12.8	117.57		
	47.50	55.4	12.9	117.58		
	48.00	55.6	13.2	117.59		
	48.50	55.9	13.4	117.60		
	49.00	55.9	13.4	117.61		
	49.50	56.1	13.7	117.62		
	50.00	56.3	13.8	117.63		
	50.50	56.3	13.8	117.65		
	51.00	56.3	13.8	117.66		
	51.50	56.3	13.8	117.66		
	52.00	56.1	13.7	117.68		
	52.50	56.1	13.6	117.69		
	53.00	56.5	14.0	117.71		
	53.50	56.6	14.2	117.71		
	54.00	56.8	14.4	117.72		
	54.50	57.3	14.9	117.73		
	55.00	57.6	15.1	117.74		
	55.50	58.1	15.6	117.75		
	56.00	58.2	15.7	117.76		
	56.50	58.5	16.0	117.77		
	57.00	58.8	16.4	117.78		
	57.50	59.2	16.8	117.79		
****** End Flow 2	58.00	59.3	16.9	117.80		
****** Start Shutin 2	0.00	59.3	0.0	117.80	0.0000	0.004
	0.50	65.7	6.4	117.80	179.0000	0.004
	1.00	77.1	17.8	117.82	90.0000	0.006
	1.50	88.3	29.0	117.82	60.3333	0.008
	2.00	99.2	39.9	117.84	45.5000	0.01
	2.50	109.8	50.4	117.86	36.6000	0.012

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10627 DST#2 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/26/98 TIME: 12:42:27

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
3.00	120.3	60.9	117.87	30.6667	0.014
3.50	130.6	71.3	117.89	26.4286	0.017
4.00	140.9	81.6	117.89	23.2500	0.020
4.50	151.1	91.8	117.90	20.7778	0.023
5.00	161.4	102.1	117.92	18.8000	0.026
5.50	171.7	112.4	117.93	17.1818	0.029
6.00	181.9	122.6	117.94	15.8333	0.033
6.50	192.3	132.9	117.96	14.6923	0.037
7.00	202.6	143.3	117.97	13.7143	0.041
7.50	213.0	153.7	117.98	12.8667	0.045
8.00	223.4	164.1	118.00	12.1250	0.050
8.50	233.8	174.5	118.01	11.4706	0.055
9.00	244.1	184.7	118.03	10.8889	0.060
9.50	254.5	195.2	118.04	10.3684	0.065
10.00	265.2	205.9	118.06	9.9000	0.070
10.50	275.9	216.5	118.07	9.4762	0.076
11.00	286.6	227.3	118.08	9.0909	0.082
11.50	297.6	238.3	118.10	8.7391	0.089
12.00	308.5	249.2	118.11	8.4167	0.095
12.50	319.6	260.3	118.13	8.1200	0.102
13.00	330.6	271.3	118.14	7.8462	0.109
13.50	341.7	282.3	118.15	7.5926	0.117
14.00	352.7	293.4	118.17	7.3571	0.124
14.50	363.9	304.6	118.18	7.1379	0.132
15.00	375.1	315.7	118.20	6.9333	0.141
15.50	386.2	326.9	118.21	6.7419	0.149
16.00	397.5	338.1	118.23	6.5625	0.158
16.50	408.6	349.2	118.24	6.3939	0.167
17.00	419.8	360.5	118.25	6.2353	0.176
17.50	431.0	371.6	118.26	6.0857	0.186
18.00	442.1	382.8	118.28	5.9444	0.195
18.50	453.2	393.9	118.28	5.8108	0.205
19.00	464.4	405.1	118.30	5.6842	0.216
19.50	475.6	416.3	118.32	5.5641	0.226
20.00	486.7	427.4	118.32	5.4500	0.237
20.50	497.8	438.4	118.32	5.3415	0.248
21.00	508.8	449.5	118.34	5.2381	0.259
21.50	519.8	460.5	118.35	5.1395	0.270
22.00	530.9	471.6	118.35	5.0455	0.282
22.50	541.9	482.6	118.37	4.9556	0.294
23.00	552.9	493.6	118.38	4.8696	0.306
23.50	563.8	504.5	118.39	4.7872	0.318
24.00	574.6	515.3	118.39	4.7083	0.330
24.50	585.5	526.1	118.40	4.6327	0.343
25.00	596.4	537.1	118.41	4.5600	0.356
25.50	607.1	547.8	118.42	4.4902	0.369
26.00	617.7	558.4	118.43	4.4231	0.382
26.50	628.4	569.0	118.44	4.3585	0.395
27.00	638.8	579.5	118.46	4.2963	0.408
27.50	649.2	589.8	118.47	4.2364	0.421
28.00	659.5	600.2	118.48	4.1786	0.435

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10627 DST#2 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/26/98 TIME: 12:42:27

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
28.50	669.7	610.4	118.49	4.1228	0.449
29.00	679.9	620.6	118.50	4.0690	0.462
29.50	689.8	630.5	118.52	4.0169	0.476
30.00	699.7	640.4	118.53	3.9667	0.490
30.50	709.3	650.0	118.54	3.9180	0.503
31.00	718.8	659.5	118.55	3.8710	0.517
31.50	728.2	668.9	118.57	3.8254	0.530
32.00	737.5	678.2	118.57	3.7812	0.544
32.50	746.7	687.4	118.58	3.7385	0.558
33.00	755.7	696.3	118.60	3.6970	0.571
33.50	764.4	705.1	118.62	3.6567	0.584
34.00	773.1	713.7	118.62	3.6176	0.598
34.50	781.7	722.4	118.62	3.5797	0.611
35.00	790.0	730.7	118.65	3.5429	0.624
35.50	798.4	739.1	118.66	3.5070	0.637
36.00	806.5	747.1	118.66	3.4722	0.650
36.50	814.5	755.2	118.68	3.4384	0.663
37.00	822.2	762.9	118.68	3.4054	0.676
37.50	830.0	770.6	118.70	3.3733	0.689
38.00	837.5	778.2	118.71	3.3421	0.701
38.50	845.0	785.6	118.71	3.3117	0.714
39.00	852.3	793.0	118.73	3.2821	0.726
39.50	859.4	800.1	118.75	3.2532	0.739
40.00	866.5	807.2	118.75	3.2250	0.751
40.50	873.6	814.3	118.76	3.1975	0.763
41.00	880.3	821.0	118.76	3.1707	0.775
41.50	886.9	827.6	118.77	3.1446	0.787
42.00	893.3	834.0	118.78	3.1190	0.798
42.50	899.9	840.5	118.79	3.0941	0.810
43.00	906.2	846.9	118.81	3.0698	0.821
43.50	912.5	853.1	118.82	3.0460	0.833
44.00	918.7	859.3	118.81	3.0227	0.844
44.50	924.6	865.3	118.83	3.0000	0.855
45.00	930.5	871.2	118.82	2.9778	0.866
45.50	936.5	877.1	118.84	2.9560	0.877
46.00	942.1	882.8	118.85	2.9348	0.888
46.50	947.8	888.5	118.86	2.9140	0.898
47.00	953.4	894.1	118.86	2.8936	0.909
47.50	958.8	899.5	118.88	2.8737	0.919
48.00	964.2	904.8	118.89	2.8542	0.930
48.50	969.4	910.0	118.89	2.8351	0.940
49.00	974.6	915.2	118.90	2.8163	0.950
49.50	979.8	920.4	118.90	2.7980	0.960
50.00	984.8	925.5	118.91	2.7800	0.970
50.50	989.7	930.3	118.92	2.7624	0.979
51.00	994.6	935.3	118.92	2.7451	0.989
51.50	999.5	940.2	118.94	2.7282	0.999
52.00	1004.2	944.9	118.94	2.7115	1.008
52.50	1009.0	949.6	118.95	2.6952	1.018
53.00	1013.6	954.3	118.94	2.6792	1.027
53.50	1018.1	958.8	118.97	2.6636	1.037

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10627 DST#2 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/26/98 TIME: 12:42:27

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	54.00	1022.7	963.3	118.97	2.6481	1.046
	54.50	1027.0	967.7	118.97	2.6330	1.055
	55.00	1031.5	972.1	118.98	2.6182	1.064
	55.50	1035.8	976.5	119.00	2.6036	1.073
	56.00	1040.0	980.7	119.01	2.5893	1.082
	56.50	1044.3	985.0	119.01	2.5752	1.091
	57.00	1048.4	989.1	119.02	2.5614	1.099
	57.50	1052.5	993.2	119.03	2.5478	1.108
	58.00	1056.6	997.2	119.04	2.5345	1.116
	58.50	1060.6	1001.3	119.04	2.5214	1.125
	59.00	1064.6	1005.3	119.05	2.5085	1.133
	59.50	1068.6	1009.3	119.07	2.4958	1.142
	60.00	1072.4	1013.1	119.07	2.4833	1.150
	60.50	1076.4	1017.0	119.06	2.4711	1.159
	61.00	1080.1	1020.8	119.09	2.4590	1.167
	61.50	1083.9	1024.6	119.10	2.4472	1.175
	62.00	1087.6	1028.3	119.10	2.4355	1.183
	62.50	1091.3	1032.0	119.12	2.4240	1.191
	63.00	1095.0	1035.7	119.11	2.4127	1.199
	63.50	1098.6	1039.3	119.13	2.4016	1.207
	64.00	1102.2	1042.9	119.14	2.3906	1.215
****** End Shut-in 2	64.50	1105.9	1046.6	119.14	2.3798	1.223
****** Final Hydro.	322.50	2489.3	0.0	119.28		

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

№ 10627

Well Name & No. WELLBANKS #17-1 Test No. 2 Date 2-26-98

Company IMPERIAL OIL PROPERTIES INC. Zone Tested ALTAMONT

Address 212 N. MARKET STE 513 WICHITA KS. 67202 Elevation 2148 KB 2137 GL

Co. Rep / Geo. JON T WILLIAMS Cont. DURE DRLG. #5 Est. Ft. of Pay 6 Por. 10 %

Location: Sec. 17 Twp. 32 S Rge. 18 W Co. COMANCHE State KS.

No. of Copies 5 Distribution Sheet (Y, N) N Turnkey (Y, N) ~ Evaluation (Y, N) _____

Interval Tested 5048 - 5070'

Anchor Length 22'

Top Packer Depth 5043'

Bottom Packer Depth 5048'

Total Depth 5070'

Mud Wt. 9.2 LCM 2# Vis. 46 WL 12.8cc

Initial Str Wt./Lbs. 52000 Unseated Str Wt./Lbs. 52,000

Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 89,000

Tool Weight 2100 #

Hole Size — 7 7/8" ✓ Rubber Size — 6 3/4" ✓

Wt. Pipe Run NONE Drill Collar Run NONE

Drill Pipe Size 4½" X.H. Ft. Run 5039'

Blow Description IF: Strong blow. Btm. of bucket in 15 secs.

FF: Strong blow. Btm. of bucket in 5-10 secs.

Recovery — Total Feet 100' Fluid GIP 2420 Ft. in DC ~ Ft. in DP 100'

Rec. 40	Feet Of GOCM	10 ‰gas	12 ‰oil	‰water	78 ‰mud
Rec. 60	Feet Of S.O.C.G.M.	22 ‰gas	3 ‰oil	10 ‰water	65 ‰mud
Rec.	Feet Of Clean oil @ top	‰gas	‰oil	‰water	‰mud
Rec.	Feet Of of tool	‰gas	‰oil	‰water	‰mud
Rec.	Feet Of	‰gas	‰oil	‰water	‰mud

BHT 119 °F Gravity N/A °API D@ ~ °F Corrected Gravity N/A °API

RW N.C. @ ~ °F Chlorides 6,000 ppm Recovery Chlorides 6,000 ppm System

(A) Initial Hydrostatic Mud	2470	2514	PSI	Recorder No.	10248	T-Started	1242
(B) First Initial Flow Pressure	55	37	PSI	(depth)	5067'	T-Open	1430
(C) First Final Flow Pressure	60	41	PSI	Recorder No. (alpine)	2342	T-Pulled	1802
(D) Initial Shut-in Pressure	1172	1190	PSI	(depth)	5054'	T-Out	2020
(E) Second Initial Flow Pressure	69	43	PSI	Recorder No.	~		
(F) Second Final Flow Pressure	80	59	PSI	(depth)	~		
(G) Final Shut-in Pressure	1089	1106	PSI	Initial Opening	30	Test	✓ 800.00
(H) Final Hydrostatic Mud	2437	2489	PSI	Initial Shut-in	60	Jars	✓ 200.00
	AK-1	alpine		Final Flow	60	Safety Joint	✓ 50.00
				Final Shut-in	60	Straddle	
						Circ. Sub	
						Sampler	
						Extra Packer	
						Elect. Rec.	✓ 150.00
						Other	

Approved By Jon T. Williams Jr. agent.

TRILOBITE TESTING L.L.C.

OPERATOR : Imperial Oil Prop.Inc. DATE 02-27-98
WELL NAME: Willbanks #17-1 KB 2148.00 ft TICKET NO: 10628 DST #3
LOCATION : 17-32s-18w CO Comanche Ks GR 2137.00 ft FORMATION: Pawnee
INTERVAL : 5090.00 To 5120.00 ft TD 5120.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins		Field	1	2	3	4
PF 30	Rec.	10248	10248	2342		
SI 60	Range(Psi)	4400.0	4400.0	4995.0	0.0	0.0
SF 90	Clock(hrs)	12 hr	12 hr	batt.		
FS 60	Depth(ft)	5117.0	5117.0	5096.0	0.0	0.0

TIME DATA----------
PF Fr. 0730 to 0800 hr
IS Fr. 0800 to 0900 hr
SF Fr. 0900 to 1030 hr
FS Fr. 1030 to 1130 hr

	Field	1	2	3	4
A. Init Hydro	2525.0	2524.0	2512.0	0.0	0.0
B. First Flow	37.0	52.0	32.0	0.0	0.0
B1. Final Flow	41.0	52.0	32.0	0.0	0.0
C. In Shut-in	1624.0	1619.0	1625.0	0.0	0.0
D. Init Flow	41.0	61.0	40.0	0.0	0.0
E. Final Flow	57.0	74.0	53.0	0.0	0.0
F. Fl Shut-in	1574.0	1584.0	1583.0	0.0	0.0
G. Final Hydro	2481.0	2470.0	2469.0	0.0	0.0
Inside/Outside	O	O	I	T	

T STARTED 0531 hr
T ON BOTM 0724 hr
T OPEN 0730 hr
T PULLED 1135 hr
T OUT 1330 hr

RECOVERY
Tot Fluid 75.00 ft of 0.00 ft in DC and 75.00 ft in DP
310.00 ft of Gas in pipe.
75.00 ft of Gas cut mud 10%g 90%m
0.00 ft of
0.00 ft of
0.00 ft of
0.00 ft of
0.00 ft of Rw n/c ohms @ degrees F.
0.00 ft of EST FT. of PAY----------6
SALINITY 6000.00 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	53000.00 lbs
Bot Choke	0.75 in
Hole Size	7.88 in
D Col. ID	2.25 in
D. Pipe ID	3.80 in
D.C. Length	0.00 ft
D.P. Length	5069.00 ft

BLOW DESCRIPTION
Initial Flow:
Weak to fair blow 1-7" in water

Initial Shut-in:
No blow.

Final Flow:
Fair to strong blow. Btm. of bucket in 85 mins.

Final Shut-in:
No blow.

SAMPLES:
SENT TO:Caraway/Liberal

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

Mud Type	Chemical
Weight	9.20 lb/c
Vis.	55.00 S/L
W.L.	12.80 in3
F.C.	0.20 in
Mud Drop N	
Amt. of fill	2.00 ft
Btm. H. Temp.	119.00 F
Hole Condition	good
% Porosity	10.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00 N
Cushion Type	None
Reversed Out N	
Tool Chased N	
Tester	Gary Pevoteaux
Co. Rep.	Jon T Williams
Contr.	Duke Drlg.
Rig #	5
Unit #	
Pump T.	LCM 2 #/bl

Test Successful: Y

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Willbanks #17-1

LOCATION : 17-32s-18w CO Comanche Ks

TICKET No. 10628 D.S.T. No. 3 DATE 02-27-98

TOTAL TOOL TO BOTTOM OF TOP PACKERS 27

INTERVAL TOOL .....

BOTTOM PACKERS AND ANCHOR 30

TOTAL TOOL 57

DRILL COLLAR ANCHOR IN INTERVAL .....

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY 57

D.C. ABOVE TOOLS.Stands Single Total

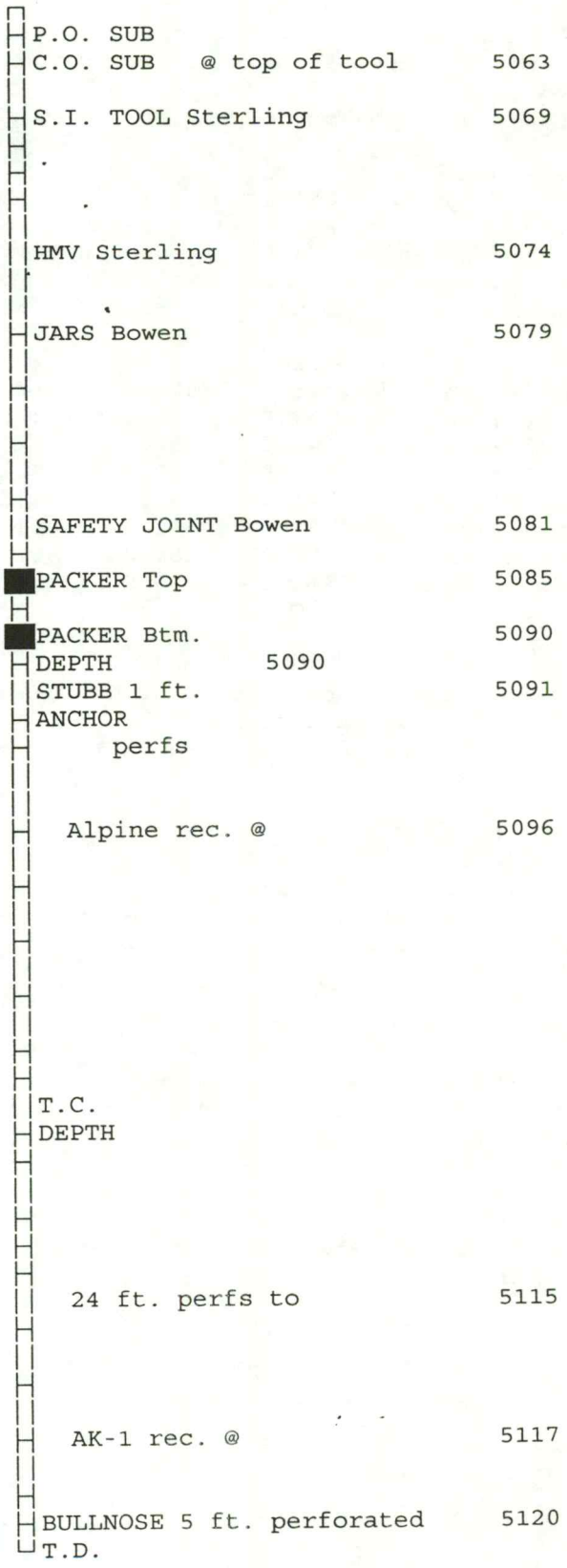
D.P. ABOVE TOOLS.Stands81 Single 1 Total 5069

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5126

TOTAL DEPTH 5120

TOTAL DRILL PIPE ABOVE K.B. 6

REMARKS:
Comments:



TEST HISTORY

10628 DST#3 WILLBANKS#17-1 IMPERIAL OIL PROP.

Flag Points

	t(Min.)	P(PSIg)
A:	0.00	2512.37
B:	0.00	32.22
C:	31.50	32.14
D:	58.50	1625.34
E:	0.00	39.69
F:	90.00	53.29
G:	65.50	1582.53
Q:	0.00	2468.90

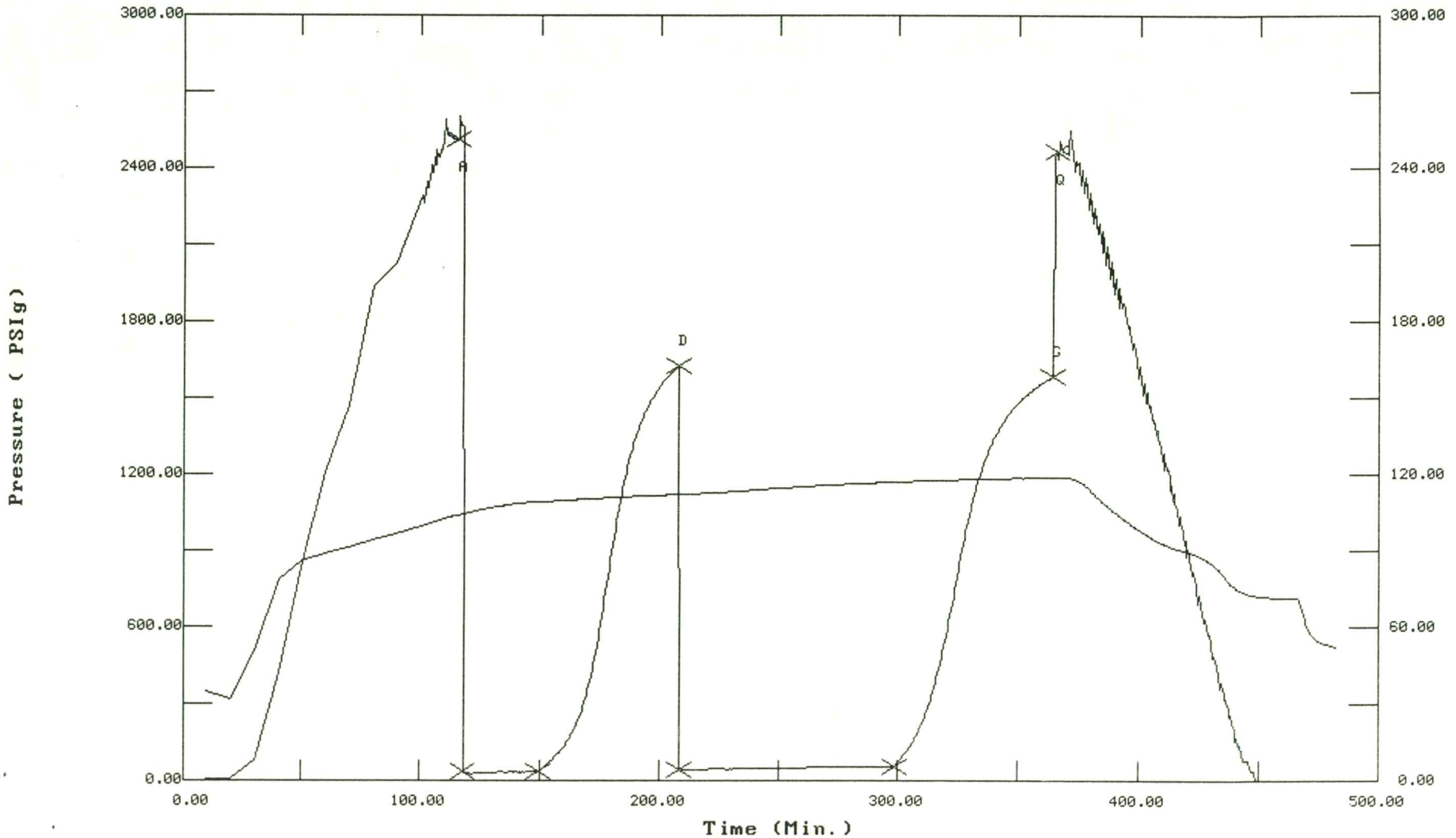
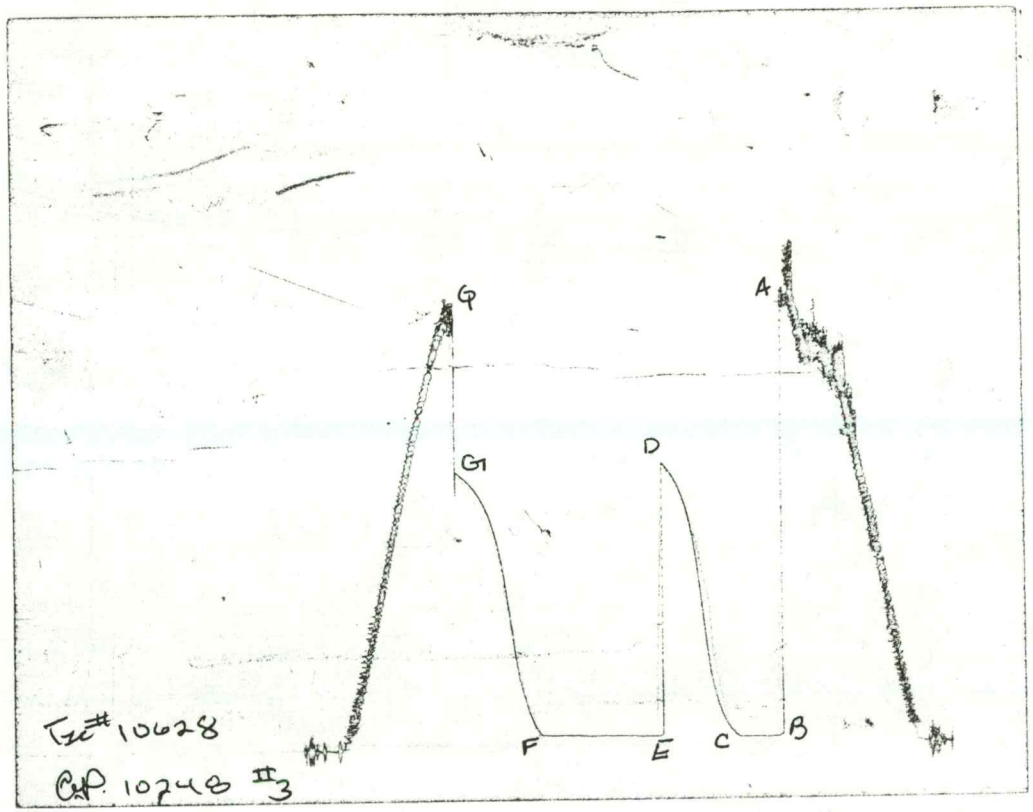


CHART PAGE



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

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST:. 10628 DST#3 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/27/98 TIME: 05:31:40

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
****** Initial Hydro.	115.50	2512.4	0.0	103.83		
****** Start Flow 1	0.00	32.2	0.0	104.29		
	0.50	27.4	-4.9	104.39		
	1.00	27.7	-4.5	104.49		
	1.50	24.7	-7.6	104.61		
	2.00	26.3	-5.9	104.76		
	2.50	28.4	-3.8	104.90		
	3.00	28.0	-4.2	105.06		
	3.50	22.0	-10.2	105.20		
	4.00	23.8	-8.4	105.33		
	4.50	26.4	-5.8	105.45		
	5.00	28.8	-3.4	105.57		
	5.50	28.3	-3.9	105.67		
	6.00	25.4	-6.8	105.78		
	6.50	28.1	-4.1	105.88		
	7.00	27.1	-5.1	105.98		
	7.50	26.4	-5.8	106.08		
	8.00	28.9	-3.3	106.16		
	8.50	29.9	-2.4	106.26		
	9.00	30.2	-2.0	106.36		
	9.50	29.0	-3.2	106.45		
	10.00	29.5	-2.7	106.55		
	10.50	29.2	-3.0	106.64		
	11.00	29.5	-2.8	106.72		
	11.50	28.9	-3.3	106.79		
	12.00	28.9	-3.4	106.87		
	12.50	28.6	-3.6	106.94		
	13.00	28.8	-3.4	107.02		
	13.50	29.1	-3.1	107.09		
	14.00	29.7	-2.5	107.16		
	14.50	30.2	-2.0	107.24		
	15.00	31.7	-0.5	107.31		
	15.50	31.3	-0.9	107.41		
	16.00	31.1	-1.1	107.50		
	16.50	31.4	-0.8	107.60		
	17.00	30.9	-1.3	107.70		
	17.50	30.5	-1.8	107.78		
	18.00	30.5	-1.7	107.86		
	18.50	30.4	-1.8	107.94		
	19.00	30.5	-1.7	108.01		
	19.50	30.7	-1.5	108.08		
	20.00	31.7	-0.5	108.14		
	20.50	32.1	-0.1	108.22		
	21.00	32.0	-0.3	108.29		
	21.50	30.3	-1.9	108.37		
	22.00	32.2	0.0	108.44		
	22.50	30.8	-1.4	108.51		
	23.00	30.4	-1.8	108.58		
	23.50	29.7	-2.5	108.63		
	24.00	31.9	-0.3	108.67		
	24.50	29.5	-2.8	108.72		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10628 DST#3 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/27/98 TIME: 05:31:40

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	25.00	32.1	-0.1	108.75		
	25.50	30.1	-2.1	108.78		
	26.00	31.9	-0.3	108.81		
	26.50	31.6	-0.6	108.83		
	27.00	31.2	-1.0	108.86		
	27.50	30.7	-1.5	108.89		
	28.00	31.8	-0.4	108.91		
	28.50	32.7	0.5	108.94		
	29.00	32.1	-0.2	108.97		
	29.50	31.6	-0.6	108.99		
	30.00	33.5	1.3	109.01		
	30.50	30.5	-1.7	109.03		
	31.00	32.6	0.3	109.06		
****** End Flow 1	31.50	32.1	-0.1	109.08		
****** Start Shutin 1	0.00	32.1	0.0	109.08	0.0000	0.001
	0.50	34.3	2.2	109.11	64.0000	0.001
	1.00	38.8	6.6	109.13	32.5000	0.002
	1.50	43.0	10.9	109.16	22.0000	0.002
	2.00	47.3	15.2	109.18	16.7500	0.002
	2.50	51.4	19.3	109.21	13.6000	0.003
	3.00	55.6	23.5	109.24	11.5000	0.003
	3.50	59.8	27.7	109.27	10.0000	0.004
	4.00	64.2	32.1	109.29	8.8750	0.004
	4.50	68.4	36.3	109.32	8.0000	0.005
	5.00	73.0	40.9	109.36	7.3000	0.005
	5.50	77.6	45.5	109.39	6.7273	0.006
	6.00	82.5	50.4	109.41	6.2500	0.007
	6.50	87.4	55.2	109.45	5.8462	0.008
	7.00	92.3	60.2	109.48	5.5000	0.009
	7.50	97.4	65.3	109.50	5.2000	0.009
	8.00	102.8	70.7	109.54	4.9375	0.011
	8.50	108.2	76.0	109.57	4.7059	0.012
	9.00	113.9	81.7	109.60	4.5000	0.013
	9.50	119.7	87.5	109.63	4.3158	0.014
	10.00	125.6	93.5	109.66	4.1500	0.016
	10.50	131.9	99.8	109.70	4.0000	0.017
	11.00	138.6	106.5	109.72	3.8636	0.019
	11.50	145.9	113.7	109.75	3.7391	0.021
	12.00	153.2	121.1	109.79	3.6250	0.023
	12.50	160.8	128.7	109.82	3.5200	0.026
	13.00	168.9	136.7	109.85	3.4231	0.029
	13.50	177.1	144.9	109.88	3.3333	0.031
	14.00	185.9	153.8	109.91	3.2500	0.035
	14.50	195.2	163.1	109.94	3.1724	0.038
	15.00	205.1	173.0	109.97	3.1000	0.042
	15.50	215.4	183.3	110.00	3.0323	0.046
	16.00	226.3	194.2	110.03	2.9688	0.051
	16.50	237.8	205.7	110.06	2.9091	0.057
	17.00	249.8	217.7	110.08	2.8529	0.062
	17.50	262.5	230.4	110.11	2.8000	0.069
	18.00	275.7	243.6	110.14	2.7500	0.076

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10628 DST#3 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/27/98 TIME: 05:31:40

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
18.50	289.6	257.5	110.17	2.7027	0.084
19.00	304.3	272.2	110.20	2.6579	0.093
19.50	319.8	287.7	110.23	2.6154	0.102
20.00	336.2	304.1	110.26	2.5750	0.113
20.50	353.6	321.4	110.28	2.5366	0.125
21.00	371.9	339.7	110.31	2.5000	0.138
21.50	391.1	359.0	110.33	2.4651	0.153
22.00	411.1	378.9	110.36	2.4318	0.169
22.50	432.2	400.1	110.38	2.4000	0.187
23.00	454.7	422.6	110.42	2.3696	0.207
23.50	478.5	446.3	110.44	2.3404	0.229
24.00	503.1	470.9	110.47	2.3125	0.253
24.50	528.9	496.8	110.49	2.2857	0.280
25.00	555.9	523.8	110.51	2.2600	0.309
25.50	583.8	551.7	110.55	2.2353	0.341
26.00	612.4	580.3	110.56	2.2115	0.375
26.50	642.0	609.9	110.60	2.1887	0.412
27.00	672.7	640.5	110.62	2.1667	0.452
27.50	703.8	671.7	110.65	2.1455	0.495
28.00	735.4	703.2	110.68	2.1250	0.541
28.50	767.3	735.2	110.71	2.1053	0.589
29.00	799.6	767.4	110.73	2.0862	0.639
29.50	831.5	799.4	110.76	2.0678	0.691
30.00	863.3	831.1	110.79	2.0500	0.745
30.50	894.8	862.7	110.81	2.0328	0.801
31.00	925.6	893.5	110.84	2.0161	0.857
31.50	955.8	923.6	110.86	2.0000	0.913
32.00	985.4	953.3	110.88	1.9844	0.971
32.50	1014.0	981.9	110.92	1.9692	1.028
33.00	1042.0	1009.9	110.94	1.9545	1.086
33.50	1068.9	1036.8	110.97	1.9403	1.143
34.00	1094.9	1062.8	111.00	1.9265	1.199
34.50	1120.1	1088.0	111.02	1.9130	1.255
35.00	1144.2	1112.0	111.04	1.9000	1.309
35.50	1167.3	1135.2	111.07	1.8873	1.363
36.00	1189.5	1157.4	111.09	1.8750	1.415
36.50	1210.7	1178.5	111.12	1.8630	1.466
37.00	1231.1	1199.0	111.13	1.8514	1.516
37.50	1250.7	1218.5	111.16	1.8400	1.564
38.00	1269.3	1237.2	111.20	1.8289	1.611
38.50	1287.1	1255.0	111.21	1.8182	1.657
39.00	1304.1	1271.9	111.24	1.8077	1.701
39.50	1320.3	1288.1	111.22	1.7975	1.743
40.00	1335.8	1303.7	111.30	1.7875	1.784
40.50	1350.6	1318.4	111.30	1.7778	1.824
41.00	1364.7	1332.5	111.33	1.7683	1.862
41.50	1378.2	1346.0	111.35	1.7590	1.899
42.00	1391.2	1359.0	111.36	1.7500	1.935
42.50	1403.5	1371.4	111.40	1.7412	1.970
43.00	1415.3	1383.1	111.42	1.7326	2.003
43.50	1426.7	1394.5	111.44	1.7241	2.035

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10628 DST#3 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/27/98 TIME: 05:31:40

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	44.00	1437.5	1405.4	111.46	1.7159	2.066
	44.50	1447.9	1415.8	111.50	1.7079	2.096
	45.00	1458.0	1425.8	111.51	1.7000	2.126
	45.50	1467.7	1435.6	111.52	1.6923	2.154
	46.00	1477.0	1444.8	111.53	1.6848	2.181
	46.50	1485.8	1453.7	111.55	1.6774	2.208
	47.00	1494.3	1462.2	111.58	1.6702	2.233
	47.50	1502.6	1470.4	111.60	1.6632	2.258
	48.00	1510.4	1478.2	111.62	1.6562	2.281
	48.50	1517.9	1485.8	111.63	1.6495	2.304
	49.00	1525.0	1492.9	111.66	1.6429	2.326
	49.50	1532.2	1500.0	111.68	1.6364	2.348
	50.00	1538.9	1506.8	111.69	1.6300	2.368
	50.50	1545.4	1513.3	111.72	1.6238	2.388
	51.00	1551.7	1519.6	111.73	1.6176	2.408
	51.50	1557.8	1525.6	111.74	1.6117	2.427
	52.00	1563.7	1531.5	111.77	1.6058	2.445
	52.50	1569.3	1537.1	111.79	1.6000	2.463
	53.00	1574.8	1542.7	111.80	1.5943	2.480
	53.50	1580.1	1548.0	111.82	1.5888	2.497
	54.00	1585.4	1553.3	111.84	1.5833	2.513
	54.50	1590.4	1558.3	111.87	1.5780	2.529
	55.00	1595.3	1563.2	111.89	1.5727	2.545
	55.50	1599.9	1567.8	111.90	1.5676	2.560
	56.00	1604.4	1572.2	111.92	1.5625	2.574
	56.50	1608.8	1576.7	111.93	1.5575	2.588
	57.00	1613.0	1580.9	111.96	1.5526	2.602
	57.50	1617.2	1585.1	111.98	1.5478	2.615
	58.00	1621.4	1589.3	112.00	1.5431	2.629
****** End Shut-in 1	58.50	1625.3	1593.2	112.03	1.5385	2.642
****** Start Flow 2	0.00	39.7	0.0	112.01		
	0.50	33.9	-5.8	112.00		
	1.00	37.7	-2.0	111.97		
	1.50	39.5	-0.2	111.98		
	2.00	39.6	-0.1	111.99		
	2.50	39.4	-0.3	112.02		
	3.00	39.9	0.3	112.06		
	3.50	39.8	0.1	112.07		
	4.00	40.1	0.4	112.13		
	4.50	40.3	0.6	112.17		
	5.00	40.4	0.8	112.21		
	5.50	40.9	1.2	112.25		
	6.00	40.4	0.8	112.28		
	6.50	40.5	0.8	112.31		
	7.00	41.1	1.4	112.35		
	7.50	41.4	1.7	112.38		
	8.00	41.2	1.5	112.40		
	8.50	41.5	1.8	112.43		
	9.00	41.6	1.9	112.46		
	9.50	41.8	2.1	112.49		
	10.00	41.9	2.2	112.52		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10628 DST#3 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/27/98 TIME: 05:31:40

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
10.50	42.1	2.4	112.54		
11.00	42.2	2.5	112.56		
11.50	42.5	2.8	112.59		
12.00	42.6	2.9	112.62		
12.50	42.7	3.0	112.64		
13.00	42.7	3.0	112.67		
13.50	43.1	3.4	112.69		
14.00	43.3	3.6	112.72		
14.50	43.2	3.5	112.74		
15.00	43.4	3.7	112.76		
15.50	43.6	3.9	112.79		
16.00	43.8	4.1	112.82		
16.50	43.9	4.2	112.84		
17.00	44.0	4.3	112.87		
17.50	44.1	4.4	112.90		
18.00	44.0	4.3	112.92		
18.50	44.1	4.4	112.95		
19.00	44.2	4.5	112.98		
19.50	42.4	2.7	113.01		
20.00	42.4	2.7	113.04		
20.50	42.5	2.8	113.07		
21.00	42.5	2.8	113.09		
21.50	42.7	3.0	113.13		
22.00	42.5	2.8	113.16		
22.50	42.8	3.1	113.19		
23.00	43.0	3.3	113.23		
23.50	43.1	3.4	113.26		
24.00	43.3	3.6	113.32		
24.50	43.2	3.5	113.33		
25.00	43.5	3.9	113.36		
25.50	43.8	4.1	113.35		
26.00	43.5	3.9	113.42		
26.50	43.9	4.2	113.44		
27.00	44.1	4.4	113.48		
27.50	44.1	4.4	113.51		
28.00	44.1	4.4	113.55		
28.50	44.0	4.4	113.59		
29.00	44.0	4.4	113.62		
29.50	44.3	4.6	113.66		
30.00	44.4	4.7	113.70		
30.50	44.5	4.8	113.74		
31.00	44.6	4.9	113.77		
31.50	44.7	5.0	113.81		
32.00	44.7	5.0	113.85		
32.50	44.9	5.2	113.89		
33.00	45.0	5.3	113.93		
33.50	45.1	5.4	113.97		
34.00	45.1	5.4	114.00		
34.50	45.1	5.4	114.03		
35.00	45.2	5.5	114.08		
35.50	45.5	5.8	114.11		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10628 DST#3 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/27/98 TIME: 05:31:40

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
36.00	45.6	6.0	114.14		
36.50	45.6	6.0	114.17		
37.00	45.6	6.0	114.21		
37.50	45.6	5.9	114.23		
38.00	45.6	5.9	114.27		
38.50	46.1	6.4	114.30		
39.00	46.0	6.3	114.32		
39.50	46.2	6.5	114.35		
40.00	46.3	6.6	114.39		
40.50	46.5	6.8	114.42		
41.00	46.2	6.5	114.44		
41.50	46.5	6.8	114.47		
42.00	46.5	6.8	114.50		
42.50	46.6	6.9	114.54		
43.00	46.9	7.2	114.57		
43.50	46.9	7.2	114.60		
44.00	46.9	7.2	114.63		
44.50	47.0	7.3	114.65		
45.00	47.3	7.6	114.69		
45.50	47.2	7.6	114.72		
46.00	47.5	7.8	114.74		
46.50	47.3	7.6	114.77		
47.00	47.6	7.9	114.81		
47.50	47.6	7.9	114.83		
48.00	47.6	7.9	114.87		
48.50	47.7	8.0	114.90		
49.00	47.9	8.2	114.93		
49.50	47.8	8.1	114.97		
50.00	48.0	8.3	114.99		
50.50	48.1	8.4	115.03		
51.00	48.2	8.5	115.06		
51.50	48.3	8.6	115.09		
52.00	48.3	8.6	115.12		
52.50	48.4	8.7	115.16		
53.00	48.4	8.7	115.19		
53.50	48.5	8.8	115.22		
54.00	48.7	9.0	115.25		
54.50	48.8	9.1	115.28		
55.00	48.9	9.2	115.31		
55.50	49.0	9.3	115.33		
56.00	48.8	9.1	115.37		
56.50	48.9	9.2	115.40		
57.00	49.2	9.5	115.42		
57.50	49.2	9.5	115.46		
58.00	49.2	9.6	115.48		
58.50	49.4	9.7	115.50		
59.00	49.4	9.7	115.53		
59.50	49.4	9.7	115.56		
60.00	49.5	9.8	115.58		
60.50	49.5	9.8	115.61		
61.00	49.6	9.9	115.64		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST:. 10628 DST#3 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/27/98 TIME: 05:31:40

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
61.50	49.7	10	115.66		
62.00	49.8	10.1	115.69		
62.50	49.7	10	115.71		
63.00	49.9	10.2	115.74		
63.50	49.9	10.2	115.76		
64.00	49.9	10.2	115.79		
64.50	50.0	10.3	115.81		
65.00	49.8	10.1	115.84		
65.50	50.1	10.4	115.86		
66.00	50.1	10.4	115.89		
66.50	50.3	10.6	115.91		
67.00	50.3	10.6	115.94		
67.50	50.3	10.6	115.96		
68.00	50.4	10.7	115.98		
68.50	50.3	10.6	116.01		
69.00	50.3	10.6	116.03		
69.50	50.3	10.7	116.06		
70.00	50.5	10.8	116.08		
70.50	50.7	11.0	116.10		
71.00	50.8	11.1	116.12		
71.50	50.6	10.9	116.16		
72.00	50.9	11.2	116.17		
72.50	50.9	11.2	116.20		
73.00	51.0	11.3	116.21		
73.50	51.1	11.4	116.24		
74.00	51.2	11.5	116.26		
74.50	51.0	11.3	116.29		
75.00	51.4	11.7	116.31		
75.50	51.1	11.4	116.33		
76.00	51.1	11.4	116.35		
76.50	51.2	11.5	116.38		
77.00	51.3	11.6	116.40		
77.50	51.3	11.6	116.41		
78.00	51.3	11.6	116.44		
78.50	51.2	11.5	116.46		
79.00	51.4	11.7	116.49		
79.50	51.5	11.8	116.51		
80.00	51.7	12.0	116.52		
80.50	51.8	12.1	116.55		
81.00	51.9	12.2	116.57		
81.50	51.7	12.0	116.60		
82.00	52.0	12.3	116.62		
82.50	52.0	12.3	116.63		
83.00	52.2	12.5	116.65		
83.50	52.3	12.6	116.67		
84.00	52.3	12.6	116.69		
84.50	52.5	12.8	116.71		
85.00	52.7	13.0	116.74		
85.50	52.8	13.1	116.76		
86.00	52.4	12.7	116.78		
86.50	52.6	12.9	116.81		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10628 DST#3 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/27/98 TIME: 05:31:40

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	87.00	52.9	13.3	116.83		
	87.50	52.9	13.3	116.84		
	88.00	52.8	13.1	116.86		
	88.50	53.0	13.3	116.89		
	89.00	53.2	13.5	116.89		
	89.50	53.0	13.3	116.92		
***** End Flow 2	90.00	53.3	13.6	116.94		
***** Start Shutin 2	0.00	53.3	0.0	116.94	0.0000	0.003
	0.50	56.1	2.8	116.96	244.0000	0.003
	1.00	61.9	8.6	116.97	122.5000	0.004
	1.50	67.8	14.5	117.00	82.0000	0.005
	2.00	73.5	20.2	117.01	61.7500	0.005
	2.50	79.6	26.3	117.04	49.6000	0.006
	3.00	85.7	32.4	117.06	41.5000	0.007
	3.50	92.0	38.7	117.07	35.7143	0.008
	4.00	98.3	45.0	117.10	31.3750	0.01
	4.50	104.8	51.5	117.11	28.0000	0.011
	5.00	111.4	58.2	117.13	25.3000	0.012
	5.50	118.2	65.0	117.15	23.0909	0.014
	6.00	125.4	72.1	117.17	21.2500	0.016
	6.50	132.8	79.5	117.18	19.6923	0.018
	7.00	140.6	87.3	117.21	18.3571	0.020
	7.50	148.5	95.3	117.22	17.2000	0.022
	8.00	156.9	103.6	117.25	16.1875	0.025
	8.50	165.6	112.3	117.26	15.2941	0.027
	9.00	174.6	121.4	117.28	14.5000	0.031
	9.50	184.1	130.8	117.31	13.7895	0.034
	10.00	194.0	140.7	117.32	13.1500	0.038
	10.50	204.4	151.1	117.34	12.5714	0.042
	11.00	215.2	161.9	117.35	12.0455	0.046
	11.50	226.3	173.0	117.37	11.5652	0.051
	12.00	237.6	184.3	117.39	11.1250	0.056
	12.50	249.5	196.2	117.41	10.7200	0.062
	13.00	261.8	208.6	117.42	10.3462	0.069
	13.50	274.6	221.3	117.44	10.0000	0.075
	14.00	287.9	234.7	117.45	9.6786	0.083
	14.50	301.9	248.6	117.47	9.3793	0.091
	15.00	316.3	263.0	117.50	9.1000	0.100
	15.50	331.5	278.2	117.51	8.8387	0.110
	16.00	347.4	294.1	117.52	8.5938	0.121
	16.50	363.9	310.6	117.54	8.3636	0.132
	17.00	381.3	328.0	117.55	8.1471	0.145
	17.50	399.0	345.7	117.57	7.9429	0.159
	18.00	417.9	364.6	117.59	7.7500	0.175
	18.50	437.6	384.3	117.61	7.5676	0.191
	19.00	458.2	404.9	117.61	7.3947	0.210
	19.50	479.1	425.8	117.62	7.2308	0.230
	20.00	501.0	447.7	117.64	7.0750	0.251
	20.50	523.4	470.2	117.66	6.9268	0.274
	21.00	546.7	493.4	117.67	6.7857	0.299
	21.50	570.4	517.1	117.69	6.6512	0.325

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST:- 10628 DST#3 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/27/98 TIME: 05:31:40

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
22.00	594.5	541.2	117.70	6.5227	0.353
22.50	618.8	565.5	117.71	6.4000	0.383
23.00	643.9	590.6	117.72	6.2826	0.415
23.50	669.3	616.0	117.75	6.1702	0.448
24.00	695.0	641.7	117.76	6.0625	0.483
24.50	720.8	667.6	117.77	5.9592	0.520
25.00	747.0	693.7	117.79	5.8600	0.558
25.50	773.2	719.9	117.81	5.7647	0.598
26.00	799.4	746.1	117.81	5.6731	0.639
26.50	825.3	772.1	117.83	5.5849	0.681
27.00	851.3	798.0	117.85	5.5000	0.725
27.50	876.9	823.6	117.87	5.4182	0.769
28.00	902.1	848.8	117.88	5.3393	0.814
28.50	926.8	873.5	117.90	5.2632	0.859
29.00	951.0	897.7	117.91	5.1897	0.904
29.50	974.5	921.2	117.92	5.1186	0.950
30.00	997.1	943.8	117.94	5.0500	0.994
30.50	1019.0	965.8	117.96	4.9836	1.038
31.00	1040.4	987.1	117.98	4.9194	1.082
31.50	1060.9	1007.6	118.00	4.8571	1.126
32.00	1081.0	1027.7	118.03	4.7969	1.169
32.50	1100.3	1047.0	118.03	4.7385	1.211
33.00	1119.1	1065.8	118.05	4.6818	1.252
33.50	1137.0	1083.7	118.05	4.6269	1.293
34.00	1154.0	1100.7	118.10	4.5735	1.332
34.50	1170.5	1117.2	118.08	4.5217	1.370
35.00	1186.3	1133.0	118.11	4.4714	1.407
35.50	1201.5	1148.2	118.13	4.4225	1.444
36.00	1216.2	1162.9	118.15	4.3750	1.479
36.50	1230.2	1176.9	118.16	4.3288	1.513
37.00	1243.9	1190.6	118.18	4.2838	1.547
37.50	1257.0	1203.7	118.19	4.2400	1.580
38.00	1269.4	1216.1	118.21	4.1974	1.611
38.50	1281.5	1228.2	118.21	4.1558	1.642
39.00	1293.2	1239.9	118.22	4.1154	1.672
39.50	1304.4	1251.1	118.23	4.0759	1.701
40.00	1315.1	1261.9	118.24	4.0375	1.730
40.50	1325.5	1272.3	118.25	4.0000	1.757
41.00	1335.5	1282.2	118.27	3.9634	1.784
41.50	1345.1	1291.8	118.27	3.9277	1.809
42.00	1354.3	1301.0	118.29	3.8929	1.834
42.50	1363.3	1310.0	118.30	3.8588	1.859
43.00	1372.0	1318.7	118.31	3.8256	1.882
43.50	1380.3	1327.0	118.32	3.7931	1.905
44.00	1388.4	1335.1	118.33	3.7614	1.928
44.50	1396.3	1343.0	118.35	3.7303	1.950
45.00	1403.9	1350.7	118.36	3.7000	1.971
45.50	1411.1	1357.8	118.37	3.6703	1.991
46.00	1418.0	1364.8	118.38	3.6413	2.011
46.50	1424.8	1371.5	118.37	3.6129	2.030
47.00	1431.3	1378.0	118.39	3.5851	2.049

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10628 DST#3 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/27/98 TIME: 05:31:40

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	47.50	1437.7	1384.4	118.40	3.5579	2.067
	48.00	1443.9	1390.6	118.40	3.5312	2.085
	48.50	1449.8	1396.6	118.40	3.5052	2.102
	49.00	1455.8	1402.5	118.43	3.4796	2.119
	49.50	1461.4	1408.1	118.43	3.4545	2.136
	50.00	1467.0	1413.7	118.43	3.4300	2.152
	50.50	1472.3	1419.1	118.44	3.4059	2.168
	51.00	1477.5	1424.3	118.45	3.3824	2.183
	51.50	1482.6	1429.3	118.45	3.3592	2.198
	52.00	1487.5	1434.2	118.45	3.3365	2.213
	52.50	1492.2	1438.9	118.46	3.3143	2.227
	53.00	1497.0	1443.7	118.48	3.2925	2.241
	53.50	1501.5	1448.3	118.39	3.2710	2.255
	54.00	1506.0	1452.7	118.48	3.2500	2.268
	54.50	1510.2	1456.9	118.49	3.2294	2.281
	55.00	1514.4	1461.1	118.49	3.2091	2.293
	55.50	1518.4	1465.1	118.49	3.1892	2.306
	56.00	1522.4	1469.1	118.50	3.1696	2.318
	56.50	1526.1	1472.8	118.51	3.1504	2.329
	57.00	1530.0	1476.7	118.51	3.1316	2.341
	57.50	1533.8	1480.5	118.52	3.1130	2.352
	58.00	1537.3	1484.0	118.52	3.0948	2.363
	58.50	1540.7	1487.5	118.51	3.0769	2.374
	59.00	1544.2	1490.9	118.53	3.0593	2.384
	59.50	1547.5	1494.2	118.53	3.0420	2.395
	60.00	1550.8	1497.5	118.53	3.0250	2.405
	60.50	1554.0	1500.7	118.54	3.0083	2.415
	61.00	1557.0	1503.7	118.54	2.9918	2.424
	61.50	1560.3	1507.0	118.55	2.9756	2.435
	62.00	1563.2	1509.9	118.56	2.9597	2.444
	62.50	1566.2	1512.9	118.56	2.9440	2.453
	63.00	1569.0	1515.7	118.56	2.9286	2.462
	63.50	1571.9	1518.6	118.54	2.9134	2.471
	64.00	1574.6	1521.3	118.58	2.8984	2.479
	64.50	1577.2	1524.0	118.58	2.8837	2.488
	65.00	1579.8	1526.6	118.58	2.8692	2.496
****** End Shut-in 2	65.50	1582.5	1529.2	118.59	2.8550	2.504
****** Final Hydro.	365.50	2468.9	0.0	118.66		

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

№ 10628

Well Name & No. WILLBANKS #17-1 Test No. 3 Date 2-27-98

Company IMPERIAL OIL PROPERTIES INC. Zone Tested PAWNEE

Address WICHITA KS. 67202 Elevation 2148 KB 2137 GL

Co. Rep / Geo. JON T WILLIAMS Cont. DUKE DRLG #5 Est. Ft. of Pay 6 Por. 10 %

Location: Sec. 17 Twp. 32S Rge. 18W Co. COMANCHE State KS

No. of Copies 5 Distribution Sheet (Y, N) N Turnkey (Y, N) — Evaluation (Y, N) —

Interval Tested 5090 - 5120' Initial Str Wt./Lbs. 52,000 Unseated Str Wt./Lbs. 55,000

Anchor Length 30' Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 80,000

Top Packer Depth 5085' Tool Weight 2100#

Bottom Packer Depth 5090' Hole Size — 7 7/8" ✓ Rubber Size — 6 3/4" ✓

Total Depth 5120' Wt. Pipe Run NONE Drill Collar Run NONE

Mud Wt. 9.2 LCM 2# Vis. 55 WL 12.8cc. Drill Pipe Size 4½" X.H. Ft. Run 5069'

Blow Description IF: Weak to fair blow. 1-7" in H20.

FF: Fair to strong blow. Btm. of bucket in 85 mins.

Recovery — Total Feet 75 Fluid GIP 310 Ft. in DC — Ft. in DP 75'

Rec. 75 Feet Of G.C.M. 10 %gas %oil %water 90 %mud

Rec. Feet Of %gas %oil %water %mud

Rec. Feet Of %gas %oil %water %mud

Rec. Feet Of %gas %oil %water %mud

Rec. Feet Of %gas %oil %water %mud

BHT 119 °F Gravity N/A °API D@ — °F Corrected Gravity N/A °API

RW N.C. @ — °F Chlorides 6,000 ppm Recovery Chlorides 6,000 ppm System

(A) Initial Hydrostatic Mud	2525	2512 PSI	Recorder No.	10248	T-Started	0531
(B) First Initial Flow Pressure	37	32 PSI	(depth)	5117'	T-Open	0730
(C) First Final Flow Pressure	41	32 PSI	Recorder No. (Alpine)	2342	T-Pulled	1135
(D) Initial Shut-in Pressure	1624	1625 PSI	(depth)	5096'	T-Out	1330
(E) Second Initial Flow Pressure	41	40 PSI	Recorder No.	—		
(F) Second Final Flow Pressure	57	53 PSI	(depth)	—		
(G) Final Shut-in Pressure	1574	1583 PSI	Initial Opening	30	Test	✓ 800
(H) Final Hydrostatic Mud	2481	2469 PSI	Initial Shut-in	60	Jars	✓ 200
	AK-1	ALPINE	Final Flow	90	Safety Joint	✓ 50
			Final Shut-in	60	Straddle	
					Circ. Sub	
					Sampler	
					Extra Packer	
					Elect. Rec.	✓ 150
					Other	

TRILOBITE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Approved By Jon Williams Jr. agent

TOTAL PRICE $ 1,150.00

TRILOBITE TESTING L.L.C.

OPERATOR : Imperial Oil Prop.Inc. DATE 02-28-98
WELL NAME: Willbanks #17-1 KB 2148.00 ft TICKET NO: 10629 DST #4
LOCATION : 17-32s-18w CO Comanche KS GR 2137.00 ft FORMATION: Miss
INTERVAL : 5194.00 To 5244.00 ft TD 5244.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins		Field	1	2	3	4
PF 30	Rec.	10248	10248	2342		
SI 60	Range(Psi)	4400.0	4400.0	4995.0	0.0	0.0
SF 60	Clock(hrs)	12 hr	12 hr	batt.		
FS 75	Depth(ft)	5241.0	5241.0	5206.0	0.0	0.0

TIME DATA----------
PF Fr. 0818 to 0848 hr
IS Fr. 0848 to 0948 hr
SF Fr. 0948 to 1048 hr
FS Fr. 1048 to 1203 hr

	Field	1	2	3	4
A. Init Hydro	2591.0	2580.0	2577.0	0.0	0.0
B. First Flow	94.0	107.0	100.0	0.0	0.0
B1. Final Flow	87.0	101.0	73.0	0.0	0.0
C. In Shut-in	411.0	427.0	417.0	0.0	0.0
D. Init Flow	91.0	101.0	97.0	0.0	0.0
E. Final Flow	71.0	95.0	65.0	0.0	0.0
F. Fl Shut-in	399.0	421.0	408.0	0.0	0.0
G. Final Hydro	2536.0	2530.0	2526.0	0.0	0.0
Inside/Outside	O	O	I	T	

T STARTED 0559 hr
T ON BOTM 0810 hr
T OPEN 0818 hr
T PULLED 1205 hr
T OUT 1410 hr

RECOVERY
Tot Fluid 45.00 ft of 0.00 ft in DC and 45.00 ft in DP
5150.00 ft of Gas in pipe.
45.00 ft of Slight gas cut mud 3%g 97%m
0.00 ft of
0.00 ft of
0.00 ft of
0.00 ft of
0.00 ft of Rw n/c ohms @ degrees F.
0.00 ft of EST FT. of PAY----------14
SALINITY 8000.00 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	53000.00 lbs
Unseated Str Wt	53000.00 lbs
Bot Choke	0.75 in
Hole Size	7.88 in
D Col. ID	2.25 in
D. Pipe ID	3.80 in
D.C. Length	0.00 ft
D.P. Length	5190.00 ft

BLOW DESCRIPTION
Initial Flow:
Strong blow, gas to surface in 4 min

Initial Shut-in:
No blow after 10 min. blow down.

Final Flow:
Strong blow. (see gas volume report)

Final Shut-in:
As initial shut in.

SAMPLES: Gas sample
SENT TO:Caraway/Liberal

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

Mud Type	Chemical
Weight	9.20 lb/c
Vis.	60.00 S/L
W.L.	8.80 in3
F.C.	0.20 in
Mud Drop	N
Amt. of fill	0.00 ft
Btm. H. Temp.	116.00 F
Hole Condition	good
% Porosity	12.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00 N
Cushion Type	None
Reversed Out	N
Tool Chased	N
Tester	Gary Pevoteaux
Co. Rep.	Jon T Williams
Contr.	Duke Drlg.
Rig #	5
Unit #	
Pump T.	LCM 2 #/bl

Test Successful: Y

GAS RECOVERY

COMPANY: Imperial Oil Prop.Inc. DATE: 02-28-98
WELL NAME: Willbanks #17-1 KB Elev: 2148.00 ft TICKET #10629 DST #4
WELL LOCATION: 17-32s-18w CO Comanche KS GR Elev: 2137.00 ft FORMATION: Miss
INTERVAL Fr.: 5194.00 To 5244.00 T.D.: 5244.00 ft TEST TYPE: CONVENTIONAL

GAS RECOVERY MEASURED WITH Adjusting Choke

***** GAS RATES FOR FLOW #1

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
10	0.50	24	0	200000.0
15	0.50	27	0	216000.0
20	0.50	28	0	222000.0
30	0.50	27	0	216000.0

***** GAS RATES FOR FLOW #2

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
10	0.50	27	0	216000.0
20	0.50	27	0	216000.0
30	0.50	26	0	211000.0
40	0.50	25	0	205000.0
50	0.50	24	0	200000.0
60	0.50	22	0	189000.0

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Willbanks #17-1

LOCATION : 17-32s-18w CO Comanche KS

TICKET No. 10629 D.S.T. No. 4 DATE 02-28-98

TOTAL TOOL TO BOTTOM OF TOP PACKERS 27

INTERVAL TOOL .....

BOTTOM PACKERS AND ANCHOR 18

TOTAL TOOL 45

DRILL COLLAR ANCHOR IN INTERVAL .....

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single 1 Total 32

TOTAL ASSEMBLY 77

D.C. ABOVE TOOLS.Stands Single Total

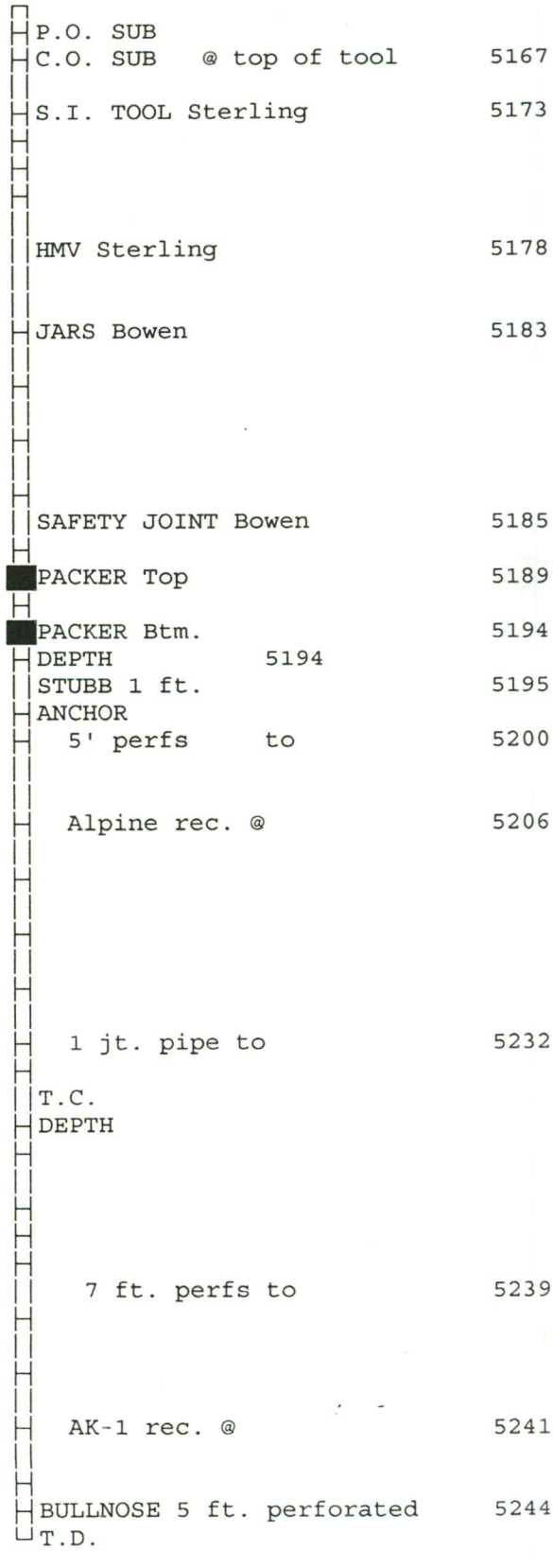
D.P. ABOVE TOOLS.Stands83 Single 1 Total 5190

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5267

TOTAL DEPTH 5244

TOTAL DRILL PIPE ABOVE K.B. 23

REMARKS:
Comments:

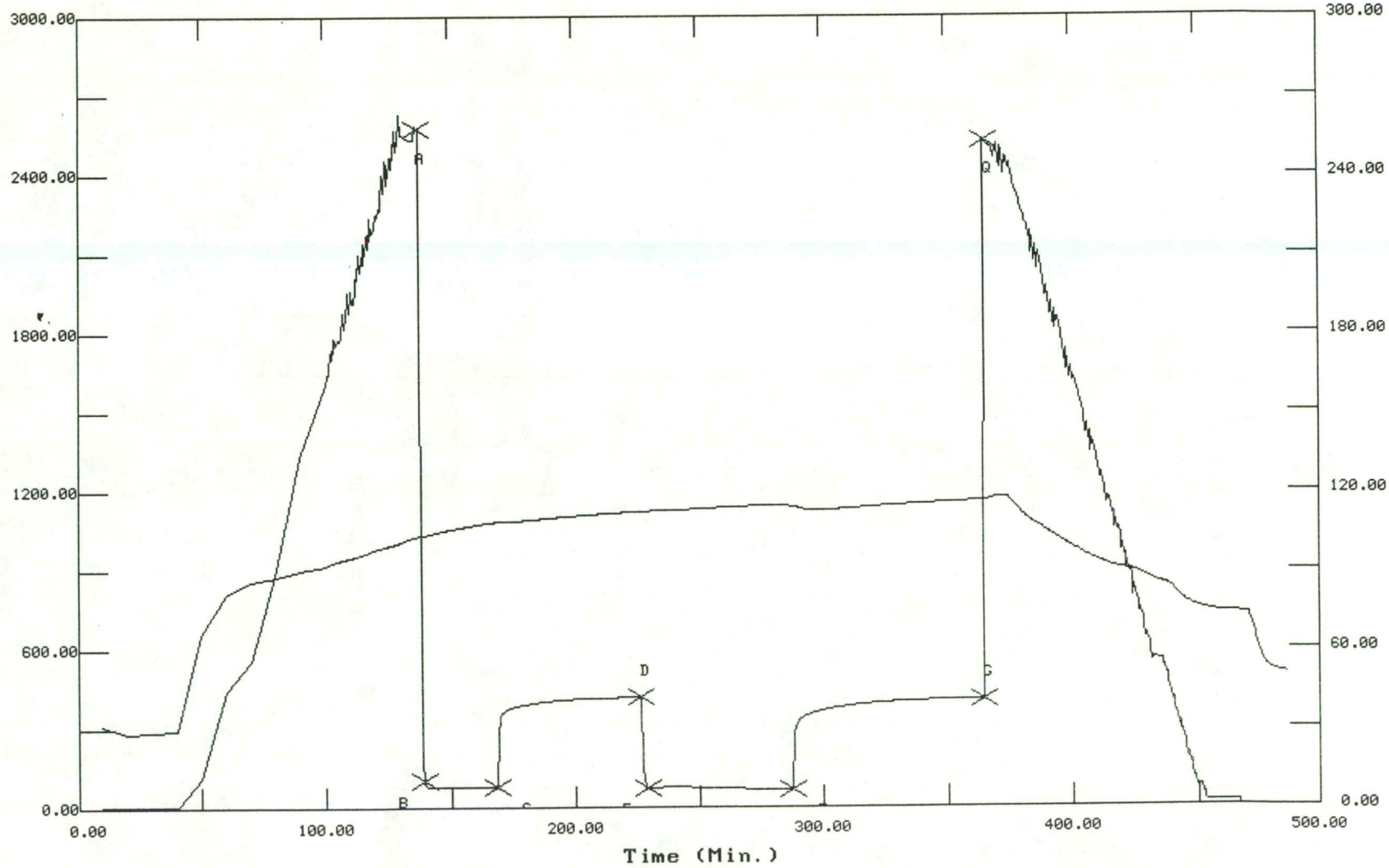


TEST HISTORY

10629 DST#4 WILLBANKS#17-1 IMPERIAL OIL PROP.

Flag Points

	t(Min.)	P(PSIg)
A:	0.00	2576.58
B:	0.00	99.95
C:	29.50	73.01
D:	58.50	416.86
E:	0.00	69.99
F:	58.50	65.29
G:	76.50	408.05
Q:	0.00	2525.97



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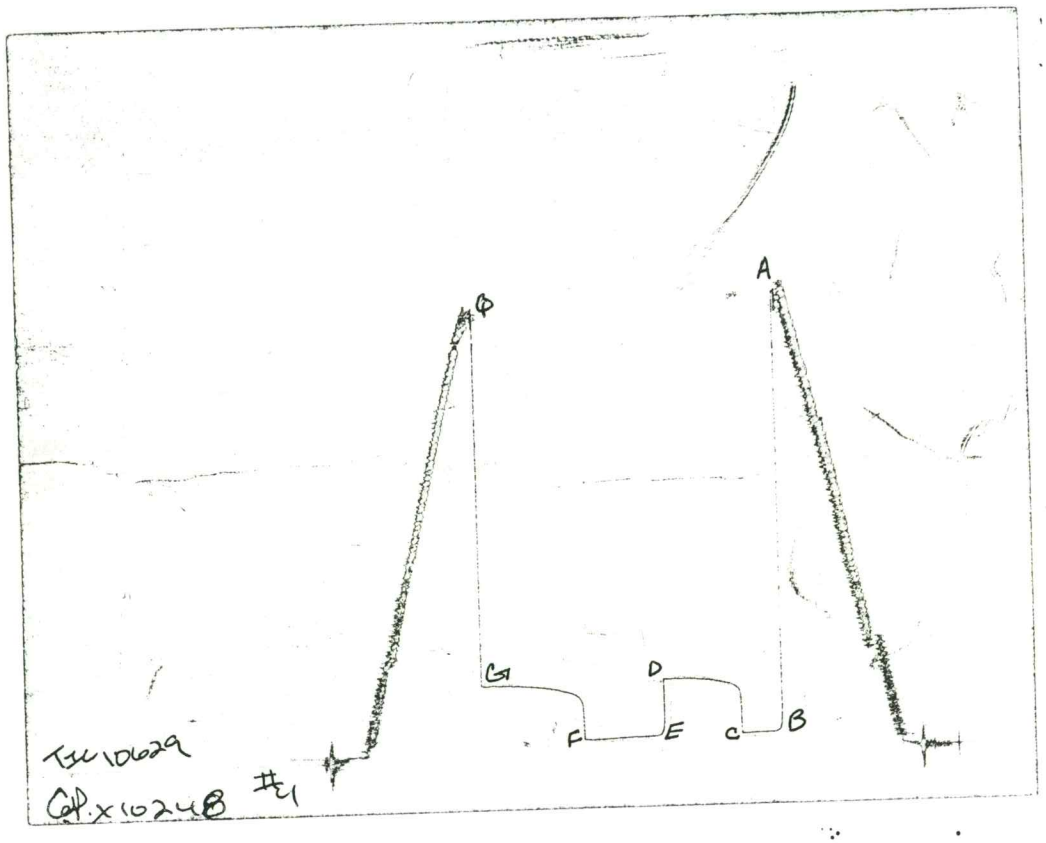


This is a photocopy of the actual AK-1 recorder chart

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10629 DST#4 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/28/98 TIME: 06:00:08

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** Initial Hydro.	137.50	2576.6	0.0	102.83		
***** Start Flow 1	0.00	99.9	0.0	103.05		
	0.50	91.0	-9.0	103.12		
	1.00	79.0	-21.0	103.22		
	1.50	77.6	-22.3	103.34		
	2.00	78.0	-21.9	103.47		
	2.50	75.8	-24.2	103.59		
	3.00	75.0	-24.9	103.72		
	3.50	74.5	-25.4	103.84		
	4.00	74.0	-25.9	103.95		
	4.50	73.3	-26.7	104.06		
	5.00	73.4	-26.5	104.18		
	5.50	72.7	-27.3	104.28		
	6.00	72.8	-27.2	104.39		
	6.50	72.8	-27.1	104.51		
	7.00	73.2	-26.7	104.61		
	7.50	73.2	-26.7	104.72		
	8.00	73.3	-26.6	104.83		
	8.50	73.8	-26.1	104.93		
	9.00	74.2	-25.8	105.03		
	9.50	74.7	-25.3	105.12		
	10.00	74.8	-25.2	105.23		
	10.50	74.9	-25.1	105.32		
	11.00	75.3	-24.7	105.42		
	11.50	75.2	-24.8	105.51		
	12.00	75.4	-24.5	105.61		
	12.50	75.3	-24.7	105.70		
	13.00	75.4	-24.5	105.79		
	13.50	75.8	-24.1	105.88		
	14.00	75.8	-24.1	105.96		
	14.50	75.8	-24.1	106.05		
	15.00	75.9	-24.0	106.14		
	15.50	75.8	-24.2	106.23		
	16.00	75.9	-24.0	106.31		
	16.50	75.9	-24.0	106.40		
	17.00	75.6	-24.3	106.49		
	17.50	76.1	-23.8	106.57		
	18.00	75.9	-24.0	106.64		
	18.50	75.8	-24.2	106.72		
	19.00	75.4	-24.5	106.81		
	19.50	75.6	-24.3	106.88		
	20.00	75.5	-24.4	106.96		
	20.50	75.3	-24.7	107.03		
	21.00	75.6	-24.3	107.11		
	21.50	75.9	-24.0	107.19		
	22.00	75.2	-24.8	107.26		
	22.50	75.0	-24.9	107.33		
	23.00	74.9	-25.1	107.41		
	23.50	74.7	-25.3	107.48		
	24.00	74.5	-25.4	107.55		
	24.50	74.6	-25.3	107.63		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10629 DST#4 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/28/98 TIME: 06:00:08

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	25.00	74.4	-25.6	107.69		
	25.50	74.1	-25.8	107.76		
	26.00	74.1	-25.8	107.83		
	26.50	73.9	-26.0	107.90		
	27.00	73.7	-26.3	107.97		
	27.50	73.3	-26.6	108.03		
	28.00	73.1	-26.9	108.10		
	28.50	73.3	-26.7	108.16		
	29.00	73.3	-26.7	108.23		
****** End Flow 1	29.50	73.0	-26.9	108.30		
****** Start Shutin 1	0.00	73.0	0.0	108.30	0.0000	0.005
	0.50	276.3	203.3	108.37	60.0000	0.076
	1.00	337.7	264.7	108.42	30.5000	0.114
	1.50	348.5	275.5	108.46	20.6667	0.121
	2.00	355.5	282.5	108.48	15.7500	0.126
	2.50	360.5	287.5	108.47	12.8000	0.130
	3.00	364.3	291.3	108.47	10.8333	0.133
	3.50	367.3	294.3	108.46	9.4286	0.135
	4.00	369.8	296.8	108.46	8.3750	0.137
	4.50	372.0	299.0	108.46	7.5556	0.138
	5.00	373.6	300.6	108.48	6.9000	0.140
	5.50	375.3	302.3	108.48	6.3636	0.141
	6.00	376.7	303.7	108.50	5.9167	0.142
	6.50	378.3	305.2	108.53	5.5385	0.143
	7.00	379.6	306.6	108.55	5.2143	0.144
	7.50	380.8	307.8	108.57	4.9333	0.145
	8.00	382.0	309.0	108.60	4.6875	0.146
	8.50	383.2	310.2	108.64	4.4706	0.147
	9.00	384.3	311.3	108.67	4.2778	0.148
	9.50	385.3	312.3	108.71	4.1053	0.148
	10.00	386.4	313.4	108.74	3.9500	0.149
	10.50	387.3	314.3	108.77	3.8095	0.150
	11.00	388.3	315.3	108.82	3.6818	0.151
	11.50	389.3	316.3	108.87	3.5652	0.152
	12.00	390.2	317.2	108.91	3.4583	0.152
	12.50	391.0	318.0	108.96	3.3600	0.153
	13.00	391.9	318.8	109.00	3.2692	0.154
	13.50	392.7	319.7	109.04	3.1852	0.154
	14.00	393.4	320.4	109.08	3.1071	0.155
	14.50	394.2	321.2	109.13	3.0345	0.155
	15.00	395.0	321.9	109.17	2.9667	0.156
	15.50	395.7	322.7	109.21	2.9032	0.157
	16.00	396.4	323.4	109.25	2.8438	0.157
	16.50	397.0	324.0	109.30	2.7879	0.158
	17.00	397.7	324.7	109.34	2.7353	0.158
	17.50	398.3	325.3	109.39	2.6857	0.159
	18.00	399.0	326.0	109.43	2.6389	0.159
	18.50	399.5	326.5	109.47	2.5946	0.160
	19.00	400.1	327.1	109.52	2.5526	0.160
	19.50	400.7	327.7	109.57	2.5128	0.161
	20.00	401.2	328.2	109.60	2.4750	0.161

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10629 DST#4 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/28/98 TIME: 06:00:08

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
20.50	401.7	328.7	109.65	2.4390	0.161
21.00	402.2	329.2	109.68	2.4048	0.162
21.50	402.7	329.7	109.73	2.3721	0.162
22.00	403.1	330.1	109.77	2.3409	0.162
22.50	403.6	330.6	109.81	2.3111	0.163
23.00	404.0	331.0	109.85	2.2826	0.163
23.50	404.4	331.4	109.89	2.2553	0.164
24.00	404.9	331.9	109.94	2.2292	0.164
24.50	405.2	332.2	109.99	2.2041	0.164
25.00	405.5	332.5	110.02	2.1800	0.164
25.50	406.0	333.0	110.06	2.1569	0.165
26.00	406.4	333.4	110.10	2.1346	0.165
26.50	406.7	333.7	110.13	2.1132	0.165
27.00	407.0	334.0	110.17	2.0926	0.166
27.50	407.4	334.4	110.22	2.0727	0.166
28.00	407.7	334.7	110.25	2.0536	0.166
28.50	408.0	335.0	110.29	2.0351	0.167
29.00	408.3	335.3	110.33	2.0172	0.167
29.50	408.6	335.6	110.37	2.0000	0.167
30.00	408.9	335.9	110.41	1.9833	0.167
30.50	409.1	336.1	110.45	1.9672	0.167
31.00	409.4	336.4	110.49	1.9516	0.168
31.50	409.6	336.6	110.53	1.9365	0.168
32.00	409.9	336.9	110.56	1.9219	0.168
32.50	410.1	337.1	110.60	1.9077	0.168
33.00	410.4	337.4	110.64	1.8939	0.168
33.50	410.7	337.6	110.67	1.8806	0.169
34.00	410.8	337.8	110.70	1.8676	0.169
34.50	411.1	338.1	110.74	1.8551	0.169
35.00	411.2	338.2	110.78	1.8429	0.169
35.50	411.5	338.5	110.82	1.8310	0.169
36.00	411.7	338.6	110.85	1.8194	0.169
36.50	411.8	338.8	110.89	1.8082	0.170
37.00	412.1	339.1	110.92	1.7973	0.170
37.50	412.2	339.2	110.95	1.7867	0.170
38.00	412.3	339.3	110.99	1.7763	0.170
38.50	412.5	339.5	111.03	1.7662	0.170
39.00	412.7	339.7	111.05	1.7564	0.170
39.50	412.8	339.8	111.09	1.7468	0.170
40.00	413.0	340.0	111.13	1.7375	0.171
40.50	413.1	340.1	111.16	1.7284	0.171
41.00	413.3	340.2	111.19	1.7195	0.171
41.50	413.5	340.5	111.22	1.7108	0.171
42.00	413.6	340.6	111.26	1.7024	0.171
42.50	413.8	340.7	111.28	1.6941	0.171
43.00	413.8	340.8	111.32	1.6860	0.171
43.50	413.9	340.9	111.35	1.6782	0.171
44.00	414.1	341.1	111.38	1.6705	0.171
44.50	414.3	341.3	111.42	1.6629	0.172
45.00	414.3	341.3	111.44	1.6556	0.172
45.50	414.4	341.4	111.48	1.6484	0.172

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10629 DST#4 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/28/98 TIME: 06:00:08

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	46.00	414.6	341.6	111.51	1.6413	0.172
	46.50	414.8	341.8	111.53	1.6344	0.172
	47.00	414.8	341.8	111.56	1.6277	0.172
	47.50	414.9	341.9	111.60	1.6211	0.172
	48.00	415.0	342.0	111.62	1.6146	0.172
	48.50	415.1	342.1	111.65	1.6082	0.172
	49.00	415.2	342.2	111.69	1.6020	0.172
	49.50	415.4	342.3	111.72	1.5960	0.173
	50.00	415.4	342.3	111.74	1.5900	0.173
	50.50	415.5	342.5	111.77	1.5842	0.173
	51.00	415.7	342.7	111.81	1.5784	0.173
	51.50	415.8	342.8	111.84	1.5728	0.173
	52.00	415.8	342.8	111.86	1.5673	0.173
	52.50	415.9	342.8	111.90	1.5619	0.173
	53.00	415.9	342.8	111.93	1.5566	0.173
	53.50	416.0	343.0	111.94	1.5514	0.173
	54.00	416.0	343.0	111.98	1.5463	0.173
	54.50	416.2	343.2	112.02	1.5413	0.173
	55.00	416.3	343.3	112.04	1.5364	0.173
	55.50	416.4	343.3	112.07	1.5315	0.173
	56.00	416.4	343.4	112.07	1.5268	0.173
	56.50	416.6	343.6	112.11	1.5221	0.174
	57.00	416.6	343.6	112.14	1.5175	0.174
	57.50	416.6	343.6	112.17	1.5130	0.174
	58.00	416.7	343.7	112.20	1.5086	0.174
****** End Shut-in 1	58.50	416.9	343.9	112.22	1.5043	0.174
****** Start Flow 2	0.00	70.0	0.0	112.33		
	0.50	69.4	-0.6	112.36		
	1.00	68.5	-1.5	112.38		
	1.50	68.7	-1.3	112.41		
	2.00	69.1	-0.9	112.44		
	2.50	69.5	-0.5	112.48		
	3.00	70.0	0.0	112.50		
	3.50	70.5	0.5	112.53		
	4.00	71.1	1.1	112.55		
	4.50	71.7	1.8	112.56		
	5.00	72.3	2.3	112.58		
	5.50	72.5	2.5	112.59		
	6.00	73.1	3.1	112.59		
	6.50	73.3	3.3	112.60		
	7.00	73.5	3.5	112.61		
	7.50	73.8	3.8	112.62		
	8.00	73.8	3.8	112.63		
	8.50	73.9	3.9	112.64		
	9.00	74.2	4.2	112.65		
	9.50	74.3	4.3	112.67		
	10.00	74.4	4.4	112.68		
	10.50	74.4	4.4	112.70		
	11.00	74.4	4.4	112.72		
	11.50	74.3	4.3	112.73		
	12.00	74.3	4.3	112.76		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10629 DST#4 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/28/98 TIME: 06:00:08

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
12.50	74.3	4.3	112.78		
13.00	74.3	4.3	112.80		
13.50	74.1	4.1	112.82		
14.00	74.0	4.0	112.84		
14.50	73.9	3.9	112.87		
15.00	73.8	3.8	112.89		
15.50	73.6	3.6	112.92		
16.00	73.6	3.6	112.94		
16.50	73.3	3.4	112.97		
17.00	73.3	3.4	112.99		
17.50	71.3	1.3	113.02		
18.00	71.2	1.2	113.04		
18.50	71.2	1.2	113.06		
19.00	71.1	1.1	113.10		
19.50	71.0	1.0	113.12		
20.00	70.9	0.9	113.15		
20.50	70.7	0.8	113.18		
21.00	70.6	0.6	113.20		
21.50	70.4	0.4	113.23		
22.00	70.3	0.3	113.26		
22.50	70.2	0.2	113.28		
23.00	70.1	0.1	113.31		
23.50	69.9	-0.1	113.33		
24.00	69.7	-0.3	113.36		
24.50	69.5	-0.5	113.39		
25.00	69.3	-0.7	113.41		
25.50	69.2	-0.8	113.45		
26.00	69.1	-0.9	113.48		
26.50	69.0	-1.0	113.51		
27.00	68.9	-1.1	113.54		
27.50	68.9	-1.1	113.57		
28.00	68.8	-1.2	113.60		
28.50	68.6	-1.3	113.63		
29.00	68.4	-1.6	113.65		
29.50	68.3	-1.7	113.68		
30.00	68.2	-1.8	113.71		
30.50	68.1	-1.9	113.74		
31.00	68.0	-2.0	113.76		
31.50	67.9	-2.1	113.79		
32.00	67.8	-2.2	113.81		
32.50	67.7	-2.3	113.83		
33.00	67.6	-2.3	113.85		
33.50	67.6	-2.4	113.88		
34.00	67.5	-2.5	113.90		
34.50	67.4	-2.6	113.92		
35.00	67.3	-2.7	113.94		
35.50	67.2	-2.8	113.96		
36.00	67.1	-2.9	113.98		
36.50	67.0	-3.0	114.01		
37.00	66.9	-3.1	114.04		
37.50	66.8	-3.2	114.05		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING
TEST: 10629 DST#4 WILLBANKS#17-1 IMPERIAL OIL PROP.
DATE: 02/28/98 TIME: 06:00:08

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	38.00	66.8	-3.2	114.08		
	38.50	66.7	-3.3	114.11		
	39.00	66.6	-3.4	114.13		
	39.50	66.5	-3.4	114.16		
	40.00	66.4	-3.6	114.18		
	40.50	66.5	-3.5	114.21		
	41.00	66.3	-3.7	114.24		
	41.50	66.3	-3.7	114.26		
	42.00	66.1	-3.9	114.28		
	42.50	66.0	-4.0	114.31		
	43.00	66.0	-4.0	114.33		
	43.50	66.0	-4.0	114.36		
	44.00	65.9	-4.1	114.37		
	44.50	65.8	-4.2	114.40		
	45.00	65.7	-4.3	114.42		
	45.50	65.7	-4.3	114.43		
	46.00	65.6	-4.4	114.45		
	46.50	65.4	-4.5	114.48		
	47.00	65.4	-4.5	114.50		
	47.50	65.4	-4.5	114.52		
	48.00	65.3	-4.7	114.54		
	48.50	65.3	-4.7	114.57		
	49.00	65.3	-4.7	114.60		
	49.50	65.1	-4.9	114.62		
	50.00	65.1	-4.9	114.64		
	50.50	65.0	-5.0	114.66		
	51.00	65.0	-5.0	114.67		
	51.50	64.9	-5.0	114.68		
	52.00	64.9	-5.0	114.69		
	52.50	65.0	-5.0	114.67		
	53.00	64.9	-5.1	114.64		
	53.50	64.9	-5.1	114.62		
	54.00	64.9	-5.1	114.59		
	54.50	64.9	-5.1	114.54		
	55.00	64.9	-5.1	114.49		
	55.50	64.7	-5.3	114.43		
	56.00	64.7	-5.3	114.37		
	56.50	64.8	-5.2	114.31		
	57.00	65.0	-5.0	114.24		
	57.50	65.5	-4.5	114.18		
	58.00	65.0	-5.0	114.11		
****** End Flow 2	58.50	65.3	-4.7	114.05		
****** Start Shutin 2	0.00	65.3	0.0	114.05	0.0000	0.004
	0.50	273.5	208.2	113.99	177.0000	0.075
	1.00	305.5	240.2	113.92	89.0000	0.093
	1.50	315.7	250.4	113.82	59.6667	0.10
	2.00	322.6	257.3	113.69	45.0000	0.104
	2.50	328.0	262.7	113.54	36.2000	0.108
	3.00	332.1	266.8	113.40	30.3333	0.110
	3.50	335.5	270.2	113.27	26.1429	0.113
	4.00	338.5	273.2	113.14	23.0000	0.115

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10629 DST#4 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/28/98 TIME: 06:00:08

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
4.50	340.9	275.6	113.04	20.5556	0.116
5.00	345.1	279.8	112.95	18.6000	0.119
5.50	347.0	281.7	112.87	17.0000	0.120
6.00	348.8	283.5	112.81	15.6667	0.122
6.50	350.6	285.3	112.77	14.5385	0.123
7.00	352.2	286.9	112.71	13.5714	0.124
7.50	353.7	288.5	112.68	12.7333	0.125
8.00	355.3	290.0	112.66	12.0000	0.126
8.50	356.6	291.3	112.64	11.3529	0.127
9.00	358.1	292.8	112.64	10.7778	0.128
9.50	359.4	294.1	112.63	10.2632	0.129
10.00	360.7	295.4	112.62	9.8000	0.130
10.50	362.1	296.8	112.64	9.3810	0.131
11.00	363.2	297.9	112.63	9.0000	0.132
11.50	364.4	299.1	112.64	8.6522	0.133
12.00	365.6	300.3	112.66	8.3333	0.134
12.50	366.7	301.4	112.67	8.0400	0.134
13.00	367.8	302.5	112.69	7.7692	0.135
13.50	368.9	303.7	112.71	7.5185	0.136
14.00	369.9	304.7	112.74	7.2857	0.137
14.50	371.0	305.7	112.76	7.0690	0.138
15.00	372.0	306.7	112.79	6.8667	0.138
15.50	373.0	307.7	112.81	6.6774	0.139
16.00	373.9	308.6	112.85	6.5000	0.140
16.50	374.8	309.5	112.87	6.3333	0.140
17.00	375.7	310.4	112.90	6.1765	0.141
17.50	376.6	311.3	112.93	6.0286	0.142
18.00	377.4	312.1	112.96	5.8889	0.142
18.50	378.3	313.0	113.00	5.7568	0.143
19.00	377.0	311.7	113.03	5.6316	0.142
19.50	377.8	312.5	113.06	5.5128	0.143
20.00	378.6	313.3	113.10	5.4000	0.143
20.50	379.3	314.0	113.14	5.2927	0.144
21.00	379.9	314.6	113.17	5.1905	0.144
21.50	380.8	315.5	113.21	5.0930	0.145
22.00	381.4	316.2	113.23	5.0000	0.145
22.50	382.1	316.8	113.28	4.9111	0.146
23.00	382.7	317.4	113.31	4.8261	0.146
23.50	383.4	318.1	113.35	4.7447	0.147
24.00	384.0	318.7	113.38	4.6667	0.147
24.50	384.5	319.3	113.42	4.5918	0.148
25.00	385.1	319.8	113.46	4.5200	0.148
25.50	385.7	320.4	113.49	4.4510	0.149
26.00	386.3	321.0	113.53	4.3846	0.149
26.50	386.8	321.5	113.56	4.3208	0.150
27.00	387.4	322.1	113.59	4.2593	0.150
27.50	387.8	322.5	113.63	4.2000	0.150
28.00	388.4	323.1	113.67	4.1429	0.151
28.50	388.8	323.5	113.70	4.0877	0.151
29.00	389.3	324.0	113.75	4.0345	0.152
29.50	389.8	324.5	113.78	3.9831	0.152

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10629 DST#4 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/28/98 TIME: 06:00:08

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
30.00	390.3	325.0	113.80	3.9333	0.152
30.50	390.7	325.4	113.84	3.8852	0.153
31.00	391.1	325.8	113.89	3.8387	0.153
31.50	391.5	326.2	113.91	3.7937	0.153
32.00	391.9	326.6	113.95	3.7500	0.154
32.50	392.4	327.1	113.98	3.7077	0.154
33.00	392.8	327.5	114.02	3.6667	0.154
33.50	393.1	327.8	114.05	3.6269	0.155
34.00	393.4	328.2	114.08	3.5882	0.155
34.50	393.8	328.5	114.12	3.5507	0.155
35.00	394.1	328.8	114.14	3.5143	0.155
35.50	394.5	329.2	114.19	3.4789	0.156
36.00	394.9	329.6	114.22	3.4444	0.156
36.50	395.2	329.9	114.25	3.4110	0.156
37.00	395.5	330.2	114.28	3.3784	0.156
37.50	395.8	330.5	114.31	3.3467	0.157
38.00	396.1	330.8	114.35	3.3158	0.157
38.50	396.4	331.1	114.38	3.2857	0.157
39.00	396.8	331.5	114.41	3.2564	0.157
39.50	397.1	331.8	114.44	3.2278	0.158
40.00	397.3	332.0	114.48	3.2000	0.158
40.50	397.6	332.4	114.50	3.1728	0.158
41.00	397.9	332.6	114.53	3.1463	0.158
41.50	398.2	332.9	114.57	3.1205	0.159
42.00	398.3	333.0	114.59	3.0952	0.159
42.50	398.6	333.4	114.63	3.0706	0.159
43.00	398.9	333.6	114.65	3.0465	0.159
43.50	399.1	333.8	114.69	3.0230	0.159
44.00	399.3	334.0	114.72	3.0000	0.159
44.50	399.6	334.3	114.74	2.9775	0.160
45.00	399.8	334.5	114.77	2.9556	0.160
45.50	400.0	334.7	114.80	2.9341	0.160
46.00	400.2	335.0	114.83	2.9130	0.160
46.50	400.5	335.2	114.85	2.8925	0.160
47.00	400.6	335.3	114.88	2.8723	0.160
47.50	400.8	335.5	114.92	2.8526	0.161
48.00	401.0	335.7	114.94	2.8333	0.161
48.50	401.3	336.0	114.97	2.8144	0.161
49.00	401.4	336.1	114.98	2.7959	0.161
49.50	401.6	336.3	115.03	2.7778	0.161
50.00	401.8	336.6	115.05	2.7600	0.161
50.50	402.0	336.7	115.08	2.7426	0.162
51.00	402.1	336.8	115.10	2.7255	0.162
51.50	402.3	337.1	115.13	2.7087	0.162
52.00	402.5	337.2	115.15	2.6923	0.162
52.50	402.7	337.4	115.18	2.6762	0.162
53.00	402.8	337.5	115.20	2.6604	0.162
53.50	403.0	337.7	115.24	2.6449	0.162
54.00	403.1	337.8	115.26	2.6296	0.162
54.50	403.3	338.0	115.28	2.6147	0.163
55.00	403.4	338.1	115.31	2.6000	0.163

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10629 DST#4 WILLBANKS#17-1 IMPERIAL OIL PROP.

DATE: 02/28/98 TIME: 06:00:08

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	55.50	403.5	338.2	115.33	2.5856	0.163
	56.00	403.8	338.5	115.35	2.5714	0.163
	56.50	403.9	338.6	115.38	2.5575	0.163
	57.00	403.9	338.6	115.40	2.5439	0.163
	57.50	404.2	338.9	115.42	2.5304	0.163
	58.00	404.3	339.0	115.44	2.5172	0.163
	58.50	404.4	339.1	115.46	2.5043	0.164
	59.00	404.5	339.2	115.49	2.4915	0.164
	59.50	404.6	339.3	115.52	2.4790	0.164
	60.00	404.8	339.5	115.55	2.4667	0.164
	60.50	404.9	339.6	115.57	2.4545	0.164
	61.00	405.0	339.7	115.58	2.4426	0.164
	61.50	405.1	339.8	115.61	2.4309	0.164
	62.00	405.3	340.0	115.63	2.4194	0.164
	62.50	405.4	340.1	115.66	2.4080	0.164
	63.00	405.5	340.2	115.68	2.3968	0.164
	63.50	405.7	340.4	115.70	2.3858	0.165
	64.00	405.7	340.4	115.72	2.3750	0.165
	64.50	405.9	340.6	115.74	2.3643	0.165
	65.00	406.0	340.7	115.76	2.3538	0.165
	65.50	406.1	340.8	115.78	2.3435	0.165
	66.00	406.2	340.9	115.80	2.3333	0.165
	66.50	406.3	341.0	115.83	2.3233	0.165
	67.00	406.4	341.1	115.85	2.3134	0.165
	67.50	406.5	341.3	115.87	2.3037	0.165
	68.00	406.6	341.3	115.89	2.2941	0.165
	68.50	406.7	341.5	115.91	2.2847	0.165
	69.00	406.8	341.5	115.93	2.2754	0.166
	69.50	406.8	341.5	115.96	2.2662	0.166
	70.00	407.0	341.7	115.97	2.2571	0.166
	70.50	407.0	341.8	115.98	2.2482	0.166
	71.00	407.1	341.8	116.02	2.2394	0.166
	71.50	407.2	341.9	116.03	2.2308	0.166
	72.00	407.4	342.1	116.05	2.2222	0.166
	72.50	407.5	342.2	116.07	2.2138	0.166
	73.00	407.5	342.3	116.09	2.2055	0.166
	73.50	407.5	342.3	116.11	2.1973	0.166
	74.00	407.8	342.5	116.13	2.1892	0.166
	74.50	407.8	342.5	116.15	2.1812	0.166
	75.00	407.8	342.6	116.16	2.1733	0.166
	75.50	407.8	342.6	116.19	2.1656	0.166
	76.00	408.0	342.7	116.21	2.1579	0.166
****** End Shut-in 2	76.50	408.0	342.8	116.22	2.1503	0.167
****** Final Hydro.	366.00	2526.0	0.0	116.46		

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601 • (913) 625-4778

GAS VOLUME REPORT

IMPERIAL OIL PROPERTIES — OPERATOR

WILLBANKS #17-1 — WELL NAME AND NO.

4 — DST NO.

INITIAL OPEN				FINAL OPEN			
Min.	Ins. of Water PSIG	Orifice Size	CF/D	Min.	Ins. of Water PSIG	Orifice Size	CF/D
4	~	3/4"	GTS	10	27 PSI	1/2"	216
10	24 PSI	1/2"	200	20	27 PSI	1/2"	216
15	27 PSI	1/2"	216	30	26 PSI	1/2"	211
20	28 PSI	1/2"	222	40	25 PSI	1/2"	205
30	27 PSI	1/2"	216	50	24 PSI	1/2"	200
				60	22 PSI	1/2"	189

Remarks:

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

№ 10629

Well Name & No. Williamics #17-1 Test No. 4 Date 2-28-98

Company Imperial Oil Properties Inc. Zone Tested Miss.

Address Wichita Ks. 67202 Elevation 2148' KB 2137' GL

Co. Rep / Geo. Jon T Williams Cont. Duke Drlg #5 Est. Ft. of Pay 14 Por. 12 %

Location: Sec. 17 Twp. 32 S Rge. 18 W Co. Comanche State Ks.

No. of Copies 5 Distribution Sheet (Y, N) N Turnkey (Y, N) — Evaluation (Y, N) —

Interval Tested 5194 - 5244' Initial Str Wt./Lbs. 53,000 Unseated Str Wt./Lbs. 53,000

Anchor Length 50' Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 70,000

Top Packer Depth 5189' Tool Weight 2100 #

Bottom Packer Depth 5194' Hole Size — 7 7/8" — Rubber Size — 6 3/4" —

Total Depth 5244' Wt. Pipe Run None Drill Collar Run None

Mud Wt. 9.2 LCM 2# Vis. 60 WL 8.8 cc. Drill Pipe Size 4 1/2" x H. Ft. Run 5190'

Blow Description IF: Strong blow. GTS in 4 mins. (see gas volume report) ISI: No blow after 10 min blow down.
FF: Strong blow. (see gas volume report)
FSI: As initial shut in.

Recovery — Total Feet 45 Fluid GIP 5150' Ft. in DC — Ft. in DP 45

Rec. 45	Feet Of S.G.C.M.	3 %gas	%oil	%water 97	%mud
Rec.	Feet Of	%gas	%oil	%water	%mud
Rec.	Feet Of	%gas	%oil	%water	%mud
Rec.	Feet Of	%gas	%oil	%water	%mud
Rec.	Feet Of	%gas	%oil	%water	%mud

BHT 116 °F Gravity N/A °API D@ — °F Corrected Gravity N/A °API

RW N.C. @ — °F Chlorides 8,000 ppm Recovery Chlorides 8,000 ppm System

(A) Initial Hydrostatic Mud	2591	2577 PSI	Recorder No.	10248	T-Started 0559 0600
(B) First Initial Flow Pressure	94	100 PSI	(depth)	5241'	T-Open 0819
(C) First Final Flow Pressure	87	73 PSI	Recorder No. (Alpine)	2342	T-Pulled 1205
(D) Initial Shut-in Pressure	411	417 PSI	(depth)	5206'	T-Out 1410
(E) Second Initial Flow Pressure	91	97 PSI	Recorder No.	—	
(F) Second Final Flow Pressure	71	65 PSI	(depth)	—	
(G) Final Shut-in Pressure	399	408 PSI	Initial Opening	30	Test ✓ 800
(H) Final Hydrostatic Mud	2536	2526 PSI	Initial Shut-in	60	Jars ✓ 200
	AK-1	ALPINE	Final Flow	60	Safety Joint ✓ 50
			Final Shut-in	73	Straddle
					Circ. Sub
					Sampler
					Extra Packer
					Elect. Rec. ✓ 150
					Other
					TOTAL PRICE $ ✓ 1200.00

Approved By Jon T Williams agent

Our Representative Tony Pustelnik

TRILOBITE TESTING L.L.C.

OPERATOR : Imperial Oil Prop.Inc. DATE 03-02-98
WELL NAME: Willbanks #17-1 KB 2148.00 ft TICKET NO: 10630 DST #5
LOCATION : 17-32-18w CO Comanche KS GR 2137.00 ft FORMATION: Viola
INTERVAL : 5716.00 To 5737.00 ft TD 5737.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins			Field	1	2	3	4
PF	30	Rec.	10248	10248	2342		
SI	30	Range(Psi)	4400.0	4400.0	4995.0	0.0	0.0
SF	30	Clock(hrs)	12 hr	12 hr	batt.		
FS	30	Depth(ft)	5734.0	5734.0	5722.0	0.0	0.0

TIME DATA----------
PF Fr. 2300 to 2330 hr
IS Fr. 2330 to 0000 hr
SF Fr. 0000 to 0030 hr
FS Fr. 0030 to 0100 hr

	Field	1	2	3	4
A. Init Hydro	2812.0	2792.0	2774.0	0.0	0.0
B. First Flow	53.0	66.0	23.0	0.0	0.0
B1. Final Flow	53.0	61.0	29.0	0.0	0.0
C. In Shut-in	155.0	169.0	152.0	0.0	0.0
D. Init Flow	55.0	73.0	36.0	0.0	0.0
E. Final Flow	55.0	75.0	35.0	0.0	0.0
F. Fl Shut-in	132.0	142.0	122.0	0.0	0.0
G. Final Hydro	2768.0	2768.0	2761.0	0.0	0.0
Inside/Outside	O	O	I	T	

T STARTED 2026 hr
T ON BOTM 2238 hr
T OPEN 2300 hr
T PULLED 0102 hr
T OUT 0320 hr

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

Tool Wt.	2100.00 lbs
Wt Set On Packer	20000.00 lbs
Wt Pulled Loose	78000.00 lbs
Initial Str Wt	57000.00 lbs
Unseated Str Wt	57000.00 lbs
Bot Choke	0.75 in
Hole Size	7.88 in
D Col. ID	2.25 in
D. Pipe ID	3.80 in
D.C. Length	0.00 ft
D.P. Length	5692.00 ft

RECOVERY
Tot Fluid 40.00 ft of 0.00 ft in DC and 40.00 ft in DP
0.00 ft of Gas in pipe. (trace)
40.00 ft of Gassy Mud.
0.00 ft of Clean water @ top of tool.
0.00 ft of
0.00 ft of
0.00 ft of
0.00 ft of Rw 0.11 ohms @ 65 degrees F.
0.00 ft of EST FT. of PAY----------6
SALINITY 58000.00 P.P.M. A.P.I. Gravity 0.00

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

Mud Type	Chemical
Weight	9.10 lb/c
Vis.	57.00 S/L
W.L.	8.40 in3
F.C.	0.20 in
Mud Drop	N
Amt. of fill	0.00 ft
Btm. H. Temp.	122.00 F
Hole Condition	good
% Porosity	10.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00 N
Cushion Type	None
Reversed Out	N
Tool Chased	N
Tester	Gary Pevoteaux
Co. Rep.	Jon T Williams
Contr.	Duke Drlg.
Rig #	5
Unit #	
Pump T.	LCM 6 #/bl

BLOW DESCRIPTION
Initial Flow:
Weak blow 1/2-3"

Initial Shut-in:
No blow

Final Flow:
Weak blow. (1 - 2")

Final Shut-in:
No blow.

SAMPLES:
SENT TO:Caraway/Liberal

Test Successful: Y

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Willbanks #17-1

LOCATION : 17-32-18w CO Comanche KS

TICKET No. 10630 D.S.T. No. 5 DATE 03-02-98

TOTAL TOOL TO BOTTOM OF TOP PACKERS 27

INTERVAL TOOL .....

BOTTOM PACKERS AND ANCHOR 21

TOTAL TOOL 48

DRILL COLLAR ANCHOR IN INTERVAL .....

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY 48

D.C. ABOVE TOOLS.Stands Single Total

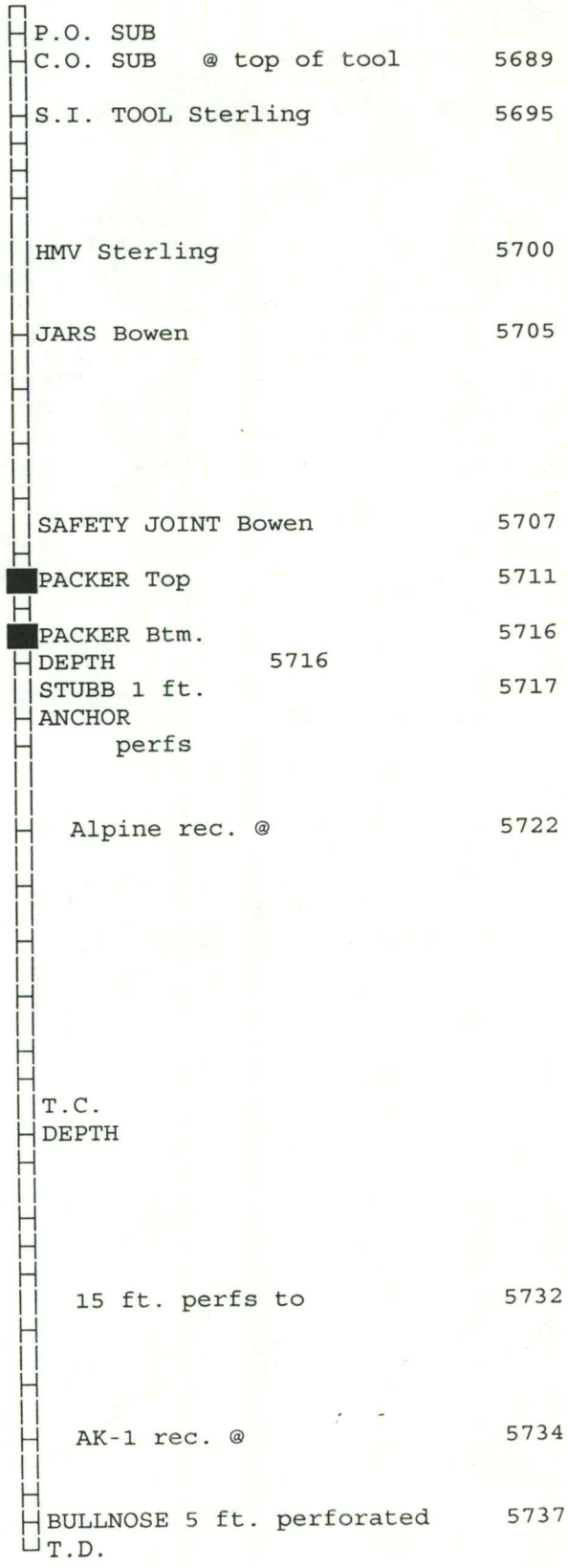
D.P. ABOVE TOOLS.Stands91 Single 1 Total 5692

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5740

TOTAL DEPTH 5737

TOTAL DRILL PIPE ABOVE K.B. 3

REMARKS:
Comments:



TEST HISTORY

10630 DST#5 WILLBAMKS#17-1 IMPERIAL OIL PROP.

Flag Points

	t(Min.)	P(PSIg)
A:	0.00	2774.39
B:	0.00	23.24
C:	31.00	29.45
D:	30.00	151.82
E:	0.00	35.91
F:	29.00	35.07
G:	36.50	122.36
Q:	0.00	2761.38

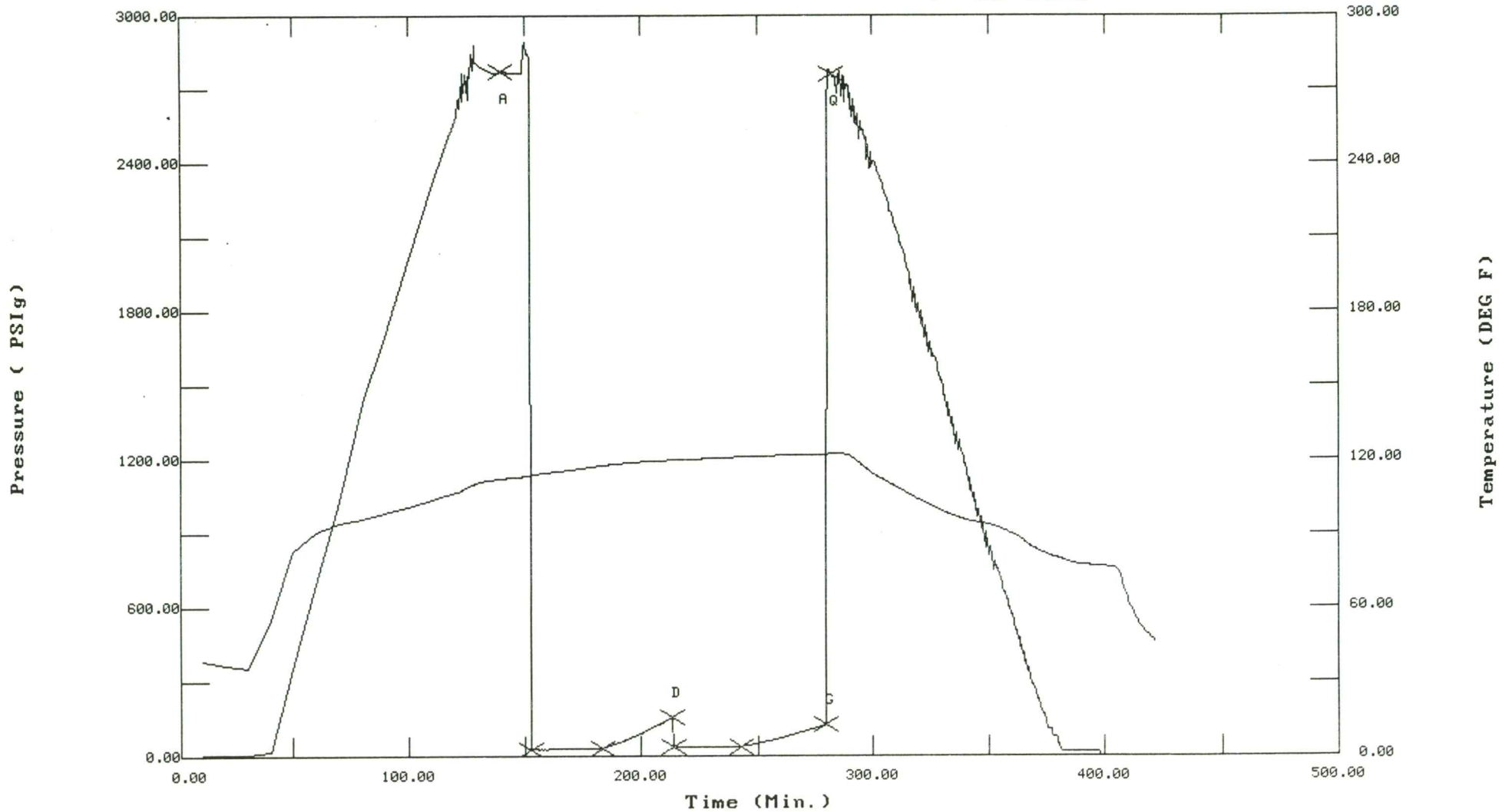
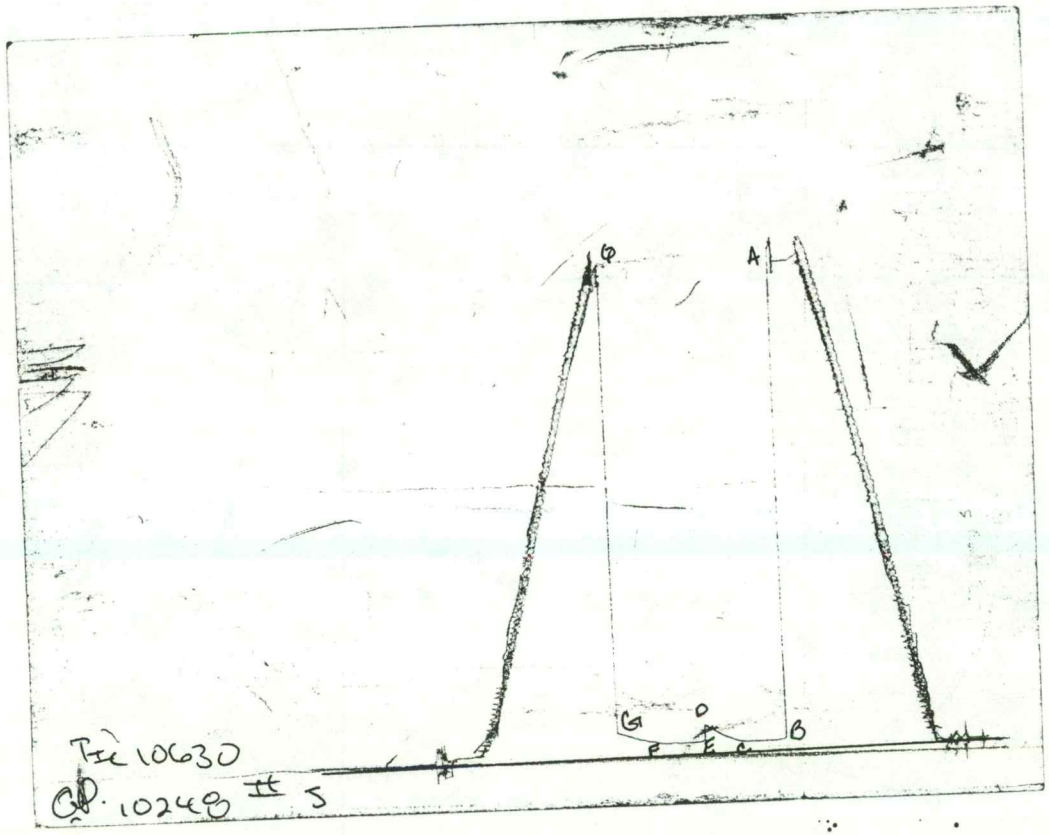


CHART PAGE



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

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10630 DST#5 WILLBAMKS#17-1 IMPERIAL OIL PROP.

DATE: 03/02/98 TIME: 20:26:37

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
****** Initial Hydro.	139.00	2774.4	0.0	112.14		
****** Start Flow 1	0.00	23.2	0.0	113.66		
	0.50	23.2	0.0	113.74		
	1.00	24.2	0.9	113.82		
	1.50	24.8	1.5	113.89		
	2.00	25.4	2.2	113.97		
	2.50	25.9	2.7	114.04		
	3.00	26.4	3.2	114.09		
	3.50	22.6	-0.7	114.16		
	4.00	23.3	0.1	114.22		
	4.50	25.8	2.5	114.28		
	5.00	24.0	0.8	114.35		
	5.50	25.3	2.1	114.40		
	6.00	24.7	1.4	114.45		
	6.50	24.6	1.3	114.52		
	7.00	24.2	1.0	114.58		
	7.50	25.3	2.1	114.64		
	8.00	26.2	2.9	114.70		
	8.50	25.0	1.8	114.76		
	9.00	24.8	1.6	114.82		
	9.50	25.7	2.4	114.87		
	10.00	26.2	2.9	114.93		
	10.50	27.2	3.9	114.99		
	11.00	26.3	3.1	115.05		
	11.50	25.9	2.7	115.10		
	12.00	26.3	3.0	115.16		
	12.50	26.2	2.9	115.22		
	13.00	25.5	2.3	115.27		
	13.50	26.3	3.1	115.33		
	14.00	27.9	4.6	115.39		
	14.50	29.1	5.9	115.45		
	15.00	26.1	2.9	115.50		
	15.50	26.7	3.4	115.56		
	16.00	26.3	3.1	115.62		
	16.50	26.3	3.1	115.67		
	17.00	28.0	4.8	115.72		
	17.50	28.7	5.5	115.79		
	18.00	26.6	3.4	115.85		
	18.50	27.7	4.4	115.91		
	19.00	27.4	4.2	115.98		
	19.50	27.9	4.7	116.04		
	20.00	28.7	5.5	116.10		
	20.50	27.5	4.3	116.17		
	21.00	27.7	4.4	116.23		
	21.50	28.6	5.4	116.29		
	22.00	28.4	5.2	116.37		
	22.50	27.4	4.1	116.43		
	23.00	28.3	5.0	116.50		
	23.50	29.0	5.8	116.57		
	24.00	28.8	5.5	116.63		
	24.50	27.5	4.3	116.70		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING
TEST: 10630 DST#5 WILLBAMKS#17-1 IMPERIAL OIL PROP.
DATE: 03/02/98 TIME: 20:26:37

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	25.00	28.6	5.4	116.77		
	25.50	29.5	6.3	116.83		
	26.00	28.9	5.6	116.90		
	26.50	27.9	4.7	116.97		
	27.00	28.8	5.5	117.03		
	27.50	29.8	6.5	117.09		
	28.00	29.4	6.1	117.16		
	28.50	28.2	5.0	117.22		
	29.00	28.9	5.6	117.28		
	29.50	30.0	6.7	117.34		
	30.00	29.9	6.6	117.41		
	30.50	28.5	5.3	117.47		
****** End Flow 1	31.00	29.5	6.2	117.53		
****** Start Shutin 1	0.00	29.5	0.0	117.53	0.0000	0.001
	0.50	31.0	1.5	117.59	63.0000	0.001
	1.00	32.5	3.0	117.66	32.0000	0.001
	1.50	34.1	4.6	117.70	21.6667	0.001
	2.00	35.5	6.0	117.77	16.5000	0.001
	2.50	37.0	7.6	117.82	13.4000	0.001
	3.00	38.5	9.1	117.87	11.3333	0.001
	3.50	40.0	10.6	117.92	9.8571	0.002
	4.00	41.5	12.1	117.98	8.7500	0.002
	4.50	43.1	13.7	118.03	7.8889	0.002
	5.00	44.7	15.3	118.08	7.2000	0.002
	5.50	46.3	16.9	118.14	6.6364	0.002
	6.00	47.9	18.5	118.19	6.1667	0.002
	6.50	49.6	20.1	118.24	5.7692	0.002
	7.00	51.3	21.8	118.29	5.4286	0.003
	7.50	52.9	23.5	118.33	5.1333	0.003
	8.00	54.6	25.2	118.38	4.8750	0.003
	8.50	56.4	26.9	118.41	4.6471	0.003
	9.00	58.1	28.6	118.47	4.4444	0.003
	9.50	59.8	30.4	118.51	4.2632	0.004
	10.00	61.6	32.1	118.55	4.1000	0.004
	10.50	63.5	34.1	118.59	3.9524	0.004
	11.00	65.3	35.8	118.64	3.8182	0.004
	11.50	67.2	37.8	118.68	3.6957	0.005
	12.00	69.1	39.7	118.71	3.5833	0.005
	12.50	71.1	41.6	118.76	3.4800	0.005
	13.00	73.1	43.6	118.80	3.3846	0.005
	13.50	75.1	45.7	118.83	3.2963	0.006
	14.00	77.1	47.7	118.87	3.2143	0.006
	14.50	79.2	49.8	118.91	3.1379	0.006
	15.00	81.4	52.0	118.94	3.0667	0.007
	15.50	83.6	54.1	118.97	3.0000	0.007
	16.00	85.7	56.2	119.01	2.9375	0.007
	16.50	87.9	58.4	119.04	2.8788	0.008
	17.00	90.1	60.7	119.07	2.8235	0.008
	17.50	92.3	62.9	119.11	2.7714	0.009
	18.00	94.7	65.2	119.14	2.7222	0.009
	18.50	97.0	67.6	119.17	2.6757	0.009

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10630 DST#5 WILLBAMKS#17-1 IMPERIAL OIL PROP.

DATE: 03/02/98 TIME: 20:26:37

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	19.00	99.4	69.9	119.20	2.6316	0.01
	19.50	101.8	72.3	119.24	2.5897	0.010
	20.00	104.1	74.7	119.26	2.5500	0.011
	20.50	106.6	77.1	119.29	2.5122	0.011
	21.00	109.0	79.6	119.31	2.4762	0.012
	21.50	111.5	82.1	119.33	2.4419	0.012
	22.00	114.0	84.6	119.36	2.4091	0.013
	22.50	116.5	87.0	119.38	2.3778	0.014
	23.00	119.0	89.6	119.41	2.3478	0.014
	23.50	121.4	91.9	119.44	2.3191	0.015
	24.00	123.9	94.4	119.45	2.2917	0.015
	24.50	126.3	96.9	119.48	2.2653	0.016
	25.00	128.7	99.3	119.51	2.2400	0.017
	25.50	131.2	101.7	119.53	2.2157	0.017
	26.00	133.5	104.1	119.55	2.1923	0.018
	26.50	135.8	106.3	119.58	2.1698	0.018
	27.00	138.1	108.7	119.59	2.1481	0.019
	27.50	140.4	111.0	119.62	2.1273	0.020
	28.00	142.8	113.3	119.64	2.1071	0.020
	28.50	145.0	115.6	119.66	2.0877	0.021
	29.00	147.3	117.8	119.68	2.0690	0.022
	29.50	149.6	120.1	119.70	2.0508	0.022
****** End Shut-in 1	30.00	151.8	122.4	119.71	2.0333	0.023
****** Start Flow 2	0.00	35.9	0.0	119.73		
	0.50	28.9	-7.0	119.75		
	1.00	28.3	-7.6	119.78		
	1.50	30.7	-5.2	119.77		
	2.00	32.0	-3.9	119.79		
	2.50	32.0	-3.9	119.81		
	3.00	32.5	-3.4	119.83		
	3.50	32.7	-3.2	119.84		
	4.00	32.6	-3.4	119.86		
	4.50	31.9	-4.0	119.87		
	5.00	32.2	-3.7	119.89		
	5.50	32.8	-3.1	119.92		
	6.00	32.5	-3.4	119.94		
	6.50	32.5	-3.4	119.96		
	7.00	32.4	-3.5	119.98		
	7.50	32.8	-3.1	120.01		
	8.00	32.9	-3.0	120.03		
	8.50	32.9	-3.0	120.05		
	9.00	33.0	-2.9	120.07		
	9.50	33.0	-2.9	120.10		
	10.00	33.1	-2.8	120.13		
	10.50	33.4	-2.5	120.14		
	11.00	33.2	-2.7	120.17		
	11.50	33.2	-2.7	120.19		
	12.00	33.2	-2.7	120.22		
	12.50	33.5	-2.4	120.24		
	13.00	33.6	-2.3	120.26		
	13.50	33.6	-2.3	120.28		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10630 DST#5 WILLBAMKS#17-1 IMPERIAL OIL PROP.

DATE: 03/02/98 TIME: 20:26:37

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	14.00	33.6	-2.3	120.31		
	14.50	33.8	-2.1	120.33		
	15.00	33.8	-2.1	120.36		
	15.50	33.8	-2.1	120.38		
	16.00	33.9	-2.0	120.40		
	16.50	34.0	-1.9	120.42		
	17.00	34.0	-1.9	120.44		
	17.50	33.9	-2.0	120.48		
	18.00	34.1	-1.8	120.49		
	18.50	34.0	-1.9	120.51		
	19.00	33.9	-2.0	120.54		
	19.50	34.1	-1.8	120.56		
	20.00	34.4	-1.5	120.59		
	20.50	34.2	-1.7	120.61		
	21.00	34.1	-1.8	120.62		
	21.50	34.2	-1.7	120.64		
	22.00	34.7	-1.3	120.67		
	22.50	34.7	-1.3	120.69		
	23.00	34.6	-1.3	120.71		
	23.50	34.5	-1.4	120.73		
	24.00	34.5	-1.4	120.75		
	24.50	34.7	-1.3	120.78		
	25.00	34.8	-1.1	120.80		
	25.50	34.8	-1.1	120.81		
	26.00	34.7	-1.2	120.84		
	26.50	34.9	-1.0	120.85		
	27.00	35.1	-0.8	120.88		
	27.50	35.1	-0.8	120.90		
	28.00	35.1	-0.8	120.91		
	28.50	35.1	-0.8	120.93		
****** End Flow 2	29.00	35.1	-0.8	120.94		
****** Start Shutin 2	0.00	35.1	0.0	120.94	0.0000	0.001
	0.50	36.1	1.0	120.97	121.0000	0.001
	1.00	37.1	2.0	120.99	61.0000	0.001
	1.50	37.9	2.9	121.00	41.0000	0.001
	2.00	38.8	3.8	121.03	31.0000	0.002
	2.50	39.9	4.8	121.04	25.0000	0.002
	3.00	40.9	5.8	121.06	21.0000	0.002
	3.50	41.8	6.7	121.08	18.1429	0.002
	4.00	42.6	7.6	121.10	16.0000	0.002
	4.50	43.5	8.4	121.11	14.3333	0.002
	5.00	44.5	9.4	121.12	13.0000	0.002
	5.50	45.5	10.4	121.14	11.9091	0.002
	6.00	46.3	11.2	121.17	11.0000	0.002
	6.50	47.3	12.3	121.18	10.2308	0.002
	7.00	48.3	13.3	121.19	9.5714	0.002
	7.50	49.3	14.3	121.22	9.0000	0.002
	8.00	50.3	15.3	121.24	8.5000	0.003
	8.50	51.4	16.3	121.25	8.0588	0.003
	9.00	52.4	17.3	121.26	7.6667	0.003
	9.50	53.3	18.2	121.27	7.3158	0.003

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10630 DST#5 WILLBAMKS#17-1 IMPERIAL OIL PROP.

DATE: 03/02/98 TIME: 20:26:37

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
10.00	54.4	19.3	121.29	7.0000	0.003
10.50	55.5	20.4	121.31	6.7143	0.003
11.00	56.5	21.4	121.31	6.4545	0.003
11.50	57.5	22.4	121.33	6.2174	0.003
12.00	58.6	23.5	121.34	6.0000	0.003
12.50	59.7	24.6	121.36	5.8000	0.004
13.00	60.7	25.6	121.38	5.6154	0.004
13.50	61.8	26.8	121.39	5.4444	0.004
14.00	63.0	28.0	121.40	5.2857	0.004
14.50	64.1	29.0	121.42	5.1379	0.004
15.00	65.3	30.2	121.43	5.0000	0.004
15.50	66.5	31.4	121.44	4.8710	0.004
16.00	67.6	32.6	121.46	4.7500	0.005
16.50	68.8	33.7	121.47	4.6364	0.005
17.00	70.0	34.9	121.48	4.5294	0.005
17.50	71.1	36.0	121.50	4.4286	0.005
18.00	72.4	37.4	121.50	4.3333	0.005
18.50	73.7	38.6	121.52	4.2432	0.005
19.00	74.9	39.8	121.54	4.1579	0.006
19.50	76.1	41.0	121.54	4.0769	0.006
20.00	77.5	42.4	121.56	4.0000	0.006
20.50	78.7	43.6	121.57	3.9268	0.006
21.00	80.1	45.0	121.58	3.8571	0.006
21.50	81.4	46.3	121.60	3.7907	0.007
22.00	82.6	47.5	121.61	3.7273	0.007
22.50	84.0	48.9	121.62	3.6667	0.007
23.00	85.3	50.3	121.63	3.6087	0.007
23.50	86.7	51.6	121.65	3.5532	0.008
24.00	88.1	53.0	121.65	3.5000	0.008
24.50	89.5	54.4	121.67	3.4490	0.008
25.00	90.8	55.7	121.68	3.4000	0.008
25.50	92.1	57.1	121.70	3.3529	0.008
26.00	93.5	58.4	121.71	3.3077	0.009
26.50	94.8	59.8	121.71	3.2642	0.009
27.00	96.3	61.2	121.72	3.2222	0.009
27.50	97.6	62.5	121.74	3.1818	0.01
28.00	98.9	63.9	121.75	3.1429	0.01
28.50	100.4	65.3	121.76	3.1053	0.010
29.00	101.9	66.8	121.77	3.0690	0.010
29.50	103.1	68.1	121.78	3.0339	0.011
30.00	104.6	69.5	121.80	3.0000	0.011
30.50	105.9	70.8	121.80	2.9672	0.011
31.00	107.3	72.2	121.82	2.9355	0.012
31.50	108.7	73.6	121.83	2.9048	0.012
32.00	110.1	75.0	121.84	2.8750	0.012
32.50	111.4	76.4	121.85	2.8462	0.012
33.00	112.9	77.8	121.86	2.8182	0.013
33.50	114.1	79.1	121.87	2.7910	0.013
34.00	115.6	80.5	121.88	2.7647	0.013
34.50	117.0	81.9	121.90	2.7391	0.014
35.00	118.2	83.2	121.91	2.7143	0.014

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10630 DST#5 WILLBAMKS#17-1 IMPERIAL OIL PROP.

DATE: 03/02/98 TIME: 20:26:37

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	35.50	119.7	84.6	121.92	2.6901	0.014
	36.00	121.0	85.9	121.93	2.6667	0.015
****** End Shut-in 2	36.50	122.4	87.3	121.94	2.6438	0.015
****** Final Hydro.	282.00	2761.4	0.0	122.21		

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

№ 10630

Well Name & No. WELLBANKS # 17-1 Test No. 5 Date 3-2-98

Company IMPERIAL OIL PROPERTIES INC. Zone Tested VIOLA

Address WICHITA KS. 67202 Elevation 2148 KB 2137 GL

Co. Rep / Geo. JON I WILLIAMS Cont. DUKE DRLG. #5 Est. Ft. of Pay 6 Por. 10 %

Location: Sec. 17 Twp. 32 S Rge. 18 W Co. COMANCHE State KS.

No. of Copies 5 Distribution Sheet (Y, N) N Turnkey (Y, N) — Evaluation (Y, N) —

Interval Tested 5716 - 5737' Initial Str Wt./Lbs. 57,000 Unseated Str Wt./Lbs. 57,000

Anchor Length 21' Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 78,000

Top Packer Depth 5711' Tool Weight 2100 #

Bottom Packer Depth 5716' Hole Size — 7 7/8" ✓ Rubber Size — 6 3/4" ✓

Total Depth 5737' Wt. Pipe Run NONE Drill Collar Run NONE

Mud Wt. 9.1 LCM 6# Vis. 52 WL 8.4 cc. Drill Pipe Size 4½"x.4. Ft. Run 5692'

Blow Description IF: Weak blow. (½ - 3")

FF: Weak blow. (1 - 2")

Recovery — Total Feet 40 GIP Trace Ft. in DC — Ft. in DP 40

Rec. 40 Feet Of Cassy Mud.	%gas	%oil	%water	%mud
Rec. Feet Of	%gas	%oil	%water	%mud
Rec. Feet Of Clean Water @ top	%gas	%oil	%water	%mud
Rec. Feet Of of tool!	%gas	%oil	%water	%mud
Rec. Feet Of	%gas	%oil	%water	%mud

BHT 122 °F Gravity N/A °API D@ — °F Corrected Gravity N/A °API

RW 0.11 @ 65 °F Chlorides 58,000 ppm Recovery Chlorides 6,000 ppm System

(A) Initial Hydrostatic Mud	2812	2774	PSI	Recorder No.	10248	T-Started	2026
(B) First Initial Flow Pressure	53	23	PSI	(depth)	5734'	T-Open	2300
(C) First Final Flow Pressure	53	29	PSI	Recorder No. (alpine)	2342	T-Pulled	0102
(D) Initial Shut-in Pressure	155	152	PSI	(depth)	5722'	T-Out	0320
(E) Second Initial Flow Pressure	55	36	PSI	Recorder No.	—		
(F) Second Final Flow Pressure	55	35	PSI	(depth)	—		
(G) Final Shut-in Pressure	132	122	PSI	Initial Opening	30	Test	✓800
(H) Final Hydrostatic Mud	2748	2741	PSI	Initial Shut-in	30	Jars	✓200
	AK-1	ALPINE		Final Flow	30	Safety Joint	✓50
				Final Shut-in	30	Straddle	—
						Circ. Sub	—
						Sampler	—
						Extra Packer	—
						Elect. Rec.	✓150
						Other	—

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Approved By Jon I Williams Jr agent