

ORIGINAL

Well Name: Greving #22-24
Company: DNR Oil & Gas
Location: 24-4s-22w
Norton County Kansas
Date: 12-14-98

RECEIVED
STATE CORPORATION COMMISSION

JAN 14 1999

CONSERVATION DIVISION
Wichita Kansas

TRILOBITE TESTING L.L.C.

ORIGINAL

PERATOR : DNR Oil & Gas
 WELL NAME: Greving #22-24
 LOCATION : 24-4s-22w Norton Co Ks
 INTERVAL : 3590.00 To 3665.00 ft

DATE 12-13-98
 KB 2188.00 ft TICKET NO: 11545 DST #1
 GR 2183.00 ft FORMATION: Arbuckle
 TD 3665.00 ft TEST TYPE: CONV

RECORDED DATA

Mins	Field	1	2	3	4	TIME DATA-----
F 60 Rec.	13754	13754	2341			PF Fr. 0325 to 0425 hr
I 90 Range(Psi)	4000.0	4000.0	4995.0	0.0	0.0	IS Fr. 0425 to 0555 hr
FF 120 Clock(hrs)	12	12	elect			SF Fr. 0555 to 0755 hr
FS 120 Depth(ft)	3662.0	3662.0	3598.0	0.0	0.0	FS Fr. 0755 to 0955 hr

	Field	1	2	3	4	
1. Init Hydro	1836.0	1831.0	1816.0	0.0	0.0	T STARTED 0053 hr
1. st Flow	39.0	43.0	11.0	0.0	0.0	T ON BOTM 0323 hr
1. Final Flow	98.0	98.0	95.0	0.0	0.0	T OPEN 0325 hr
2. In Shut-in	1096.0	1110.0	1106.0	0.0	0.0	T PULLED 0955 hr
3. Init Flow	118.0	123.0	99.0	0.0	0.0	T OUT 1200 hr
5. Final Flow	226.0	231.0	220.0	0.0	0.0	
F. Shut-in	1076.0	1083.0	1083.0	0.0	0.0	TOOL DATA-----
3. Final Hydro	1766.0	1781.0	1769.0	0.0	0.0	Tool Wt. 900.00 lbs
Inside/Outside	0	0	I			Wt Set On Packer 20000.00 lbs
						Wt Pulled Loose 65000.00 lbs
						Initial Str Wt 58000.00 lbs
						Unseated Str Wt 58000.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.88 in
						D Col. ID 2.25 in
						D. Pipe ID 3.80 in
						D.C. Length 495.00 ft
						D.P. Length 3249.00 ft

RECOVERY

Tot Fluid 450.00 ft of 450.00 ft in DC and 0.00 ft in DP
 30.00 ft of oil & water cut mud 10% oil 30% water 60% mud
 120.00 ft of oil & mud cut water 10% oil 50% water 40% mud
 300.00 ft of Slightly oil cut water 5% oil 95% water
 0.00 ft of
 0.00 ft of
 0.00 ft of
 0.00 ft of
 0.00 ft of

SALINITY 70000.00 P.P.M. A.P.I. Gravity 26.00

BLOW DESCRIPTION

Initial Flow:
 Weak-building to 2"

Final Flow:
 Weak-building to 3/4"

SAMPLES:
 SENT TO:

MUD DATA-----
 Mud Type Chemical
 Weight 9.10 lb/c
 Vis. 48.00 S/L
 W.L. 6.80 in3
 F.C. 0.00 in

Mud Drop N

Amt. of fill 0.00 ft
 Btm. H. Temp. 98.00 F
 Hole Condition Fair
 % 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 Dan Bangle
 Co. Rep. Tim Hellman
 Contr. Murfin
 Rig # 8
 Unit #
 Pump T.

Test Successful: Y

*** TOOL DIAGRAM *** CONV

WELL NAME: Greving #22-24

LOCATION : sec24-4s-22w-Norton-Co-Ks

TICKET No. 11545 D.S.T. No. 1 DATE 12-13-98

TOTAL TOOL TO BOTTOM OF TOP PACKERS 23

INTERVAL TOOL

TOTAL PACKERS AND ANCHOR 44

TOTAL TOOL 67

DRILL COLLAR ANCHOR IN INTERVAL

C. ANCHOR STAND.Stands Single Total

P. ANCHOR STAND.Stands Single 1 Total 31

TOTAL ASSEMBLY 98

C. ABOVE TOOLS.Stands8 Single 1 Total 495

P. ABOVE TOOLS.Stands51 Single 1 Total 3249

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 3692

TOTAL DEPTH 3665

TOTAL DRILL PIPE ABOVE K.B. 27

REMARKS:

at bridge @ 1435

v.11 @ 70 = 70000ppm

P.O. SUB	3447
C.O. SUB	3567
S.I. TOOL	3573
HMV	3578
JARS n/a	
SAFETY JOINT	3581
PACKER	3585
PACKER	3590
DEPTH 3590	
STUBB 1'	3591
ANCHOR 5' Perfs	3596
1' co sub	3597
Alpine @ 3598	
1 jt dp 31'	3628
1' co sub	3629
5' Perfs	3634
5' Perfs	3639
5' Perfs	3644
T.C.	
DEPTH	
5' Perfs	3649
5' Perfs	3654
4' Perfs	3658
2' Perfs	3660
AK-1 @ 3662	
BULLNOSE 5' Bullplug	3665
T.D.	3665

TEST HISTORY

Tk# 11545 DST# 1 Greving# 22-24 DNR Oil & Gas

RECEIVED
STATE REGULATION COMMISSION

APR 4 1999

RECEIVED
DIVISION
Wichita Kansas

Flag Points

t(Min.) P(PSIg)

A:	0.00	1816.25
B:	0.00	11.15
C:	62.00	94.71
D:	89.00	1108.30
E:	0.00	99.12
F:	116.00	219.71
G:	116.00	1083.10
H:	0.00	1768.79

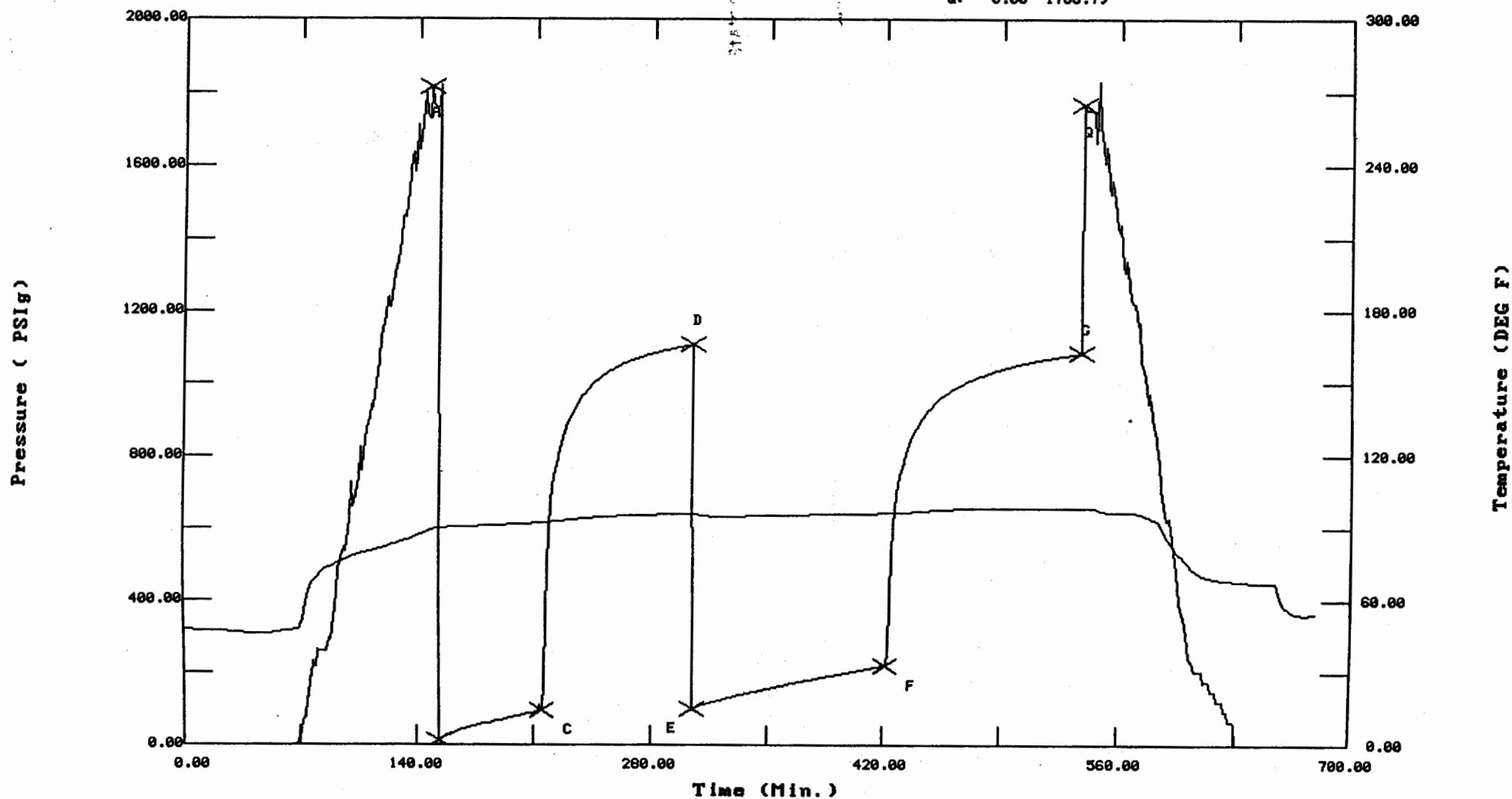
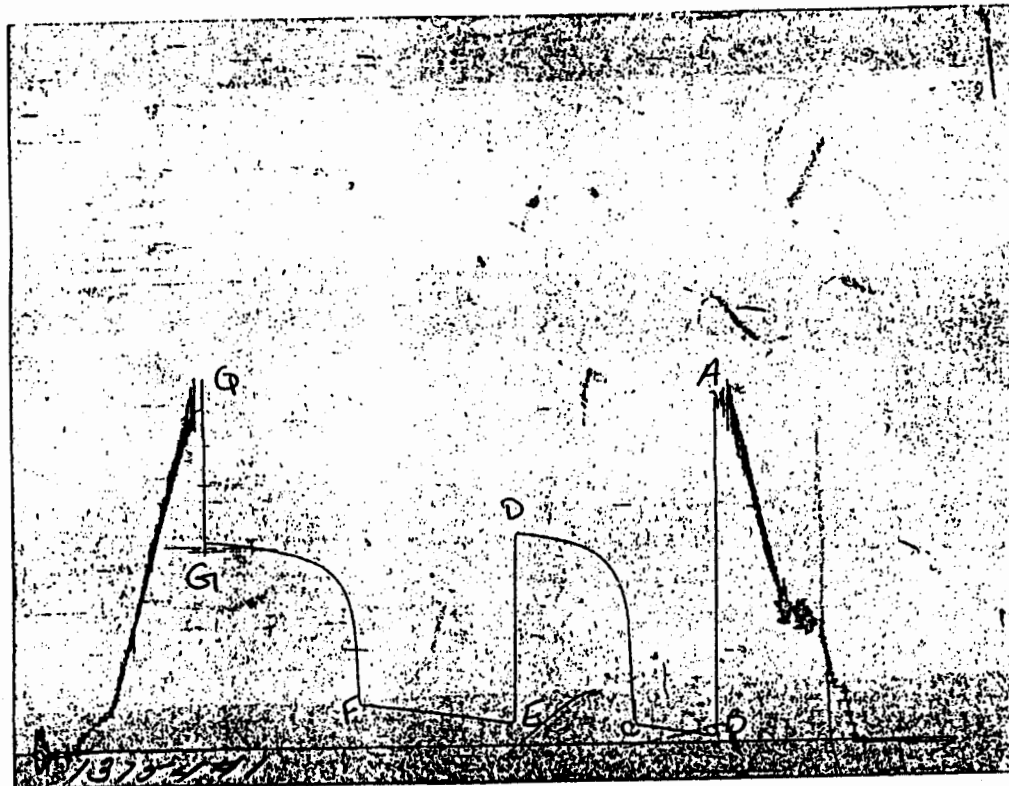


CHART PAGE



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

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk# 11545 DST# 1 Greving# 22-24 DNR Oil & Gas

DATE: 12/13/98

TIME: 00:53:54

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
***** Initial Hydro.	147.00	1816.2	0.0	88.86		
***** Start Flow 1	0.00	11.1	0.0	89.91		
	1.00	14.3	3.2	89.98		
	2.00	16.8	5.7	90.04		
	3.00	19.6	8.5	90.09		
	4.00	22.2	11.1	90.13		
	5.00	24.8	13.7	90.16		
	6.00	27.1	16.0	90.19		
	7.00	27.9	16.7	90.21		
	8.00	29.7	18.5	90.23		
	9.00	32.3	21.1	90.25		
	10.00	34.9	23.8	90.27		
	11.00	36.4	25.2	90.28		
	12.00	37.8	26.7	90.30		
	13.00	39.7	28.6	90.32		
	14.00	40.8	29.7	90.35		
	15.00	43.0	31.8	90.38		
	16.00	43.5	32.4	90.43		
	17.00	44.8	33.6	90.48		
	18.00	46.2	35.1	90.53		
	19.00	47.7	36.5	90.59		
	20.00	48.9	37.8	90.64		
	21.00	50.2	39.1	90.68		
	22.00	51.3	40.1	90.73		
	23.00	53.3	42.2	90.77		
	24.00	53.9	42.7	90.83		
	25.00	54.6	43.4	90.87		
	26.00	58.0	46.9	90.90		
	27.00	58.1	46.9	90.94		
	28.00	56.7	45.5	90.97		
	29.00	59.3	48.2	91.01		
	30.00	58.9	47.8	91.04		
	31.00	59.9	48.8	91.07		
	32.00	61.0	49.9	91.10		
	33.00	62.5	51.3	91.13		
	34.00	64.7	53.5	91.16		
	35.00	65.5	54.4	91.19		
	36.00	65.2	54.0	91.22		
	37.00	66.3	55.2	91.26		
	38.00	67.8	56.6	91.29		
	39.00	69.0	57.8	91.31		
	40.00	70.1	58.9	91.35		
	41.00	71.5	60.4	91.38		
	42.00	72.6	61.5	91.41		
	43.00	73.6	62.5	91.45		
	44.00	74.6	63.5	91.48		
	45.00	75.6	64.4	91.52		
	46.00	76.6	65.4	91.56		
	47.00	77.4	66.2	91.60		
	48.00	78.5	67.4	91.65		
	49.00	79.5	68.4	91.70		

RECEIVED
STATE REGULATION COMMISSION

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REGULATION DIVISION
Wichita, Kansas

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk# 11545 DST# 1 Greving# 22-24 DNR Oil & Gas

DATE: 12/13/98 TIME: 00:53:54

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
	50.00	81.1	69.9	91.74		
	51.00	82.3	71.1	91.78		
	52.00	83.8	72.7	91.83		
	53.00	85.2	74.1	91.88		
	54.00	87.4	76.3	91.92		
	55.00	86.3	75.1	91.97		
	56.00	87.3	76.2	92.01		
	57.00	88.5	77.3	92.05		
	58.00	89.6	78.5	92.10		
	59.00	90.8	79.6	92.14		
	60.00	91.7	80.6	92.19		
	61.00	109.1	98.0	92.24		
***** End Flow 1	62.00	94.7	83.6	92.29		
***** Start Shutin 1	0.00	94.7	0.0	92.29	0.0000	0.009
	1.00	178.3	83.6	92.33	63.0000	0.032
	2.00	358.5	263.8	92.38	32.0000	0.129
	3.00	496.9	402.2	92.44	21.6667	0.247
	4.00	592.4	497.7	92.51	16.5000	0.351
	5.00	676.3	581.6	92.57	13.4000	0.457
	6.00	715.1	620.4	92.64	11.3333	0.511
	7.00	747.9	653.2	92.71	9.8571	0.559
	8.00	775.1	680.4	92.78	8.7500	0.601
	9.00	797.9	703.2	92.85	7.8889	0.637
	10.00	817.7	723.0	92.92	7.2000	0.669
	11.00	835.0	740.2	93.01	6.6364	0.697
	12.00	850.5	755.8	93.08	6.1667	0.723
	13.00	865.3	770.6	93.16	5.7692	0.749
	14.00	879.2	784.5	93.23	5.4286	0.773
	15.00	891.8	797.1	93.30	5.1333	0.795
	16.00	903.2	808.5	93.38	4.8750	0.816
	17.00	913.9	819.2	93.45	4.6471	0.835
	18.00	923.5	828.8	93.52	4.4444	0.853
	19.00	932.3	837.6	93.60	4.2632	0.869
	20.00	940.5	845.8	93.68	4.1000	0.884
	21.00	948.0	853.3	93.76	3.9524	0.899
	22.00	955.2	860.5	93.83	3.8182	0.912
	23.00	962.0	867.3	93.91	3.6957	0.926
	24.00	968.6	873.9	93.95	3.5833	0.938
	25.00	974.6	879.9	94.03	3.4800	0.950
	26.00	980.3	885.6	94.10	3.3846	0.961
	27.00	985.6	890.9	94.17	3.2963	0.971
	28.00	990.6	895.9	94.23	3.2143	0.981
	29.00	995.3	900.6	94.30	3.1379	0.991
	30.00	999.8	905.1	94.35	3.0667	1.00
	31.00	1004.0	909.3	94.40	3.0000	1.008
	32.00	1008.1	913.4	94.45	2.9375	1.016
	33.00	1011.9	917.2	94.51	2.8788	1.024
	34.00	1015.6	920.8	94.56	2.8235	1.031
	35.00	1019.0	924.3	94.61	2.7714	1.038
	36.00	1022.4	927.7	94.66	2.7222	1.045
	37.00	1025.6	930.9	94.70	2.6757	1.052

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk# 11545 DST# 1 Greiving# 22-24 DNR Oil & Gas

DATE: 12/13/98

TIME: 00:53:54

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
38.00	1028.8	934.0	94.74	2.6316	1.058
39.00	1031.7	937.0	94.79	2.5897	1.064
40.00	1034.4	939.7	94.81	2.5500	1.070
41.00	1037.2	942.5	94.86	2.5122	1.076
42.00	1039.8	945.1	94.91	2.4762	1.081
43.00	1042.4	947.7	94.94	2.4419	1.087
44.00	1044.8	950.1	94.97	2.4091	1.092
45.00	1047.2	952.5	95.00	2.3778	1.097
46.00	1049.5	954.8	95.04	2.3478	1.101
47.00	1051.7	956.9	95.08	2.3191	1.106
48.00	1053.8	959.1	95.10	2.2917	1.111
49.00	1055.9	961.2	95.15	2.2653	1.115
50.00	1058.0	963.3	95.17	2.2400	1.119
51.00	1060.0	965.3	95.20	2.2157	1.124
52.00	1061.9	967.1	95.23	2.1923	1.128
53.00	1063.7	969.0	95.26	2.1698	1.131
54.00	1065.5	970.8	95.29	2.1481	1.135
55.00	1067.2	972.5	95.31	2.1273	1.139
56.00	1068.9	974.2	95.34	2.1071	1.143
57.00	1070.6	975.9	95.36	2.0877	1.146
58.00	1072.2	977.5	95.38	2.0690	1.150
59.00	1073.7	979.0	95.40	2.0508	1.153
60.00	1075.2	980.5	95.43	2.0333	1.156
61.00	1076.6	981.9	95.45	2.0164	1.159
62.00	1078.0	983.3	95.47	2.0000	1.162
63.00	1079.4	984.7	95.48	1.9841	1.165
64.00	1080.7	986.0	95.50	1.9688	1.168
65.00	1082.0	987.3	95.53	1.9538	1.171
66.00	1083.3	988.6	95.55	1.9394	1.173
67.00	1084.5	989.8	95.55	1.9254	1.176
68.00	1085.7	991.0	95.57	1.9118	1.179
69.00	1086.9	992.2	95.59	1.8986	1.181
70.00	1088.1	993.4	95.59	1.8857	1.184
71.00	1089.3	994.6	95.62	1.8732	1.187
72.00	1090.3	995.6	95.64	1.8611	1.189
73.00	1091.5	996.8	95.66	1.8493	1.191
74.00	1092.5	997.8	95.68	1.8378	1.194
75.00	1093.5	998.8	95.68	1.8267	1.196
76.00	1094.5	999.8	95.70	1.8158	1.198
77.00	1095.6	1000.9	95.71	1.8052	1.200
78.00	1096.5	1001.8	95.73	1.7949	1.202
79.00	1097.5	1002.8	95.74	1.7848	1.204
80.00	1098.4	1003.7	95.76	1.7750	1.206
81.00	1099.4	1004.7	95.77	1.7654	1.209
82.00	1100.3	1005.6	95.78	1.7561	1.211
83.00	1101.2	1006.5	95.79	1.7470	1.213
84.00	1102.1	1007.4	95.81	1.7381	1.215
85.00	1103.0	1008.3	95.82	1.7294	1.217
86.00	1103.8	1009.1	95.83	1.7209	1.218
87.00	1104.6	1009.9	95.84	1.7126	1.220
88.00	1105.4	1010.7	95.86	1.7045	1.222

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STATE ROADS & TRANSPORTATION

JAN 14 1999
CONSERVATION DIVISION
Wichita Kansas

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk# 11545 DST# 1 Greving# 22-24 DNR Oil & Gas

DATE: 12/13/98

TIME: 00:53:54

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
***** End Shut-in 1	89.00	1106.3	1011.6	95.86	1.6966	1.224
***** Start Flow 2	0.00	99.1	0.0	95.85		
	1.00	100.7	1.5	95.80		
	2.00	102.6	3.4	95.72		
	3.00	104.1	5.0	95.62		
	4.00	105.7	6.5	95.51		
	5.00	107.4	8.2	95.40		
	6.00	108.7	9.6	95.27		
	7.00	110.2	11.1	95.17		
	8.00	111.8	12.7	95.09		
	9.00	113.1	14.0	95.03		
	10.00	114.7	15.5	94.98		
	11.00	116.0	16.9	94.94		
	12.00	117.1	18.0	94.91		
	13.00	118.6	19.4	94.89		
	14.00	119.7	20.5	94.88		
	15.00	120.9	21.8	94.88		
	16.00	122.2	23.1	94.87		
	17.00	123.4	24.2	94.86		
	18.00	124.5	25.4	94.85		
	19.00	125.9	26.7	94.85		
	20.00	127.1	27.9	94.85		
	21.00	128.2	29.1	94.85		
	22.00	129.2	30.1	94.86		
	23.00	130.4	31.3	94.87		
	24.00	131.6	32.5	94.88		
	25.00	133.1	33.9	94.89		
	26.00	134.2	35.1	94.91		
	27.00	135.3	36.2	94.92		
	28.00	136.7	37.5	94.93		
	29.00	137.7	38.6	94.94		
	30.00	138.9	39.8	94.96		
	31.00	140.1	40.9	94.97		
	32.00	141.2	42.1	94.99		
	33.00	142.1	42.9	95.00		
	34.00	143.1	43.9	95.02		
	35.00	144.1	44.9	95.04		
	36.00	145.1	46.0	95.05		
	37.00	146.2	47.1	95.06		
	38.00	147.2	48.1	95.07		
	39.00	148.3	49.2	95.08		
	40.00	149.2	50.1	95.09		
	41.00	150.2	51.1	95.10		
	42.00	151.2	52.1	95.12		
	43.00	152.2	53.1	95.13		
	44.00	153.4	54.3	95.14		
	45.00	154.5	55.4	95.15		
	46.00	155.4	56.2	95.17		
	47.00	156.4	57.3	95.20		
	48.00	157.4	58.3	95.23		
	49.00	158.5	59.3	95.25		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk# 11545 DST# 1 Greving# 22-24 DNR Oil & Gas

DATE: 12/13/98 TIME: 00:53:54

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
50.00	159.5	60.3	95.26		
51.00	160.5	61.3	95.29		
52.00	161.4	62.3	95.30		
53.00	162.4	63.3	95.32		
54.00	163.4	64.2	95.33		
55.00	164.4	65.3	95.36		
56.00	166.0	66.9	95.37		
57.00	166.7	67.6	95.39		
58.00	168.1	69.0	95.40		
59.00	169.0	69.9	95.42		
60.00	169.3	70.2	95.44		
61.00	170.6	71.5	95.45		
62.00	171.8	72.7	95.47		
63.00	172.8	73.7	95.48		
64.00	173.7	74.5	95.49		
65.00	174.7	75.5	95.51		
66.00	174.9	75.8	95.53		
67.00	175.8	76.7	95.54		
68.00	176.8	77.7	95.56		
69.00	177.7	78.6	95.58		
70.00	178.6	79.5	95.59		
71.00	179.5	80.4	95.61		
72.00	180.5	81.4	95.62		
73.00	181.1	81.9	95.64		
74.00	182.2	83.0	95.65		
75.00	183.1	84.0	95.67		
76.00	183.9	84.8	95.69		
77.00	184.9	85.8	95.70		
78.00	186.0	86.9	95.72		
79.00	186.9	87.8	95.74		
80.00	187.8	88.7	95.75		
81.00	188.8	89.7	95.77		
82.00	189.7	90.6	95.78		
83.00	190.6	91.5	95.79		
84.00	191.5	92.3	95.81		
85.00	192.4	93.2	95.82		
86.00	193.3	94.2	95.84		
87.00	194.1	95.0	95.86		
88.00	194.7	95.6	95.86		
89.00	195.6	96.5	95.88		
90.00	196.6	97.4	95.89		
91.00	197.5	98.4	95.91		
92.00	198.4	99.2	95.92		
93.00	199.2	100.1	95.93		
94.00	200.2	101.0	95.96		
95.00	201.0	101.9	95.96		
96.00	201.9	102.8	95.98		
97.00	202.8	103.7	95.99		
98.00	203.7	104.6	96.00		
99.00	204.5	105.4	96.02		
100.00	205.5	106.4	96.04		

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JAN 14 1999

REGISTRATION DIVISION
MINING DIVISION

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk# 11545 DST# 1 Greving# 22-24 DNR Oil & Gas

DATE: 12/13/98 TIME: 00:53:54

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
101.00	206.5	107.4	96.05		
102.00	207.4	108.3	96.06		
103.00	208.1	108.9	96.08		
104.00	209.1	110.0	96.09		
105.00	210.0	110.9	96.11		
106.00	210.8	111.7	96.12		
107.00	211.9	112.8	96.13		
108.00	212.7	113.5	96.14		
109.00	213.5	114.4	96.16		
110.00	214.3	115.2	96.17		
111.00	215.1	116.0	96.19		
112.00	216.1	117.0	96.20		
113.00	216.8	117.7	96.22		
114.00	217.9	118.8	96.24		
115.00	218.8	119.7	96.25		
116.00	219.7	120.6	96.26		

***** End Flow 2

***** Start Shutin 2

0.00	219.7	0.0	96.26	0.0000	0.048
1.00	250.9	31.2	96.27	179.0000	0.063
2.00	415.2	195.5	96.30	90.0000	0.172
3.00	528.8	309.1	96.33	60.3333	0.280
4.00	604.0	384.3	96.36	45.5000	0.365
5.00	656.1	436.3	96.38	36.6000	0.430
6.00	694.4	474.6	96.43	30.6667	0.482
7.00	724.3	504.6	96.46	26.4286	0.525
8.00	749.0	529.3	96.49	23.2500	0.561
9.00	770.4	550.7	96.52	20.7778	0.594
10.00	789.1	569.4	96.55	18.8000	0.623
11.00	805.6	585.9	96.58	17.1818	0.649
12.00	820.1	600.4	96.62	15.8333	0.673
13.00	832.9	613.2	96.68	14.6923	0.694
14.00	844.7	625.0	96.69	13.7143	0.714
15.00	855.4	635.7	96.74	12.8667	0.732
16.00	865.1	645.4	96.81	12.1250	0.748
17.00	874.1	654.3	96.86	11.4706	0.764
18.00	882.4	662.7	96.93	10.8889	0.779
19.00	890.2	670.5	97.00	10.3684	0.793
20.00	897.8	678.0	97.06	9.9000	0.806
21.00	904.6	684.9	97.15	9.4762	0.818
22.00	911.1	691.3	97.20	9.0909	0.830
23.00	917.1	697.4	97.26	8.7391	0.841
24.00	922.7	703.0	97.32	8.4167	0.851
25.00	928.1	708.4	97.38	8.1200	0.861
26.00	933.2	713.5	97.43	7.8462	0.871
27.00	938.1	718.4	97.50	7.5926	0.880
28.00	942.8	723.1	97.55	7.3571	0.889
29.00	947.2	727.4	97.59	7.1379	0.897
30.00	951.5	731.7	97.64	6.9333	0.905
31.00	955.5	735.8	97.68	6.7419	0.913
32.00	959.4	739.7	97.72	6.5625	0.920
33.00	963.2	743.5	97.76	6.3939	0.928
34.00	966.7	746.9	97.78	6.2353	0.934

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk# 11545 DST# 1 Greving# 22-24 DNR Oil & Gas

DATE: 12/13/98 TIME: 00:53:54

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
35.00	970.1	750.3	97.82	6.0857	0.941
36.00	973.3	753.6	97.86	5.9444	0.947
37.00	976.4	756.7	97.89	5.8108	0.953
38.00	979.5	759.8	97.92	5.6842	0.959
39.00	982.3	762.6	97.94	5.5641	0.965
40.00	985.0	765.3	97.97	5.4500	0.970
41.00	987.8	768.0	97.99	5.3415	0.976
42.00	990.3	770.6	98.02	5.2381	0.981
43.00	992.8	773.1	98.04	5.1395	0.986
44.00	995.3	775.6	98.06	5.0455	0.991
45.00	997.6	777.9	98.08	4.9556	0.995
46.00	999.8	780.1	98.07	4.8696	1.00
47.00	1002.2	782.4	98.10	4.7872	1.004
48.00	1004.4	784.6	98.11	4.7083	1.009
49.00	1006.4	786.7	98.13	4.6327	1.013
50.00	1008.5	788.8	98.14	4.5600	1.017
51.00	1010.4	790.7	98.15	4.4902	1.021
52.00	1012.4	792.7	98.16	4.4231	1.025
53.00	1014.3	794.6	98.17	4.3585	1.029
54.00	1016.1	796.4	98.19	4.2963	1.033
55.00	1017.9	798.2	98.18	4.2364	1.036
56.00	1019.6	799.9	98.17	4.1786	1.040
57.00	1021.3	801.6	98.18	4.1228	1.043
58.00	1023.0	803.3	98.19	4.0690	1.047
59.00	1024.5	804.8	98.21	4.0169	1.050
60.00	1026.4	806.6	98.21	3.9667	1.053
61.00	1027.9	808.2	98.21	3.9180	1.057
62.00	1029.4	809.6	98.21	3.8710	1.060
63.00	1030.9	811.2	98.22	3.8254	1.063
64.00	1032.6	812.9	98.22	3.7812	1.066
65.00	1034.0	814.3	98.23	3.7385	1.069
66.00	1035.6	815.9	98.22	3.6970	1.072
67.00	1037.1	817.3	98.23	3.6567	1.075
68.00	1038.5	818.8	98.23	3.6176	1.078
69.00	1040.0	820.2	98.23	3.5797	1.082
70.00	1041.3	821.6	98.23	3.5429	1.084
71.00	1042.7	822.9	98.23	3.5070	1.087
72.00	1044.0	824.2	98.24	3.4722	1.090
73.00	1045.2	825.5	98.24	3.4384	1.092
74.00	1046.4	826.7	98.24	3.4054	1.095
75.00	1047.7	828.0	98.24	3.3733	1.098
76.00	1048.8	829.1	98.25	3.3421	1.100
77.00	1050.0	830.3	98.24	3.3117	1.103
78.00	1051.2	831.5	98.25	3.2821	1.105
79.00	1052.3	832.6	98.25	3.2532	1.107
80.00	1053.5	833.8	98.25	3.2250	1.110
81.00	1054.6	834.9	98.26	3.1975	1.112
82.00	1055.6	835.9	98.26	3.1707	1.114
83.00	1056.7	837.0	98.26	3.1446	1.117
84.00	1057.7	838.0	98.26	3.1190	1.119
85.00	1058.8	839.1	98.26	3.0941	1.121

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CONSERVATION DIVISION
Wichita Kansas

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk# 11545 DST# 1 Greving# 22-24 DNR Oil & Gas

DATE: 12/13/98

TIME: 00:53:54

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
	86.00	1059.8	840.0	98.27	3.0698	1.123
	87.00	1060.7	841.0	98.26	3.0460	1.125
	88.00	1061.7	841.9	98.28	3.0227	1.127
	89.00	1062.6	842.9	98.26	3.0000	1.129
	90.00	1063.6	843.9	98.26	2.9778	1.131
	91.00	1064.5	844.7	98.27	2.9560	1.133
	92.00	1065.4	845.6	98.27	2.9348	1.135
	93.00	1066.2	846.5	98.28	2.9140	1.137
	94.00	1067.0	847.3	98.27	2.8936	1.138
	95.00	1067.8	848.1	98.26	2.8737	1.140
	96.00	1068.6	848.9	98.27	2.8542	1.142
	97.00	1069.4	849.7	98.27	2.8351	1.144
	98.00	1070.1	850.4	98.28	2.8163	1.145
	99.00	1070.9	851.2	98.28	2.7980	1.147
	100.00	1071.8	852.1	98.28	2.7800	1.149
	101.00	1072.6	852.9	98.28	2.7624	1.150
	102.00	1073.4	853.6	98.29	2.7451	1.152
	103.00	1074.1	854.4	98.29	2.7282	1.154
	104.00	1074.9	855.2	98.29	2.7115	1.155
	105.00	1075.7	855.9	98.28	2.6952	1.157
	106.00	1076.3	856.6	98.29	2.6792	1.159
	107.00	1077.1	857.4	98.29	2.6636	1.160
	108.00	1077.8	858.1	98.29	2.6481	1.162
	109.00	1078.5	858.8	98.29	2.6330	1.163
	110.00	1079.2	859.5	98.30	2.6182	1.165
	111.00	1079.9	860.2	98.30	2.6036	1.166
	112.00	1080.6	860.9	98.31	2.5893	1.168
	113.00	1081.2	861.5	98.29	2.5752	1.169
	114.00	1081.9	862.2	98.30	2.5614	1.170
	115.00	1082.5	862.8	98.30	2.5478	1.172
***** End Shut-in 2	116.00	1083.1	863.4	98.31	2.5345	1.173
***** Final Hydro.	538.00	1768.8	0.0	98.32		

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 11545

Well Name & No.	<u>Greving #22-24</u>	Test No.	<u>1</u>	Date	<u>12-13-98</u>
Company	<u>DNR Oil & Gas</u>	Zone Tested	<u>Archuleta</u>		
Address	<u>655 Broadway, Ste 325, Denver, Co. 80203</u>		Elevation	<u>2188</u>	KB <u>2183</u> GL
Co. Rep / Geo.	<u>TIM Hellman</u>	Cont.	<u>Murfin #8</u>	Est. Ft. of Pay	<u> </u> Por. <u> </u> %
Location: Sec.	<u>24</u>	Twp.	<u>45</u>	Rge.	<u>22W</u> Co. <u>Norton</u> State <u>Ks</u>
No. of Copies	<u> </u>	Distribution Sheet (Y, N)	<u> </u>	Turnkey (Y, N)	<u> </u> Evaluation (Y, N) <u> </u>

Interval Tested	<u>3590 - 3665</u>	Initial Str Wt/Lbs.	<u>58,000</u>	Unseated Str Wt/Lbs.	<u>58,000</u>
Anchor Length	<u>75</u>	Wt. Set Lbs.	<u>20,000</u>	Wt. Pulled Loose/Lbs.	<u>65,000</u>
Packer Depth	<u>3585</u>	Tool Weight	<u>900</u>		
Bottom Packer Depth	<u>3590</u>	Hole Size — 7 7/8"	<u> </u>	Rubber Size — 6 3/4"	<u> </u>
Total Depth	<u>3665</u>	Wt. Pipe Run	<u> </u>	Drill Collar Run	<u>495</u>
Mud Wt.	<u>9.1</u> LCM	Vis.	<u>48</u> WL <u>6.8</u>	Drill Pipe Size	<u>4.5 X 14</u> Ft. Run <u>3249</u>
Flow Description	<u>HIT bridge @ 1435 - I.F. weak-building to 2"</u>				
<u>E.F. weak-building to 34"</u>					

Recovery — Total Feet	<u>450</u>	GIP	<u> </u>	Ft. in DC	<u>450</u>	Ft. in DP	<u> </u>
Rec.	<u>30</u>	Feet Of	<u>0 + WCM</u>	%gas	<u>10</u> %oil	<u>30</u> %water	<u>60</u> %mud
Rec.	<u>120</u>	Feet Of	<u>0 + MCW</u>	%gas	<u>10</u> %oil	<u>50</u> %water	<u>40</u> %mud
Rec.	<u>300</u>	Feet Of	<u>SIT/4 OCW</u>	%gas	<u>5</u> %oil	<u>95</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	<u>98</u>	°F Gravity	<u> </u>	*API D@	<u> </u>	°F Corrected Gravity	<u>26</u> *API
RW	<u>.11</u>	@	<u>70</u>	°F Chlorides	<u>20,000</u>	ppm Recovery	Chlorides <u>1550</u> ppm System

	AK-1	Alpine			
(A) Initial Hydrostatic Mud	<u>1836</u>	<u>1816</u>	PSI Recorder No.	<u>2341</u>	T-On Location <u>23:15</u>
(B) First Initial Flow Pressure	<u>39</u>	<u>11</u>	PSI (depth)	<u>3598</u>	T-Started <u>00:53</u>
(C) First Final Flow Pressure	<u>98</u>	<u>95</u>	PSI Recorder No.	<u>13754</u>	T-Open <u>03:25</u>
Initial Shut-In Pressure	<u>1096</u>	<u>1106</u>	PSI (depth)	<u>3662</u>	T-Pulled <u>09:55</u>
(E) Second Initial Flow Pressure	<u>118</u>	<u>99</u>	PSI Recorder No.	<u> </u>	T-Out <u>12:00</u>
(F) Second Final Flow Pressure	<u>226</u>	<u>220</u>	PSI (depth)	<u> </u>	T-Off Location <u>13:30</u>
(G) Final Shut-in Pressure	<u>1076</u>	<u>1083</u>	PSI Initial Opening	<u>60</u>	Test <u> </u>
(Q) Final Hydrostatic Mud	<u>1766</u>	<u>1769</u>	PSI Initial Shut-in	<u>90</u>	Jars <u> </u>

Final Flow	<u>120</u>	Safety Joint	<u>X</u>
Final Shut-in	<u>120</u>	Straddle	<u> </u>

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.

RECEIVED
CONSERVATION COMMISSION

JAN 14 1999

Approved By TIM HELLMAN CONSERVATION DIVISION

Our Representative Dan Bangle

Circ. Sub	<u> </u>
Sampler	<u> </u>
Extra Packer	<u> </u>
Elec. Rec.	<u>X</u>
Mileage	<u> </u>
Other	<u> </u>
TOTAL PRICE \$	<u> </u>

TRILOBITE TESTING L.L.C.

OPERATOR : DNR Oil & Gas DATE 12-14-98
WELL NAME: Greving #22-24 KB 2188.00 ft TICKET NO: 11546 DST #2
LOCATION : 24 4s 22w Norton Co Ks GR 2183.00 ft FORMATION: Arbuckle
INTERVAL : 3650.00 To 3668.00 ft TD 3763.00 ft TEST TYPE: CONV STRADDLE

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	13248	13248	2441	13754		PF Fr. 1443 to 1513 hr
SI 60 Range(Psi)	4250.0	4250.0	4995.0	4000.0	0.0	IS Fr. 1513 to 1613 hr
SF 30 Clock(hrs)	12	12	elect	12		SF Fr. 1613 to 1643 hr
FS 60 Depth(ft)	3661.0	3661.0	3652.0	3707.0	0.0	FS Fr. 1643 to 1743 hr

	Field	1	2	3	4	
A. Init Hydro	1860.0	1834.0	1828.0	1876.0	0.0	T STARTED 1250 hr
B. First Flow	53.0	52.0	5.0	0.0	0.0	T ON BOTM 1440 hr
B1. al Flow	117.0	123.0	113.0	0.0	0.0	T OPEN 1443 hr
C. In Shut-in	0.0	0.0	0.0	0.0	0.0	T PULLED 1743 hr
D. Init Flow	148.0	146.0	114.0	0.0	0.0	T OUT 1930 hr
E. Final Flow	148.0	137.0	118.0	0.0	0.0	
F. Fl Shut-in	846.0	742.0	860.0	0.0	0.0	
G. al Hydro	1849.0	1819.0	1799.0	1786.0	0.0	

	Field	1	2	3	4	TOOL DATA-----
Inside/Outside	O	O	I	O		Tool Wt. 1200.00 lbs
						Wt Set On Packer 30000.00 lbs
						Wt Pulled Loose 70000.00 lbs
						Initial Str Wt 63000.00 lbs
						Unseated Str Wt 63000.00 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 495.00 ft
						D.P. Length 3225.00 ft

RECOVERY

Tot Fluid 240.00 ft of 240.00 ft in DC and 0.00 ft in DP	
240.00 ft of Drilling mud 100%w w/ few oil specks	
0.00 ft of	
0.00 ft of	
0.00 ft of	
0.00 ft of	
0.00 ft of	
0.00 ft of	
0.00 ft of	
0.00 ft of	

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

BLOW DESCRIPTION

Initial Flow:
Weak 1/8" blow for 10 minutes then
built to 10" fair blow

Final Flow:
No blow

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STATE COMMISSION

JAN 14 1999

CONSERVATION DIVISION
Wichita, Kansas

SAMPLES:
SENT TO:

MUD DATA-----
Mud Type Chemical
Weight 9.20 lb/cf
Vis. 48.00 S/L
W.L. 7.20 in3
F.C. 0.00 in
Mud Drop N

Amt. of fill 0.00 ft
Btm. H. Temp. 99.00 F
Hole Condition Good
% Porosity 0.00
Packer Size 6.75 in
No. of Packers 4
Cushion Amt. 0.00
Cushion Type
Reversed Out N
Tool Chased N
Tester Dan Bangle
Co. Rep. Tim Hellman
Contr. Murfin
Rig # 8
Unit #
Pump T.

Test Successful: Y

*** TOOL DIAGRAM *** CONV STRADDLE

ELL NAME: Greving #22-24

LOCATION : sec24-4s-22w-Norton-Co-Ks

WELL No. 11546 D.S.T. No. 2 DATE 12-14-98

TOTAL TOOL TO BOTTOM OF TOP PACKERS 23

INTERVAL TOOL

TOTAL PACKERS AND ANCHOR 18

TOTAL TOOL 41

DRILL COLLAR ANCHOR IN INTERVAL

C. ANCHOR STAND.Stands Single Total

P. ANCHOR STAND.Stands Single Total

TOTAL ASSEMBLY 41

C. ABOVE TOOLS.Stands8 Single 1 Total 495

P. ABOVE TOOLS.Stands52 Single 1 Total 3225

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 3793

TOTAL DEPTH 3763

TOTAL DRILL PIPE ABOVE K.B. 30

REMARKS:

Packers on top
Packers on bottom

P.O. SUB	3507
C.O. SUB	3627
S.I. TOOL	3633
HMV	3638
JARS n/a	
SAFETY JOINT	3641
PACKER	3645
PACKER	3650
DEPTH 3650	
STUBB 1'	3651
ANCHOR	
Alpine @ 3652	
5' Perfs	3656
5' Perfs	3661
AK-1 @ 3661	
3' Perfs	3664
1' Blank off	3665
T.C.	3668
DEPTH 3668	
PACKER	3668
PACKER	3673
5' Perfs	3678
5' Perfs	3683
5' Perfs	3688
4' Perfs	3692
1' co sub	3693
1 std dp 63'	3756
1' co sub	3757
1' Perfs	3758
BULLNOSE 5' Bullplug	3763
T.D.	3763

TEST HISTORY

Tk# 11546 DST# 2 Greving #22-24 DNR Oil & Gas

Flag Points

t(Min.) P(PSig)

A:	0.00	1828.00
B:	0.00	4.98
C:	30.00	113.08
D:	59.00	1057.05
E:	0.00	113.77
F:	30.00	118.34
G:	60.00	860.07
Q:	0.00	1799.50

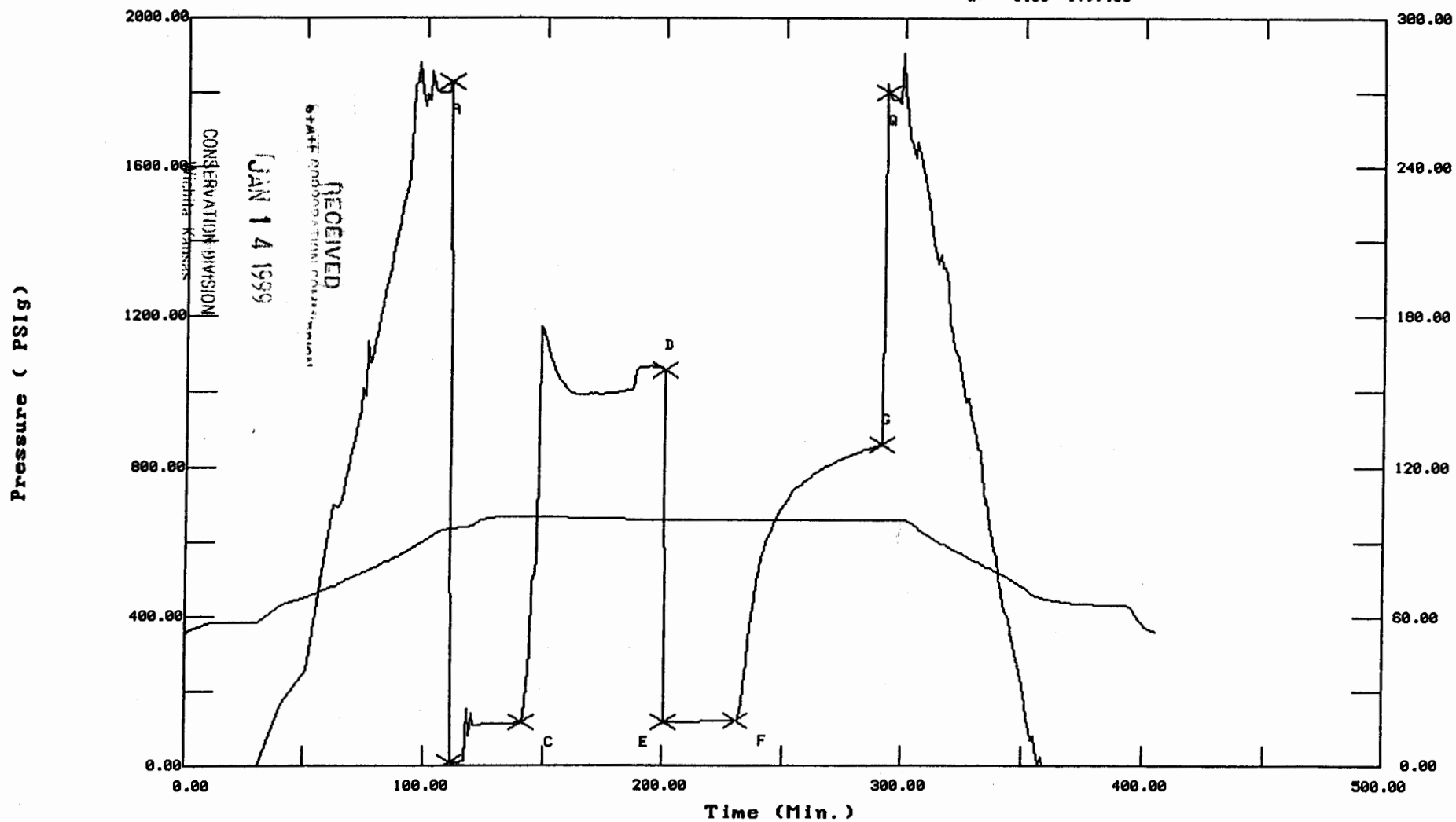
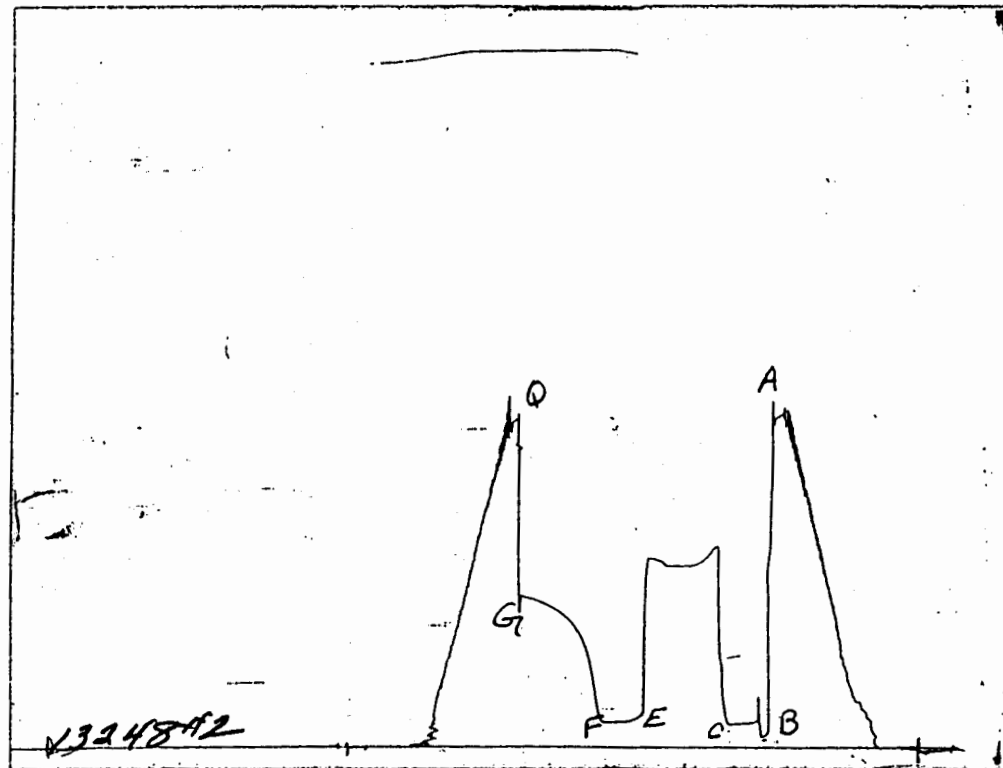
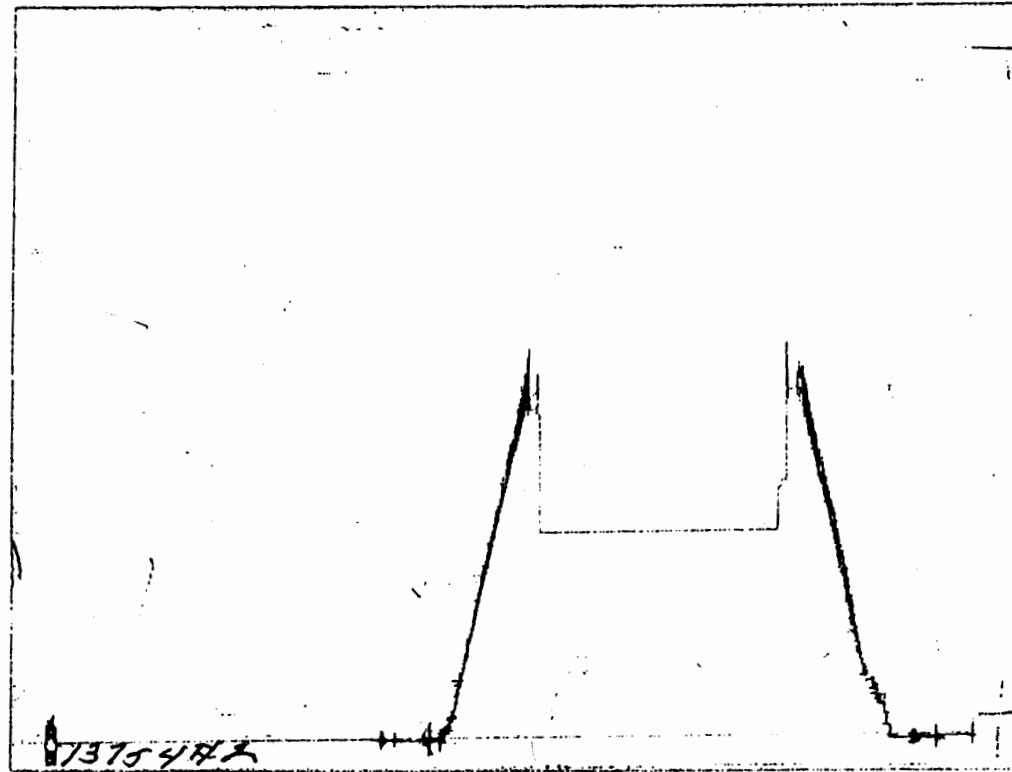


CHART PAGE



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

CHART PAGE



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

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STATE DEPARTMENT OF
8 JAN 14 1960

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CONSERVATION DIVISION
Wichita, Kansas

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk# 11546 DST# 2 Greiving #22-24 DNR Oil & Gas

DATE: 12/14/98 TIME: 12:50:56

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
***** Initial Hydro.	110.00	1828.0	0.0	95.10		
***** Start Flow 1	0.00	5.0	0.0	95.22		
	1.00	6.2	1.3	95.37		
	2.00	6.5	1.5	95.54		
	3.00	7.1	2.1	95.68		
	4.00	8.0	3.1	95.79		
	5.00	8.6	3.6	95.89		
	6.00	9.1	4.2	95.96		
	7.00	149.8	144.8	96.04		
	8.00	79.6	74.6	96.31		
	9.00	139.6	134.6	96.78		
	10.00	107.6	102.6	97.31		
	11.00	108.0	103.0	97.87		
	12.00	108.3	103.3	98.34		
	13.00	108.4	103.4	98.71		
	14.00	108.6	103.6	98.98		
	15.00	109.0	104.0	99.21		
	16.00	109.1	104.1	99.39		
	17.00	111.2	106.2	99.54		
	18.00	111.4	106.4	99.69		
	19.00	111.4	106.4	99.80		
	20.00	111.6	106.6	99.90		
	21.00	111.8	106.8	99.98		
	22.00	112.0	107.0	100.04		
	23.00	112.0	107.0	100.07		
	24.00	112.0	107.0	100.10		
	25.00	112.2	107.3	100.11		
	26.00	112.3	107.3	100.11		
	27.00	112.5	107.5	100.11		
	28.00	112.6	107.7	100.11		
	29.00	112.9	108.0	100.09		
***** End Flow 1	30.00	113.1	108.1	100.09		
***** Start Shutin 1	0.00	113.1	0.0	100.09	0.0000	0.013
	1.00	135.3	22.2	100.07	31.0000	0.018
	2.00	216.1	103.0	100.07	16.0000	0.047
	3.00	312.1	199.0	100.07	11.0000	0.097
	4.00	489.8	376.7	100.05	8.5000	0.240
	5.00	515.3	402.2	100.05	7.0000	0.266
	6.00	561.1	448.1	100.04	6.0000	0.315
	7.00	1170.2	1057.1	100.05	5.2857	1.369
	8.00	1167.9	1054.8	100.05	4.7500	1.364
	9.00	1141.4	1028.3	100.04	4.3333	1.303
	10.00	1110.9	997.8	100.04	4.0000	1.234
	11.00	1090.5	977.5	100.02	3.7273	1.189
	12.00	1077.7	964.6	99.99	3.5000	1.161
	13.00	1058.5	945.4	99.97	3.3077	1.120
	14.00	1043.1	930.0	99.94	3.1429	1.088
	15.00	1031.5	918.4	99.90	3.0000	1.064
	16.00	1022.3	909.2	99.87	2.8750	1.045
	17.00	1014.6	901.5	99.83	2.7647	1.029
	18.00	1007.2	894.1	99.79	2.6667	1.014

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk# 11546 DST# 2 Greving #22-24 DNR Oil & Gas

DATE: 12/14/98

TIME: 12:50:56

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
19.00	1001.4	888.3	99.77	2.5789	1.003
20.00	997.0	883.9	99.72	2.5000	0.994
21.00	995.7	882.6	99.70	2.4286	0.991
22.00	993.5	880.4	99.66	2.3636	0.987
23.00	991.4	878.3	99.64	2.3043	0.983
24.00	989.9	876.8	99.60	2.2500	0.980
25.00	990.5	877.4	99.58	2.2000	0.981
26.00	991.0	877.9	99.55	2.1538	0.982
27.00	989.8	876.7	99.52	2.1111	0.980
28.00	994.0	880.9	99.49	2.0714	0.988
29.00	992.9	879.8	99.46	2.0345	0.986
30.00	993.7	880.6	99.44	2.0000	0.987
31.00	993.0	880.0	99.42	1.9677	0.986
32.00	992.9	879.8	99.40	1.9375	0.986
33.00	993.5	880.5	99.38	1.9091	0.987
34.00	993.9	880.8	99.35	1.8824	0.988
35.00	994.5	881.4	99.32	1.8571	0.989
36.00	995.1	882.0	99.30	1.8333	0.990
37.00	995.8	882.7	99.30	1.8108	0.992
38.00	996.7	883.6	99.28	1.7895	0.993
39.00	997.5	884.4	99.26	1.7692	0.995
40.00	998.5	885.4	99.24	1.7500	0.997
41.00	999.4	886.3	99.22	1.7317	0.999
42.00	1000.5	887.4	99.21	1.7143	1.001
43.00	1001.9	888.8	99.19	1.6977	1.004
44.00	1002.9	889.8	99.18	1.6818	1.006
45.00	1004.3	891.2	99.17	1.6667	1.009
46.00	1006.1	893.0	99.16	1.6522	1.012
47.00	1054.3	941.2	99.14	1.6383	1.112
48.00	1061.5	948.4	99.13	1.6250	1.127
49.00	1062.1	949.0	99.12	1.6122	1.128
50.00	1062.4	949.3	99.11	1.6000	1.129
51.00	1062.4	949.3	99.10	1.5882	1.129
52.00	1062.7	949.6	99.09	1.5769	1.129
53.00	1066.2	953.1	99.08	1.5660	1.137
54.00	1063.5	950.4	99.08	1.5556	1.131
55.00	1063.2	950.1	99.07	1.5455	1.130
56.00	1063.1	950.0	99.06	1.5357	1.130
57.00	1063.1	950.0	99.04	1.5263	1.130
58.00	1063.1	950.0	99.03	1.5172	1.130
59.00	1057.0	944.0	99.03	1.5085	1.117

***** End Shut-in 1

***** Start Flow 2

0.00	113.8	0.0	98.98
1.00	114.1	0.3	98.95
2.00	114.4	0.6	98.94
3.00	114.5	0.8	98.94
4.00	114.9	1.1	98.95
5.00	115.0	1.2	98.95
6.00	115.2	1.4	98.96
7.00	115.3	1.6	98.97
8.00	115.6	1.8	98.97
9.00	115.6	1.8	98.99

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CONSERVATION DIVISION
Wichita Kansas

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk# 11546 DST# 2 Greving #22-24 DNR Oil & Gas

DATE: 12/14/98

TIME: 12:50:56

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
	10.00	115.9	2.1	99.00		
	11.00	115.9	2.1	99.01		
	12.00	116.0	2.3	99.03		
	13.00	116.0	2.2	99.04		
	14.00	116.1	2.3	99.05		
	15.00	116.4	2.6	99.07		
	16.00	116.6	2.8	99.08		
	17.00	116.9	3.1	99.09		
	18.00	117.0	3.2	99.10		
	19.00	117.2	3.4	99.12		
	20.00	117.3	3.5	99.13		
	21.00	117.4	3.7	99.14		
	22.00	117.6	3.9	99.15		
	23.00	117.8	4.0	99.15		
	24.00	118.0	4.2	99.16		
	25.00	118.1	4.3	99.16		
	26.00	118.1	4.4	99.15		
	27.00	118.0	4.3	99.16		
	28.00	118.2	4.4	99.15		
	29.00	118.2	4.4	99.15		
***** End Flow 2	30.00	118.3	4.6	99.14		
***** Start Shutin 2	0.00	118.3	0.0	99.14	0.0000	0.014
	1.00	128.2	9.9	99.14	61.0000	0.016
	2.00	167.7	49.4	99.14	31.0000	0.028
	3.00	216.5	98.2	99.14	21.0000	0.047
	4.00	274.9	156.5	99.14	16.0000	0.076
	5.00	338.8	220.4	99.14	13.0000	0.115
	6.00	398.7	280.4	99.14	11.0000	0.159
	7.00	449.1	330.8	99.14	9.5714	0.202
	8.00	491.3	373.0	99.14	8.5000	0.241
	9.00	526.2	407.8	99.15	7.6667	0.277
	10.00	555.6	437.2	99.14	7.0000	0.309
	11.00	580.4	462.0	99.14	6.4545	0.337
	12.00	601.6	483.3	99.13	6.0000	0.362
	13.00	620.0	501.7	99.13	5.6154	0.384
	14.00	636.5	518.2	99.13	5.2857	0.405
	15.00	651.6	533.2	99.12	5.0000	0.425
	16.00	664.9	546.6	99.11	4.7500	0.442
	17.00	676.7	558.4	99.10	4.5294	0.458
	18.00	688.0	569.6	99.10	4.3333	0.473
	19.00	698.6	580.3	99.09	4.1579	0.488
	20.00	707.3	588.9	99.09	4.0000	0.500
	21.00	715.9	597.5	99.08	3.8571	0.512
	22.00	726.0	607.6	99.08	3.7273	0.527
	23.00	737.7	619.3	99.06	3.6087	0.544
	24.00	742.0	623.7	99.06	3.5000	0.551
	25.00	747.1	628.8	99.05	3.4000	0.558
	26.00	752.7	634.4	99.04	3.3077	0.567
	27.00	758.0	639.6	99.04	3.2222	0.575
	28.00	763.1	644.8	99.03	3.1429	0.582
	29.00	768.2	649.9	99.03	3.0690	0.590

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk# 11546 DST# 2 Greiving #22-24 DNR Oil & Gas

DATE: 12/14/98 TIME: 12:50:56

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶	
30.00	773.0	654.6	99.02	3.0000	0.598	
31.00	777.7	659.4	99.02	2.9355	0.605	
32.00	782.2	663.8	99.01	2.8750	0.612	
33.00	786.5	668.2	99.00	2.8182	0.619	
34.00	790.5	672.2	98.99	2.7647	0.625	
35.00	794.3	676.0	98.99	2.7143	0.631	
36.00	797.9	679.6	98.98	2.6667	0.637	
37.00	801.5	683.2	98.99	2.6216	0.642	
38.00	804.9	686.6	98.98	2.5789	0.648	
39.00	808.4	690.0	98.97	2.5385	0.653	
40.00	811.6	693.3	98.96	2.5000	0.659	
41.00	814.7	696.4	98.96	2.4634	0.664	
42.00	817.7	699.4	98.95	2.4286	0.669	
43.00	820.7	702.4	98.95	2.3953	0.674	
44.00	823.7	705.4	99.10	2.3636	0.679	
45.00	826.5	708.2	98.94	2.3333	0.683	
46.00	829.3	711.0	98.94	2.3043	0.688	
47.00	831.8	713.4	98.94	2.2766	0.692	
48.00	834.3	716.0	98.94	2.2500	0.696	
49.00	836.7	718.4	98.92	2.2245	0.700	
50.00	838.9	720.6	98.92	2.2000	0.704	
51.00	841.3	722.9	98.92	2.1765	0.708	
52.00	843.5	725.2	98.92	2.1538	0.712	
53.00	845.6	727.3	98.91	2.1321	0.715	
54.00	847.7	729.4	98.91	2.1111	0.719	
55.00	850.1	731.7	98.91	2.0909	0.723	
56.00	852.2	733.8	98.90	2.0714	0.726	
57.00	854.4	736.1	98.90	2.0526	0.730	
58.00	856.3	738.0	98.90	2.0345	0.733	
59.00	858.1	739.8	98.90	2.0169	0.736	
***** End Shut-in 2	60.00	860.1	741.7	98.90	2.0000	0.740
***** Final Hydro.	293.00	1799.5	0.0	98.97		

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CONSERVATION DIVISION
Wichita, Kansas

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 11546

Well Name & No.	<u>Grewing #22-24</u>	Test No.	<u>2</u>	Date	<u>12-14-98</u>
Company	<u>DNR Oil & Gas</u>	Zone Tested	<u>Arbuckle</u>		
Address		Elevation	<u>2188</u>	KB	<u>2183</u> GL
Co. Rep / Geo.	<u>Tim Hellman</u>	Cont.	<u>Murfin #8</u>	Est. Ft. of Pay	<u> </u> %
Location: Sec.	<u>24</u>	Twp.	<u>45</u>	Rge.	<u>22w</u> Co. <u>Norton</u> State <u>KS</u>
No. of Copies	<u> </u>	Distribution Sheet (Y, N)	<u> </u>	Turnkey (Y, N)	<u> </u> Evaluation (Y, N) <u> </u>

Interval Tested	<u>3650 - 3668</u>	Initial Str Wt./Lbs.	<u>63,000</u>	Unseated Str. Wt./Lbs.	<u>63,000</u>
Anchor Length	<u>18</u>	Wt. Set Lbs.	<u>30,000</u>	Wt. Pulled Loose/Lbs.	<u>79,000</u>
Top Packer Depth	<u>3650</u>	Tool Weight	<u>1200</u>		
Bottom Packer Depth	<u>3668</u>	Hole Size — 7 7/8"	<u> </u>	Rubber Size — 6 3/4"	<u> </u>
Total Depth	<u>3763</u>	Wt. Pipe Run	<u> </u>	Drill Collar Run	<u>49.5</u>
Mud Wt. <u>9.2</u> LCM <u> </u> Vis. <u>48</u> WL <u>7.2</u>		Drill Pipe Size	<u>4.5 KH</u>	Ft. Run	<u>3225</u>
Blow Description	<u>I.F. Weak 1/8" blow for 10 min then built to 10" fair flow.</u>				
	<u>E.F. No blow.</u>				

Recovery — Total Feet	<u>240</u>	GIP	<u> </u>	Ft. in DC	<u>240</u>	Ft. in DP	<u> </u>
Rec.	<u>240</u>	Feet Of	<u>D.M. w/oil spots</u>	%gas	%oil	%water	%mud
Rec.	<u> </u>	Feet Of	<u> </u>	%gas	%oil	%water	%mud
Rec.	<u> </u>	Feet Of	<u> </u>	%gas	%oil	%water	%mud
Rec.	<u> </u>	Feet Of	<u> </u>	%gas	%oil	%water	%mud
Rec.	<u> </u>	Feet Of	<u> </u>	%gas	%oil	%water	%mud
BHT	<u>99</u>	°F Gravity	<u> </u>	*API D@	<u> </u>	°F Corrected Gravity	<u> </u> °API
RW	<u> </u>	@	<u> </u>	°F Chlorides	<u> </u>	ppm Recovery	Chlorides <u>2100</u> ppm System

	AK-1	Alpine		
(A) Initial Hydrostatic Mud	<u>1860</u>	<u>1828</u>	PSI Recorder No.	<u>2341</u>
(B) First Initial Flow Pressure	<u>53</u>	<u>5</u>	PSI (depth)	<u>3652</u>
(C) First Final Flow Pressure	<u>117</u>	<u>113</u>	PSI Recorder No.	<u>13248</u>
(D) Initial Shut-In Pressure	<u> </u>	<u> </u>	PSI (depth)	<u>3661</u>
(E) Second Initial Flow Pressure	<u>148</u>	<u>114</u>	PSI Recorder No.	<u>13754</u>
(F) Second Final Flow Pressure	<u>148</u>	<u>118</u>	PSI (depth)	<u>3707</u>
(G) Final Shut-in Pressure	<u>846</u>	<u>860</u>	PSI Initial Opening	<u>30</u>
(Q) Final Hydrostatic Mud	<u>1849</u>	<u>1799</u>	PSI Initial Shut-in	<u>60</u>
			Final Flow	<u>30</u>
			Final Shut-in	<u>60</u>

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 Tim Hellman
Our Representative Dan Rangle

T-On Location	<u>12:00</u>
T-Started	<u>12:50</u>
T-Open	<u>14:43</u>
T-Pulled	<u>17:43</u>
T-Out	<u>19:30</u>
T-Off Location	<u>20:30</u>
Test	<u>1000</u>
Jars	<u> </u>
Safety Joint	<u>X 50</u>
Straddle	<u>X 250</u>
Circ. Sub	<u> </u>
Sampler	<u> </u>
Extra Packer	<u>(2) 300</u>
Elec. Rec.	<u>X 150</u>
Mileage	<u> </u>
Other	<u> </u>
TOTAL PRICE \$	<u>1350</u>