TRILOBITE TESTING L.L.C.

OPERATOR : Sagebrush Petl.LLC — DATE 07-01-98
WELL NAME: Wagner #33 — KB 1885.00 ft — TICKET NO: 11807 — DST #4
LOCATION : 7-27s-12w Pratt co. KS — GR 1876.00 ft — FORMATION: Langdon
INTERVAL : 2728.00 To 2852.00 ft — TD 2852.00 ft — TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins		Field	1	2	3	4
PF 10	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 120	Depth(ft)	2849.0	2849.0	2738.0	0.0	0.0

TIME DATA----------
PF Fr. 2331 to 2341 hr
IS Fr. 2341 to 0041 hr
SF Fr. 0041 to 0141 hr
FS Fr. 0141 to 0341 hr

	Field	1	2	3	4
A. Init Hydro	1449.0	1472.0	1387.0	0.0	0.0
B. First Flow	112.0	118.0	45.0	0.0	0.0
B1. Final Flow	103.0	106.0	38.0	0.0	0.0
C. In Shut-in	833.0	841.0	786.0	0.0	0.0
D. Init Flow	91.0	99.0	24.0	0.0	0.0
E. Final Flow	145.0	141.0	79.0	0.0	0.0
F. Fl Shut-in	826.0	839.0	780.0	0.0	0.0
G. Final Hydro	1438.0	1459.0	1377.0	0.0	0.0
Inside/Outside	O	O	I	T	

T STARTED 2208 hr
T ON BOTM 2327 hr
T OPEN 2331 hr
T PULLED 0344 hr
T OUT 0545 hr

RECOVERY
Tot Fluid 55.00 ft of 0.00 ft in DC and 55.00 ft in DP
2660.00 ft of Gas in pipe.
55.00 ft of Drilling mud
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----------8
SALINITY 48000.00 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	48000.00 lbs
Initial Str Wt	40000.00 lbs
Unseated Str Wt	40000.00 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	2715.00 ft

BLOW DESCRIPTION
Initial Flow:
Fair to strong blow bottom of bucket in 4 mins.
Initial Shut-in:
No blow.
Final Flow:
Storng blow bottom of bucket immediately gas to surface in 2 1/2 mins. (see gas volume report)
Final Shut-in:
Weak blow after blow down

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

Mud Type	Starch
Weight	9.00 lb/cf
Vis.	46.00 S/L
W.L.	10.40 in3
F.C.	0.20 in
Mud Drop	N
Amt. of fill	0.00 ft
Btm. H. Temp.	100.00 F
Hole Condition	good
% Porosity	14.00
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.	Arden Ratzlaff
Contr.	Duke Drlg.
Rig #	4
Unit #	
Pump T.	LCM tr#/bl

SAMPLES: Gas sample
SENT TO:Caraway/Liberal

Test Successful: Y

GAS RECOVERY

COMPANY: Sagebrush Petl.LLC DATE: 07-01-98
WELL NAME: Wagner #33 KB Elev: 1885.00 ft TICKET #11807 DST #4
WELL LOCATION: Sec.07 Twp.27s Rg.12w Ks GR Elev: 1876.00 ft FORMATION: Langdon
INTERVAL Fr.: 2728.00 To 2852.00 T.D.: 2852.00 ft TEST TYPE: CONVENTIONAL

GAS RECOVERY MEASURED WITH Adjusting Choke

***** GAS RATES FOR FLOW #2

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
10	0.25	16	0	40900.0
20	0.25	20	0	47100.0
30	0.25	25	0	54700.0
40	0.25	31	0	63200.0
50	0.25	38	0	73000.0
60	0.25	44	0	81200.0

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Wagner #33

LOCATION : Sec.07 Twp.27s Rg.12w Ks

TICKET No. 11807 D.S.T. No. 4 DATE 07-01-98

TOTAL TOOL TO BOTTOM OF TOP PACKERS 22

INTERVAL TOOL .....

BOTTOM PACKERS AND ANCHOR 30

TOTAL TOOL 52

DRILL COLLAR ANCHOR IN INTERVAL .....

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single 3 Total 94

TOTAL ASSEMBLY 146

D.C. ABOVE TOOLS.Stands Single Total

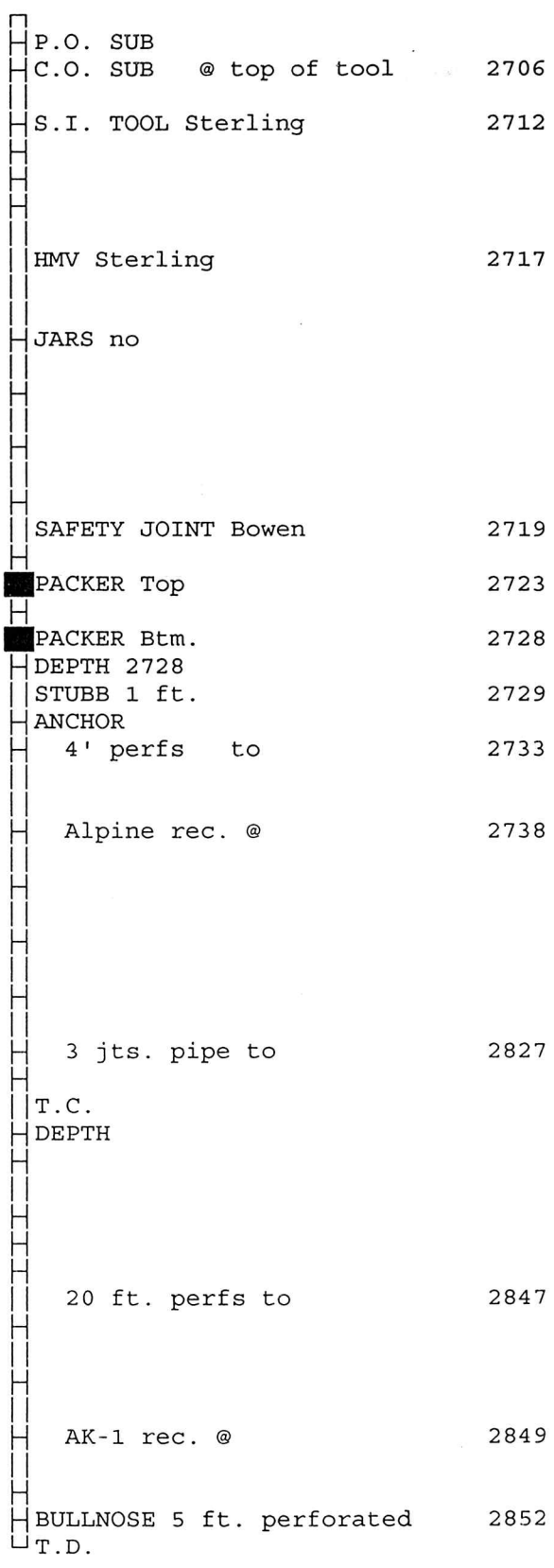
D.P. ABOVE TOOLS.Stands43 Single 1 Total 2715

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 2861

TOTAL DEPTH 2852

TOTAL DRILL PIPE ABOVE K.B. 9

REMARKS:
Comments:



Operator.....: Sagebrush Petroleum LLC
Well Name.....: Wagner #33
DST Number.....: 4

Location.: 7-27S-12W
Test Type: conv
Formation: Langdon

Recorder No...: 2342
Recorder Depth: 2738
Test Interval.: 2728-2852

RESERVOIR CALCULATIONS: Gas calculations based on shut-in #2

RESERVOIR PARAMETERS USED:

Net Pay	6.00 ft
Porosity	15.00 %
Bottom Hole Temp	100.00 F
Specific Gravity	0.830
Z factor	.99
Compressibility	0.012862 /psi
Viscosity	0.0123 cp
Total Flowing Time	70.00 min.
Flow Rate	81.20 mcf/d
Final Flowing Pressure	79.00 psi
Horner Slope	0.0634 *10^6 psi^2/cycle
Extrapolated Pressure	787.95 psi
Assumed Drainage Radius	1500.00 ft
Well Bore Radius	3.94 in

RESULTS:

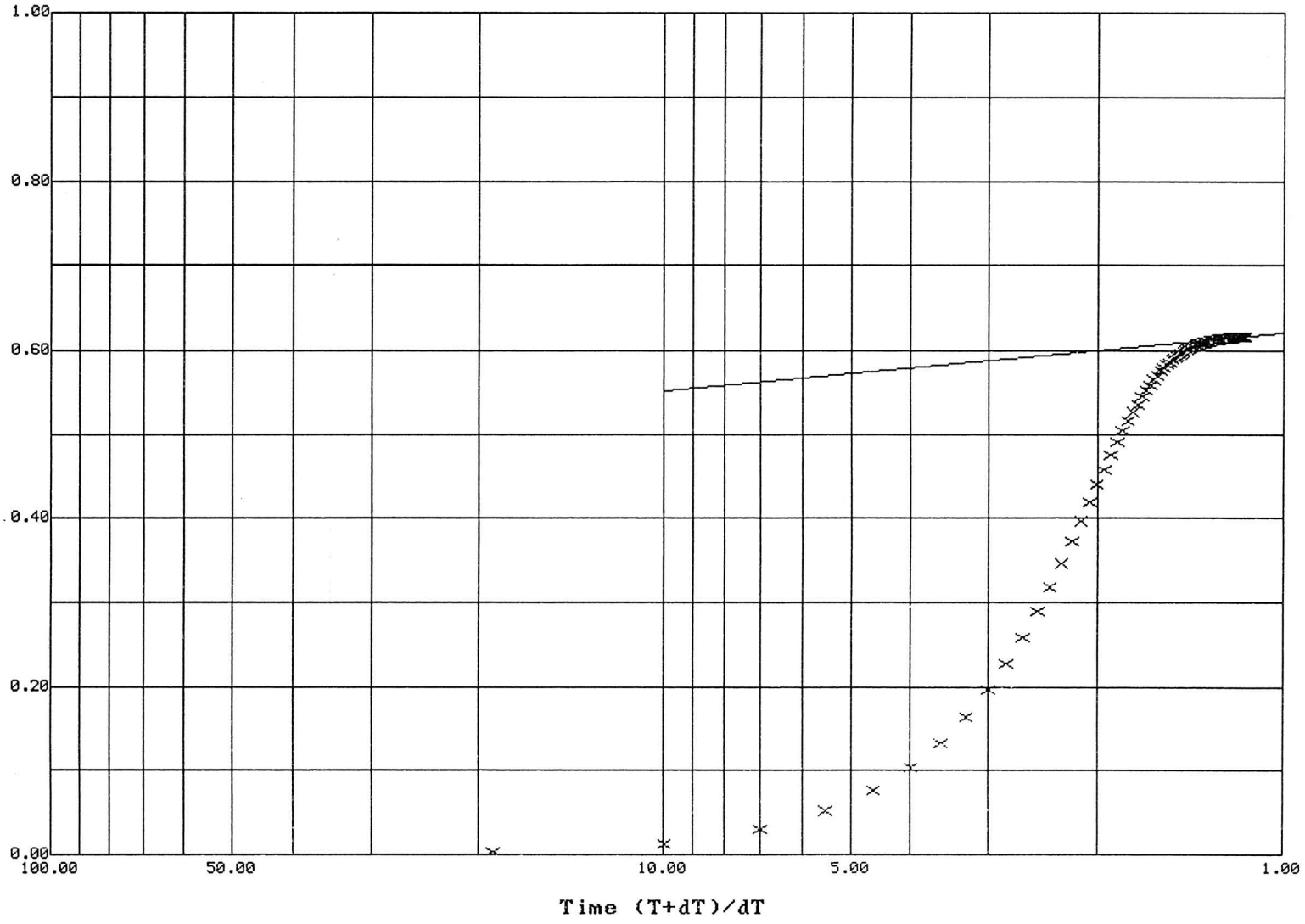
Effective Permeability	2.388341 md
Flow Capacity	14.3300 md.ft
Transmissibility	1165.0442 md.ft/cp
Skin Factor	10.4087
Pressure Drop Across Skin	682.3845 psi
Radius of Investigation	9.9372 ft
Damage Ratio	3.9906
Absolute Open Flow	82.0078 mcf/d
Absolute Open Flow W/O Damage.	327.2575 mcf/d
Estimated Stabilized AOF	75.9219 mcf/d

P^2 Horner Plot: shut-in #1

11807 DST#4 WAGNER#33 SAGEBRUSH PETL.LLC

Slope: 0.0701 PSIg^2/10^6/cycle

Ext. Pressure: 788.4466 PSIg

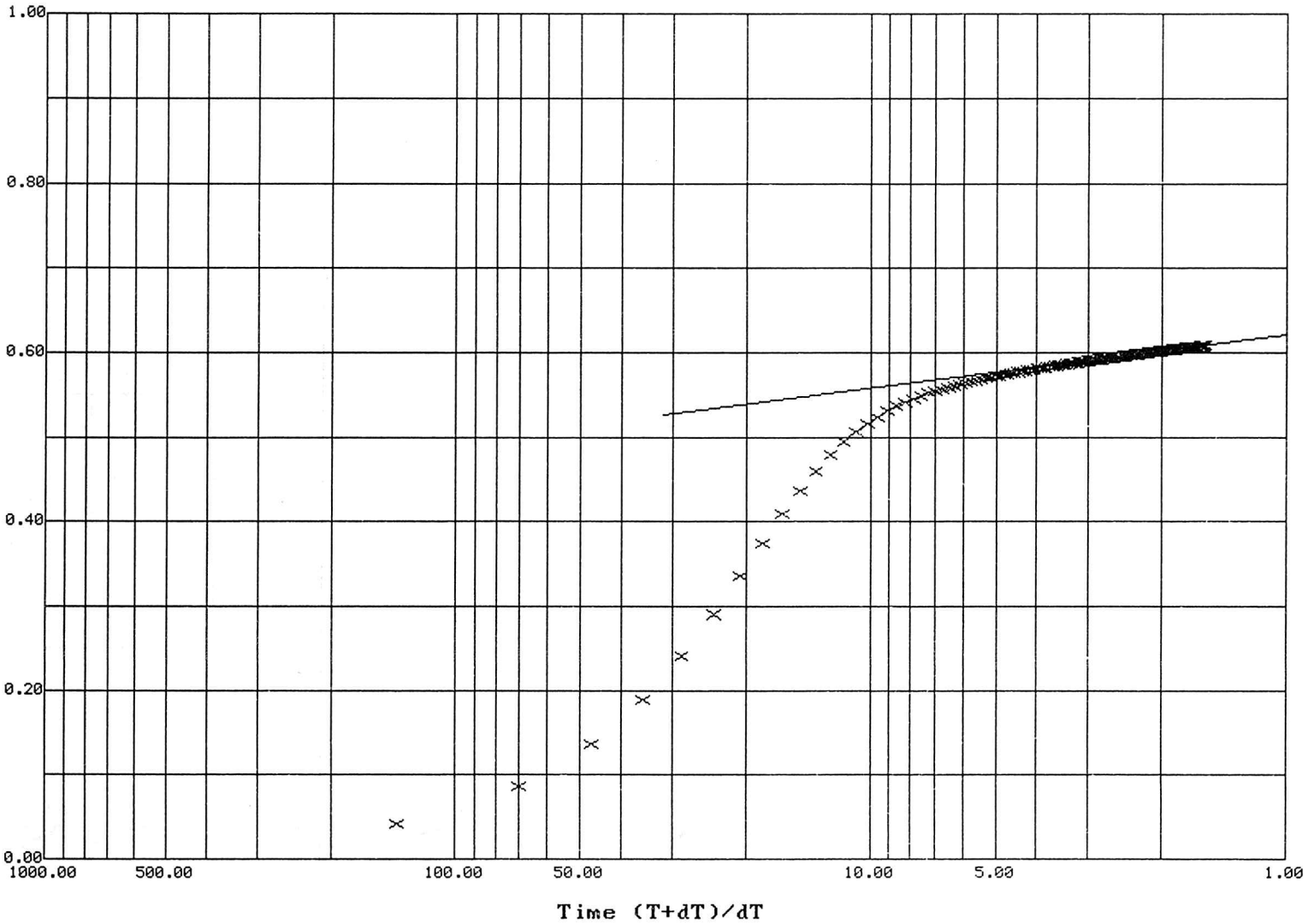


P^2 Horner Plot: shut-in #2

11807 DST#4 WAGNER#33 SAGEBRUSH PETL.LLC

Slope: 0.0634 PSIg^2/10^6/cycle

Ext. Pressure: 787.9510 PSIg



TEST HISTORY

11807 DST#4 WAGNER#33 SAGEBRUSH PETL.LLC

Flag Points

	t(Min.)	P(PSIg)
A:	0.00	1387.23
B:	0.00	45.31
C:	9.00	37.51
D:	60.00	785.64
E:	0.00	24.33
F:	60.00	78.72
G:	121.50	780.02
Q:	0.00	1376.66

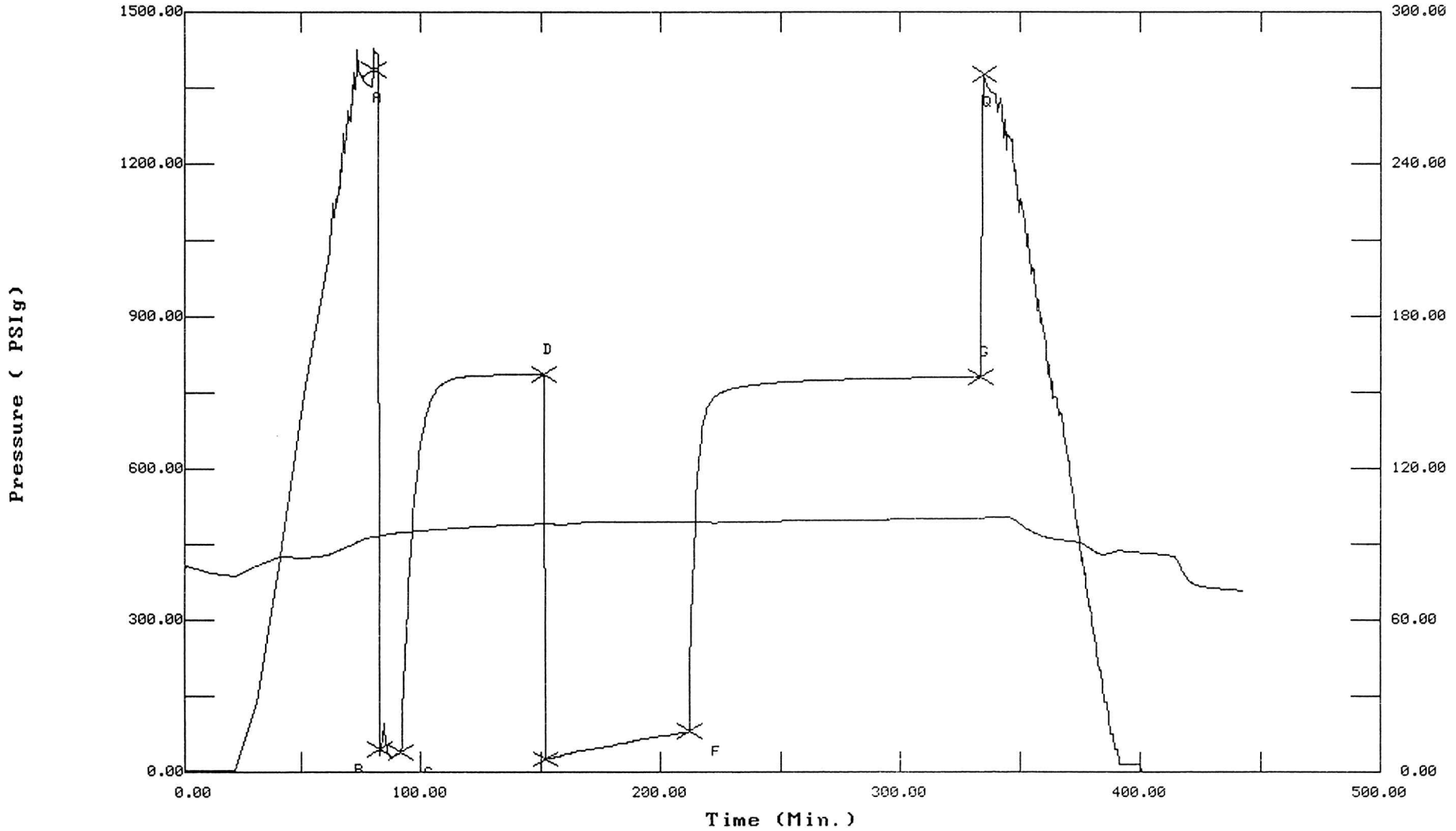
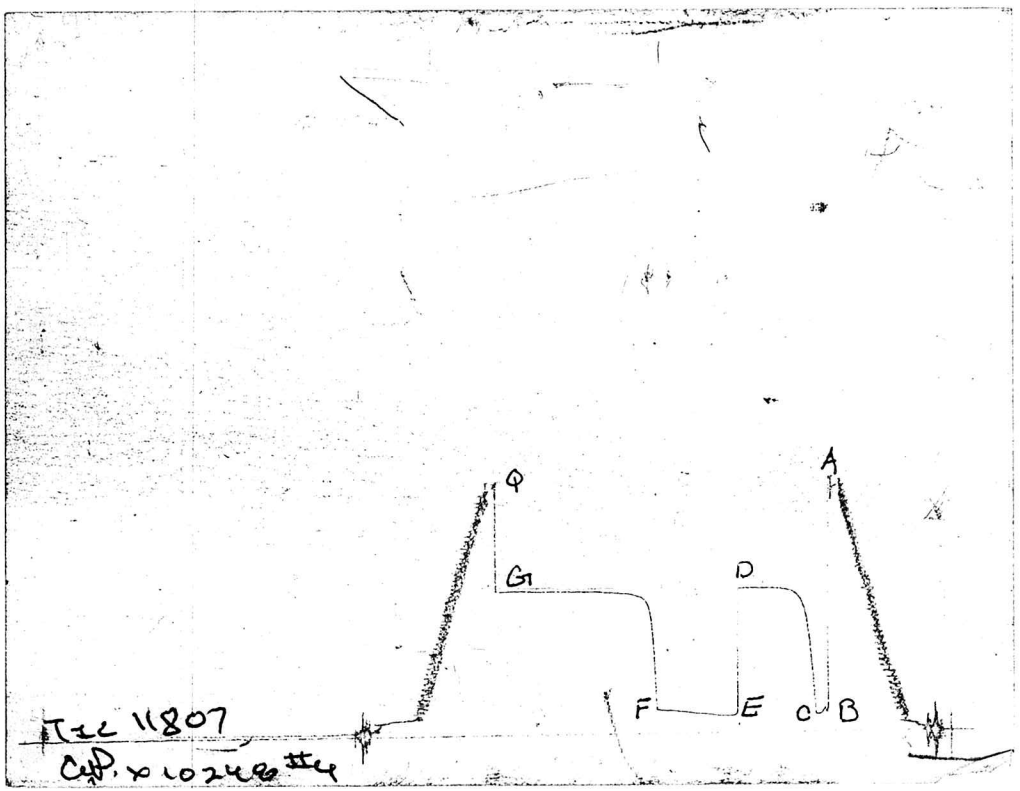


CHART PAGE



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

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING
TEST: 11807 DST#4 WAGNER#33 SAGEBRUSH PETL.LLC
DATE: 07/01/98 TIME: 22:08:58

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
****** Initial Hydro.	80.00	1387.2	0.0	92.82		
****** Start Flow 1	0.00	45.3	0.0	93.21		
	0.50	30.8	-14.5	93.28		
	1.00	47.7	2.4	93.36		
	1.50	67.6	22.2	93.46		
	2.00	93.9	48.6	93.56		
	2.50	51.8	6.5	93.65		
	3.00	66.5	21.1	93.74		
	3.50	40.4	-5.0	93.83		
	4.00	33.2	-12.1	93.91		
	4.50	28.6	-16.7	94.00		
	5.00	28.7	-16.6	94.08		
	5.50	27.6	-17.7	94.14		
	6.00	30.0	-15.3	94.22		
	6.50	32.8	-12.5	94.29		
	7.00	34.2	-11.2	94.34		
	7.50	35.1	-10.2	94.41		
	8.00	34.3	-11.0	94.45		
	8.50	36.6	-8.7	94.51		
****** End Flow 1	9.00	37.5	-7.8	94.56		
****** Start Shutin 1	0.00	37.5	0.0	94.56	0.0000	0.001
	0.50	51.5	14.0	94.60	19.0000	0.003
	1.00	115.3	77.8	94.65	10.0000	0.013
	1.50	173.9	136.4	94.70	7.0000	0.030
	2.00	228.4	190.9	94.75	5.5000	0.052
	2.50	277.8	240.3	94.79	4.6000	0.077
	3.00	322.7	285.2	94.84	4.0000	0.104
	3.50	365.2	327.7	94.89	3.5714	0.133
	4.00	405.4	367.9	94.93	3.2500	0.164
	4.50	442.7	405.2	94.97	3.0000	0.196
	5.00	477.2	439.7	95.02	2.8000	0.228
	5.50	509.2	471.7	95.06	2.6364	0.259
	6.00	538.3	500.8	95.10	2.5000	0.290
	6.50	564.7	527.2	95.15	2.3846	0.319
	7.00	588.8	551.3	95.20	2.2857	0.347
	7.50	610.5	573.0	95.24	2.2000	0.373
	8.00	630.0	592.4	95.36	2.1250	0.397
	8.50	647.4	609.9	95.31	2.0588	0.419
	9.00	663.1	625.6	95.35	2.0000	0.440
	9.50	677.0	639.4	95.40	1.9474	0.458
	10.00	689.2	651.7	95.44	1.9000	0.475
	10.50	700.0	662.5	95.50	1.8571	0.490
	11.00	709.7	672.2	95.53	1.8182	0.504
	11.50	718.1	680.6	95.57	1.7826	0.516
	12.00	725.6	688.1	95.63	1.7500	0.527
	12.50	732.2	694.7	95.65	1.7200	0.536
	13.00	738.1	700.5	95.69	1.6923	0.545
	13.50	743.2	705.7	95.74	1.6667	0.552
	14.00	747.8	710.3	95.78	1.6429	0.559
	14.50	751.8	714.3	95.81	1.6207	0.565
	15.00	755.3	717.8	95.86	1.6000	0.571

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 11807 DST#4 WAGNER#33 SAGEBRUSH PETL.LLC

DATE: 07/01/98 TIME: 22:08:58

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
15.50	758.4	720.9	95.91	1.5806	0.575
16.00	761.2	723.7	95.94	1.5625	0.579
16.50	763.6	726.1	95.98	1.5455	0.583
17.00	765.7	728.2	96.01	1.5294	0.586
17.50	767.7	730.2	96.06	1.5143	0.589
18.00	769.3	731.8	96.10	1.5000	0.592
18.50	770.8	733.3	96.14	1.4865	0.594
19.00	772.0	734.5	96.18	1.4737	0.596
19.50	773.3	735.8	96.21	1.4615	0.598
20.00	774.3	736.8	96.25	1.4500	0.600
20.50	775.3	737.8	96.28	1.4390	0.601
21.00	776.1	738.6	96.33	1.4286	0.602
21.50	776.8	739.3	96.36	1.4186	0.603
22.00	777.4	739.9	96.40	1.4091	0.604
22.50	778.1	740.6	96.44	1.4000	0.605
23.00	778.6	741.1	96.47	1.3913	0.606
23.50	779.2	741.7	96.50	1.3830	0.607
24.00	779.6	742.1	96.53	1.3750	0.608
24.50	779.9	742.4	96.56	1.3673	0.608
25.00	780.4	742.8	96.59	1.3600	0.609
25.50	780.7	743.2	96.64	1.3529	0.609
26.00	780.9	743.4	96.66	1.3462	0.610
26.50	781.3	743.8	96.69	1.3396	0.610
27.00	781.5	744.0	96.73	1.3333	0.611
27.50	781.8	744.3	96.75	1.3273	0.611
28.00	781.9	744.4	96.78	1.3214	0.611
28.50	782.1	744.6	96.81	1.3158	0.612
29.00	782.4	744.9	96.84	1.3103	0.612
29.50	782.5	745.0	96.87	1.3051	0.612
30.00	782.7	745.2	96.89	1.3000	0.613
30.50	782.9	745.4	96.92	1.2951	0.613
31.00	783.0	745.5	96.95	1.2903	0.613
31.50	783.1	745.6	96.98	1.2857	0.613
32.00	783.2	745.7	97.00	1.2812	0.613
32.50	783.4	745.9	97.03	1.2769	0.614
33.00	783.5	746.0	97.05	1.2727	0.614
33.50	783.5	746.0	97.09	1.2687	0.614
34.00	783.6	746.1	97.11	1.2647	0.614
34.50	783.7	746.2	97.13	1.2609	0.614
35.00	783.8	746.3	97.16	1.2571	0.614
35.50	784.0	746.5	97.19	1.2535	0.615
36.00	784.0	746.5	97.21	1.2500	0.615
36.50	784.0	746.5	97.23	1.2466	0.615
37.00	784.1	746.6	97.26	1.2432	0.615
37.50	784.2	746.7	97.28	1.2400	0.615
38.00	784.3	746.8	97.31	1.2368	0.615
38.50	784.3	746.8	97.33	1.2338	0.615
39.00	784.4	746.9	97.35	1.2308	0.615
39.50	784.5	747.0	97.38	1.2278	0.615
40.00	784.5	747.0	97.39	1.2250	0.616
40.50	784.6	747.1	97.42	1.2222	0.616

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 11807 DST#4 WAGNER#33 SAGEBRUSH PETL.LLC

DATE: 07/01/98 TIME: 22:08:58

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	41.00	784.6	747.1	97.44	1.2195	0.616
	41.50	784.7	747.2	97.47	1.2169	0.616
	42.00	784.7	747.2	97.51	1.2143	0.616
	42.50	784.7	747.2	97.53	1.2118	0.616
	43.00	784.8	747.3	97.53	1.2093	0.616
	43.50	784.9	747.4	97.54	1.2069	0.616
	44.00	784.9	747.4	97.57	1.2045	0.616
	44.50	785.0	747.5	97.62	1.2022	0.616
	45.00	785.1	747.5	97.65	1.2000	0.616
	45.50	785.1	747.5	97.65	1.1978	0.616
	46.00	785.1	747.5	97.65	1.1957	0.616
	46.50	785.2	747.7	97.66	1.1935	0.617
	47.00	785.2	747.7	97.66	1.1915	0.617
	47.50	785.2	747.7	97.67	1.1895	0.617
	48.00	785.2	747.7	97.70	1.1875	0.617
	48.50	785.2	747.7	97.72	1.1856	0.617
	49.00	785.3	747.8	97.75	1.1837	0.617
	49.50	785.3	747.8	97.77	1.1818	0.617
	50.00	785.3	747.8	97.79	1.1800	0.617
	50.50	785.3	747.8	97.81	1.1782	0.617
	51.00	785.3	747.8	97.82	1.1765	0.617
	51.50	785.4	747.9	97.85	1.1748	0.617
	52.00	785.4	747.9	97.86	1.1731	0.617
	52.50	785.4	747.9	97.89	1.1714	0.617
	53.00	785.3	747.8	97.91	1.1698	0.617
	53.50	785.5	748.0	97.93	1.1682	0.617
	54.00	785.5	748.0	97.94	1.1667	0.617
	54.50	785.5	748.0	97.96	1.1651	0.617
	55.00	785.5	748.0	97.97	1.1636	0.617
	55.50	785.5	748.0	97.99	1.1622	0.617
	56.00	785.5	748.0	98.00	1.1607	0.617
	56.50	785.5	748.0	98.02	1.1593	0.617
	57.00	785.6	748.0	98.04	1.1579	0.617
	57.50	785.6	748.0	98.05	1.1565	0.617
	58.00	785.6	748.0	98.07	1.1552	0.617
	58.50	785.6	748.0	98.09	1.1538	0.617
	59.00	785.6	748.1	98.11	1.1525	0.617
	59.50	785.6	748.1	98.10	1.1513	0.617
****** End Shut-in 1	60.00	785.6	748.1	98.13	1.1500	0.617
****** Start Flow 2	0.00	24.3	0.0	98.15		
	0.50	23.6	-0.8	98.12		
	1.00	25.5	1.2	98.11		
	1.50	25.0	0.7	98.08		
	2.00	24.7	0.3	98.06		
	2.50	24.9	0.6	98.04		
	3.00	25.8	1.4	98.02		
	3.50	25.8	1.4	98.00		
	4.00	27.5	3.2	97.98		
	4.50	27.4	3.1	97.97		
	5.00	28.6	4.3	97.96		
	5.50	28.3	3.9	97.96		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 11807 DST#4 WAGNER#33 SAGEBRUSH PETL.LLC

DATE: 07/01/98 TIME: 22:08:58

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
6.00	30.0	5.7	97.95		
6.50	30.6	6.3	97.95		
7.00	31.3	7.0	97.95		
7.50	32.2	7.9	97.96		
8.00	33.6	9.2	97.95		
8.50	33.8	9.5	97.96		
9.00	34.0	9.7	97.98		
9.50	34.4	10.1	97.99		
10.00	34.9	10.6	98.02		
10.50	36.1	11.7	98.06		
11.00	36.7	12.3	98.10		
11.50	38.2	13.8	98.15		
12.00	39.1	14.8	98.20		
12.50	39.0	14.7	98.26		
13.00	39.9	15.6	98.33		
13.50	40.8	16.4	98.40		
14.00	41.4	17.0	98.47		
14.50	39.9	15.6	98.54		
15.00	42.0	17.6	98.61		
15.50	41.5	17.2	98.67		
16.00	41.4	17.0	98.73		
16.50	41.4	17.0	98.77		
17.00	42.4	18.0	98.81		
17.50	43.0	18.6	98.84		
18.00	43.6	19.3	98.87		
18.50	44.5	20.1	98.89		
19.00	44.5	20.1	98.90		
19.50	44.8	20.5	98.92		
20.00	44.7	20.4	98.93		
20.50	44.7	20.4	98.94		
21.00	45.7	21.4	98.95		
21.50	46.7	22.3	98.95		
22.00	48.3	24.0	98.96		
22.50	47.6	23.2	98.96		
23.00	47.9	23.6	98.96		
23.50	47.8	23.5	98.96		
24.00	48.3	24.0	98.97		
24.50	49.1	24.8	98.96		
25.00	49.3	25.0	98.96		
25.50	49.6	25.3	98.96		
26.00	49.8	25.4	98.96		
26.50	50.6	26.3	98.95		
27.00	50.3	26.0	98.95		
27.50	51.0	26.7	98.93		
28.00	51.2	26.9	98.93		
28.50	52.4	28.1	98.94		
29.00	52.9	28.5	98.92		
29.50	53.3	29.0	98.92		
30.00	54.3	30.0	98.91		
30.50	54.5	30.2	98.90		
31.00	55.4	31.1	98.89		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 11807 DST#4 WAGNER#33 SAGEBRUSH PETL.LLC

DATE: 07/01/98 TIME: 22:08:58

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
31.50	55.9	31.6	98.89		
32.00	56.5	32.1	98.89		
32.50	56.9	32.6	98.88		
33.00	57.0	32.6	98.87		
33.50	57.1	32.7	98.87		
34.00	57.3	33.0	98.86		
34.50	57.8	33.5	98.86		
35.00	58.5	34.2	98.85		
35.50	58.7	34.4	98.85		
36.00	58.9	34.6	98.85		
36.50	59.6	35.2	98.84		
37.00	60.6	36.3	98.84		
37.50	61.3	37.0	98.83		
38.00	61.3	36.9	98.83		
38.50	61.7	37.3	98.84		
39.00	61.9	37.6	98.83		
39.50	62.6	38.3	98.83		
40.00	63.6	39.3	98.83		
40.50	64.8	40.5	98.82		
41.00	66.0	41.6	98.82		
41.50	65.2	40.9	98.81		
42.00	65.4	41.0	98.81		
42.50	65.7	41.4	98.81		
43.00	66.2	41.9	98.81		
43.50	67.0	42.7	98.81		
44.00	67.0	42.6	98.80		
44.50	67.6	43.3	98.80		
45.00	67.8	43.5	98.80		
45.50	68.1	43.7	98.80		
46.00	68.6	44.3	98.79		
46.50	68.7	44.4	98.79		
47.00	69.1	44.8	98.78		
47.50	69.7	45.4	98.78		
48.00	70.0	45.7	98.77		
48.50	70.0	45.7	98.77		
49.00	70.2	45.9	98.77		
49.50	70.4	46.1	98.75		
50.00	70.9	46.6	98.75		
50.50	71.2	46.9	98.74		
51.00	71.5	47.2	98.74		
51.50	71.8	47.5	98.73		
52.00	72.2	47.8	98.72		
52.50	72.9	48.6	98.72		
53.00	72.8	48.5	98.71		
53.50	73.6	49.3	98.71		
54.00	74.2	49.9	98.70		
54.50	74.4	50.0	98.69		
55.00	75.0	50.7	98.69		
55.50	75.8	51.4	98.68		
56.00	77.4	53.0	98.68		
56.50	78.0	53.7	98.67		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 11807 DST#4 WAGNER#33 SAGEBRUSH PETL.LLC

DATE: 07/01/98 TIME: 22:08:58

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	57.00	77.2	52.9	98.66		
	57.50	77.2	52.9	98.65		
	58.00	77.4	53.0	98.66		
	58.50	77.5	53.1	98.64		
	59.00	78.0	53.6	98.64		
	59.50	77.8	53.5	98.63		
****** End Flow 2	60.00	78.7	54.4	98.62		
****** Start Shutin 2	0.00	78.7	0.0	98.62	0.0000	0.006
	0.50	202.7	124.0	98.62	139.0000	0.041
	1.00	294.1	215.4	98.62	70.0000	0.086
	1.50	368.4	289.7	98.62	47.0000	0.136
	2.00	434.2	355.5	98.63	35.5000	0.189
	2.50	491.0	412.3	98.62	28.6000	0.241
	3.00	538.8	460.1	98.62	24.0000	0.290
	3.50	579.2	500.5	98.62	20.7143	0.335
	4.00	612.4	533.7	98.60	18.2500	0.375
	4.50	639.4	560.7	98.61	16.3333	0.409
	5.00	661.1	582.4	98.60	14.8000	0.437
	5.50	678.4	599.7	98.61	13.5455	0.460
	6.00	692.1	613.3	98.60	12.5000	0.479
	6.50	703.0	624.3	98.60	11.6154	0.494
	7.00	711.4	632.7	98.60	10.8571	0.506
	7.50	718.5	639.8	98.60	10.2000	0.516
	8.00	724.0	645.3	98.60	9.6250	0.524
	8.50	728.7	649.9	98.59	9.1176	0.531
	9.00	732.5	653.8	98.59	8.6667	0.537
	9.50	735.9	657.2	98.59	8.2632	0.542
	10.00	738.6	659.8	98.58	7.9000	0.545
	10.50	740.9	662.2	98.59	7.5714	0.549
	11.00	743.0	664.3	98.59	7.2727	0.552
	11.50	744.7	666.0	98.59	7.0000	0.555
	12.00	746.3	667.6	98.60	6.7500	0.557
	12.50	747.7	669.0	98.59	6.5200	0.559
	13.00	749.0	670.2	98.60	6.3077	0.561
	13.50	750.1	671.4	98.60	6.1111	0.563
	14.00	751.2	672.5	98.60	5.9286	0.564
	14.50	752.2	673.4	98.62	5.7586	0.566
	15.00	753.1	674.4	98.62	5.6000	0.567
	15.50	753.9	675.2	98.64	5.4516	0.568
	16.00	754.8	676.0	98.76	5.3125	0.570
	16.50	755.5	676.8	98.64	5.1818	0.571
	17.00	756.3	677.6	98.65	5.0588	0.572
	17.50	756.9	678.1	98.66	4.9429	0.573
	18.00	757.5	678.8	98.67	4.8333	0.574
	18.50	758.1	679.4	98.69	4.7297	0.575
	19.00	758.6	679.9	98.70	4.6316	0.575
	19.50	759.1	680.4	98.71	4.5385	0.576
	20.00	759.6	680.9	98.72	4.4500	0.577
	20.50	760.1	681.4	98.73	4.3659	0.578
	21.00	760.5	681.8	98.74	4.2857	0.578
	21.50	761.0	682.2	98.76	4.2093	0.579

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 11807 DST#4 WAGNER#33 SAGEBRUSH PETL.LLC

DATE: 07/01/98 TIME: 22:08:58

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
22.00	761.5	682.8	98.77	4.1364	0.580
22.50	761.9	683.2	98.78	4.0667	0.580
23.00	762.3	683.6	98.80	4.0000	0.581
23.50	762.6	683.9	98.80	3.9362	0.582
24.00	762.9	684.2	98.82	3.8750	0.582
24.50	763.2	684.5	98.84	3.8163	0.583
25.00	763.7	684.9	98.85	3.7600	0.583
25.50	763.9	685.2	98.86	3.7059	0.584
26.00	764.2	685.5	98.88	3.6538	0.584
26.50	764.6	685.9	98.89	3.6038	0.585
27.00	764.8	686.1	98.90	3.5556	0.585
27.50	765.1	686.4	98.91	3.5091	0.585
28.00	765.3	686.6	98.93	3.4643	0.586
28.50	765.7	686.9	98.94	3.4211	0.586
29.00	765.9	687.2	98.96	3.3793	0.587
29.50	766.2	687.5	98.97	3.3390	0.587
30.00	766.5	687.8	98.98	3.3000	0.588
30.50	766.7	688.0	98.99	3.2623	0.588
31.00	766.9	688.2	99.00	3.2258	0.588
31.50	767.2	688.5	99.02	3.1905	0.589
32.00	767.3	688.6	99.03	3.1562	0.589
32.50	767.6	688.9	99.04	3.1231	0.589
33.00	767.8	689.0	99.06	3.0909	0.589
33.50	768.0	689.3	99.07	3.0597	0.590
34.00	768.1	689.4	99.08	3.0294	0.590
34.50	768.4	689.6	99.10	3.0000	0.590
35.00	768.6	689.9	99.10	2.9714	0.591
35.50	768.8	690.1	99.12	2.9437	0.591
36.00	768.9	690.2	99.13	2.9167	0.591
36.50	769.1	690.4	99.13	2.8904	0.592
37.00	769.4	690.6	99.15	2.8649	0.592
37.50	769.5	690.8	99.16	2.8400	0.592
38.00	769.7	691.0	99.17	2.8158	0.592
38.50	769.8	691.1	99.18	2.7922	0.593
39.00	769.9	691.2	99.19	2.7692	0.593
39.50	770.2	691.5	99.20	2.7468	0.593
40.00	770.3	691.6	99.21	2.7250	0.593
40.50	770.4	691.7	99.22	2.7037	0.594
41.00	770.6	691.9	99.23	2.6829	0.594
41.50	770.8	692.1	99.24	2.6627	0.594
42.00	770.9	692.2	99.25	2.6429	0.594
42.50	771.0	692.3	99.26	2.6235	0.594
43.00	771.2	692.5	99.27	2.6047	0.595
43.50	771.3	692.6	99.29	2.5862	0.595
44.00	771.5	692.7	99.29	2.5682	0.595
44.50	771.6	692.9	99.29	2.5506	0.595
45.00	771.7	693.0	99.31	2.5333	0.596
45.50	771.8	693.1	99.32	2.5165	0.596
46.00	772.0	693.2	99.33	2.5000	0.596
46.50	772.0	693.3	99.33	2.4839	0.596
47.00	772.2	693.5	99.34	2.4681	0.596

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING
TEST: 11807 DST#4 WAGNER#33 SAGEBRUSH PETL.LLC
DATE: 07/01/98 TIME: 22:08:58

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
47.50	772.3	693.6	99.35	2.4526	0.596
48.00	772.4	693.7	99.36	2.4375	0.597
48.50	772.6	693.8	99.36	2.4227	0.597
49.00	772.6	693.8	99.37	2.4082	0.597
49.50	772.6	693.9	99.39	2.3939	0.597
50.00	772.9	694.2	99.39	2.3800	0.597
50.50	773.0	694.3	99.40	2.3663	0.597
51.00	773.1	694.4	99.41	2.3529	0.598
51.50	773.1	694.4	99.42	2.3398	0.598
52.00	773.3	694.6	99.43	2.3269	0.598
52.50	773.4	694.7	99.44	2.3143	0.598
53.00	773.5	694.8	99.45	2.3019	0.598
53.50	773.5	694.8	99.44	2.2897	0.598
54.00	773.6	694.9	99.45	2.2778	0.599
54.50	773.7	695.0	99.45	2.2661	0.599
55.00	773.8	695.1	99.47	2.2545	0.599
55.50	773.9	695.2	99.48	2.2432	0.599
56.00	774.1	695.3	99.49	2.2321	0.599
56.50	774.1	695.4	99.49	2.2212	0.599
57.00	774.2	695.5	99.50	2.2105	0.599
57.50	774.3	695.6	99.51	2.2000	0.600
58.00	774.3	695.6	99.52	2.1897	0.600
58.50	774.4	695.7	99.52	2.1795	0.600
59.00	774.5	695.8	99.52	2.1695	0.600
59.50	774.6	695.8	99.53	2.1597	0.600
60.00	774.6	695.8	99.54	2.1500	0.600
60.50	774.8	696.1	99.55	2.1405	0.600
61.00	774.9	696.2	99.55	2.1311	0.600
61.50	775.0	696.3	99.56	2.1220	0.601
62.00	775.1	696.3	99.56	2.1129	0.601
62.50	775.2	696.4	99.57	2.1040	0.601
63.00	775.2	696.4	99.57	2.0952	0.601
63.50	775.2	696.4	99.58	2.0866	0.601
64.00	775.3	696.6	99.59	2.0781	0.601
64.50	775.3	696.6	99.59	2.0698	0.601
65.00	775.5	696.8	99.59	2.0615	0.601
65.50	775.5	696.8	99.60	2.0534	0.601
66.00	775.6	696.9	99.60	2.0455	0.602
66.50	775.7	696.9	99.62	2.0376	0.602
67.00	775.7	697.0	99.62	2.0299	0.602
67.50	775.8	697.1	99.63	2.0222	0.602
68.00	775.9	697.2	99.63	2.0147	0.602
68.50	775.9	697.2	99.64	2.0073	0.602
69.00	776.0	697.3	99.64	2.0000	0.602
69.50	776.1	697.4	99.65	1.9928	0.602
70.00	776.2	697.4	99.66	1.9857	0.602
70.50	776.2	697.4	99.67	1.9787	0.602
71.00	776.2	697.4	99.67	1.9718	0.602
71.50	776.2	697.5	99.70	1.9650	0.603
72.00	776.3	697.6	99.67	1.9583	0.603
72.50	776.4	697.7	99.68	1.9517	0.603

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 11807 DST#4 WAGNER#33 SAGEBRUSH PETL.LLC

DATE: 07/01/98 TIME: 22:08:58

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
73.00	776.5	697.8	99.69	1.9452	0.603
73.50	776.5	697.8	99.69	1.9388	0.603
74.00	776.6	697.9	99.70	1.9324	0.603
74.50	776.6	697.9	99.70	1.9262	0.603
75.00	776.7	697.9	99.71	1.9200	0.603
75.50	776.7	697.9	99.71	1.9139	0.603
76.00	776.8	698.1	99.72	1.9079	0.603
76.50	776.8	698.1	99.73	1.9020	0.603
77.00	776.8	698.1	99.74	1.8961	0.603
77.50	776.9	698.2	99.74	1.8903	0.604
78.00	776.9	698.2	99.74	1.8846	0.604
78.50	777.1	698.4	99.75	1.8790	0.604
79.00	777.1	698.4	99.75	1.8734	0.604
79.50	777.2	698.5	99.76	1.8679	0.604
80.00	777.2	698.5	99.77	1.8625	0.604
80.50	777.2	698.5	99.77	1.8571	0.604
81.00	777.3	698.6	99.77	1.8519	0.604
81.50	777.3	698.6	99.78	1.8466	0.604
82.00	777.4	698.7	99.78	1.8415	0.604
82.50	777.4	698.7	99.78	1.8364	0.604
83.00	777.5	698.8	99.79	1.8313	0.605
83.50	777.5	698.8	99.79	1.8263	0.605
84.00	777.5	698.8	99.80	1.8214	0.605
84.50	777.6	698.9	99.80	1.8166	0.605
85.00	777.7	699.0	99.81	1.8118	0.605
85.50	777.8	699.0	99.81	1.8070	0.605
86.00	777.8	699.0	99.82	1.8023	0.605
86.50	777.8	699.0	99.83	1.7977	0.605
87.00	777.8	699.1	99.83	1.7931	0.605
87.50	777.9	699.2	99.85	1.7886	0.605
88.00	777.9	699.2	99.84	1.7841	0.605
88.50	778.0	699.3	99.84	1.7797	0.605
89.00	778.0	699.3	99.84	1.7753	0.605
89.50	778.0	699.3	99.85	1.7709	0.605
90.00	778.0	699.3	99.86	1.7667	0.605
90.50	778.1	699.4	99.86	1.7624	0.605
91.00	778.2	699.5	99.87	1.7582	0.606
91.50	778.2	699.5	99.88	1.7541	0.606
92.00	778.3	699.5	99.88	1.7500	0.606
92.50	778.3	699.5	99.88	1.7459	0.606
93.00	778.3	699.6	99.89	1.7419	0.606
93.50	778.3	699.6	99.89	1.7380	0.606
94.00	778.4	699.7	99.90	1.7340	0.606
94.50	778.3	699.6	99.89	1.7302	0.606
95.00	778.5	699.8	99.92	1.7263	0.606
95.50	778.5	699.8	99.91	1.7225	0.606
96.00	778.5	699.8	99.92	1.7188	0.606
96.50	778.5	699.8	99.91	1.7150	0.606
97.00	778.6	699.9	99.92	1.7113	0.606
97.50	778.6	699.9	99.92	1.7077	0.606
98.00	778.8	700.0	99.93	1.7041	0.606

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING
TEST: 11807 DST#4 WAGNER#33 SAGEBRUSH PETL.LLC
DATE: 07/01/98 TIME: 22:08:58

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	98.50	778.8	700.0	99.93	1.7005	0.606
	99.00	778.8	700.0	99.95	1.6970	0.606
	99.50	778.8	700.0	99.95	1.6935	0.606
	100.00	778.8	700.0	99.95	1.6900	0.606
	100.50	778.8	700.0	99.95	1.6866	0.606
	101.00	778.9	700.2	99.95	1.6832	0.607
	101.50	778.9	700.2	99.96	1.6798	0.607
	102.00	778.9	700.2	99.96	1.6765	0.607
	102.50	778.9	700.2	99.97	1.6732	0.607
	103.00	779.0	700.3	99.98	1.6699	0.607
	103.50	779.0	700.3	99.98	1.6667	0.607
	104.00	779.1	700.4	99.98	1.6635	0.607
	104.50	779.1	700.4	99.99	1.6603	0.607
	105.00	779.2	700.5	99.99	1.6571	0.607
	105.50	779.2	700.5	100.0	1.6540	0.607
	106.00	779.2	700.5	100.00	1.6509	0.607
	106.50	779.3	700.5	100.01	1.6479	0.607
	107.00	779.3	700.6	100.01	1.6449	0.607
	107.50	779.3	700.6	100.02	1.6419	0.607
	108.00	779.3	700.6	100.02	1.6389	0.607
	108.50	779.4	700.7	100.03	1.6359	0.608
	109.00	779.4	700.7	100.03	1.6330	0.608
	109.50	779.4	700.7	100.04	1.6301	0.608
	110.00	779.4	700.7	100.05	1.6273	0.608
	110.50	779.4	700.7	100.05	1.6244	0.608
	111.00	779.5	700.8	100.06	1.6216	0.608
	111.50	779.5	700.8	100.06	1.6188	0.608
	112.00	779.5	700.8	100.06	1.6161	0.608
	112.50	779.5	700.8	100.07	1.6133	0.608
	113.00	779.5	700.8	100.07	1.6106	0.608
	113.50	779.6	700.9	100.08	1.6079	0.608
	114.00	779.6	700.9	100.08	1.6053	0.608
	114.50	779.7	701.0	100.08	1.6026	0.608
	115.00	779.7	701.0	100.09	1.6000	0.608
	115.50	779.8	701.1	100.08	1.5974	0.608
	116.00	779.8	701.1	100.08	1.5948	0.608
	116.50	779.8	701.1	100.09	1.5923	0.608
	117.00	779.7	701.0	100.10	1.5897	0.608
	117.50	779.9	701.1	100.10	1.5872	0.608
	118.00	779.9	701.1	100.10	1.5847	0.608
	118.50	779.9	701.2	100.11	1.5823	0.608
	119.00	779.9	701.2	100.12	1.5798	0.608
	119.50	779.9	701.2	100.12	1.5774	0.608
	120.00	780.0	701.3	100.13	1.5750	0.608
	120.50	780.0	701.3	100.14	1.5726	0.608
	121.00	780.0	701.3	100.14	1.5702	0.608
****** End Shut-in 2	121.50	780.0	701.3	100.14	1.5679	0.608
****** Final Hydro.	335.00	1376.7	0.0	100.39		

TRILOBITE TESTING L.L.C.

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

GAS VOLUME REPORT

SAGEBRUSH PETL. LLC — OPERATOR

WAGNER #33 — 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	MCF/D
				2.5	—	3/4"	OTS
				10	1L PSI	1/4"	40.9
				20	20 PSI	1/4"	47.1
				30	25 PSI	1/4"	54.7
				40	31 PSI	1/4"	63.2
				50	38 PSI	1/4"	73.0
				60	44 PSI	1/4"	81.2

Remarks:

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

№ 11807

Well Name & No. WAGNER #33 Test No. 4 Date 7-1-98

Company SAGEBRUSH PETR. LLC Zone Tested LANGDON

Address 1660 SHERMAN ST. STE 500, DENVER CO. 80203 Elevation 1885 KB 1876 GL

Co. Rep / Geo. ARDEN RATZLAFF Cont. DUKE DRLG. #4 Est. Ft. of Pay 8 Por. 14 %

Location: Sec. 7 Twp. 27S Rge. 12W Co. PRATT State KS.

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

Interval Tested 2728 - 2852'

Anchor Length 124'

Top Packer Depth 2723'

Bottom Packer Depth 2728'

Total Depth 2852'

Initial Str Wt./Lbs. 40,000 Unseated Str Wt./Lbs. 40,000

Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 48,000

Tool Weight 2100 ##

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

Wt. Pipe Run NONE Drill Collar Run NONE

Mud Wt. 9.0 LCM TR. Vis. 46 WL 10.4 cc. Drill Pipe Size 4½" X.H. Ft. Run 2715'

Blow Description IF: Fair to strong blow. Btm of bucket in 4 mins. (surging)

FF: Strong blow. Btm of bucket immediately. GTS. in 2.5 mins. (see gas volume report)

Recovery — Total Feet 55 GIP 2660 Ft. in DC — Ft. in DP 55

Rec. 55	Feet Of Drlg. Mud.	%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 100 °F Gravity N/A °API D@ — °F Corrected Gravity N/A. °API

RW N.C @ — °F Chlorides 48,000 ppm Recovery Chlorides 48,000 ppm System

	AK-1	Alpine				
(A) Initial Hydrostatic Mud	1449	1387	PSI	Recorder No. (alpine)	2342	T-On Location 2130
(B) First Initial Flow Pressure	112	45	PSI	(depth)	2738'	T-Started 2208
(C) First Final Flow Pressure	103	38	PSI	Recorder No.	10248	T-Open 2331
(D) Initial Shut-In Pressure	833	786	PSI	(depth)	2849'	T-Pulled 0344
(E) Second Initial Flow Pressure	91	24	PSI	Recorder No.	—	T-Out 0555
(F) Second Final Flow Pressure	145	79	PSI	(depth)	—	T-Off Location 0840
(G) Final Shut-in Pressure	826	780	PSI	Initial Opening	10	Test ✓ 600.00
(Q) Final Hydrostatic Mud	1436	1377	PSI	Initial Shut-in	60	Jars
				Final Flow	60	Safety Joint ✓ 50.00
				Final Shut-in	120	Straddle
					4	Circ. Sub
						Sampler
						Extra Packer
						Elec. Rec. ✓ 150.00
						Mileage
						Other
						TOTAL PRICE 1000.00

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 Arden Ratzlaff

NATURAL GAS ANALYSIS REPORT

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

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

Lab Number:	982624	Analyzed:	07/06/98
Sample From:	Wagner #33 DST 4	Pressure:	
Producer:	Sagebrush Petroleum, L. L. C.	Temperature:	
Date:		Location:	7-27-12
Time:		County:	Pratt
Sampler:		State:	Kansas
Source:		Formation:	Landon

		Mole %	GPM
Helium	He:	0.519	0.000
Hydrogen	H2:	0.002	0.000
Oxygen	O2:	0.000	0.000
Nitrogen	N2:	21.015	0.000
Carbon Dioxide	CO2:	0.196	0.000
Methane	C1:	70.651	0.000
Ethane	C2:	3.414	0.913
Propane	C3:	2.155	0.594
Iso Butane	iC4:	0.457	0.150
Normal Butane	nC4:	0.815	0.257
Iso Pentane	iC5:	0.190	0.070
Normal Pentane	nC5:	0.237	0.086
Hexanes Plus	C6+:	0.349	0.152
	TOTAL:	100.000	2.221
	Z Fact:	0.9980	
	SP.GR.:	0.7157	
	BTU (SAT):	892.7 @ 14.73 psia	
	BTU (DRY):	908.6 @ 14.73 psia	
	OCTANE RATING:	99.0	

COMMENTS: 0.000