

16-293-39W

AP2#15-187-20822-0000

TRILOBITE TESTING L.L.C.

ORIGINAL

OPERATOR : Amoco Production Co

DATE 5-13-96

WELL NAME: Second Schott #1-16

KB 3224.00 ft

TICKET NO: 9002

DST #1

LOCATION : 16-29S-39W

GR 3211.00 ft

FORMATION: Marmaton

INTERVAL : 4606.00 To 4620.00 ft

TD 4640.00 ft

TEST TYPE: CONV. STRADDLE

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 10 Rec.	AK-1	AK-1	Alpine	AK-1		PF Fr. 1625 to 1635 hr
SI 60 Range(Psi)	4050.0	4050.0	4995.0	3500.0	0.0	IS Fr. 1635 to 1735 hr
SF 0 Clock(hrs)	12	12	Elect	12		SF Fr. to hr
FS 0 Depth(ft)	4616.0	4616.0	4612.0	4640.0	0.0	FS Fr. to hr

	Field	1	2	3	4	
A. Init Hydro	0.0	2161.0	2187.0	1765.0	0.0	T STARTED 1330 hr
B. First Flow	0.0	20.0	45.0	0.0	0.0	T ON BOTM 1623 hr
B1. Final Flow	0.0	24.0	60.0	0.0	0.0	T OPEN 1625 hr
C. In Shut-in	0.0	0.0	1246.0	0.0	0.0	T PULLED 2135 hr
D. Init Flow	0.0	0.0	0.0	0.0	0.0	T OUT 0430 hr
E. Final Flow	0.0	0.0	0.0	0.0	0.0	
F. Fl Shut-in	0.0	0.0	0.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	0.0	2116.0	2102.0	1733.0	0.0	Tool Wt. 1800.00 lbs
Inside/Outside	O	O	I	T		Wt Set On Packer 20000.00 lbs
						Wt Pulled Loose 230000.00 lb
						Initial Str Wt 110000.00 lb
						Unseated Str Wt 900000.00 lb
						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 727.00 ft
						D.P. Length 3864.00 ft

RECOVERY

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

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

BLOW DESCRIPTION

Initial Flow -
Surface blow built to 2" blowFinal Flow -
*Went to turn tool, back lash -
couldn't turn, wall stuck.

SAMPLES:

SENT TO:

MUD DATA-----

Mud Type	Chemical
Weight	9.10 lb/c
Vis.	54.00 S/L
W.L.	9.20 in3
F.C.	0.00 in
Mud Drop Y	0.0 ft

Amt. of fill	3.00 ft
Btm. H. Temp.	117.00 F
Hole Condition	Fair
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	4
Cushion Amt.	0.00
Cushion Type	
Reversed Out	
Tool Chased	
Tester	Mike Colantonio
Co. Rep.	Ken LeBlanc
Contr.	Cheyenne Drlg.
Rig #	7
Unit #	
Pump T.	

Test Successful: Y

TEST HISTORY

9002 DST#1 Second Schott #1-16 Amoco Prod. Comp.

Flag Points

t(Min.) P(PSig)

A:	0.00	2186.56
B:	0.00	44.98
C:	7.00	59.50
D:	27.00	1245.98
Q:	0.00	2182.05

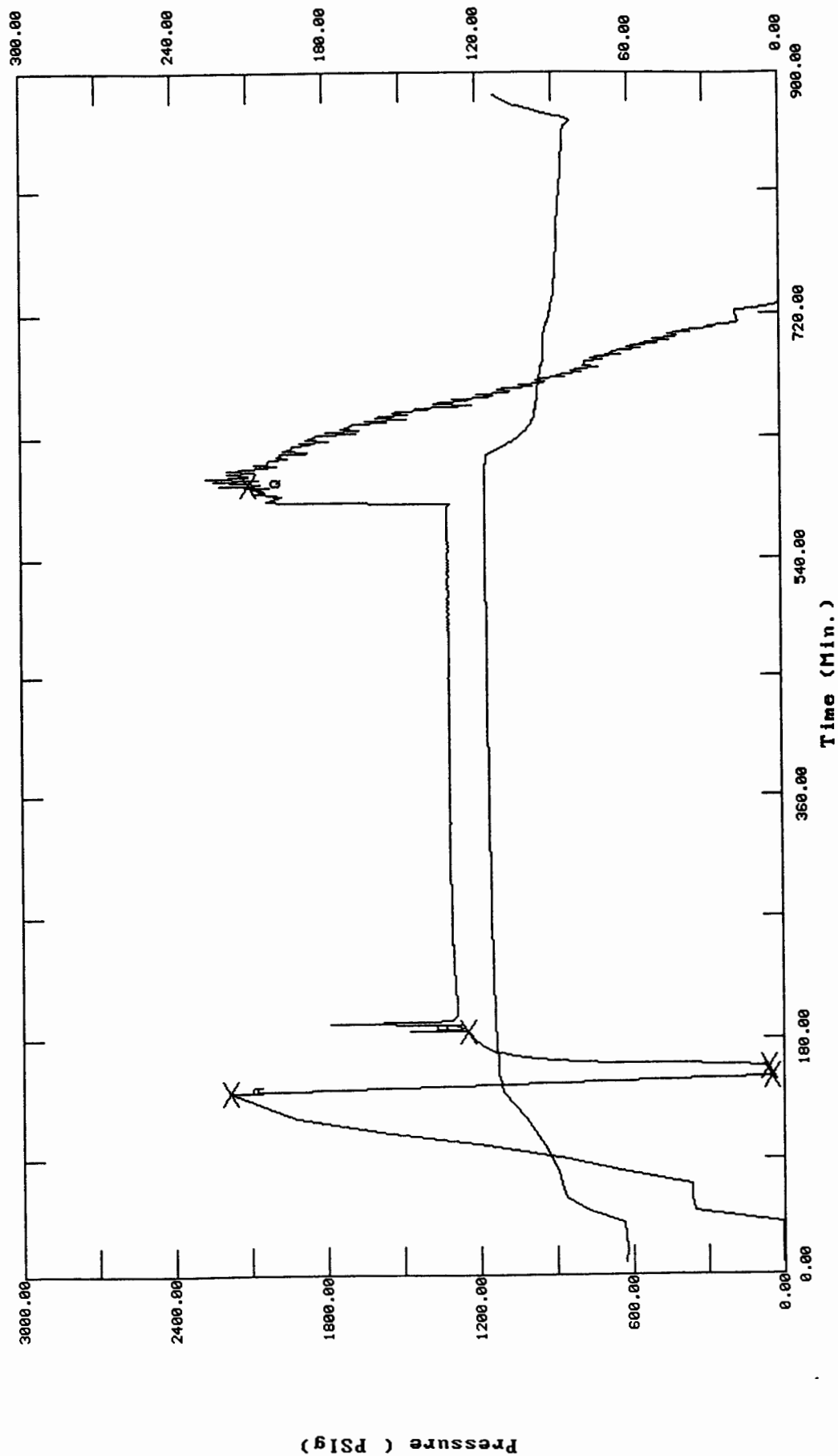
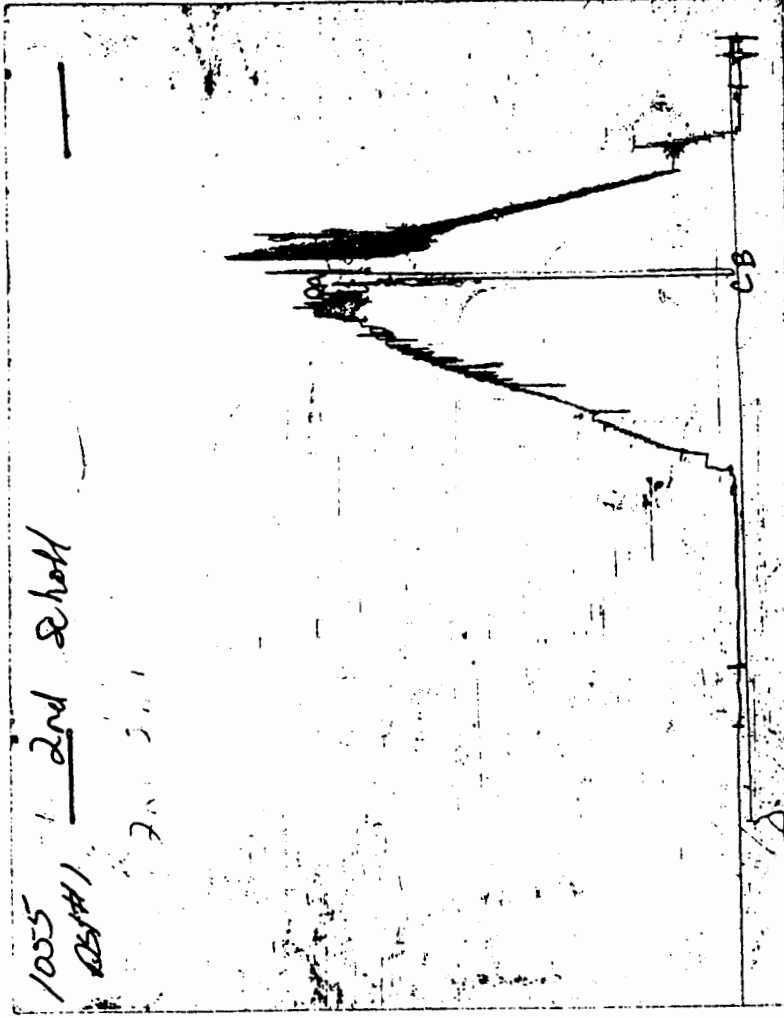
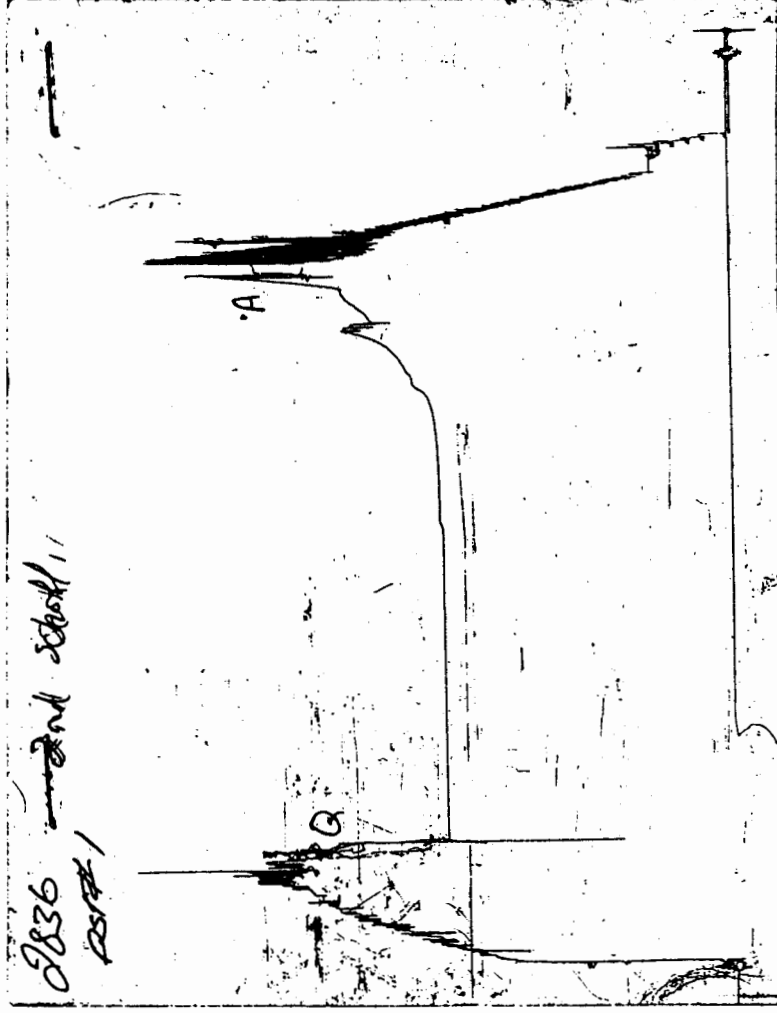


CHART PAGE



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

CHART PAGE



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

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9002 DST#1 Second Schott #1-16 Amoco Prod. Comp.

DATE: 05/13/96

TIME: 13:15:48

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** Initial Hydro.	140.00	2186.6	0.0	111.02		
***** Start Flow 1	0.00	45.0	0.0	112.41		
	1.00	47.4	2.4	112.46		
	2.00	49.9	5.0	112.49		
	3.00	52.7	7.7	112.55		
	4.00	54.0	9.0	112.60		
	5.00	55.5	10.5	112.63		
	6.00	57.5	12.5	112.63		
***** End Flow 1	7.00	59.5	14.5	112.63		
***** Start Shutin 1	0.00	59.5	0.0	112.63	0.0000	0.004
	1.00	80.6	21.1	112.63	8.0000	0.007
	2.00	190.0	130.5	112.63	4.5000	0.036
	3.00	465.8	406.3	112.63	3.3333	0.217
	4.00	672.5	613.0	112.63	2.7500	0.452
	5.00	807.0	747.5	112.64	2.4000	0.651
	6.00	903.8	844.3	112.64	2.1667	0.817
	7.00	973.7	914.2	112.74	2.0000	0.948
	8.00	1024.6	965.1	112.82	1.8750	1.050
	9.00	1062.1	1002.6	112.90	1.7778	1.128
	10.00	1092.5	1033.0	112.94	1.7000	1.194
	11.00	1116.1	1056.7	113.00	1.6364	1.246
	12.00	1135.3	1075.8	113.04	1.5833	1.289
	13.00	1150.6	1091.1	113.10	1.5385	1.324
	14.00	1163.8	1104.3	113.14	1.5000	1.354
	15.00	1173.8	1114.3	113.19	1.4667	1.378
	16.00	1184.3	1124.8	113.25	1.4375	1.403
	17.00	1193.1	1133.6	113.28	1.4118	1.424
	18.00	1199.7	1140.2	113.31	1.3889	1.439
	19.00	1206.0	1146.5	113.36	1.3684	1.455
	20.00	1212.2	1152.7	113.40	1.3500	1.470
	21.00	1217.7	1158.2	113.43	1.3333	1.483
	22.00	1222.3	1162.8	113.46	1.3182	1.494
	23.00	1226.8	1167.4	113.49	1.3043	1.505
	24.00	1231.5	1172.0	113.52	1.2917	1.517
	25.00	1236.3	1176.8	113.56	1.2800	1.529
	26.00	1239.7	1180.2	113.59	1.2692	1.537
***** End Shut-in 1	27.00	1246.0	1186.5	113.62	1.2593	1.552
***** Final Hydro.	595.00	2102.0	0.0	116.84		

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

Nº 9002

Well Name & No.	<u>Second Schott #1-16</u>	Test No.	<u>1</u>	Date	<u>5-13-96</u>
Company	<u>Harco Prod. Company</u>	Zone Tested	<u>Marmaton</u>		
Address	<u>PO Box 800 Denver Colo. 80201</u>	Elevation	<u>3224</u> KB <u>321</u> GL		
Co. Rep / Geo.	<u>Ken LeBlanc</u>	Cont.	<u>Chynne #7</u>	Est. Ft. of Pay	<u>10</u> Por. <u> </u> %
Location: Sec.	<u>16</u>	Twp.	<u>29S</u>	Rge.	<u>39W</u> Co. <u>Stanton</u> State <u>KS.</u>
No. of Copies		Distribution Sheet (Y, N)		Turnkey (Y, N)	
		Evaluation (Y, N)			

Interval Tested	<u>4606 - 4620</u>	Initial Str Wt./Lbs.	<u>11000</u>	Unseated Str Wt./Lbs.	<u>8000</u>
Anchor Length	<u>14'</u>	Wt. Set Lbs.	<u>20,000</u>	Wt. Pulled Loose/Lbs.	<u>230,000</u>
Top Packer Depth	<u>4598 - 4606</u>	Hole Size — 7 7/8"	<u>1</u>	Rubber Size — 6 3/4"	<u>1</u>
Bottom Packer Depth	<u>4621 - 4626</u>	Wt. Pipe I.D. — 2.7 Ft. Run			
Total Depth	<u>4640</u>	Drill Collar — 2.25 Ft. Run	<u>727'</u>		
Mud Wt. <u>9.1</u> LCM <u>2</u> Vis. <u>54</u> WL <u>9.2</u>		Drill Pipe Size	<u>4 1/2 X-Hole</u>	Ft. Run	<u>3864</u>
Blow Description	<u>Surface Blow Built to 2in Blw</u>				

2nd opening went to turn but BACK lash couldn't turn. Wall stuck

Recovery — Total Feet		Ft. in DC		Ft. in WP		Ft. in DP	
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		
Rec.	Feet Of	%gas	%oil	%water	%mud		
BHT	°F Gravity	°API D@		°F Corrected Gravity		°API	
RW	@	°F Chlorides		ppm Recovery	Chlorides	ppm System	
(A) Initial Hydrostatic Mud	<u>2186</u>	PSI	Recorder No.	<u>IRM</u>	T-Started	<u>1:30</u>	
(B) First Initial Flow Pressure	<u>45</u>	PSI	@ (depth)	<u>4612</u>	T-Open	<u>4:25pm</u>	
(C) First Final Flow Pressure	<u>59</u>	PSI	Recorder No.	<u>1055</u>	T-Pulled	<u>12:00pm</u>	
(D) Initial Shut-in Pressure	<u>1239 1246</u>	PSI	@ (depth)	<u>4616</u>	T-Out	<u>4:30 AM</u>	
(E) Second Initial Flow Pressure		PSI	Recorder No.	<u>2836</u>			
(F) Second Final Flow Pressure		PSI	@ (depth)	<u>4640</u>			
(G) Final Shut-in Pressure		PSI	Initial Opening	<u>10 min</u>	Test	<u>Straddle</u>	
(H) Final Hydrostatic Mud	<u>2102</u>	PSI	Initial Shut-in	<u>60 min</u>	Jars		

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.

Final Flow		Safety Joint	☒
Final Shut-in		Straddle	☒
		Circ. Sub	☒ <u>Dropped Box</u>
		Sampler	☒
		Extra Packer	☒ <u>2 shale 2 straddle</u>
		Elect. Rec.	☒
		Other	
		TOTAL PRICE \$	

Approved By _____
 Our Representative Mike Colantoni

TRILOBITE TESTING L.L.C.

OPERATOR : Amoco Production Company
WELL NAME: Second Schott # 1-16
LOCATION : 16-29-39
INTERVAL : 5564.00 To 5595.00 ft

DATE 5-16-96
KB 3224.00 ft TICKET NO: 9220 DST #2
GR 3211.00 ft FORMATION: Morrow
TD 5595.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	AK-1	AK-1	Alpine			PF Fr. 1859 to 1929 hr
SI 60 Range(Psi)	4500.0	4500.0	4995.0	0.0	0.0	IS Fr. 1929 to 2029 hr
SF 60 Clock(hrs)	12	12	Elect			SF Fr. 2029 to 2129 hr
FS 120 Depth(ft)	5590.0	5590.0	5566.0	0.0	0.0	FS Fr. 2129 to 2329 hr

	Field	1	2	3	4	
A. Init Hydro	2692.0	2661.0	2673.0	0.0	0.0	T STARTED 1625 hr
B. First Flow	44.0	38.0	25.0	0.0	0.0	T ON BOTM 1856 hr
B1. Final Flow	44.0	38.0	24.0	0.0	0.0	T OPEN 1859 hr
C. In Shut-in	233.0	224.0	239.0	0.0	0.0	T PULLED 2329 hr
D. Init Flow	44.0	40.0	27.0	0.0	0.0	T OUT 0310 hr
E. Final Flow	44.0	40.0	29.0	0.0	0.0	
F. Fl Shut-in	211.0	191.0	201.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2670.0	2585.0	2622.0	0.0	0.0	Tool Wt. 5000.00 lbs
Inside/Outside	0	0	I			Wt Set On Packer 28000.00 lbs
						Wt Pulled Loose 140000.00 lbs
						Initial Str Wt 112000.00 lbs
						Unseated Str Wt 112000.00 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 727.00 ft
						D.P. Length 4845.00 ft

RECOVERY

Tot Fluid 20.00 ft of 20.00 ft in DC and 0.00 ft in DP
20.00 ft of Drilling mud

RW 3.2 @ 85 F

SALINITY 1720.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Flow -
Weak, .5" blow

Initial Shutin -
No return

Final Flow -
Bubble to open tool, no blow

Final Shutin -
No return

SAMPLES:

SENT TO:

MUD DATA-----

Mud Type chem
Weight 9.00 lb/c
Vis. 51.00 S/L
W.L. 8.60 in3
F.C. 0.00 in
Mud Drop Y 10.0 ft

Amt. of fill 0.00 ft
Btm. H. Temp. 134.00 F
Hole Condition good
% Porosity 0.00
Packer Size 6.75 in
No. of Packers 2
Cushion Amt. 0.00
Cushion Type
Reversed Out N
Tool Chased N
Tester Shane McBride
Co. Rep. Sam Carmack
Contr. Cheyenne
Rig # 7
Unit #
Pump T.

Test Successful: Y

9220 DST #2 Second Schott #1-16 Amoco Prod. TEST HISTORY

Flag Points

t (Min.) P (PSig)

A:	0.00	2672.67
B:	0.00	25.09
C:	30.00	23.83
D:	60.00	238.77
E:	0.00	27.18
F:	59.00	28.78
G:	120.00	201.42
Q:	0.00	2621.98

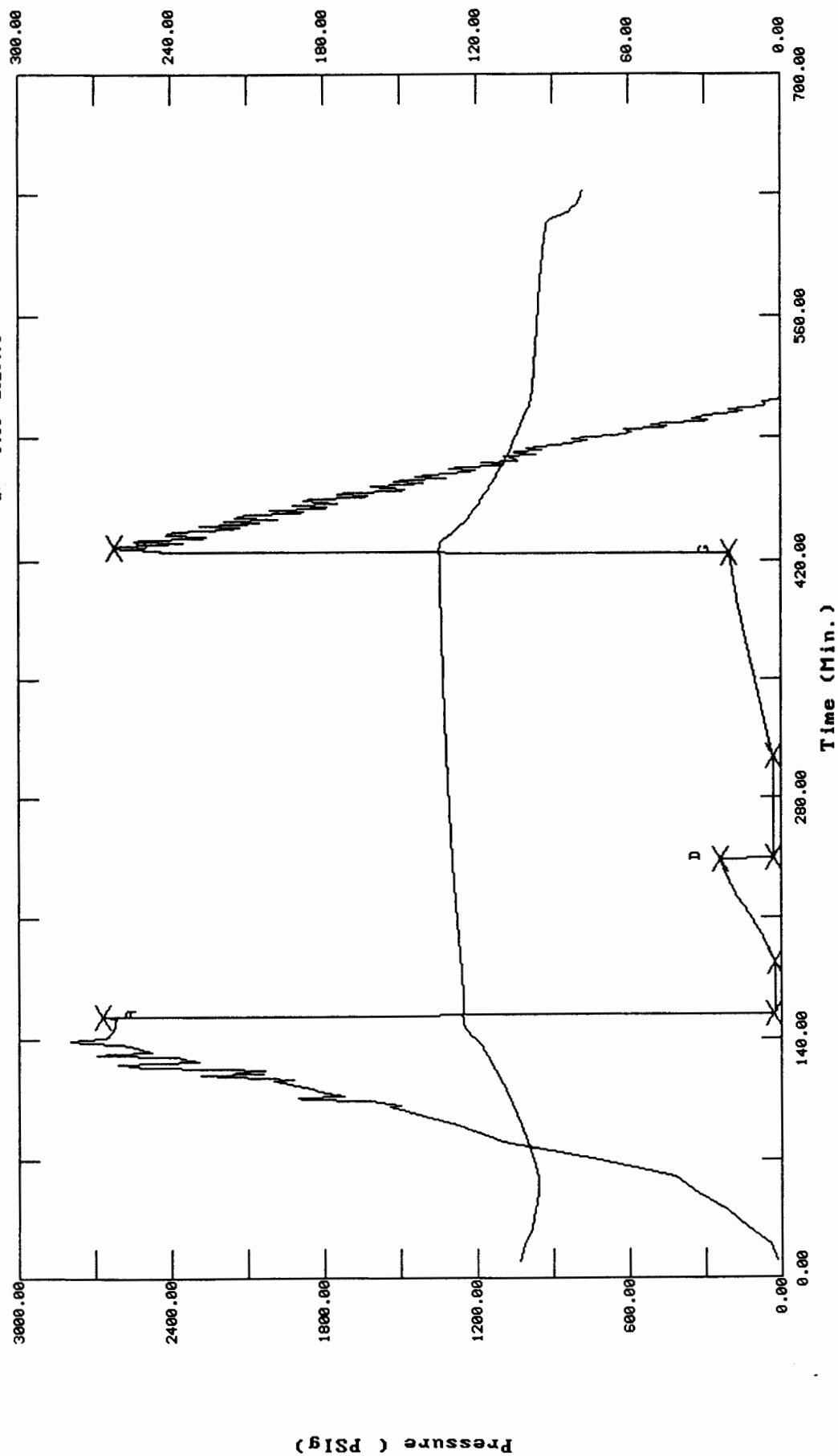
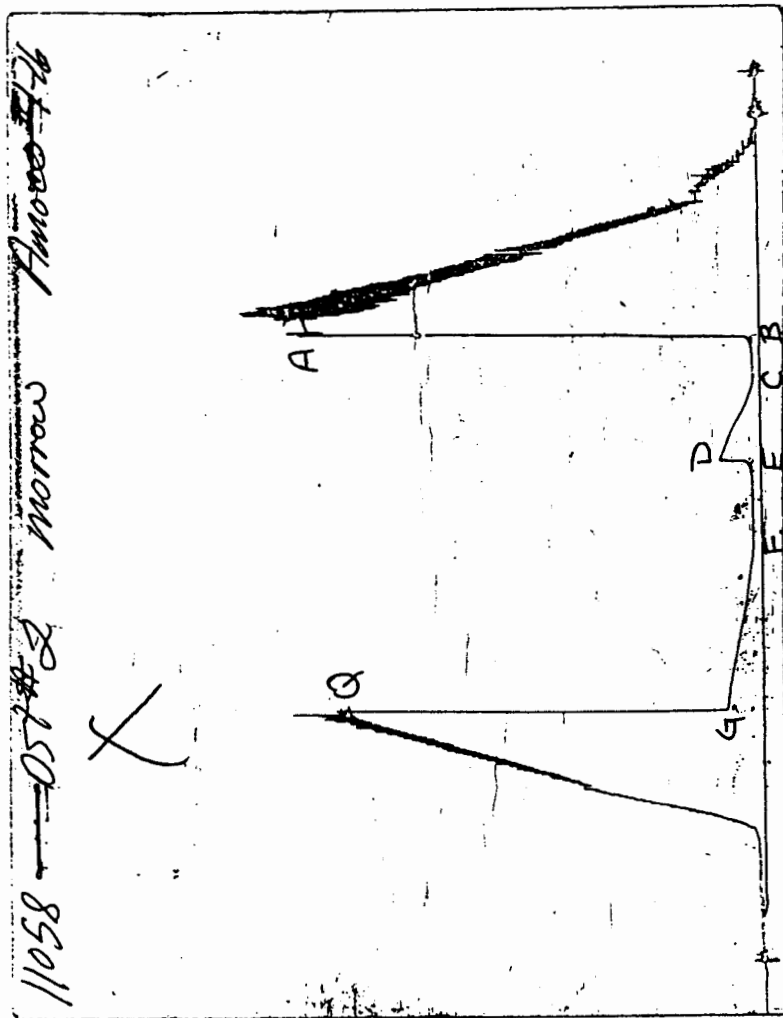


CHART PAGE



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

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

EST: 9220 DST #2 Second Schott #1-16 Amoco Prod.

DATE: 05/16/96 TIME: 00:24:20

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** Initial Hydro.	153.00	2672.7	0.0	125.67		
***** Start Flow 1	0.00	25.1	0.0	125.61		
	1.00	23.7	-1.3	125.60		
	2.00	18.5	-6.6	125.58		
	3.00	20.6	-4.5	125.55		
	4.00	20.7	-4.4	125.50		
	5.00	23.3	-1.8	125.46		
	6.00	20.1	-5.0	125.45		
	7.00	19.5	-5.6	125.43		
	8.00	21.0	-4.1	125.42		
	9.00	21.5	-3.6	125.42		
	10.00	21.6	-3.5	125.43		
	11.00	21.7	-3.4	125.43		
	12.00	21.9	-3.2	125.46		
	13.00	21.8	-3.3	125.48		
	14.00	22.0	-3.1	125.51		
	15.00	22.1	-3.0	125.54		
	16.00	22.4	-2.7	125.58		
	17.00	22.4	-2.7	125.61		
	18.00	22.6	-2.5	125.66		
	19.00	22.7	-2.3	125.70		
	20.00	22.8	-2.3	125.74		
	21.00	22.8	-2.3	125.79		
	22.00	23.1	-2.0	125.83		
	23.00	23.1	-2.0	125.89		
	24.00	23.2	-1.9	125.94		
	25.00	23.2	-1.8	126.00		
	26.00	23.5	-1.6	126.05		
	27.00	23.6	-1.5	126.10		
	28.00	23.6	-1.5	126.15		
	29.00	23.7	-1.3	126.21		
***** End Flow 1	30.00	23.8	-1.3	126.26		
***** Start Shutin 1	0.00	23.8	0.0	126.26	0.0000	0.001
	1.00	25.1	1.3	126.33	31.0000	0.001
	2.00	29.0	5.2	126.39	16.0000	0.001
	3.00	32.6	8.7	126.45	11.0000	0.001
	4.00	36.0	12.2	126.51	8.5000	0.001
	5.00	39.2	15.4	126.57	7.0000	0.002
	6.00	42.2	18.4	126.63	6.0000	0.002
	7.00	45.3	21.5	126.69	5.2857	0.002
	8.00	48.4	24.6	126.75	4.7500	0.002
	9.00	51.9	28.0	126.81	4.3333	0.003
	10.00	55.0	31.2	126.88	4.0000	0.003
	11.00	58.3	34.5	126.94	3.7273	0.003
	12.00	61.6	37.8	126.99	3.5000	0.004
	13.00	65.1	41.3	127.05	3.3077	0.004
	14.00	68.5	44.6	127.12	3.1429	0.005
	15.00	72.0	48.2	127.18	3.0000	0.005
	16.00	75.5	51.7	127.24	2.8750	0.006
	17.00	79.3	55.5	127.30	2.7647	0.006
	18.00	83.4	59.6	127.36	2.6667	0.007

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9220 DST #2 Second Schott #1-16 Amoco Prod.

DATE: 05/16/96

TIME: 00:24:20

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
19.00	87.0	63.2	127.42	2.5789	0.008
20.00	90.9	67.1	127.48	2.5000	0.008
21.00	94.7	70.9	127.54	2.4286	0.009
22.00	98.8	74.9	127.60	2.3636	0.01
23.00	103.0	79.1	127.66	2.3043	0.011
24.00	107.2	83.3	127.72	2.2500	0.011
25.00	111.7	87.9	127.78	2.2000	0.012
26.00	116.0	92.2	127.83	2.1538	0.013
27.00	120.5	96.7	127.89	2.1111	0.015
28.00	125.0	101.2	127.95	2.0714	0.016
29.00	129.7	105.9	128.00	2.0345	0.017
30.00	134.3	110.4	128.06	2.0000	0.018
31.00	138.6	114.7	128.12	1.9677	0.019
32.00	143.0	119.2	128.17	1.9375	0.020
33.00	147.5	123.7	128.22	1.9091	0.022
34.00	151.7	127.9	128.28	1.8824	0.023
35.00	156.9	133.1	128.34	1.8571	0.025
36.00	160.6	136.8	128.39	1.8333	0.026
37.00	165.0	141.2	128.43	1.8108	0.027
38.00	168.9	145.1	128.50	1.7895	0.029
39.00	175.0	151.2	128.55	1.7692	0.031
40.00	178.3	154.5	128.60	1.7500	0.032
41.00	181.7	157.9	128.65	1.7317	0.033
42.00	185.4	161.6	128.70	1.7143	0.034
43.00	188.9	165.1	128.75	1.6977	0.036
44.00	192.3	168.4	128.80	1.6818	0.037
45.00	195.7	171.9	128.85	1.6667	0.038
46.00	199.0	175.2	128.90	1.6522	0.040
47.00	202.3	178.5	128.95	1.6383	0.041
48.00	205.4	181.6	129.01	1.6250	0.042
49.00	208.6	184.8	129.05	1.6122	0.044
50.00	211.6	187.7	129.10	1.6000	0.045
51.00	215.2	191.4	129.15	1.5882	0.046
52.00	217.7	193.9	129.19	1.5769	0.047
53.00	220.4	196.6	129.23	1.5660	0.049
54.00	223.1	199.2	129.29	1.5556	0.050
55.00	226.8	203.0	129.33	1.5455	0.051
56.00	229.0	205.2	129.38	1.5357	0.052
57.00	231.5	207.6	129.43	1.5263	0.054
58.00	234.3	210.5	129.47	1.5172	0.055
59.00	236.5	212.7	129.52	1.5085	0.056
60.00	238.8	214.9	129.56	1.5000	0.057
***** End Shut-in 1					
***** Start Flow 2					
0.00	27.2	0.0	129.60		
1.00	25.8	-1.4	129.64		
2.00	26.2	-1.0	129.68		
3.00	26.2	-1.0	129.72		
4.00	25.8	-1.3	129.77		
5.00	26.3	-0.8	129.81		
6.00	26.1	-1.1	129.87		
7.00	25.8	-1.3	129.90		
8.00	26.3	-0.8	129.94		

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

EST: 9220 DST #2 Second Schott #1-16 Amoco Prod.

ATE: 05/16/96 TIME: 00:24:20

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
9.00	25.8	-1.3	129.98		
10.00	26.6	-0.6	130.02		
11.00	25.9	-1.3	130.07		
12.00	26.5	-0.7	130.11		
13.00	25.9	-1.3	130.15		
14.00	26.1	-1.1	130.19		
15.00	26.4	-0.8	130.23		
16.00	26.7	-0.5	130.26		
17.00	26.8	-0.4	130.30		
18.00	26.6	-0.6	130.34		
19.00	26.7	-0.5	130.38		
20.00	26.7	-0.5	130.42		
21.00	26.7	-0.5	130.46		
22.00	26.8	-0.3	130.49		
23.00	27.4	0.3	130.53		
24.00	27.4	0.3	130.57		
25.00	27.4	0.3	130.60		
26.00	27.3	0.1	130.65		
27.00	27.3	0.1	130.69		
28.00	27.3	0.1	130.72		
29.00	27.9	0.7	130.75		
30.00	27.9	0.8	130.80		
31.00	27.8	0.6	130.83		
32.00	27.6	0.4	130.86		
33.00	27.9	0.8	130.90		
34.00	28.1	0.9	130.94		
35.00	28.0	0.8	130.98		
36.00	27.9	0.7	131.01		
37.00	27.9	0.8	131.05		
38.00	28.4	1.2	131.09		
39.00	28.4	1.2	131.12		
40.00	28.2	1.0	131.15		
41.00	28.1	0.9	131.19		
42.00	28.3	1.1	131.23		
43.00	28.7	1.5	131.26		
44.00	28.6	1.4	131.30		
45.00	28.6	1.4	131.34		
46.00	28.5	1.3	131.37		
47.00	28.6	1.4	131.40		
48.00	28.4	1.3	131.44		
49.00	28.8	1.6	131.47		
50.00	28.8	1.6	131.50		
51.00	28.8	1.6	131.54		
52.00	28.8	1.6	131.57		
53.00	28.9	1.7	131.61		
54.00	28.9	1.7	131.64		
55.00	29.1	1.9	131.67		
56.00	29.1	1.9	131.70		
57.00	29.1	1.9	131.73		
58.00	29.0	1.8	131.77		
59.00	28.8	1.6	131.80		

**** End Flow 2

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9220 DST #2 Second Schott #1-16 Amoco Prod.

DATE: 05/16/96

TIME: 00:24:20

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** Start Shutin 2	0.00	28.8	0.0	131.80	0.0000	0.001
	1.00	30.8	2.0	131.83	90.0000	0.001
	2.00	32.9	4.1	131.86	45.5000	0.001
	3.00	34.8	6.0	131.89	30.6667	0.001
	4.00	36.5	7.7	131.93	23.2500	0.001
	5.00	38.3	9.6	131.95	18.8000	0.001
	6.00	40.0	11.2	131.99	15.8333	0.002
	7.00	41.7	12.9	132.02	13.7143	0.002
	8.00	43.3	14.5	132.05	12.1250	0.002
	9.00	45.0	16.2	132.08	10.8889	0.002
	10.00	46.6	17.8	132.12	9.9000	0.002
	11.00	48.2	19.4	132.14	9.0909	0.002
	12.00	49.7	20.9	132.17	8.4167	0.002
	13.00	51.2	22.4	132.20	7.8462	0.003
	14.00	52.7	23.9	132.23	7.3571	0.003
	15.00	54.3	25.5	132.26	6.9333	0.003
	16.00	55.7	26.9	132.29	6.5625	0.003
	17.00	57.3	28.5	132.32	6.2353	0.003
	18.00	58.8	30.0	132.35	5.9444	0.003
	19.00	60.3	31.5	132.38	5.6842	0.004
	20.00	61.8	33.0	132.41	5.4500	0.004
	21.00	63.3	34.5	132.43	5.2381	0.004
	22.00	64.7	35.9	132.46	5.0455	0.004
	23.00	66.1	37.3	132.49	4.8696	0.004
	24.00	67.7	38.9	132.51	4.7083	0.005
	25.00	69.1	40.4	132.55	4.5600	0.005
	26.00	70.7	41.9	132.57	4.4231	0.005
	27.00	72.1	43.3	132.60	4.2963	0.005
	28.00	73.7	44.9	132.63	4.1786	0.005
	29.00	75.1	46.3	132.65	4.0690	0.006
	30.00	76.5	47.8	132.68	3.9667	0.006
	31.00	78.0	49.2	132.70	3.8710	0.006
	32.00	79.5	50.7	132.74	3.7812	0.006
	33.00	81.0	52.2	132.76	3.6970	0.007
	34.00	82.7	53.9	132.79	3.6176	0.007
	35.00	84.2	55.4	132.81	3.5429	0.007
	36.00	85.5	56.7	132.84	3.4722	0.007
	37.00	87.1	58.3	132.86	3.4054	0.008
	38.00	88.6	59.8	132.90	3.3421	0.008
	39.00	90.1	61.4	132.92	3.2821	0.008
	40.00	91.6	62.8	132.94	3.2250	0.008
	41.00	93.2	64.4	132.96	3.1707	0.009
	42.00	94.7	65.9	132.99	3.1190	0.009
	43.00	96.1	67.3	133.02	3.0698	0.009
	44.00	97.6	68.8	133.04	3.0227	0.01
	45.00	99.5	70.8	133.07	2.9778	0.01
	46.00	101.0	72.3	133.09	2.9348	0.010
	47.00	102.5	73.7	133.11	2.8936	0.010
	48.00	104.0	75.2	133.14	2.8542	0.011
	49.00	105.6	76.8	133.16	2.8163	0.011
	50.00	107.1	78.3	133.19	2.7800	0.011

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING
 ST: 9220 DST #2 Second Schott #1-16 Amoco Prod.
 DE: 05/16/96 TIME: 00:24:20

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
51.00	108.6	79.8	133.21	2.7451	0.012
52.00	110.1	81.3	133.23	2.7115	0.012
53.00	111.7	82.9	133.26	2.6792	0.012
54.00	113.1	84.3	133.28	2.6481	0.013
55.00	114.8	86.0	133.31	2.6182	0.013
56.00	116.3	87.5	133.33	2.5893	0.014
57.00	117.9	89.1	133.36	2.5614	0.014
58.00	119.3	90.6	133.38	2.5345	0.014
59.00	121.0	92.2	133.40	2.5085	0.015
60.00	122.4	93.7	133.42	2.4833	0.015
61.00	124.0	95.3	133.45	2.4590	0.015
62.00	125.5	96.8	133.47	2.4355	0.016
63.00	127.1	98.3	133.49	2.4127	0.016
64.00	128.7	100	133.52	2.3906	0.017
65.00	130.3	101.6	133.54	2.3692	0.017
66.00	131.8	103.1	133.55	2.3485	0.017
67.00	133.4	104.7	133.59	2.3284	0.018
68.00	134.9	106.1	133.60	2.3088	0.018
69.00	136.3	107.5	133.63	2.2899	0.019
70.00	137.8	109.0	133.64	2.2714	0.019
71.00	139.3	110.5	133.67	2.2535	0.019
72.00	140.8	112.0	133.69	2.2361	0.020
73.00	142.8	114.0	133.71	2.2192	0.020
74.00	144.0	115.2	133.74	2.2027	0.021
75.00	145.4	116.7	133.76	2.1867	0.021
76.00	146.9	118.1	133.78	2.1711	0.022
77.00	148.4	119.6	133.80	2.1558	0.022
78.00	149.7	120.9	133.82	2.1410	0.022
79.00	151.1	122.3	133.85	2.1266	0.023
80.00	152.3	123.5	133.86	2.1125	0.023
81.00	153.7	125.0	133.89	2.0988	0.024
82.00	155.2	126.4	133.91	2.0854	0.024
83.00	156.5	127.7	133.93	2.0723	0.024
84.00	159.9	131.1	133.95	2.0595	0.026
85.00	160.5	131.8	133.96	2.0471	0.026
86.00	161.6	132.9	133.99	2.0349	0.026
87.00	163.0	134.2	134.01	2.0230	0.027
88.00	164.2	135.4	134.03	2.0114	0.027
89.00	165.3	136.6	134.06	2.0000	0.027
90.00	166.5	137.7	134.07	1.9889	0.028
91.00	169.5	140.7	134.09	1.9780	0.029
92.00	170.2	141.4	134.12	1.9674	0.029
93.00	171.3	142.5	134.14	1.9570	0.029
94.00	172.5	143.7	134.16	1.9468	0.030
95.00	173.6	144.9	134.18	1.9368	0.030
96.00	174.8	146.0	134.20	1.9271	0.031
97.00	175.8	147.0	134.22	1.9175	0.031
98.00	177.0	148.2	134.23	1.9082	0.031
99.00	178.2	149.4	134.25	1.8990	0.032
100.00	179.3	150.5	134.27	1.8900	0.032
101.00	180.4	151.7	134.29	1.8812	0.033

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9220 DST #2 Second Schott #1-16 Amoco Prod.

DATE: 05/16/96

TIME: 00:24:20

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
102.00	181.6	152.8	134.31	1.8725	0.033
103.00	182.8	154.0	134.33	1.8641	0.033
104.00	184.0	155.2	134.35	1.8558	0.034
105.00	185.1	156.3	134.37	1.8476	0.034
106.00	186.2	157.4	134.38	1.8396	0.035
107.00	187.3	158.5	134.41	1.8318	0.035
108.00	188.4	159.6	134.43	1.8241	0.035
109.00	189.4	160.6	134.45	1.8165	0.036
110.00	190.5	161.7	134.47	1.8091	0.036
111.00	191.5	162.7	134.48	1.8018	0.037
112.00	192.7	163.9	134.50	1.7946	0.037
113.00	193.8	165.0	134.52	1.7876	0.038
114.00	196.0	167.3	134.54	1.7807	0.038
115.00	196.6	167.8	134.56	1.7739	0.039
116.00	197.8	169.0	134.58	1.7672	0.039
117.00	198.6	169.8	134.59	1.7607	0.039
118.00	199.5	170.7	134.61	1.7542	0.040
119.00	200.4	171.6	134.63	1.7479	0.040
120.00	201.4	172.6	134.65	1.7417	0.041

***** End Shut-in 2

***** Final Hydro.

428.00	2622.0	0.0	134.56
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*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Second Schott # 1-16

LOCATION : 16-29-39

TICKET No. 9220 D.S.T. No. 2 DATE 5-16-96

TOTAL TOOL TO BOTTOM OF TOP PACKERS 27

INTERVAL TOOL

BOTTOM PACKERS AND ANCHOR 31

TOTAL TOOL 58

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY 58

D.C. ABOVE TOOLS.Stands12 Single Total 727

D.P. ABOVE TOOLS.Stands77 Single 1 Total 4845

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5630

TOTAL DEPTH 5595

TOTAL DRILL PIPE ABOVE K.B. 35

REMARKS:

P.O. SUB

C.O. SUB 1'

5536

S.I. TOOL 5'

5542

HMV 5'

5547

JARS 5'

5552

SAFETY JOINT 2'

5554

PACKER top

5559

PACKER bottom

5564

DEPTH 5564

STUBB 1'

5565

ANCHOR alpine recorder

5566

25' -perf

5590

T.C.
DEPTH

ak-1 recorder

5590

BULLNOSE 5' bullplug

5595

T.D.

5595

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

Nº 9220

Well Name & No. <u>Second Schott #1-16</u>	Test No. <u>#2</u>	Date <u>5-16-86</u>
Company <u>Amoco Prod. Co.</u>	Zone Tested <u>morion</u>	
Address <u>P.O. Box 200 Room 924 Denver Colo 80201</u>	Elevation <u>3224'</u> KB <u>3211'</u> GL	
Co. Rep / Geo. <u>Sam Carmack</u>	Cont. <u>Cheyenne #7</u>	Est. Ft. of Pay <u> </u> Por. <u> </u> %
Location: Sec. <u>16</u> Twp. <u>29</u> Rge. <u>39</u>	Co. <u>Stanton</u>	State <u>KS</u>
No. of Copies <u>Norm</u> Distribution Sheet (Y, N) <u> </u>	Turnkey (Y, N) <u>N</u>	Evaluation (Y, N) <u>N</u>

Interval Tested <u>5564' - 5595'</u>	Initial Str Wt./Lbs. <u>112,000</u>	Unseated Str Wt./Lbs. <u>112,000</u>
Anchor Length <u>31'</u>	Wt. Set Lbs. <u>28,000</u>	Wt. Pulled Loose/Lbs. <u>140,000</u>
Top Packer Depth <u>5559'</u>	Hole Size — 7 7/8" <u>✓</u>	Rubber Size — 6 3/4" <u>✓</u>
Bottom Packer Depth <u>5564'</u>	Wt. Pipe I.D. — 2.7 Ft. Run <u> </u>	
Total Depth <u>5595'</u>	Drill Collar — 2.25 Ft. Run <u>727'</u>	
Mud Wt. <u>9.0</u> LCM <u>#3</u> Vis. <u>51</u> WL <u>8.6</u>	Drill Pipe Size <u>4 1/2 X H</u>	Ft. Run <u>4845'</u>

Blow Description weak 1/2 in Blow

T.S.F. Bleed off Blow — No return
F.F. Bubble to open tool — No Blow
F.S.F. No return

Recovery — Total Feet <u>20'</u>	Ft. in DC <u>20'</u>	Ft. in WP <u> </u>	Ft. in DP <u> </u>
Rec. <u>20'</u> Feet Of <u>Only M-D</u>	%gas <u> </u>	%oil <u> </u>	%water <u>100%</u> mud
Rec. <u> </u> Feet Of <u> </u>	%gas <u> </u>	%oil <u> </u>	%water <u> </u> %mud
Rec. <u> </u> Feet Of <u> </u>	%gas <u> </u>	%oil <u> </u>	%water <u> </u> %mud
Rec. <u> </u> Feet Of <u> </u>	%gas <u> </u>	%oil <u> </u>	%water <u> </u> %mud
Rec. <u> </u> Feet Of <u> </u>	%gas <u> </u>	%oil <u> </u>	%water <u> </u> %mud

BHT 134° °F Gravity °API D@ °F Corrected Gravity °API

RW 3.2 @ 85 °F Chlorides 1720 ppm Recovery Chlorides 1600 ppm System

(A) Initial Hydrostatic Mud <u>2672</u> <u>2692</u> PSI	Recorder No. <u>2342</u>	T-Started <u>16:25 P.M.</u>
(B) First Initial Flow Pressure <u>25</u> <u>44</u> PSI	@ (depth) <u>5566'</u>	T-Open <u>18:59 P.M.</u>
(C) First Final Flow Pressure <u>23</u> <u>44</u> PSI	Recorder No. <u>11058</u>	T-Pulled <u>23:29 P.M.</u>
(D) Initial Shut-in Pressure <u>238</u> <u>233</u> PSI	@ (depth) <u>5590'</u>	T-Out <u>3:10 A.M.</u>
(E) Second Initial Flow Pressure <u>27</u> <u>44</u> PSI	Recorder No. <u> </u>	
(F) Second Final Flow Pressure <u>28</u> <u>44</u> PSI	@ (depth) <u> </u>	
(G) Final Shut-in Pressure <u>201</u> <u>211</u> PSI	Initial Opening <u>30</u>	Test <u>X</u>
(H) Final Hydrostatic Mud <u>2621</u> <u>2670</u> PSI	Initial Shut-in <u>60</u>	Jars <u>X</u>

HPINC

HK-1

Final Flow 60 Safety Joint X

Final Shut-in 120 Straddle

Circ. Sub X N/C

Sampler

Extra Packer

Elect. Rec X

Other

TOTAL PRICE \$

Approved By

Our Representative

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.

TRILOBITE TESTING L.L.C.

OPERATOR : Amoco Production Company
WELL NAME: Second Schott #1-16
LOCATION : 16-29S-39W Stanton Cty KS
INTERVAL : 5556.00 To 5670.00 ft

DATE 5/18/96
KB 3224.00 ft TICKET NO: 9005 DST #3
GR 3211.00 ft FORMATION: Morrow
TD 5844.00 ft TEST TYPE: CONV STRADDLE

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 10 Rec.	AK-1	AK-1	Alpine	AK-1		PF Fr. 0209 to 0219 hr
SI 60 Range(Psi)	4050.0	4050.0	4995.0	3500.0	0.0	IS Fr. 0219 to 0319 hr
SF 60 Clock(hrs)	12	12	Elect	12		SF Fr. 0319 to 0419 hr
FS 120 Depth(ft)	5665.0	5665.0	5650.0	5841.0	0.0	FS Fr. 0419 to 0619 hr

	Field	1	2	3	4	
A. Init Hydro	2952.0	2936.0	2723.0	2825.0	0.0	T STARTED 2145 hr
B. First Flow	171.0	168.0	331.0	0.0	0.0	T ON BOTM 0206 hr
Bl. Final Flow	224.0	441.0	447.0	0.0	0.0	T OPEN 0209 hr
C. In Shut-in	714.0	719.0	716.0	0.0	0.0	T PULLED 0619 hr
D. Init Flow	97.0	112.0	94.0	0.0	0.0	T OUT 1030 hr
E. Final Flow	129.0	127.0	109.0	0.0	0.0	
F. Fl Shut-in	430.0	437.0	432.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2829.0	2797.0	2576.0	2662.0	0.0	Tool Wt. 1800.00 lbs
Inside/Outside	O	O	I	T		Wt Set On Packer 20000.00 lbs
						Wt Pulled Loose 145000.00 lb
						Initial Str Wt 110000.00 lb
						Unseated Str Wt 90000.00 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 727.00 ft
						D.P. Length 5063.00 ft

RECOVERY

Tot Fluid 60.00 ft of 60.00 ft in DC and 0.00 ft in DP
60.00 ft of Drilling mud

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

BLOW DESCRIPTION

Initial Flow -
Weak blow built to .5"

Final Flow -
No blow

SAMPLES: NO
SENT TO:

MUD DATA-----

Mud Type	Chemical
Weight	9.10 lb/
Vis.	77.00 S/L
W.L.	7.40 in3
F.C.	0.00 in
Mud Drop Y	45.0 ft

Amt. of fill	0.00 ft
Btm. H. Temp.	128.00 F
Hole Condition	Good
% Porosity	12.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out N	
Tool Chased N	
Tester	Mike Colantonio
Co. Rep.	Ken LeBlanc
Contr.	Cheyenne
Rig #	7
Unit #	
Pump T.	

Test Successful: Y

TEST HISTORY

9005 DST#3 Second Schott #1-16 Amoco Prod. Comp.

Flag Points

t(Min.) PK PSig)

A:	0.00	2723.03
B:	0.00	330.75
C:	11.00	447.49
D:	65.00	716.23
E:	0.00	93.99
F:	52.00	108.68
G:	120.00	432.05
Q:	0.00	2575.90

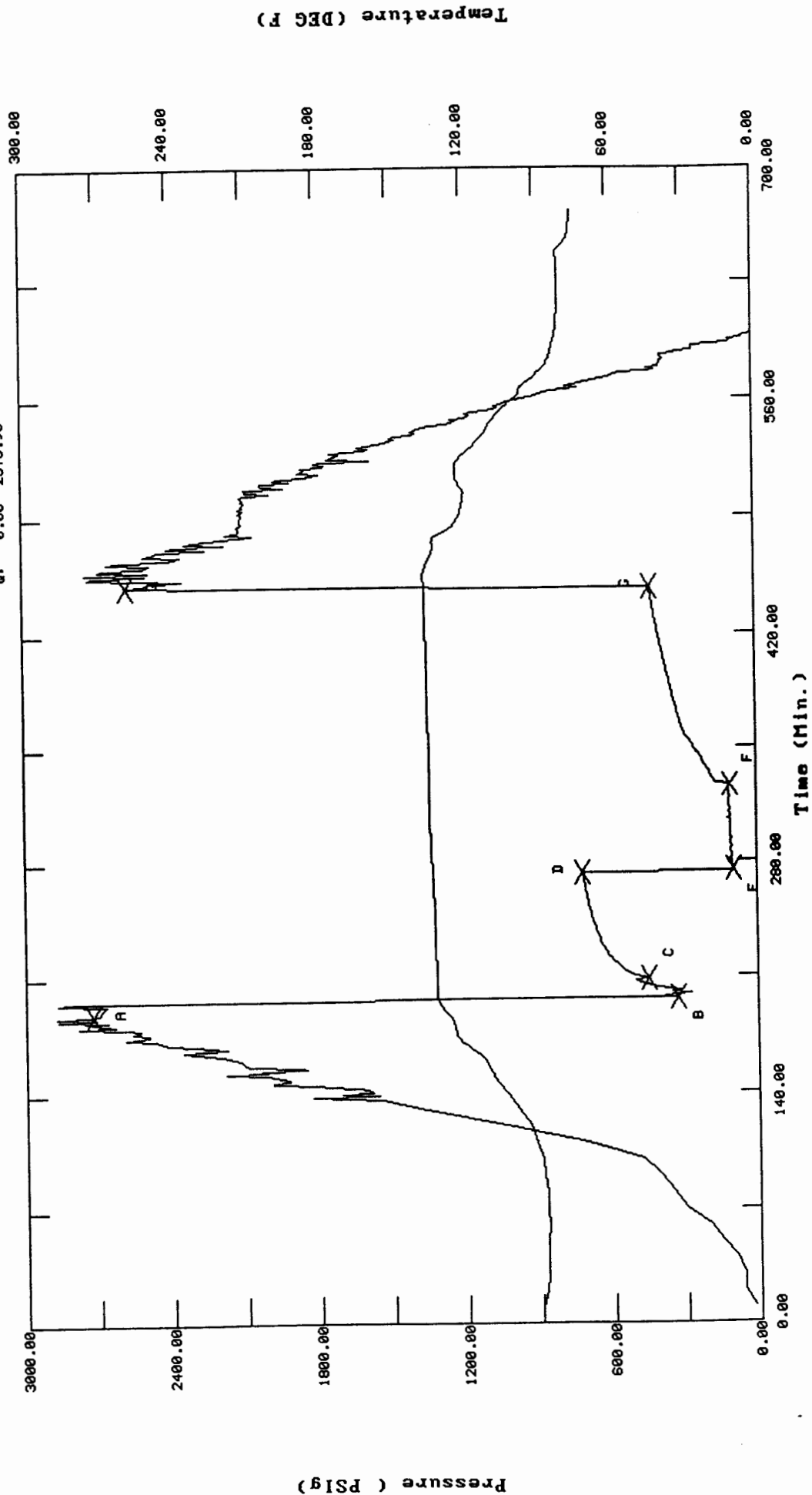
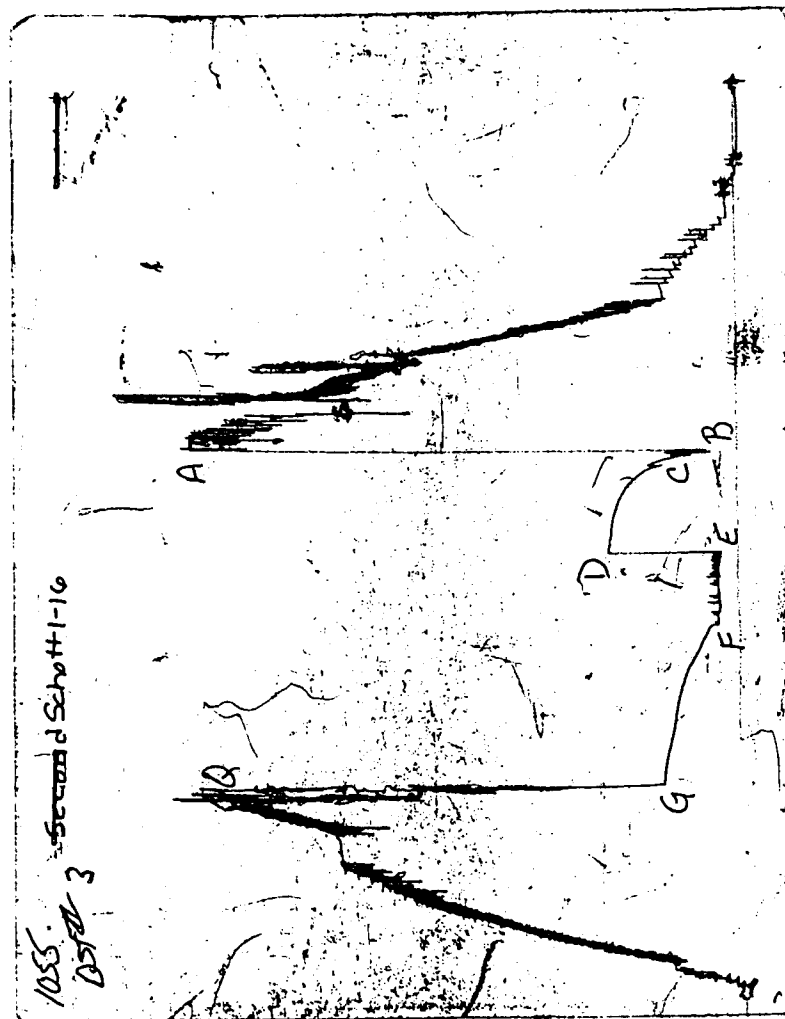
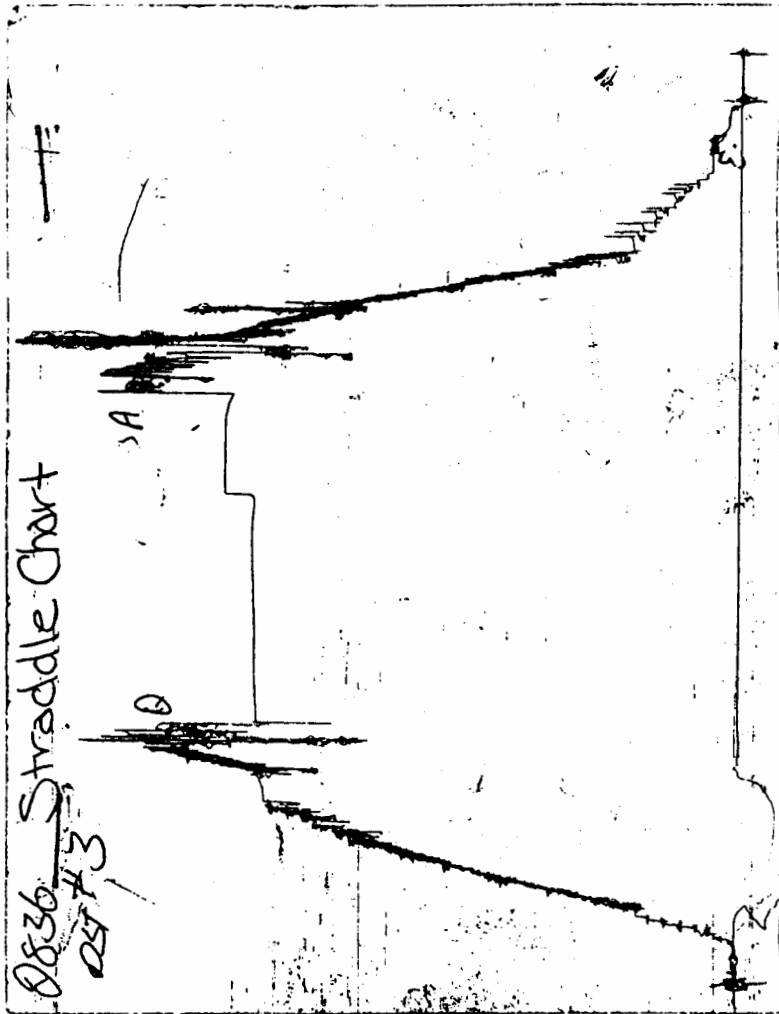


CHART PAGE



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

CHART PAGE



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

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9005 DST#3 Second Schott #1-16 Amoco Prod. Comp.

DATE: 05/18/96

TIME: 22:12:07

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** Initial Hydro.	188.00	2723.0	0.0	127.79		
***** Start Flow 1	0.00	330.8	0.0	131.59		
	1.00	384.4	53.6	131.74		
	2.00	272.2	-58.6	131.82		
	3.00	353.5	22.7	131.88		
	4.00	310.2	-20.6	131.92		
	5.00	372.0	41.3	131.95		
	6.00	406.4	75.6	131.97		
	7.00	435.4	104.7	131.98		
	8.00	461.1	130.3	132.01		
	9.00	482.7	152.0	132.01		
	10.00	501.0	170.3	132.06		
***** End Flow 1	11.00	447.5	116.7	132.05		
***** Start Shutin 1	0.00	447.5	0.0	132.05	0.0000	0.200
	1.00	481.1	33.7	132.07	12.0000	0.232
	2.00	501.8	54.3	132.08	6.5000	0.252
	3.00	518.2	70.8	132.10	4.6667	0.269
	4.00	530.8	83.3	132.12	3.7500	0.282
	5.00	542.6	95.1	132.13	3.2000	0.294
	6.00	552.3	104.8	132.15	2.8333	0.305
	7.00	561.1	113.6	132.16	2.5714	0.315
	8.00	569.4	121.9	132.18	2.3750	0.324
	9.00	576.7	129.2	132.18	2.2222	0.333
	10.00	583.6	136.1	132.20	2.1000	0.341
	11.00	590.0	142.5	132.21	2.0000	0.348
	12.00	595.9	148.4	132.23	1.9167	0.355
	13.00	601.3	153.8	132.24	1.8462	0.362
	14.00	609.8	162.3	132.25	1.7857	0.372
	15.00	613.6	166.1	132.28	1.7333	0.376
	16.00	617.7	170.2	132.29	1.6875	0.382
	17.00	624.1	176.6	132.30	1.6471	0.389
	18.00	627.4	179.9	132.32	1.6111	0.394
	19.00	630.7	183.2	132.32	1.5789	0.398
	20.00	634.2	186.7	132.34	1.5500	0.402
	21.00	637.5	190.0	132.37	1.5238	0.406
	22.00	640.6	193.1	132.37	1.5000	0.410
	23.00	643.8	196.3	132.39	1.4783	0.414
	24.00	646.6	199.1	132.40	1.4583	0.418
	25.00	649.4	201.9	132.42	1.4400	0.422
	26.00	652.2	204.7	132.44	1.4231	0.425
	27.00	655.0	207.5	132.45	1.4074	0.429
	28.00	657.5	210.0	132.46	1.3929	0.432
	29.00	660.1	212.6	132.48	1.3793	0.436
	30.00	662.5	215.0	132.50	1.3667	0.439
	31.00	665.0	217.5	132.52	1.3548	0.442
	32.00	667.2	219.7	132.53	1.3438	0.445
	33.00	669.6	222.1	132.54	1.3333	0.448
	34.00	671.7	224.2	132.55	1.3235	0.451
	35.00	673.8	226.3	132.58	1.3143	0.454
	36.00	675.9	228.4	132.59	1.3056	0.457
	37.00	677.9	230.4	132.62	1.2973	0.460

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

ST: 9005 DST#3 Second Schott #1-16 Amoco Prod. Comp.

TE: 05/18/96 TIME: 22:12:07

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
	38.00	679.9	232.4	132.64	1.2895	0.462
	39.00	681.7	234.2	132.66	1.2821	0.465
	40.00	683.6	236.1	132.67	1.2750	0.467
	41.00	685.3	237.9	132.70	1.2683	0.470
	42.00	687.1	239.6	132.72	1.2619	0.472
	43.00	688.8	241.3	132.74	1.2558	0.474
	44.00	690.4	242.9	132.77	1.2500	0.477
	45.00	692.0	244.5	132.76	1.2444	0.479
	46.00	693.4	245.9	132.77	1.2391	0.481
	47.00	694.8	247.3	132.78	1.2340	0.483
	48.00	696.3	248.8	132.78	1.2292	0.485
	49.00	697.6	250.1	132.81	1.2245	0.487
	50.00	699.2	251.7	132.83	1.2200	0.489
	51.00	700.5	253.0	132.86	1.2157	0.491
	52.00	701.7	254.2	132.87	1.2115	0.492
	53.00	703.0	255.5	132.89	1.2075	0.494
	54.00	704.3	256.8	132.93	1.2037	0.496
	55.00	705.5	258.0	132.94	1.2000	0.498
	56.00	706.8	259.3	132.97	1.1964	0.500
	57.00	707.9	260.4	132.99	1.1930	0.501
	58.00	709.1	261.6	133.00	1.1897	0.503
	59.00	710.1	262.6	133.02	1.1864	0.504
	60.00	711.3	263.8	133.04	1.1833	0.506
	61.00	712.4	264.9	133.05	1.1803	0.507
	62.00	713.4	265.9	133.06	1.1774	0.509
	63.00	714.4	266.9	133.09	1.1746	0.510
	64.00	715.4	267.9	133.10	1.1719	0.512
**** End Shut-in 1	65.00	716.2	268.7	133.12	1.1692	0.513
**** Start Flow 2	0.00	94.0	0.0	133.16		
	1.00	94.9	0.9	133.22		
	2.00	99.9	6.0	133.29		
	3.00	98.9	4.9	133.37		
	4.00	99.7	5.7	133.42		
	5.00	101.7	7.7	133.47		
	6.00	105.6	11.6	133.52		
	7.00	99.9	5.9	133.57		
	8.00	101.2	7.2	133.62		
	9.00	98.2	4.2	133.66		
	10.00	102.0	8.0	133.70		
	11.00	104.3	10.3	133.74		
	12.00	104.3	10.3	133.78		
	13.00	99.2	5.2	133.81		
	14.00	102.6	8.6	133.85		
	15.00	104.4	10.4	133.88		
	16.00	103.6	9.6	133.90		
	17.00	103.6	9.7	133.92		
	18.00	107.1	13.1	133.95		
	19.00	101.5	7.6	133.96		
	20.00	107.2	13.2	133.99		
	21.00	106.7	12.8	134.01		
	22.00	104.9	10.9	134.02		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING
 TEST: 9005 DST#3 Second Schott #1-16 Amoco Prod. Comp.
 DATE: 05/18/96 TIME: 22:12:07

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	23.00	104.9	10.9	134.03		
	24.00	108.4	14.4	134.04		
	25.00	107.9	13.9	134.05		
	26.00	107.8	13.8	134.07		
	27.00	108.1	14.1	134.07		
	28.00	107.8	13.8	134.08		
	29.00	108.0	14.0	134.09		
	30.00	108.1	14.1	134.10		
	31.00	118.2	24.3	134.10		
	32.00	108.3	14.4	134.12		
	33.00	107.4	13.4	134.15		
	34.00	107.8	13.8	134.19		
	35.00	109.9	15.9	134.22		
	36.00	103.1	9.1	134.26		
	37.00	104.4	10.4	134.29		
	38.00	109.1	15.1	134.29		
	39.00	113.3	19.3	134.30		
	40.00	110.6	16.6	134.29		
	41.00	110.1	16.1	134.29		
	42.00	110.1	16.1	134.30		
	43.00	110.2	16.2	134.30		
	44.00	107.1	13.1	134.29		
	45.00	110.6	16.6	134.30		
	46.00	111.9	17.9	134.30		
	47.00	109.1	15.1	134.29		
	48.00	110.4	16.4	134.30		
	49.00	113.6	19.6	134.30		
	50.00	113.0	19.1	134.30		
	51.00	109.4	15.4	134.30		
***** End Flow 2	52.00	108.7	14.7	134.30		
***** Start Shutin 2	0.00	108.7	0.0	134.30	0.0000	0.012
	1.00	167.0	58.3	134.30	64.0000	0.028
	2.00	170.6	61.9	134.30	32.5000	0.029
	3.00	174.5	65.8	134.32	22.0000	0.030
	4.00	177.9	69.2	134.33	16.7500	0.032
	5.00	181.1	72.4	134.33	13.6000	0.033
	6.00	184.5	75.8	134.36	11.5000	0.034
	7.00	188.0	79.3	134.36	10.0000	0.035
	8.00	191.4	82.8	134.37	8.8750	0.037
	9.00	195.0	86.3	134.38	8.0000	0.038
	10.00	200.8	92.2	134.40	7.3000	0.040
	11.00	204.2	95.5	134.41	6.7273	0.042
	12.00	207.6	99.0	134.42	6.2500	0.043
	13.00	211.3	102.6	134.42	5.8462	0.045
	14.00	214.9	106.3	134.44	5.5000	0.046
	15.00	218.5	109.9	134.45	5.2000	0.048
	16.00	222.3	113.6	134.46	4.9375	0.049
	17.00	226.0	117.3	134.47	4.7059	0.051
	18.00	230.0	121.3	134.48	4.5000	0.053
	19.00	233.8	125.1	134.49	4.3158	0.055
	20.00	241.9	133.2	134.51	4.1500	0.059

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9005 DST#3 Second Schott #1-16 Amoco Prod. Comp.

DATE: 05/18/96

TIME: 22:12:07

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
21.00	245.6	137.0	134.51	4.0000	0.060
22.00	249.7	141.0	134.52	3.8636	0.062
23.00	253.5	144.9	134.54	3.7391	0.064
24.00	257.5	148.8	134.55	3.6250	0.066
25.00	261.6	152.9	134.56	3.5200	0.068
26.00	265.6	156.9	134.56	3.4231	0.071
27.00	270.1	161.4	134.57	3.3333	0.073
28.00	274.6	165.9	134.58	3.2500	0.075
29.00	279.5	170.8	134.60	3.1724	0.078
30.00	285.3	176.6	134.60	3.1000	0.081
31.00	291.0	182.3	134.62	3.0323	0.085
32.00	293.7	185.1	134.63	2.9688	0.086
33.00	296.3	187.7	134.65	2.9091	0.088
34.00	298.7	190.0	134.65	2.8529	0.089
35.00	301.0	192.4	134.67	2.8000	0.091
36.00	303.2	194.5	134.69	2.7500	0.092
37.00	305.4	196.7	134.70	2.7027	0.093
38.00	307.5	198.8	134.70	2.6579	0.095
39.00	309.7	201.0	134.72	2.6154	0.096
40.00	311.4	202.8	134.74	2.5750	0.097
41.00	313.4	204.7	134.74	2.5366	0.098
42.00	315.4	206.7	134.74	2.5000	0.099
43.00	317.4	208.7	134.76	2.4651	0.101
44.00	319.3	210.7	134.77	2.4318	0.102
45.00	321.2	212.5	134.78	2.4000	0.103
46.00	322.9	214.3	134.78	2.3696	0.104
47.00	324.8	216.1	134.80	2.3404	0.105
48.00	326.6	217.9	134.81	2.3125	0.107
49.00	328.2	219.6	134.82	2.2857	0.108
50.00	330.0	221.3	134.83	2.2600	0.109
51.00	331.8	223.1	134.85	2.2353	0.110
52.00	333.4	224.7	134.86	2.2115	0.111
53.00	336.4	227.7	134.86	2.1887	0.113
54.00	337.6	229.0	134.88	2.1667	0.114
55.00	339.1	230.5	134.89	2.1455	0.115
56.00	340.7	232.1	134.90	2.1250	0.116
57.00	342.3	233.7	134.91	2.1053	0.117
58.00	343.8	235.1	134.92	2.0862	0.118
59.00	345.4	236.8	134.93	2.0678	0.119
60.00	347.0	238.4	134.94	2.0500	0.120
61.00	348.6	239.9	134.95	2.0328	0.122
62.00	350.2	241.5	134.97	2.0161	0.123
63.00	351.7	243.1	134.98	2.0000	0.124
64.00	353.4	244.7	134.99	1.9844	0.125
65.00	355.0	246.3	134.99	1.9692	0.126
66.00	356.5	247.8	135.00	1.9545	0.127
67.00	358.0	249.3	135.00	1.9403	0.128
68.00	359.6	250.9	135.02	1.9265	0.129
69.00	361.2	252.5	135.03	1.9130	0.130
70.00	362.8	254.1	135.04	1.9000	0.132
71.00	364.3	255.6	135.05	1.8873	0.133

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9005 DST#3 Second Schott #1-16 Amoco Prod. Comp.

DATE: 05/18/96

TIME: 22:12:07

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	72.00	365.9	257.2	135.06	1.8750	0.134
	73.00	367.4	258.7	135.07	1.8630	0.135
	74.00	368.9	260.3	135.09	1.8514	0.136
	75.00	370.5	261.9	135.09	1.8400	0.137
	76.00	372.1	263.4	135.10	1.8289	0.138
	77.00	373.6	265.0	135.12	1.8182	0.140
	78.00	375.1	266.5	135.13	1.8077	0.141
	79.00	376.7	268.1	135.14	1.7975	0.142
	80.00	378.3	269.6	135.15	1.7875	0.143
	81.00	379.8	271.1	135.16	1.7778	0.144
	82.00	381.3	272.6	135.17	1.7683	0.145
	83.00	382.7	274.0	135.18	1.7590	0.146
	84.00	384.3	275.6	135.19	1.7500	0.148
	85.00	385.8	277.1	135.20	1.7412	0.149
	86.00	387.2	278.6	135.21	1.7326	0.150
	87.00	388.7	280.1	135.22	1.7241	0.151
	88.00	390.2	281.5	135.24	1.7159	0.152
	89.00	391.7	283.0	135.25	1.7079	0.153
	90.00	393.1	284.4	135.25	1.7000	0.155
	91.00	394.5	285.9	135.27	1.6923	0.156
	92.00	396.0	287.3	135.28	1.6848	0.157
	93.00	397.4	288.7	135.29	1.6774	0.158
	94.00	398.7	290.1	135.30	1.6702	0.159
	95.00	400.2	291.5	135.31	1.6632	0.160
	96.00	401.5	292.8	135.32	1.6562	0.161
	97.00	402.8	294.2	135.32	1.6495	0.162
	98.00	404.2	295.5	135.33	1.6429	0.163
	99.00	405.5	296.9	135.35	1.6364	0.164
	100.00	406.9	298.2	135.35	1.6300	0.166
	101.00	408.2	299.5	135.36	1.6238	0.167
	102.00	409.5	300.8	135.38	1.6176	0.168
	103.00	410.8	302.1	135.38	1.6117	0.169
	104.00	412.1	303.4	135.40	1.6058	0.170
	105.00	413.3	304.6	135.40	1.6000	0.171
	106.00	414.6	305.9	135.41	1.5943	0.172
	107.00	415.8	307.1	135.41	1.5888	0.173
	108.00	417.0	308.4	135.43	1.5833	0.174
	109.00	418.3	309.6	135.44	1.5780	0.175
	110.00	419.5	310.8	135.45	1.5727	0.176
	111.00	420.6	312.0	135.45	1.5676	0.177
	112.00	421.8	313.1	135.48	1.5625	0.178
	113.00	423.1	314.4	135.49	1.5575	0.179
	114.00	424.2	315.6	135.50	1.5526	0.180
	115.00	425.4	316.7	135.51	1.5478	0.181
	116.00	426.6	317.9	135.51	1.5431	0.182
	117.00	427.6	318.9	135.52	1.5385	0.183
	118.00	428.7	320.0	135.53	1.5339	0.184
	119.00	429.9	321.2	135.53	1.5294	0.185
***** End Shut-in 2	120.00	432.1	323.4	135.54	1.5250	0.187
***** Final Hydro.	449.00	2575.9	0.0	135.64		

*** TOOL DIAGRAM *** CONV STRADDLE

WELL NAME: Second Schott #1-16

LOCATION : 16-29S-39W Stanton Cty KS

TICKET No. 9005 D.S.T. No. 3 DATE 5/18/96

TOTAL TOOL TO BOTTOM OF TOP PACKERS 33

INTERVAL TOOL 25

BOTTOM PACKERS AND ANCHOR 174

TOTAL TOOL 232

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands 4 Single Total 89

TOTAL ASSEMBLY 321

D.C. ABOVE TOOLS.Stands12 Single Total 727

D.P. ABOVE TOOLS.Stands81 Single Total 4819

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5867

TOTAL DEPTH 5844

TOTAL DRILL PIPE ABOVE K.B. 23

REMARKS:

P.O. SUB 1ft double pin	5523
C.O. SUB	
S.I. TOOL 5ft	5529
HMV 5ft	5534
JARS 5ft	5539
SAFETY JOINT 2ft	5541
PACKER 8ft Shale Packer	5548
PACKER 8ft Shale Packer	5556
DEPTH 5556	
STUBB 1ft	5557
ANCHOR	
1ft Double pin	5558
1ft C\O SUB	5559
89FT Drlg pipe	5648
1ft C\O sub	5649
Alpine Rec.	5650
6ft pick up sub	5655
10ft perf	5665
T.C.	
DEPTH	
AK-1 recorder	5665
1ft blank off sub	5666
PACKER 5ft straddle	5670
1ft stuff	5671
11ft perf	5682
155ft drill pipe	5837
1ft C\O sub	5838
3ft perf	5841
Ak-1 recorder	5841
BULLNOSE 3ft bull plug	
T.D.	5844

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

Nº 9005

Well Name & No. <u>Second Schott #1-16</u>	Test No. <u>3</u>	Date <u>5-18-96</u>
Company <u>Amaco Production Company</u>	Zone Tested <u>Marlow</u>	
Address <u>P.O. Box 800 Ocala Colo 80201</u>	Elevation <u>3224</u> KB <u>3211</u> GL	
Co. Rep / Geo. <u>Ken McBlane</u>	Cont. <u>Chesapeake #7</u>	Est. Ft. of Pay <u>18</u> Por. <u>12</u> %
Location: Sec. <u>16</u> Twp. <u>29S</u> Rge. <u>39W</u>	Co. <u>Stanton</u>	State <u>KS</u>
No. of Copies _____	Distribution Sheet (Y, N) <u>NO</u>	Turnkey (Y, N) <u>NO</u> Evaluation (Y, N) _____

Interval Tested <u>5556-5670</u>	Initial Str Wt./Lbs. <u>110,000</u>	Unseated Str Wt./Lbs. <u>90,000</u>
Anchor Length <u>114'</u>	Wt. Set Lbs. <u>20,000</u>	Wt. Pulled Loose/Lbs. <u>145,000</u>
Top Packer Depth <u>5548</u>	Hole Size — 7 7/8" <u>X</u>	Rubber Size — 6 3/4" <u>X</u>
Bottom Packer Depth <u>5670</u>	Wt. Pipe I.D. — 2.7 Ft. Run _____	
Total Depth <u>5844</u>	Drill Collar — 2.25 Ft. Run <u>727'</u>	
Mud Wt. <u>9.1</u> LCM <u>1</u> Vis. <u>77</u> WL <u>7.4</u>	Drill Pipe Size <u>4 1/2</u>	Ft. Run <u>5063'</u>
Blow Description <u>Weak Blow Built to 1/2 in.</u>		

2nd opening NO Blow

Recovery — Total Feet <u>60'</u>	Ft. in DC <u>60'</u>	Ft. in WP _____	Ft. in DP _____
Rec. <u>60</u> Feet Of <u>Dily mud</u>	%gas _____	%oil _____	%water <u>100</u> %mud _____
Rec. _____ Feet Of _____	%gas _____	%oil _____	%water _____ %mud _____
Rec. _____ Feet Of _____	%gas _____	%oil _____	%water _____ %mud _____
Rec. _____ Feet Of _____	%gas _____	%oil _____	%water _____ %mud _____
Rec. _____ Feet Of _____	%gas _____	%oil _____	%water _____ %mud _____

BHT 128 °F Gravity electron (API) °F Chlors API °API D@ _____ °F Corrected Gravity _____ °API
 RW _____ ppm Recovery Chlorides 3,300 ppm System

(A) Initial Hydrostatic Mud <u>2825</u> <u>2852</u> PSI	Recorder No. <u>IBM</u>	T-Started <u>9:45pm</u>
(B) First Initial Flow Pressure <u>330</u> <u>171</u> PSI	@ (depth) <u>5650</u>	T-Open <u>2:09am</u>
(C) First Final Flow Pressure <u>482</u> <u>224</u> PSI	Recorder No. <u>1055</u>	T-Pulled <u>6:19</u>
(D) Initial Shut-in Pressure <u>716</u> <u>714</u> PSI	@ (depth) <u>5665</u>	T-Out _____
(E) Second Initial Flow Pressure <u>93</u> <u>97</u> PSI	Recorder No. <u>2836</u>	
(F) Second Final Flow Pressure <u>109</u> <u>129</u> PSI	@ (depth) <u>5841</u>	
(G) Final Shut-in Pressure <u>432</u> <u>430</u> PSI	Initial Opening <u>10 min.</u>	Test <u>✓ Stadollic</u>
(H) Final Hydrostatic Mud <u>2714</u> <u>2829</u> PSI	Initial Shut-in <u>60 min.</u>	Jars <u>✓</u>

Final Flow 60 min. Safety Joint ✓

Final Shut-in 120 min. Straddle ✓

Circ. Sub ✓ N/C

Sampler _____

Extra Packer _____

Elect. Rec. ✓

Other _____

TOTAL PRICE \$ _____

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Approved By _____

Our Representative Mike Colantonio