

TRILOBITE TESTING L.L.C.

OPERATOR : Amoco Production Company

DATE 4-17-96

WELL NAME: Doc Holliday #1-24

KB 3942.00 ft

TICKET NO: 9166

DST #1

LOCATION : 24-21S-39W, Hamilton KS

GR 3421.00 ft

FORMATION: UPPER MORROW

INTERVAL : 4955.00 To 5030.00 ft

TD 5030.00 ft

TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 10 Rec.	13339	13339	2342			PF Fr. 0142 to 0152 hr
SI 60 Range(Psi)	4025.0	4025.0	4995.0	0.0	0.0	IS Fr. 0152 to 0252 hr
SF 120 Clock(hrs)	AK-1	AK-1	Alpin			SF Fr. 0252 to 0452 hr
FS 120 Depth(ft)	5025.0	5025.0	4960.0	0.0	0.0	FS Fr. 0452 to 0652 hr

	Field	1	2	3	4	
A. Init Hydro	2423.0	2489.0	2393.0	0.0	0.0	T STARTED 2215 hr
B. First Flow	20.0	79.0	29.0	0.0	0.0	T ON BOTM 0133 hr
B1. Final Flow	83.0	109.0	102.0	0.0	0.0	T OPEN 0142 hr
C. In Shut-in	1130.0	1160.0	1159.0	0.0	0.0	T PULLED 0652 hr
D. Init Flow	83.0	152.0	117.0	0.0	0.0	T OUT 1200 hr
E. Final Flow	291.0	308.0	308.0	0.0	0.0	
F. Fl Shut-in	1070.0	1083.0	1077.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2343.0	2392.0	2279.0	0.0	0.0	Tool Wt. 1800.00 lbs
Inside/Outside	0	0	I			Wt Set On Packer 25000.00 lbs
						Wt Pulled Loose 150000.00 lb
						Initial Str Wt 90000.00 lbs
						Unseated Str Wt 100000.00 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 4219.00 ft

RECOVERY

Tot Fluid 880.00 ft of 727.00 ft in DC and 153.00 ft in DP
 2820.00 ft of Gas in pipe
 153.00 ft of Clean gassy oil - 20% gas, 80% oil
 120.00 ft of Clean gassy oil - 40% gas, 60% oil
 607.00 ft of Gassy oil cut mud - 20% gas, 20% oil, 60% mud

SALINITY 0.00 P.P.M. A.P.I. Gravity 30.20

BLOW DESCRIPTION

Initial Flow -
 .5" blow built to 10"

Initial Shutin -
 Bled off blow - no return

Final Flow -
 Surface blow built to bottom in 6 min

Final Shutin -
 Bled off blow, weak surface return
 built to bottom in 40 min

SAMPLES:

SENT TO:

MUD DATA-----

Mud Type	Chemical
Weight	9.00 lb
Vis.	57.00 S/
W.L.	8.00 in
F.C.	0.00 in
Mud Drop Y	100.0 ft
Amt. of fill	0.00 ft
Btm. H. Temp.	132.00 F
Hole Condition	GOOD
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out N	
Tool Chased N	
Tester	ROD STEINBRINK
Co. Rep.	SAM CARMACK
Contr.	CHEYENNE DRLG
Rig #	3
Unit #	
Pump T.	

Test Successful: Y

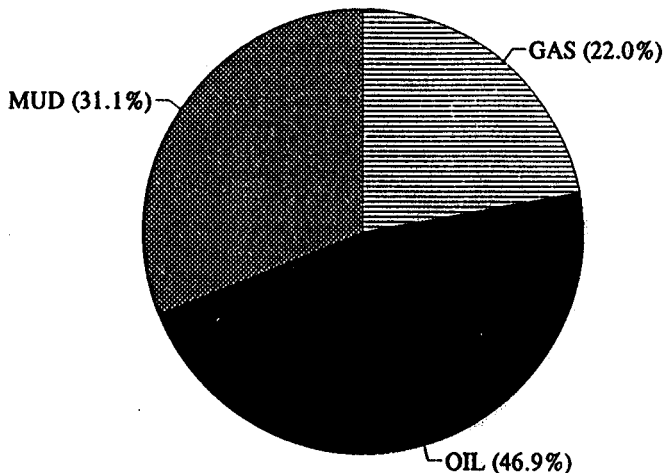
CALCULATED RECOVERY ANALYSIS

DST # 1 TICKET 9166

SAMPLE		TOTAL		GAS		OIL		WATER		MUD	
#		FEET	%	FEET	%	FEET	%	FEET	%	FEET	
DRL PIPE	1	153	20	30.6	80	122.4		0		0	
	2			0		0		0		0	
	3			0		0		0		0	
	4			0		0		0		0	
	5			0		0		0		0	
	6			0		0		0		0	
WGT PIPE	1			0		0		0		0	
	2			0		0		0		0	
	3			0		0		0		0	
	4			0		0		0		0	
COLLARS	1	120	40	48	60	72		0		0	
	2	607	20	121.4	20	121.4		0	60	364.2	
	3			0		0		0		0	
	4			0		0		0		0	
	5			0		0		0		0	
TOTAL		880		200		315.8		0		364.2	

HRS OPE BBL/DAY

BBL OIL= 2.686254 * 2.16 29.8473
 BBL WATER= 0 * 0
 BBL MUD= 1.780938
 BBL GAS = 1.263498



TEST HISTORY

9166 DST #1 DOC HOLLIDAY #1-24 AMOCO PROD

Temperature (DEG F)

Pressure (PSIG)

Flag Points

Time (Min.)

A:	0.00	2392.61
B:	0.00	29.37
C:	13.00	182.30
D:	61.00	1159.45
E:	0.00	117.15
F:	119.00	308.17
G:	121.00	1077.20
H:	0.00	2278.97

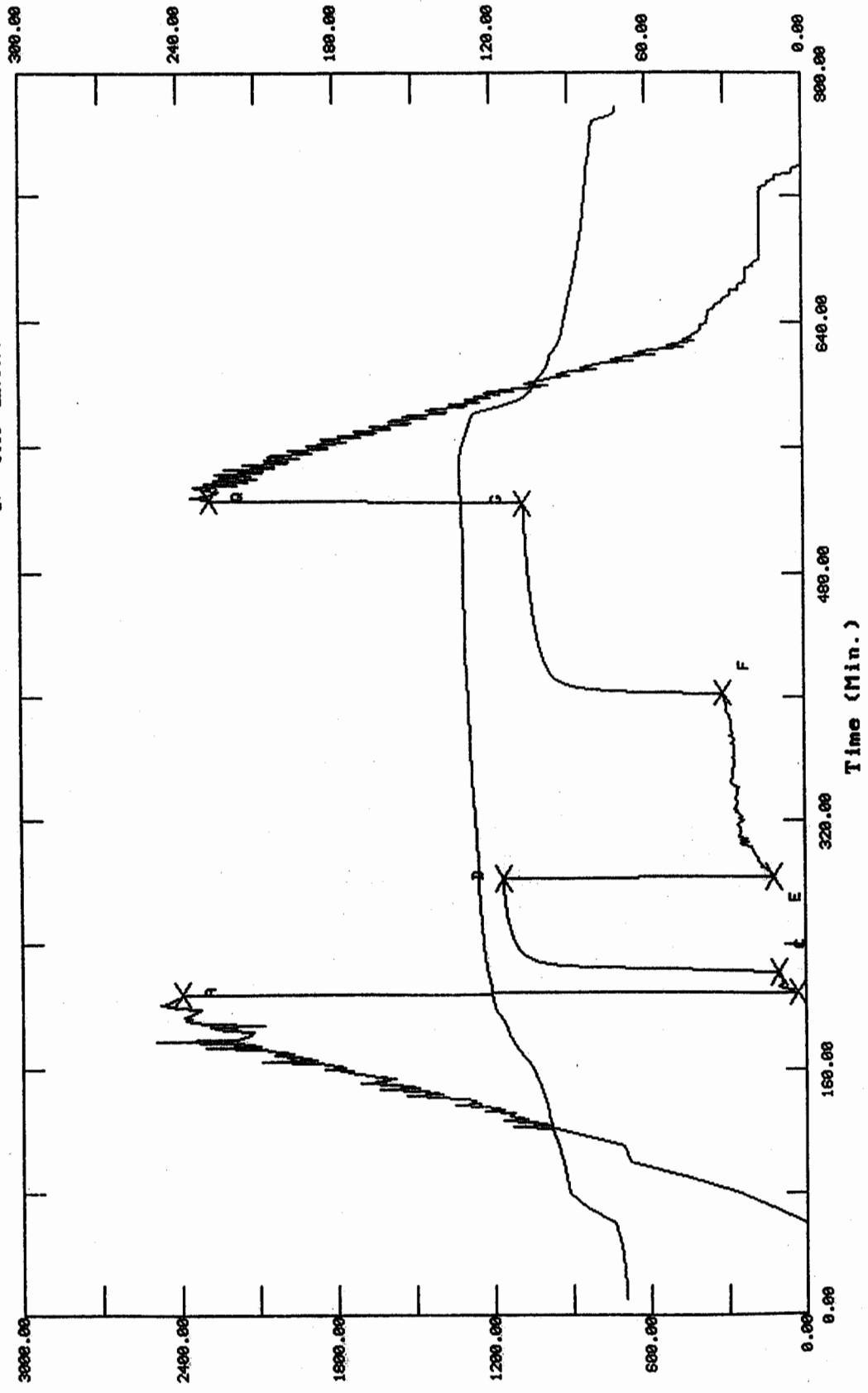
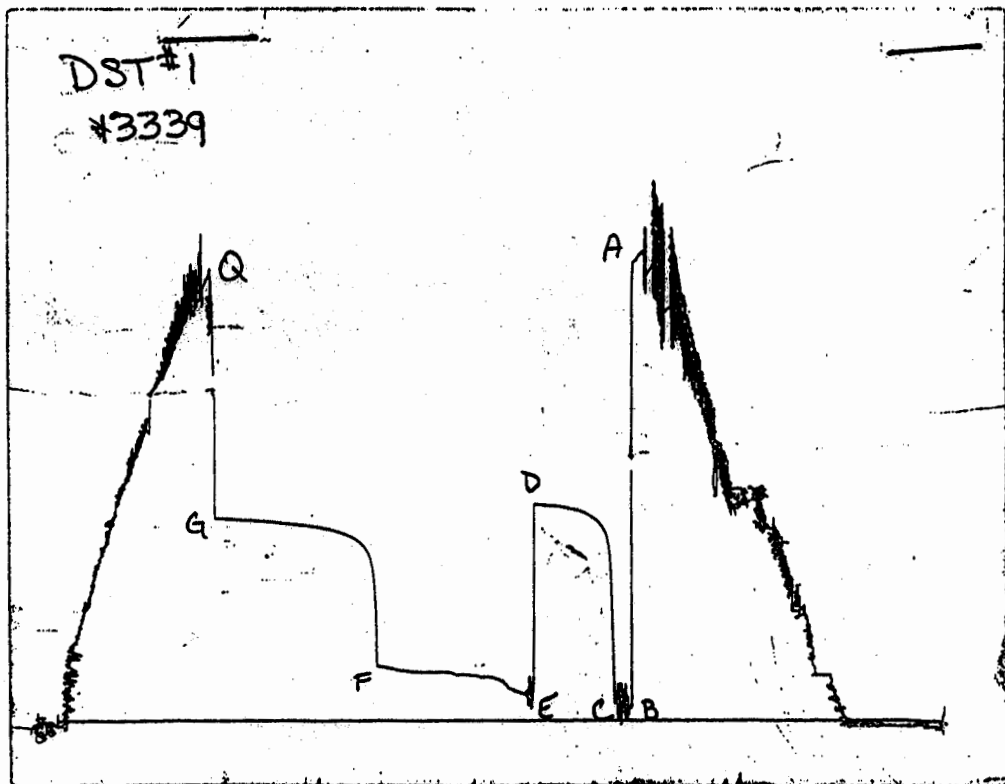


CHART PAGE



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

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9166 DST #1 DOC HOLLIDAY #1-24 AMOCO PROD

DATE: 04/16/96

TIME: 22:15:14

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** Initial Hydro.	208.00	2392.6	0.0	120.32		
***** Start Flow 1	0.00	29.4	0.0	120.29		
	1.00	57.7	28.4	120.28		
	2.00	45.1	15.7	120.28		
	3.00	90.2	60.8	120.32		
	4.00	100.7	71.3	120.44		
	5.00	91.6	62.2	120.63		
	6.00	75.5	46.2	120.82		
	7.00	89.0	59.6	121.01		
	8.00	85.8	56.5	121.21		
	9.00	87.9	58.6	121.39		
	10.00	98.4	69.1	121.56		
	11.00	96.4	67.1	121.71		
	12.00	98.7	69.3	121.84		
***** End Flow 1	13.00	102.3	72.9	121.94		
***** Start Shutin 1	0.00	102.3	0.0	121.94	0.0000	0.010
	1.00	295.4	193.1	122.05	14.0000	0.087
	2.00	576.5	474.2	122.16	7.5000	0.332
	3.00	815.9	713.6	122.27	5.3333	0.666
	4.00	930.2	827.9	122.37	4.2500	0.865
	5.00	985.3	883.0	122.48	3.6000	0.971
	6.00	1016.4	914.1	122.59	3.1667	1.033
	7.00	1036.8	934.5	122.69	2.8571	1.075
	8.00	1051.4	949.1	122.78	2.6250	1.105
	9.00	1062.8	960.5	122.87	2.4444	1.129
	10.00	1071.8	969.5	122.95	2.3000	1.149
	11.00	1079.3	977.0	123.02	2.1818	1.165
	12.00	1085.8	983.5	123.09	2.0833	1.179
	13.00	1091.3	989.0	123.16	2.0000	1.191
	14.00	1096.3	994.0	123.23	1.9286	1.202
	15.00	1100.7	998.4	123.27	1.8667	1.212
	16.00	1104.5	1002.2	123.35	1.8125	1.220
	17.00	1108.1	1005.8	123.41	1.7647	1.228
	18.00	1111.4	1009.1	123.47	1.7222	1.235
	19.00	1114.4	1012.1	123.53	1.6842	1.242
	20.00	1117.1	1014.8	123.59	1.6500	1.248
	21.00	1119.6	1017.3	123.65	1.6190	1.253
	22.00	1121.9	1019.6	123.71	1.5909	1.259
	23.00	1124.0	1021.7	123.76	1.5652	1.263
	24.00	1126.1	1023.8	123.82	1.5417	1.268
	25.00	1128.1	1025.8	123.86	1.5200	1.273
	26.00	1129.8	1027.5	123.93	1.5000	1.277
	27.00	1131.5	1029.2	123.97	1.4815	1.280
	28.00	1133.2	1030.9	124.02	1.4643	1.284
	29.00	1134.6	1032.3	124.08	1.4483	1.287
	30.00	1136.0	1033.7	124.13	1.4333	1.291
	31.00	1137.4	1035.1	124.18	1.4194	1.294
	32.00	1138.6	1036.3	124.23	1.4062	1.297
	33.00	1139.8	1037.5	124.27	1.3939	1.299
	34.00	1141.0	1038.7	124.32	1.3824	1.302
	35.00	1142.2	1039.9	124.37	1.3714	1.305

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9166 DST #1 DOC HOLLIDAY #1-24 AMOCO PROD

DATE: 04/16/96

TIME: 22:15:14

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
	36.00	1143.2	1040.9	124.41	1.3611	1.307
	37.00	1144.2	1041.9	124.47	1.3514	1.309
	38.00	1145.2	1042.9	124.50	1.3421	1.311
	39.00	1146.1	1043.8	124.55	1.3333	1.314
	40.00	1147.0	1044.7	124.60	1.3250	1.316
	41.00	1147.8	1045.5	124.64	1.3171	1.317
	42.00	1148.6	1046.3	124.68	1.3095	1.319
	43.00	1149.4	1047.1	124.72	1.3023	1.321
	44.00	1150.1	1047.8	124.77	1.2955	1.323
	45.00	1150.9	1048.6	124.81	1.2889	1.325
	46.00	1151.6	1049.3	124.85	1.2826	1.326
	47.00	1152.2	1049.9	124.89	1.2766	1.328
	48.00	1152.8	1050.5	124.96	1.2708	1.329
	49.00	1153.5	1051.2	124.97	1.2653	1.331
	50.00	1154.1	1051.8	125.01	1.2600	1.332
	51.00	1154.7	1052.4	125.05	1.2549	1.333
	52.00	1155.3	1053.0	125.09	1.2500	1.335
	53.00	1155.8	1053.5	125.13	1.2453	1.336
	54.00	1156.3	1054.0	125.17	1.2407	1.337
	55.00	1156.9	1054.6	125.20	1.2364	1.338
	56.00	1157.3	1055.0	125.24	1.2321	1.339
	57.00	1157.8	1055.5	125.28	1.2281	1.340
	58.00	1158.2	1055.9	125.31	1.2241	1.341
	59.00	1158.7	1056.4	125.35	1.2203	1.343
	60.00	1159.1	1056.8	125.39	1.2167	1.344
*** End Shut-in 1	61.00	1159.5	1057.2	125.41	1.2131	1.344
***** Start Flow 2	0.00	117.2	0.0	125.40		
	1.00	119.3	2.2	125.41		
	2.00	128.1	11.0	125.40		
	3.00	127.4	10.2	125.39		
	4.00	140.6	23.4	125.38		
	5.00	140.5	23.3	125.37		
	6.00	163.7	46.5	125.37		
	7.00	162.1	45.0	125.38		
	8.00	168.3	51.1	125.39		
	9.00	170.0	52.9	125.42		
	10.00	176.0	58.8	125.43		
	11.00	179.2	62.0	125.46		
	12.00	179.6	62.4	125.49		
	13.00	183.7	66.6	125.52		
	14.00	188.2	71.0	125.55		
	15.00	192.3	75.1	125.59		
	16.00	196.0	78.9	125.62		
	17.00	198.8	81.7	125.65		
	18.00	199.8	82.7	125.69		
	19.00	203.1	85.9	125.72		
	20.00	240.3	123.1	125.77		
	21.00	243.1	126.0	125.80		
	22.00	215.1	97.9	125.85		
	23.00	245.6	128.4	125.89		
	24.00	222.3	105.2	125.93		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

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Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
25.00	247.6	130.4	125.97		
26.00	250.4	133.3	126.02		
27.00	242.0	124.8	126.05		
28.00	245.5	128.3	126.09		
29.00	241.6	124.5	126.14		
30.00	244.0	126.8	126.18		
31.00	245.8	128.7	126.22		
32.00	251.4	134.2	126.26		
33.00	253.1	136.0	126.30		
34.00	251.4	134.2	126.35		
35.00	245.9	128.7	126.39		
36.00	234.5	117.3	126.44		
37.00	247.1	129.9	126.48		
38.00	237.4	120.3	126.53		
39.00	242.8	125.6	126.58		
40.00	249.9	132.8	126.63		
41.00	262.1	144.9	126.68		
42.00	258.9	141.8	126.72		
43.00	266.0	148.9	126.77		
44.00	261.8	144.6	126.81		
45.00	261.2	144.0	126.86		
46.00	257.1	140.0	126.91		
47.00	253.3	136.1	126.95		
48.00	257.1	139.9	127.00		
49.00	261.6	144.4	127.05		
50.00	262.4	145.3	127.09		
51.00	260.8	143.6	127.14		
52.00	260.1	142.9	127.18		
53.00	258.9	141.8	127.23		
54.00	257.7	140.6	127.26		
55.00	256.6	139.5	127.31		
56.00	255.7	138.6	127.34		
57.00	254.1	137.0	127.39		
58.00	250.8	133.6	127.43		
59.00	266.0	148.9	127.47		
60.00	276.5	159.4	127.51		
61.00	280.6	163.4	127.55		
62.00	279.6	162.5	127.59		
63.00	277.5	160.4	127.63		
64.00	276.4	159.2	127.66		
65.00	275.4	158.2	127.70		
66.00	274.7	157.5	127.74		
67.00	273.9	156.8	127.77		
68.00	272.6	155.4	127.80		
69.00	271.0	153.8	127.84		
70.00	271.4	154.3	127.87		
71.00	270.6	153.4	127.90		
72.00	268.7	151.6	127.93		
73.00	268.6	151.5	127.96		
74.00	270.5	153.3	128.00		
75.00	269.7	152.5	128.03		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9166 DST #1 DOC HOLLIDAY #1-24 AMOCO PROD

DATE: 04/16/96

TIME: 22:15:14

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
	76.00	269.1	152.0	128.06		
	77.00	272.4	155.3	128.09		
	78.00	270.1	152.9	128.11		
	79.00	270.2	153.0	128.14		
	80.00	268.8	151.7	128.17		
	81.00	268.6	151.5	128.19		
	82.00	268.6	151.5	128.22		
	83.00	268.3	151.2	128.25		
	84.00	268.6	151.4	128.28		
	85.00	265.9	148.7	128.31		
	86.00	279.6	162.4	128.32		
	87.00	273.3	156.1	128.35		
	88.00	270.5	153.3	128.37		
	89.00	270.6	153.4	128.40		
	90.00	272.0	154.8	128.42		
	91.00	285.5	168.4	128.45		
	92.00	273.8	156.7	128.47		
	93.00	276.5	159.4	128.49		
	94.00	277.6	160.5	128.52		
	95.00	278.1	161.0	128.54		
	96.00	277.1	160.0	128.56		
	97.00	278.0	160.9	128.59		
	98.00	280.1	163.0	128.61		
	99.00	280.9	163.7	128.64		
	100.00	281.7	164.6	128.66		
	101.00	282.7	165.5	128.69		
	102.00	283.5	166.3	128.70		
	103.00	286.5	169.4	128.73		
	104.00	288.7	171.5	128.75		
	105.00	294.2	177.1	128.78		
	106.00	295.5	178.3	128.81		
	107.00	296.7	179.5	128.83		
	108.00	295.8	178.6	128.86		
	109.00	298.9	181.8	128.89		
	110.00	297.3	180.1	128.91		
	111.00	300.9	183.7	128.94		
	112.00	299.4	182.2	128.96		
	113.00	303.9	186.7	128.98		
	114.00	303.0	185.8	129.02		
	115.00	306.6	189.4	129.03		
	116.00	308.5	191.4	129.06		
	117.00	307.0	189.8	129.09		
	118.00	307.7	190.5	129.11		
***** End Flow 2	119.00	308.2	191.0	129.14		
***** Start Shutin 2	0.00	308.2	0.0	129.14	0.0000	0.095
	1.00	617.1	308.9	129.18	133.0000	0.381
	2.00	747.7	439.5	129.21	67.0000	0.559
	3.00	820.1	512.0	129.26	45.0000	0.673
	4.00	865.3	557.1	129.32	34.0000	0.749
	5.00	895.1	586.9	129.36	27.4000	0.801
	6.00	915.6	607.4	129.42	23.0000	0.838

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Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
7.00	930.2	622.1	129.46	19.8571	0.865
8.00	941.5	633.3	129.61	17.5000	0.886
9.00	950.5	642.3	129.54	15.6667	0.903
10.00	957.8	649.6	129.58	14.2000	0.917
11.00	963.9	655.7	129.63	13.0000	0.929
12.00	969.3	661.1	129.65	12.0000	0.939
13.00	974.0	665.8	129.69	11.1538	0.949
14.00	978.2	670.0	129.71	10.4286	0.957
15.00	981.9	673.7	129.74	9.8000	0.964
16.00	985.4	677.2	129.77	9.2500	0.971
17.00	988.7	680.5	129.80	8.7647	0.977
18.00	991.7	683.5	129.82	8.3333	0.983
19.00	994.3	686.1	129.84	7.9474	0.989
20.00	996.8	688.6	129.86	7.6000	0.994
21.00	999.3	691.1	129.89	7.2857	0.999
22.00	1001.7	693.5	129.90	7.0000	1.003
23.00	1003.8	695.6	129.93	6.7391	1.008
24.00	1006.0	697.8	129.94	6.5000	1.012
25.00	1007.9	699.7	129.97	6.2800	1.016
26.00	1009.8	701.6	129.99	6.0769	1.020
27.00	1011.7	703.5	130.00	5.8889	1.023
28.00	1013.3	705.2	130.03	5.7143	1.027
29.00	1015.0	706.8	130.04	5.5517	1.030
30.00	1016.6	708.4	130.07	5.4000	1.033
31.00	1018.1	709.9	130.08	5.2581	1.037
32.00	1019.7	711.5	130.09	5.1250	1.040
33.00	1021.2	713.1	130.11	5.0000	1.043
34.00	1022.7	714.5	130.13	4.8824	1.046
35.00	1023.9	715.7	130.15	4.7714	1.048
36.00	1025.3	717.1	130.17	4.6667	1.051
37.00	1026.4	718.3	130.18	4.5676	1.054
38.00	1027.7	719.5	130.20	4.4737	1.056
39.00	1028.9	720.8	130.21	4.3846	1.059
40.00	1030.0	721.9	130.22	4.3000	1.061
41.00	1031.2	723.0	130.24	4.2195	1.063
42.00	1032.3	724.1	130.25	4.1429	1.066
43.00	1033.3	725.1	130.28	4.0698	1.068
44.00	1034.4	726.2	130.29	4.0000	1.070
45.00	1035.5	727.3	130.31	3.9333	1.072
46.00	1036.4	728.2	130.33	3.8696	1.074
47.00	1037.3	729.2	130.33	3.8085	1.076
48.00	1038.3	730.2	130.35	3.7500	1.078
49.00	1039.3	731.1	130.36	3.6939	1.080
50.00	1040.2	732.0	130.37	3.6400	1.082
51.00	1041.0	732.9	130.39	3.5882	1.084
52.00	1041.9	733.7	130.41	3.5385	1.085
53.00	1042.8	734.6	130.43	3.4906	1.087
54.00	1043.5	735.3	130.44	3.4444	1.089
55.00	1044.3	736.1	130.44	3.4000	1.091
56.00	1045.1	737.0	130.46	3.3571	1.092
57.00	1045.9	737.7	130.48	3.3158	1.094

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9166 DST #1 DOC HOLLIDAY #1-24 AMOCO PROD

DATE: 04/16/96

TIME: 22:15:14

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
58.00	1046.7	738.5	130.49	3.2759	1.095
59.00	1047.4	739.2	130.50	3.2373	1.097
60.00	1048.2	740.0	130.52	3.2000	1.099
61.00	1048.8	740.7	130.54	3.1639	1.100
62.00	1049.5	741.3	130.54	3.1290	1.101
63.00	1050.2	742.0	130.56	3.0952	1.103
64.00	1050.9	742.7	130.57	3.0625	1.104
65.00	1051.4	743.3	130.59	3.0308	1.106
66.00	1052.2	744.0	130.59	3.0000	1.107
67.00	1052.7	744.5	130.60	2.9701	1.108
68.00	1053.5	745.3	130.62	2.9412	1.110
69.00	1054.0	745.9	130.63	2.9130	1.111
70.00	1054.6	746.5	130.63	2.8857	1.112
71.00	1055.4	747.2	130.65	2.8592	1.114
72.00	1055.9	747.7	130.67	2.8333	1.115
73.00	1056.4	748.2	130.68	2.8082	1.116
74.00	1057.1	748.9	130.70	2.7838	1.117
75.00	1057.6	749.5	130.70	2.7600	1.119
76.00	1058.2	750.0	130.72	2.7368	1.120
77.00	1058.7	750.5	130.72	2.7143	1.121
78.00	1059.2	751.1	130.74	2.6923	1.122
79.00	1059.8	751.7	130.75	2.6709	1.123
80.00	1060.3	752.2	130.76	2.6500	1.124
81.00	1060.8	752.7	130.77	2.6296	1.125
82.00	1061.3	753.1	130.78	2.6098	1.126
83.00	1061.8	753.6	130.80	2.5904	1.127
84.00	1062.3	754.2	130.81	2.5714	1.129
85.00	1062.8	754.6	130.82	2.5529	1.129
86.00	1063.4	755.2	130.83	2.5349	1.131
87.00	1063.8	755.6	130.84	2.5172	1.132
88.00	1064.2	756.0	130.85	2.5000	1.133
89.00	1064.7	756.5	130.86	2.4831	1.134
90.00	1065.1	756.9	130.87	2.4667	1.134
91.00	1065.6	757.4	130.88	2.4505	1.136
92.00	1066.0	757.9	130.90	2.4348	1.136
93.00	1066.5	758.3	130.91	2.4194	1.137
94.00	1066.9	758.7	130.92	2.4043	1.138
95.00	1067.4	759.2	130.93	2.3895	1.139
96.00	1067.7	759.5	130.96	2.3750	1.140
97.00	1068.1	760.0	131.00	2.3608	1.141
98.00	1068.6	760.4	131.03	2.3469	1.142
99.00	1069.1	760.9	130.88	2.3333	1.143
100.00	1069.5	761.3	130.95	2.3200	1.144
101.00	1069.7	761.6	130.98	2.3069	1.144
102.00	1070.2	762.0	131.00	2.2941	1.145
103.00	1070.6	762.4	131.00	2.2816	1.146
104.00	1071.0	762.8	131.02	2.2692	1.147
105.00	1071.4	763.2	131.03	2.2571	1.148
106.00	1071.7	763.6	131.04	2.2453	1.149
107.00	1072.3	764.1	131.06	2.2336	1.150
108.00	1072.6	764.4	131.06	2.2222	1.150

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9166 DST #1 DOC HOLLIDAY #1-24 AMOCO PROD

DATE: 04/16/96

TIME: 22:15:14

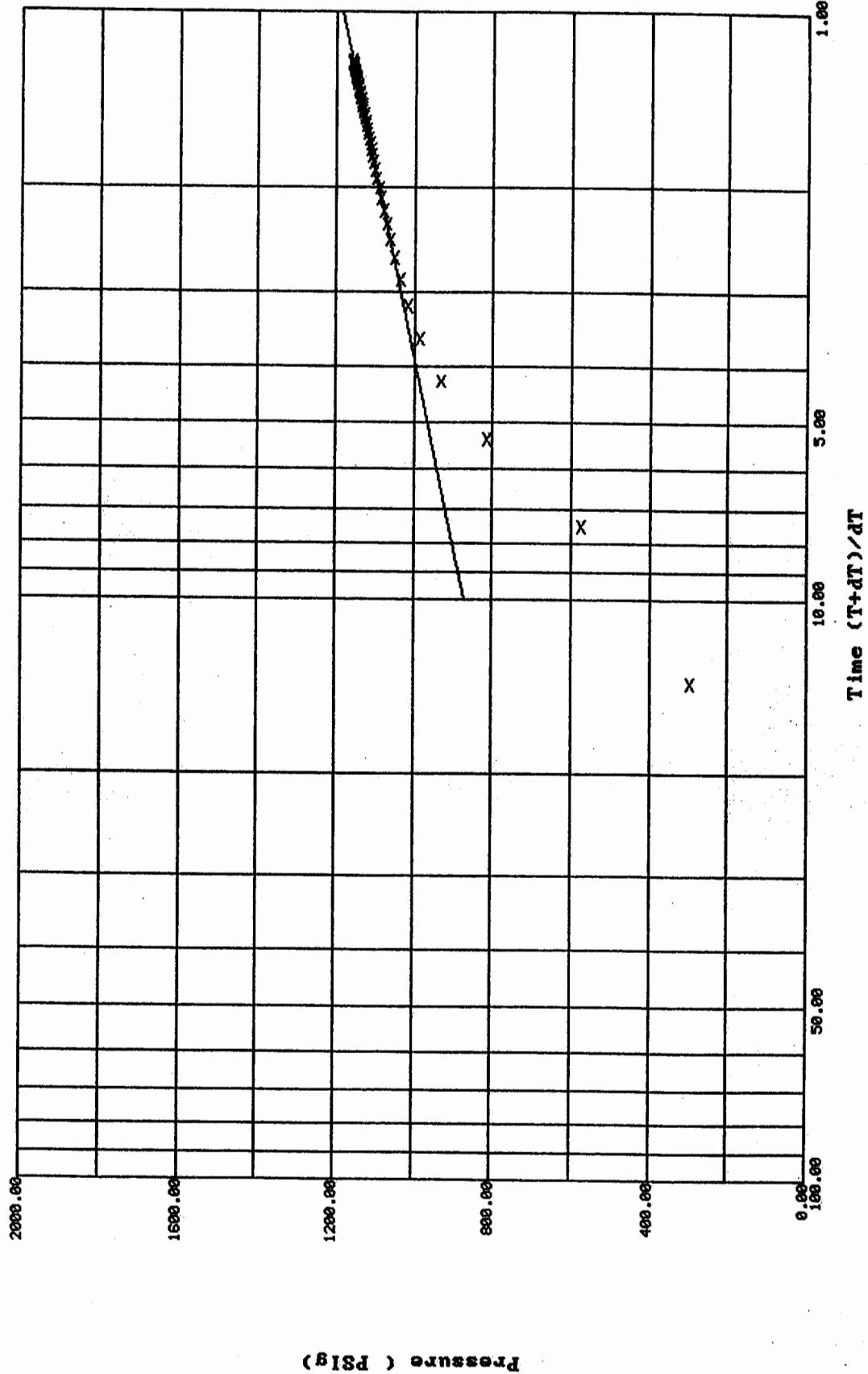
Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6	
109.00	1072.9	764.8	131.07	2.2110	1.151	
110.00	1073.2	765.0	131.08	2.2000	1.152	
111.00	1073.6	765.4	131.10	2.1892	1.153	
112.00	1074.0	765.8	131.10	2.1786	1.154	
113.00	1074.4	766.2	131.11	2.1681	1.154	
114.00	1074.7	766.5	131.13	2.1579	1.155	
115.00	1075.0	766.8	131.13	2.1478	1.156	
116.00	1075.4	767.2	131.14	2.1379	1.156	
117.00	1075.7	767.5	131.15	2.1282	1.157	
118.00	1076.1	767.9	131.16	2.1186	1.158	
119.00	1076.4	768.3	131.17	2.1092	1.159	
120.00	1076.8	768.6	131.18	2.1000	1.159	
***** End Shut-in 2	121.00	1077.2	769.0	131.19	2.0909	1.160

***** Final Hydro. 526.00 2279.0 0.0 131.28

Horner Plot: shut-in #1

9166 DST #1 DOC HOLLIDAY #1-24 AMOCO PROD

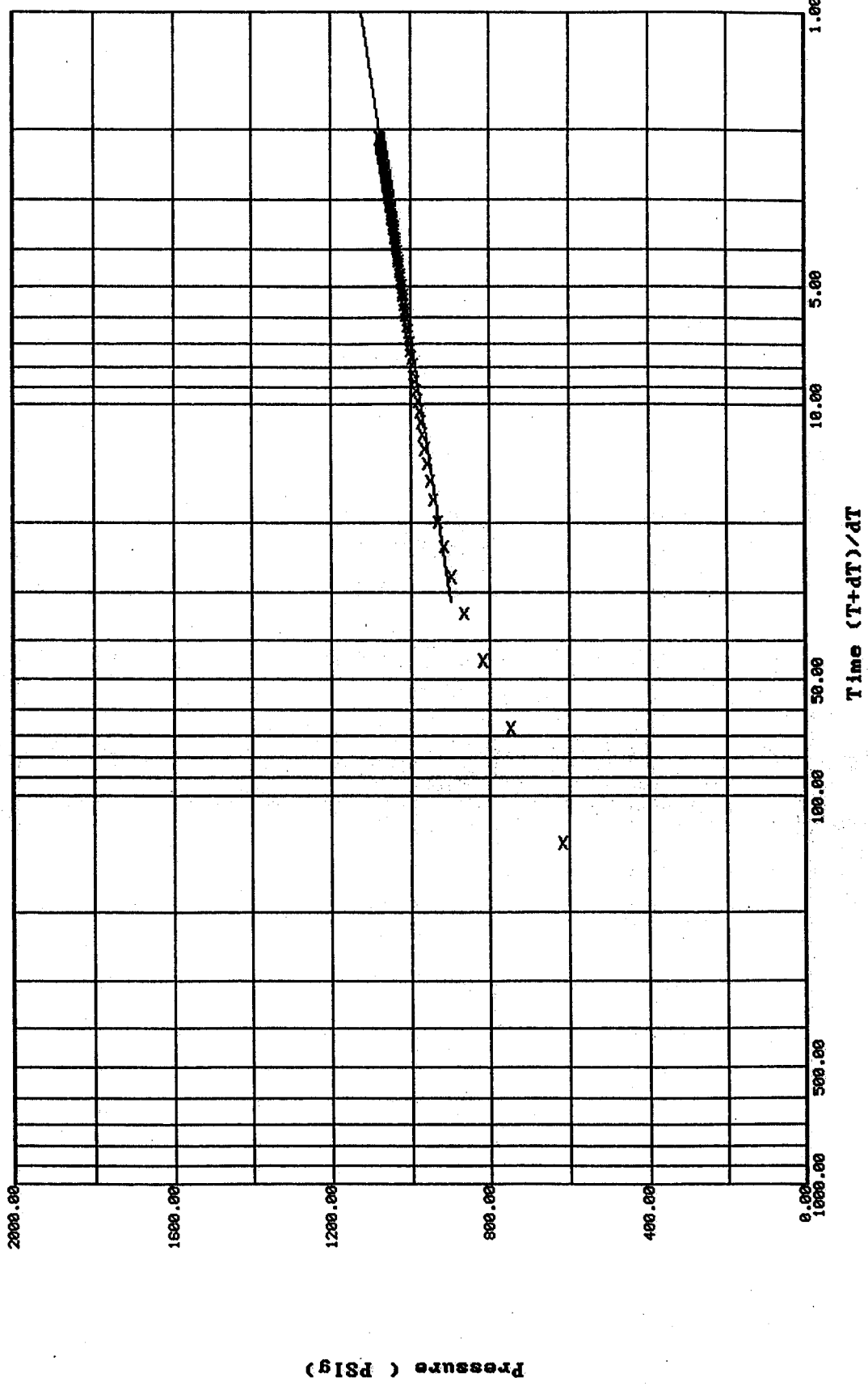
Slope: 314.1694 PSig/cycle
Ext. Pressure: 1185.4863 PSig



Horner Plot: shut-in #2

9166 DST #1 DOC HOLLIDAY #1-24 AMOCO PROD

Slope: 151.1811 PSig/cycle
Ext. Pressure: 1124.7007 PSig



*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Doc Holliday #1-24

LOCATION : 24-21S-39W, Hamilton KS

TICKET No. 9166 D.S.T. No. 1 DATE 4-17-96

TOTAL TOOL TO BOTTOM OF TOP PACKERS 25

INTERVAL TOOL

BOTTOM PACKERS AND ANCHOR 16

TOTAL TOOL 41

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STAND.Stands Single Total

D.P. ANCHOR STAND.Stands 1 Single Total 64

TOTAL ASSEMBLY 105

D.C. ABOVE TOOLS.Stands12 Single Total 727

D.P. ABOVE TOOLS.Stands67 Single 1 Total 4219

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5051

TO C L DEPTH 5030

TOTAL DRILL PIPE ABOVE K.B. 21

REMARKS:

FLUID SAMPLER DATA

SAMPLER RECOVERY -

Gas 900 ml, Oil 3000 ml, Mud 100 ml,

Pressure 350 PSI, Total 4000 ml

SAMPLER ANALYSIS -

Gravity 30.2 corrected @ 60 F

PIT MUD ANALYSIS -

Chlorides 4000 ppm, Viscosity 57,

Mud Wt 9.0, Filtrate 8.0, LCM 1#/bbl

P.O. SUB 1' ABOVE 120' DC	4805
C.O. SUB 1'	4925
S.I. TOOL 5'	4931
SAMPLER 3'	4934
HMV 5'	4939
JARS 5'	4944
SAFETY JOINT 2'	4946
PACKER 5'	4950
PACKER 5'	4955
DEPTH	
STUBB 1'	4956
ANCHOR	
Alpine recorder	4960
5'	4961
64' drill pipe	5025
AK-1 recorder	5025
T.C.	
DEPTH	
BULLNOSE 5'	
T.D.	5030

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

N^o 9166

Well Name & No. Doc Holliday #1-24 Test No. 1 Date 4-17-96
Company Amoco Production Company Zone Tested Upper Morrow
Address _____ Elevation 3432 KB 3421 GL
Co. Rep / Geo. Sam Carmack Cont. Cheyenne #3 Est. Ft. of Pay _____ Por. _____ %
Location: Sec. 24 Twp. 21^S Rge. 39^W Co. Hamilton State KS
No. of Copies _____ Distribution Sheet (Y, N) N Turnkey (Y, N) N Evaluation (Y, N) _____

Interval Tested 4955 - 5030 Initial Str Wt./Lbs. 90,000 Unseated Str Wt./Lbs. 100,000
Anchor Length 75' Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs. 150,000
Top Packer Depth 4950 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
Bottom Packer Depth 4955 Wt. Pipe I.D. — 2.7 Ft. Run _____
Total Depth 5030 Drill Collar — 2.25 Ft. Run 4 1/2" XH 727'
Mud Wt. 9.0 LCM 1[#] Vis. 57 WL 8.0 Drill Pipe Size 4 1/2" FH Ft. Run 4200 19'

Blow Description IF: 1/2" blow slowly built to 10"
ISI: Bled off blow - no return
FF: Surface blow built to bttm in 6 mins
FSI: Bled off blow - weak surface blow built off bttm in 40 mins

Recovery — Total Feet 880' Ft. in DC 727' Ft. in WP _____ Ft. in DP 153'
Rec. 2820' Feet Of GIP %gas _____ %oil _____ %water _____ %mud _____
Rec. 153' Feet Of CGO 20 %gas 80 %oil _____ %water _____ %mud _____
Rec. 120' Feet Of CGO 40 %gas 60 %oil _____ %water _____ %mud _____
Rec. 607' Feet Of GOCM 20 %gas 20 %oil _____ %water 60 %mud _____
Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____

BHT 132° °F Gravity 32 °API D₆₀ 78° °F Corrected Gravity 30.2 °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 4,000 ppm System

(A) Initial Hydrostatic Mud	<u>2392</u>	<u>2423</u>	PSI	Recorder No.	<u>2342</u>	T-Started	<u>2215</u>
(B) First Initial Flow Pressure	<u>29</u>	<u>20</u>	PSI	@ (depth)	<u>4960</u>	T-Open	<u>0242</u>
(C) First Final Flow Pressure	<u>98</u>	<u>83</u>	PSI	Recorder No.	<u>13339</u>	T-Pulled	<u>0652</u>
(D) Initial Shut-in Pressure	<u>1159</u>	<u>1130</u>	PSI	@ (depth)	<u>5025</u>	T-Out	<u>1200</u>
(E) Second Initial Flow Pressure	<u>117</u>	<u>83</u>	PSI	Recorder No.	_____		
(F) Second Final Flow Pressure	<u>308</u>	<u>291</u>	PSI	@ (depth)	_____		
(G) Final Shut-in Pressure	<u>1077</u>	<u>1070</u>	PSI	Initial Opening	<u>10</u>	Test	_____
(H) Final Hydrostatic Mud	<u>2278</u>	<u>2343</u>	PSI	Initial Shut-in	<u>60</u>	Jars	<u>X</u>

Elec. Alp. AK-1

Final Flow 120 Safety Joint X
Final Shut-in 120 Straddle _____
Circ. Sub X N/C
Sampler X
Extra Packer _____
Elect. Rec. X
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 _____

TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 9166 Date 4.17.96
Company Name Amoco Prod. Co. Cont. Cheyenne #3
Lease Doc Holliday #1-24 Test No. 1 Upper Morrow
County Hamilton KS Sec. 24 Twp. 21^S Rng. 39^W

SAMPLER RECOVERY

Gas 900 ML
Oil 3,000 ML
ud 100 ML
Water — ML
Other — ML
Pressure 350[#] PSI
Total 4,000 ML

SAMPLER ANALYSIS

Resistivity — ohms @ — F
Chlorides — ppm.
Gravity 30.2 corrected @ 60 F

PIT MUD ANALYSIS

Chlorides 4,000 ppm.
Resistivity — ohms @ — F
Viscosity 57
Mud Weight 9.0
Filtrate 8.0
Other LCM 1[#]/bbl.

PIPE RECOVERY

TOP
Resistivity — ohms @ — F
Chlorides — ppm.

MIDDLE
Resistivity — ohms @ — F
Chlorides — ppm.

BOTTOM
Resistivity — ohms @ — F
Chlorides — ppm.