

STATE CORPORATION COMMISSION OF KANSAS
OIL & GAS CONSERVATION DIVISION
WELL COMPLETION FORM
ACO-1 WELL HISTORY
DESCRIPTION OF WELL AND LEASE

API NO. 15- 137-204100000

County Norton

-NW -SE -NW Sec. 24 Twp. 4S Rge. 22 X ^E _W

Operator: License # 30425

1650 Feet from N (circle one) Line of Section

Name: DNR Oil & Gas Inc.

1650 Feet from N (circle one) Line of Section

Address 655 Broadway - Suite 525

Footages Calculated from Nearest Outside Section Corner:
NE, SE, NW or SW (circle one)

City/State/Zip Denver, CO 80203

Lease Name Greving Well # 22-24

Purchaser: None

Field Name Wildcat

Operator Contact Person: Charles B. Davis

Producing Formation None

Phone (303) 825-8956

Elevation: Ground 2183 KB 2188

Contractor: Name: Murfin Drilling Company

Total Depth 3763 PBSD

License: 30606

Amount of Surface Pipe Set and Cemented at 262 Feet

Wellsite Geologist: Tim Hellman

Multiple Stage Cementing Collar Used? Yes No

Designate Type of Completion
 New Well Re-Entry Workover

If yes, show depth set Feet

Oil SWD SLOW Temp. Abd.
 Gas ENHR SIGW
 Dry Other (Core, WSW, Expl., Cathodic, etc)

If Alternate II completion, cement circulated from

feet depth to w/ sx cmt.

If Workover:

Drilling Fluid Management Plan PHA 1-28-99 U.C.
(Data must be collected from the Reserve Pit)

Operator:

Chloride content 1500 ppm Fluid volume 350 bbls

Well Name:

Dewatering method used Cut windows, let dry

Comp. Date Old Total Depth

Location of fluid disposal if hauled offsite:

Deepening Re-perf. Conv. to Inj/SWD
 Plug Back PBSD
 Commingled Docket No.
 Dual Completion Docket No.
 Other (SWD or Inj?) Docket No.

Operator Name

Lease Name License No.

12-8-98 12-14-98 12-15-98
Spud Date Date Reached TD Completion Date

 Quarter Sec. Twp. S Rng. E/W

County Docket No.

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature Charles B. Davis
Title President Date 1-5-99
Subscribed and sworn to before me this 5th day of January, 19 99.
Notary Public Carrie L. Witzel
Date Commission Expires April 22, 1999

K.C.C. OFFICE USE ONLY
F Letter of Confidentiality Attached
C Wireline Log Received
C Geologist Report Received
Distribution
 KCC SWD/Rep NGPA
 KGS Plug Other
(Specify)

Rec'd 1-14-99

RECEIVED
STATE CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION
Wichita, Kansas
JAN 14 1999

SIDE TWO

Operator Name DNR Oil & Gas Inc. Lease Name Greving Well # 22-24
 Sec. 24 Twp. 4S Rge. 22 East West
 County Norton

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken Yes No
 (Attach Additional Sheets.)
 Samples Sent to Geological Survey Yes No
 Cores Taken Yes No
 Electric Log Run Yes No
 (Submit Copy.)
 List All E.Logs Run: DIL, CNL/CDL, Microlog

Name	Formation (Top), Depth and Datums		Sample
	Top	Datum	
Anhydrite	1834	+ 354	
Base Anhydrite	1864	+ 324	
Heebner	3365	-1177	
Toronto	3390	-1202	
Lansing	3407	-1219	
Base KC	3597	-1409	
Arbuckle	3648	-1460	
Reagan Sand	3728	-1540	
TD	3763		

CASING RECORD <input checked="" type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs./Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12 1/4"	8 5/8"	23	262	60/40 Poz	165	3% CaCl, 2% Gel

ADDITIONAL CEMENTING/SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type		Acid, Fracture, Shot, Cement Squeeze Record	
	Specify Footage of Each Interval Perforated		(Amount and Kind of Material Used)	Depth

TUBING RECORD		Size	Set At	Packer At	Liner Run	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Date of First, Resumed Production, SWD or Inj.				Producing Method <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)			
Estimated Production Per 24 Hours	Oil	Bbls.	Gas	Mcf	Water	Bbls.	Gas-Oil Ratio Gravity
		<u>N-A</u>					

Disposition of Gas: Vented Sold Used on Lease (If vented, submit ACO-18.)

METHOD OF COMPLETION Open Hole Perf. Dually Comp. Commingled Other (Specify) _____

Production Interval _____

ALLIED CEMENTING CO., INC. ORIGINAL

DEC 12 1998

ATTN: P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT: R

DATE <u>12-8-98</u>	SEC. <u>24</u>	TWP <u>4</u>	RANGE <u>22</u>	CORNER <u>NE</u>	ON LOCATION <u>2:00pm</u>	JOB START	JOB FINISH <u>2:15pm</u>
LEASE <u>Greying</u>		WELL # <u>2224</u>		LOCATION <u>SEC 24 TWP 4 R 22 NE 1/4</u>	COUNTY <u>Newton</u>	STATE <u>Ks</u>	
OLD OR <u>NEW</u> (Circle one)				<u>4E</u>			

CONTRACTOR Martin Drlg

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D.

CASING SIZE 8 1/2 DEPTH 262

TUBING SIZE _____ DEPTH _____

DRILL PIPE _____ DEPTH _____

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____

MEAS. LINE _____ SHOE JOINT _____

CEMENT LEFT IN CSG. _____

PERFS. _____

DISPLACEMENT 23# 16.21

OWNER Same

CEMENT AMOUNT ORDERED 165 60 3% CC 2% gel

EQUIPMENT

153 Dave

PUMP TRUCK CEMENTER paul

_____ HELPER _____

BULK TRUCK _____

_____ DRIVER _____

BULK TRUCK _____

160 DRIVER Jason

COMMON	<u>99</u>	@	<u>6.35</u>	<u>628.65</u>
POZ MIX	<u>66</u>	@	<u>3.25</u>	<u>214.50</u>
GEL	<u>3</u>	@	<u>9.50</u>	<u>28.50</u>
CHLORIDE	<u>5</u>	@	<u>28.00</u>	<u>140.00</u>
_____		@		
_____		@		
_____		@		
_____		@		
_____		@		
HANDLING		@	<u>1.05</u>	<u>173.25</u>
MILEAGE <u>44 / Sh / Mile</u>				<u>547.00</u>
TOTAL				<u>1732.70</u>

REMARKS:

RECEIVED
STATE CORPORATION COMMISSION
JUN 14 1999
CONSERVATION DIVISION
Wichita, Kansas

SERVICE:

DEPTH OF JOB _____

PUMP TRUCK CHARGE _____ 470.00

EXTRA FOOTAGE _____ @ _____

MILEAGE 83 @ 2.85 236.55

PLUG 8 1/2 wooden @ _____ 45.00

_____ @ _____

_____ @ _____

TOTAL 751.55

CHARGE TO: DNR Oil & Gas Inc.

STREET 655 Broadway # 525

CITY Denver STATE colo ZIP 80203

FLOAT EQUIPMENT

8 1/8 centralizer _____ 30.00

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

TOTAL 30.00

To Allied Cementing Co., Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

SIGNATURE Keith Van Der

TOTAL CHARGE _____

CASH _____ IF PAID IN 30 DAYS

PRINTED NAME

ALLIED CEMENTING CO., INC. ORIGINAL

DEC 26 1998

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Wesley City

DATE <u>12-14-98</u>	SEC <u>24</u>	TWP. <u>4</u>	RANGE <u>22</u>	CALLED OUT <u>9:45pm</u>	ON LOCATION <u>12:45am</u>	JOB START <u>2:10am</u>	JOB FINISH <u>5:45am</u>
LEASE <u>Drilling</u>		WELL # <u>22-24</u>	LOCATION <u>Denmore 1W 2 1/2 N 1E</u>		COUNTY <u>Norton</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one) <u>NEW</u>							

CONTRACTOR Murkin Drilling #8

TYPE OF JOB Rotary Plus

HOLE SIZE 7 7/8 T.D. 3760

CASING SIZE 8 7/8 DEPTH 262

TUBING SIZE _____ DEPTH _____

DRILL PIPE _____ DEPTH _____

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____

MEAS. LINE _____ SHOE JOINT _____

CEMENT LEFT IN CSG. _____

PERFS. _____

OWNER Same

CEMENT

AMOUNT ORDERED

190 60/40 60/40

1/4" Flo Seal per sx

COMMON	<u>114</u>	@ <u>6.35</u>	<u>723.90</u>
POZMIX	<u>76</u>	@ <u>3.25</u>	<u>247.00</u>
GEL	<u>10</u>	@ <u>9.50</u>	<u>95.00</u>
CHLORIDE		@	
<u>Flo Seal 48 #</u>		@ <u>1.15</u>	<u>55.20</u>
		@	
		@	
		@	
		@	
HANDLING	<u>190</u>	@ <u>1.05</u>	<u>199.50</u>
MILEAGE	<u>100</u>		<u>760.00</u>

EQUIPMENT

PUMP TRUCK CEMENTER J. Weighaus

224 HELPER B. White

BULK TRUCK

260 DRIVER J. Weighaus

BULK TRUCK

_____ DRIVER _____

TOTAL \$ 2080.60

REMARKS:

25 size 1860

1000 size 1065

40 size 315

10 size 40

15 size RN

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CONSERVATION DIVISION
Wichita Kansas

Thanks

SERVICE

DEPTH OF JOB 1860

PUMP TRUCK CHARGE 450.00

EXTRA FOOTAGE @ _____

MILEAGE 100 @ 2.85 285.00

PLUG Top Wood @ 23.00 23.00

@ _____

@ _____

TOTAL \$ 758.00

CHARGE TO: ON R Oil & Gas Inc.

STREET 655 Broadway Suite 525

CITY Denver STATE Colo ZIP 80203

FLOAT EQUIPMENT

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

TOTAL _____

To Allied Cementing Co., Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

TAX - 0 -

TOTAL CHARGE \$ 2838.60

DISCOUNT \$ 425.79 IF PAID IN 30 DAYS

Net \$ 2412.81

SIGNATURE Jim Dickerson

ORIGINAL

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

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CONSERVATION DIVISION
Wichita Kansas

TRILOBITE TESTING L.L.C.

ORIGINAL

OPERATOR : DNR Oil & Gas DATE 12-13-98
 WELL NAME: Greving #22-24 KB 2188.00 ft TICKET NO: 11545 DST #1
 LOCATION : 24-4s-22w Norton Co Ks GR 2183.00 ft FORMATION: Arbuckle
 INTERVAL : 3590.00 To 3665.00 ft TD 3665.00 ft TEST TYPE: CONV

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 60 Rec.	13754	13754	2341			PF Fr. 0325 to 0425 hr
SI 90 Range(Psi)	4000.0	4000.0	4995.0	0.0	0.0	IS Fr. 0425 to 0555 hr
SF 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	
A. Init Hydro	1836.0	1831.0	1816.0	0.0	0.0	T STARTED 0053 hr
B. First Flow	39.0	43.0	11.0	0.0	0.0	T ON BOTM 0323 hr
B1. Final Flow	98.0	98.0	95.0	0.0	0.0	T OPEN 0325 hr
C. In Shut-in	1096.0	1110.0	1106.0	0.0	0.0	T PULLED 0955 hr
D. Init Flow	118.0	123.0	99.0	0.0	0.0	T OUT 1200 hr
E. Final Flow	226.0	231.0	220.0	0.0	0.0	
F. Fl Shut-in	1076.0	1083.0	1083.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	1766.0	1781.0	1769.0	0.0	0.0	Tool Wt. 900.00 lbs
Inside/Outside	O	O	I			Wt Set On Packer 20000.00 lbs

RECOVERY

Tot Fluid	450.00 ft of	450.00 ft in DC and	0.00 ft in DP	Unseated Str Wt	58000.00 lbs
30.00	ft of oil & water cut	mud 10% oil 30% water 60% mud		Bot Choke	0.75 in
120.00	ft of oil & mud cut	water 10% oil 50% water 40% mud		Hole Size	7.88 in
300.00	ft of Slightly oil cut	water 5% oil 95% water		D Col. ID	2.25 in
0.00	ft of			D. Pipe ID	3.80 in
0.00	ft of			D.C. Length	495.00 ft
0.00	ft of			D.P. Length	3249.00 ft
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"

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.	

SAMPLES:
SENT TO:

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

BOTTOM PACKERS AND ANCHOR 44

TOTAL TOOL 67

DRILL COLLAR ANCHOR IN INTERVAL

C. ANCHOR STND.Stands Single Total

P. ANCHOR STND.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 Greiving# 22-24 DNR Oil & Gas

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APR 4 1999

WICHITA COUNTY 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	1106.30
E:	0.00	99.12
F:	116.00	219.71
G:	116.00	1083.10
Q:	0.00	1768.79

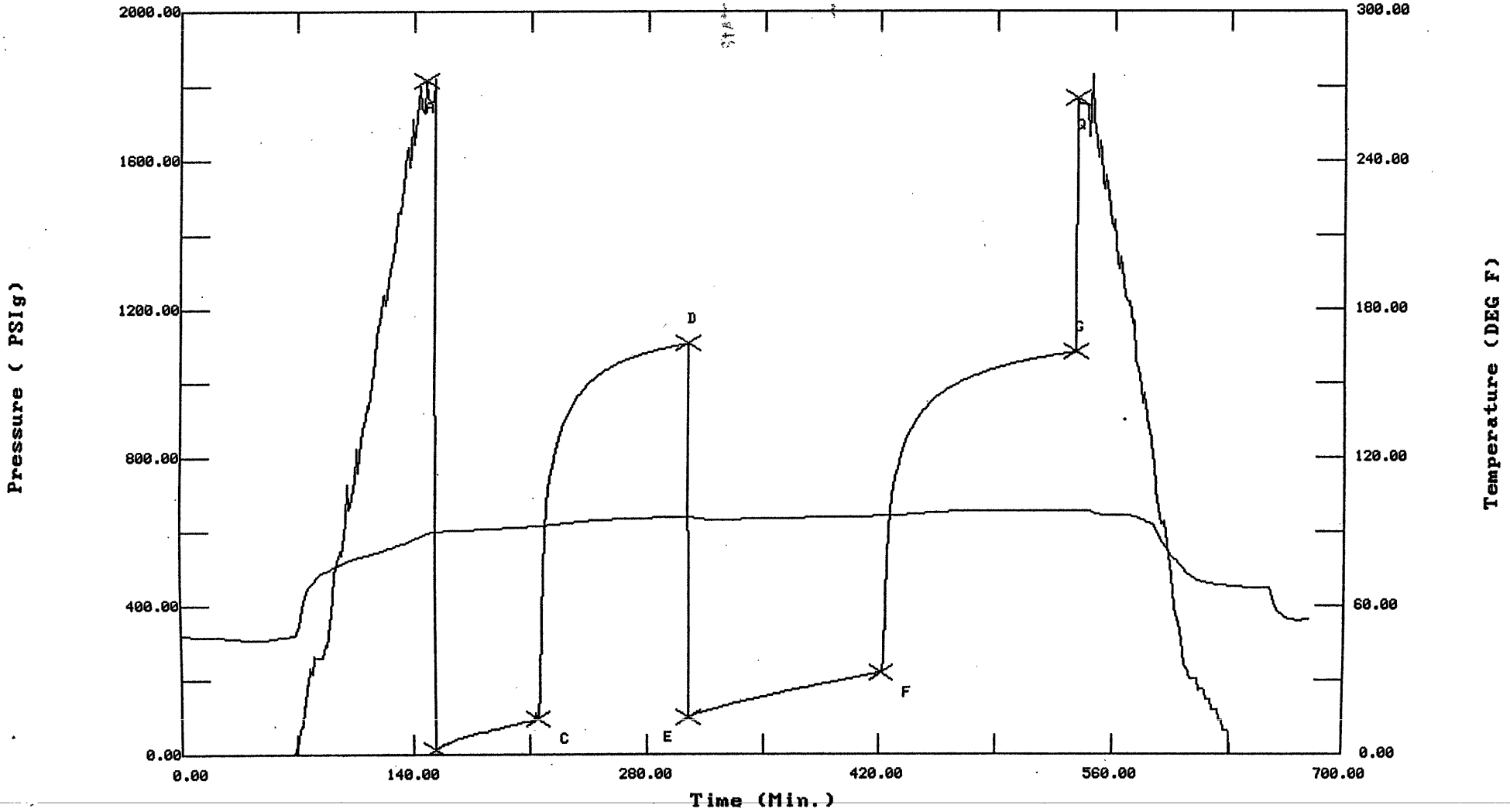
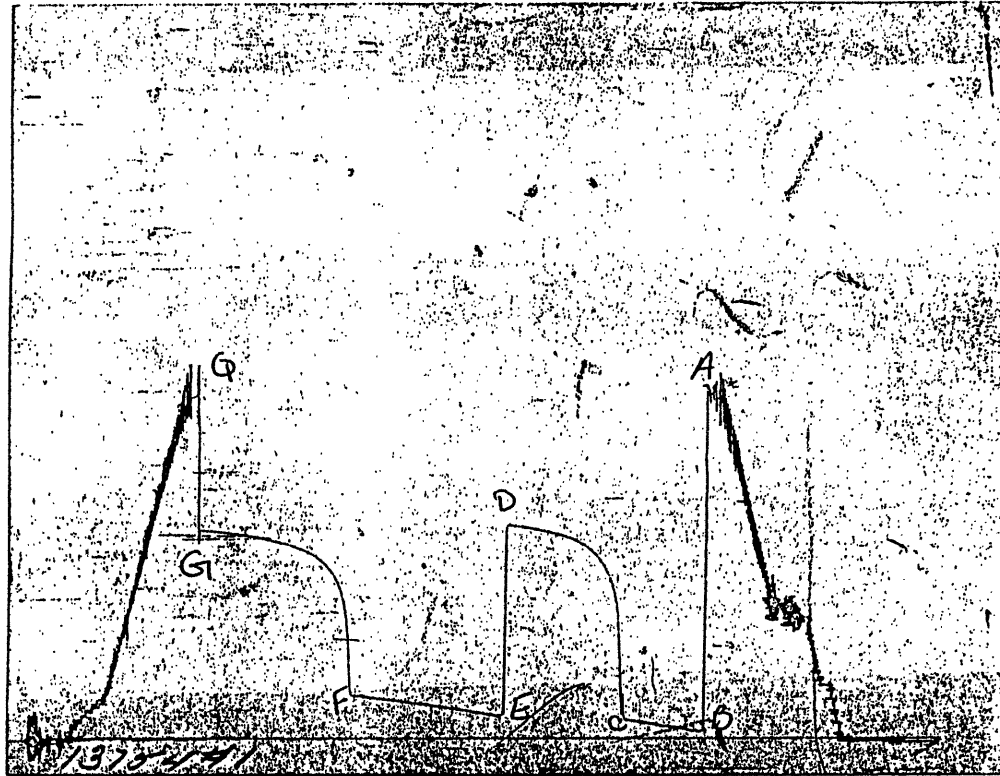


CHART PAGE



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

JAN 14 1999

REGULATION DIVISION
 Winifred, Kansas

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
	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 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
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

RECEIVED
STATE GEOLOGICAL COMMISSION
JAN 14 1999
CONSERVATION DIVISION
Wichita Kansas

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 PSI _g	delta P PSI _g	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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STATE CORPORATION COMMISSION

JAN 14 1999

REGISTRATION DIVISION
MINNESOTA DEPARTMENT OF REVENUE

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		
*****	End Flow 2	116.00	219.7	120.6	96.26	
*****	Start Shutin 2	0.00	219.7	0.0	96.26	0.0000
		1.00	250.9	31.2	96.27	179.0000
		2.00	415.2	195.5	96.30	90.0000
		3.00	528.8	309.1	96.33	60.3333
		4.00	604.0	384.3	96.36	45.5000
		5.00	656.1	436.3	96.38	36.6000
		6.00	694.4	474.6	96.43	30.6667
		7.00	724.3	504.6	96.46	26.4286
		8.00	749.0	529.3	96.49	23.2500
		9.00	770.4	550.7	96.52	20.7778
		10.00	789.1	569.4	96.55	18.8000
		11.00	805.6	585.9	96.58	17.1818
		12.00	820.1	600.4	96.62	15.8333
		13.00	832.9	613.2	96.68	14.6923
		14.00	844.7	625.0	96.69	13.7143
		15.00	855.4	635.7	96.74	12.8667
		16.00	865.1	645.4	96.81	12.1250
		17.00	874.1	654.3	96.86	11.4706
		18.00	882.4	662.7	96.93	10.8889
		19.00	890.2	670.5	97.00	10.3684
		20.00	897.8	678.0	97.06	9.9000
		21.00	904.6	684.9	97.15	9.4762
		22.00	911.1	691.3	97.20	9.0909
		23.00	917.1	697.4	97.26	8.7391
		24.00	922.7	703.0	97.32	8.4167
		25.00	928.1	708.4	97.38	8.1200
		26.00	933.2	713.5	97.43	7.8462
		27.00	938.1	718.4	97.50	7.5926
		28.00	942.8	723.1	97.55	7.3571
		29.00	947.2	727.4	97.59	7.1379
		30.00	951.5	731.7	97.64	6.9333
		31.00	955.5	735.8	97.68	6.7419
		32.00	959.4	739.7	97.72	6.5625
		33.00	963.2	743.5	97.76	6.3939
		34.00	966.7	746.9	97.78	6.2353

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
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	1.000
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

RECEIVED
 STATE OF KANSAS
 JAN 14 1999
 CONSERVATION DIVISION
 Winchita, Kansas

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	
	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>Arbuckle</u>	
Address <u>655 Broadway, Ste 525, 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>4S</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 3590 - 3665 Initial Str Wt./Lbs. 58,000 Unseated Str Wt./Lbs. 58,000
Anchor Length 75 Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 65,000
Top Packer Depth 3585 Tool Weight 900
Bottom Packer Depth 3590 Hole Size — 7 7/8" Rubber Size — 6 3/4"
Total Depth 3665 Wt. Pipe Run Drill Collar Run 495
Mud Wt. 9.1 LCM Vis. 48 WL 6.8 Drill Pipe Size 4.5 x 14 Ft. Run 3249
Blow Description Hit bridge @ 1435 - I.F. weak - building to 2"
E.F. weak - building to 3/4"

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 <u> </u>		
Rec. <u>120</u> Feet Of <u>0 + MCW</u>	%gas <u>10</u> %oil <u>50</u> %water <u>40</u> %mud <u> </u>		
Rec. <u>300</u> Feet Of <u>5 1/4 DCW</u>	%gas <u>5</u> %oil <u>95</u> %water <u> </u> %mud <u> </u>		
Rec. <u> </u> Feet Of <u> </u>	%gas <u> </u> %oil <u> </u> %water <u> </u> %mud <u> </u>		
Rec. <u> </u> Feet Of <u> </u>	%gas <u> </u> %oil <u> </u> %water <u> </u> %mud <u> </u>		
BHT <u>98</u> °F Gravity <u> </u> °API D@ <u> </u>	°F Corrected Gravity <u>26</u> °API <u> </u>		
RW <u>.11</u> @ <u>70</u> °F Chlorides <u>20,000</u> ppm Recovery	Chlorides <u>1550</u> ppm System <u> </u>		

	AK-1	Alpine	PSI	Recorder No.	T-On Location
(A) Initial Hydrostatic Mud	<u>1836</u>	<u>1816</u>	<u> </u>	<u>2341</u>	<u>23:15</u>
(B) First Initial Flow Pressure	<u>39</u>	<u>11</u>	<u> </u>	<u>3598</u>	<u>00:53</u>
(C) First Final Flow Pressure	<u>98</u>	<u>95</u>	<u> </u>	<u>13754</u>	<u>07:25</u>
(D) Initial Shut-In Pressure	<u>1096</u>	<u>1106</u>	<u> </u>	<u>3662</u>	<u>09:55</u>
(E) Second Initial Flow Pressure	<u>118</u>	<u>99</u>	<u> </u>	<u> </u>	<u>12:00</u>
(F) Second Final Flow Pressure	<u>226</u>	<u>220</u>	<u> </u>	<u> </u>	<u>13:30</u>
(G) Final Shut-in Pressure	<u>1076</u>	<u>1083</u>	<u> </u>	<u>60</u>	<u> </u>
(Q) Final Hydrostatic Mud	<u>1766</u>	<u>1769</u>	<u> </u>	<u>90</u>	<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
STATE COOPERATION COMMISSION

JAN 14 1999

Approved By Tim Hellman
Our Representative Dan Bangle

CONSERVATION DIVISION

Final Flow 120 Safety Joint X
Final Shut-in 120 Straddle
Circ. Sub
Sampler
Extra Packer
Elec. Rec. X
Mileage
Other
TOTAL PRICE \$

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. Final 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. Final Hydro	1849.0	1819.0	1799.0	1786.0	0.0	TOOL DATA-----
Inside/Outside	0	0	I	0		Tool Wt. 1200.00 lbs

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/ 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		

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

RECEIVED
 STATE COMMISSION

JAN 14 1999

CONSERVATION DIVISION
 Wichita, Kansas

SAMPLES:
 SENT TO:

Test Successful: Y

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.	

*** TOOL DIAGRAM *** CONV STRADDLE

WELL NAME: Greving #22-24

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

TICKET 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

T.C. ANCHOR STAND.Stands Single Total

P. ANCHOR STAND.Stands Single Total

TOTAL ASSEMBLY 41

T.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 Greiving #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

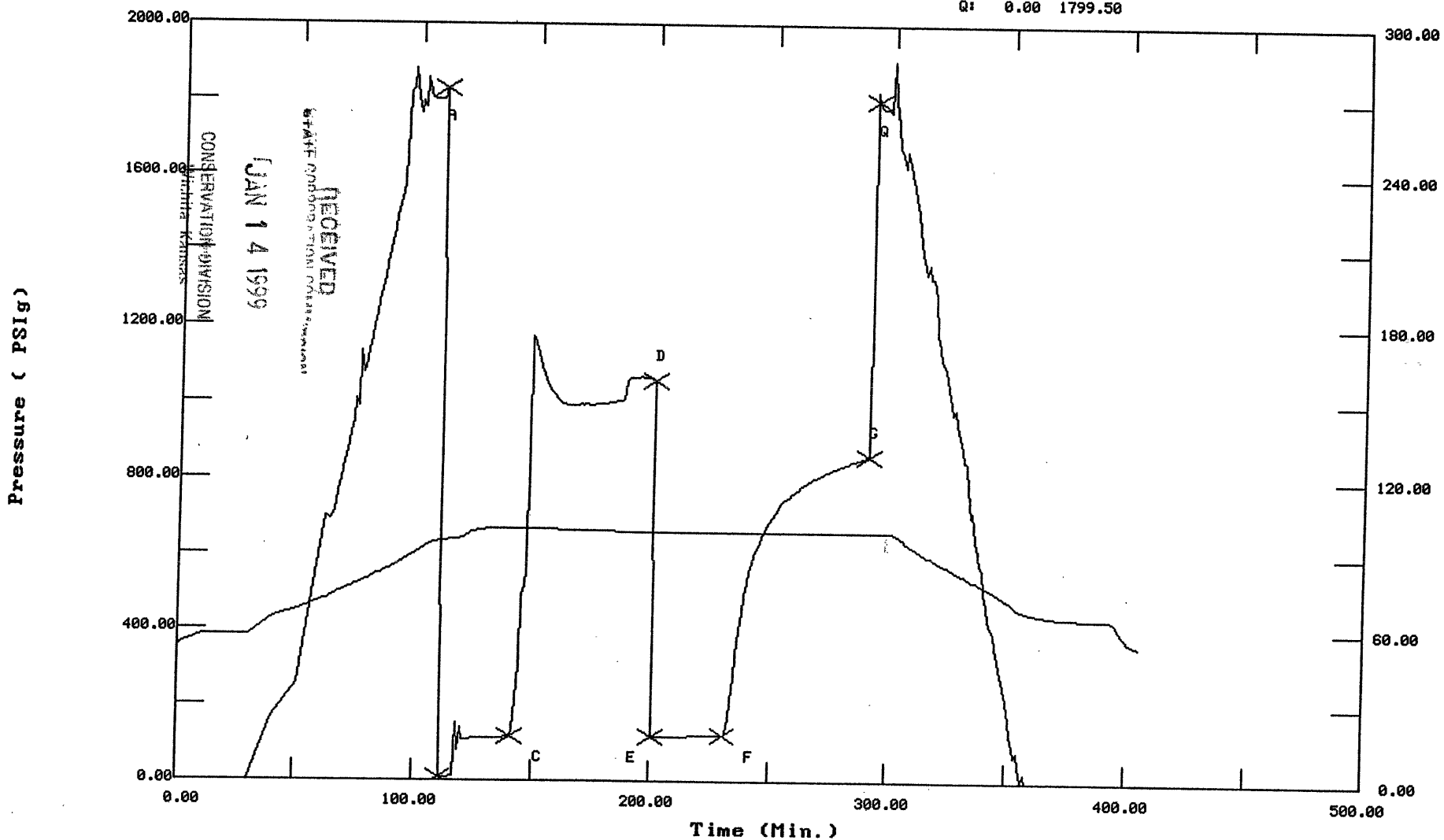
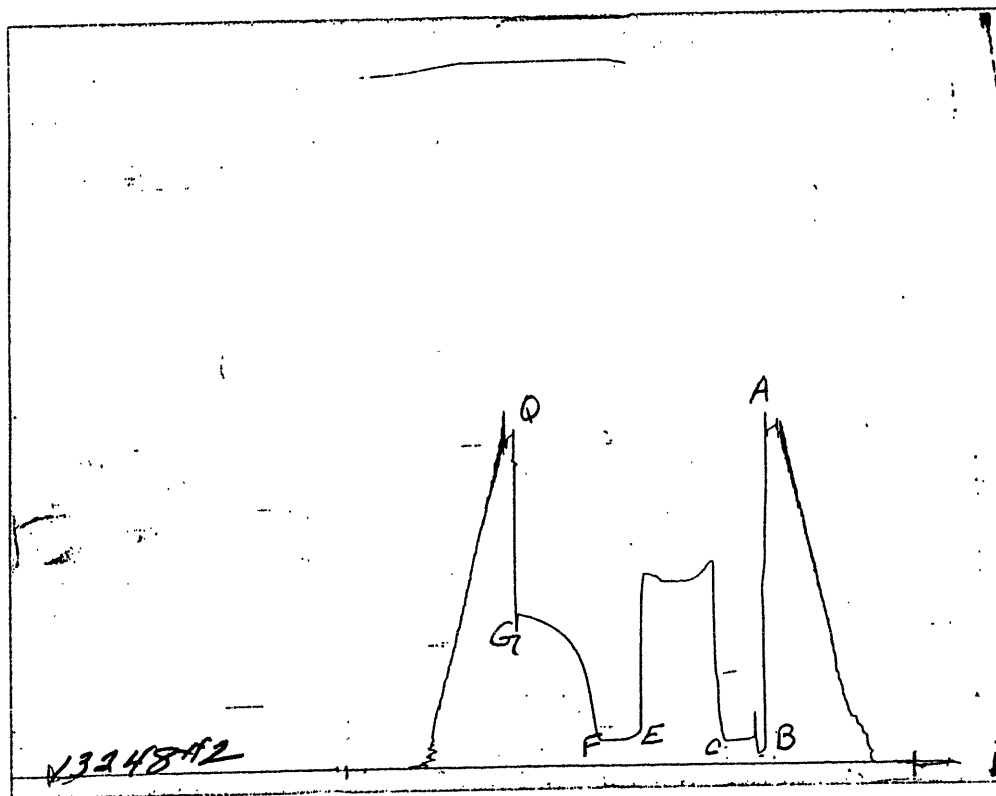
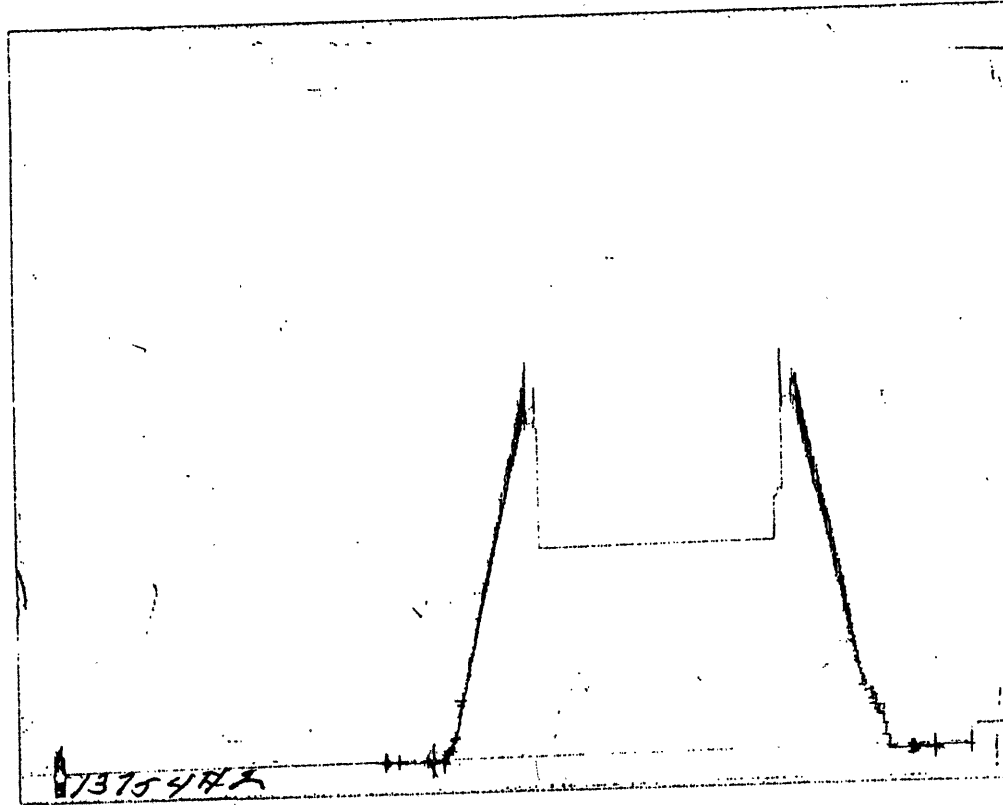


CHART PAGE



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

CHART PAGE



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

RECEIVED
STATE RECREATION COMMISSION

JAN 14 1960

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
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		

***** End Shut-in 1

***** Start Flow 2

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JAN 14 1999
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
	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		

RECEIVED
STATE COOPERATION COMMISSION

JAN 14 1999

CONSERVATION DIVISION
Wichita, Kansas

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 11546

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

Interval Tested 3650 - 3668 Initial Str Wt./Lbs. 63,000 Unseated Str. Wt./Lbs. 63,000
Anchor Length 18 Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 79,000
Top Packer Depth 3650 Tool Weight 1200
Bottom Packer Depth 3668 Hole Size — 7 7/8" Rubber Size — 6 3/4"
Total Depth 3763 Wt. Pipe Run _____ Drill Collar Run 495
Mud Wt. 9.2 LCM _____ Vis. 48 WL 7.2 Drill Pipe Size 4.5 KH Ft. Run 3225
Blow Description I.F. Weak 1/8" blow for 10 min then built to 10" fair blow.
E.F. No blow.

Recovery — Total Feet 240 GIP _____ Ft. in DC 240 Ft. in DP _____
Rec. 240 Feet Of D.M. w/oil spots %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 99 °F Gravity _____ °API D@ _____ °F Corrected Gravity _____ °API _____
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 2100 ppm System

	AK-1	Alpine	PSI	Recorder No.	T-On Location
(A) Initial Hydrostatic Mud	<u>1860</u>	<u>1828</u>		<u>2341</u>	<u>12:00</u>
(B) First Initial Flow Pressure	<u>53</u>	<u>5</u>		(depth) <u>3652</u>	T-Started <u>12:50</u>
(C) First Final Flow Pressure	<u>117</u>	<u>113</u>		Recorder No. <u>13248</u>	T-Open <u>14:43</u>
(D) Initial Shut-In Pressure	<u>-</u>	<u>-</u>		(depth) <u>3661</u>	T-Pulled <u>17:43</u>
(E) Second Initial Flow Pressure	<u>148</u>	<u>114</u>		Recorder No. <u>13754</u>	T-Out <u>19:30</u>
(F) Second Final Flow Pressure	<u>148</u>	<u>118</u>		(depth) <u>3707</u>	T-Off Location <u>20:30</u>
(G) Final Shut-in Pressure	<u>846</u>	<u>860</u>		Initial Opening <u>30</u>	Test <u>600</u>
(Q) Final Hydrostatic Mud	<u>1849</u>	<u>1799</u>		Initial Shut-in <u>60</u>	Jars _____
				Final Flow <u>30</u>	Safety Joint <input checked="" type="checkbox"/> <u>50</u>
				Final Shut-in <u>60</u>	Straddle <input checked="" type="checkbox"/> <u>250</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

Circ. Sub _____
Sampler _____
Extra Packer (2) 300
Elec. Rec. 150
Mileage _____
Other _____
TOTAL PRICE \$ 1350