

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

API NO. 15- 119-209530000

ORIGINAL

Operator: License # 9534

Name: Giant Exploration & Production Co

Address P.O. Box 2810
2200 Bloomfield Highway

City/State/Zip Farmington, NM 87401

Purchaser: Diamond Shamrock

Operator Contact Person: Jeffrey R. Vaughan

Phone (505) 326-3325

Contractor: Name: Beredco Inc.

License: 5147

Wellsite Geologist: David Clark

Designate Type of Completion

New Well Re-Entry Workover

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

If Workover/Re-Entry: old well info as follows:

Operator: RELEASED

Well Name: RELEASED

Comp. Date MAR 1 1994 Old Total Depth RELEASED

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

10-15-95 10-26-95 11-13-95
Spud Date Date Reached TD Completion Date

County Meade
- SW - SW - SW Sec. 36 Twp. 33S Rge. 30 E W

330' Feet from SN (circle one) Line of Section

150' Feet from E/W (circle one) Line of Section

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

Lease Name Novinger South Well # 5

Field Name N/A

Producing Formation Marmaton

Elevation: Ground 2674' KB 2686'

Total Depth 5450' PBTB 5394'

Amount of Surface Pipe Set and Cemented at 1514' Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set 3277' Feet

If Alternate II completion, cement circulated from N/A

feet depth to w/ sx cat.

Drilling Fluid Management Plan ALT I 5-8-96
(Data must be collected from the Reserve Pit) Li

Separator content ppm Fluid volume 0 bbls

De-watering method used Natural Evaporation

Location of fluid disposal if hauled offsite

Operator Name N/A

Lease Name JAN 25 License No.

Quarter CONFIDENTIAL Sec. CONFIDENTIAL Twp. Rng. E/W

County Docket No.

CONFIDENTIAL

CONFIDENTIAL

CONFIDENTIAL

RECEIVED
KANSAS CORP. COMM
FEB - 2 1994

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 200 Colorado Derby Building, 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 Paul R. Williams

Title Area Engineer Date

Subscribed and sworn to before me this 29th day of January 19 96.

Notary Public Paul M. Mize

Date Commission Expires 08/09/97

K.C.C. OFFICE USE ONLY		
F	<input checked="" type="checkbox"/>	Letter of Confidentiality Attached
C	<input checked="" type="checkbox"/>	Wireline Log Received
C	<input checked="" type="checkbox"/>	Geologist Report Received
Distribution		
<input checked="" type="checkbox"/>	KCC	<input type="checkbox"/> SWD/Rep
<input type="checkbox"/>	KGS	<input type="checkbox"/> Plug
		<input type="checkbox"/> NGPA
		<input type="checkbox"/> Other
		(Specify)

Operator Name Giant Exploration & Production Lease Name Novinger South Well # 5

Sec. 36 Twp. 33S Rge. 30 East West County Meade

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 (Attach Additional Sheets.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Wreford	3060'	-374
Electric Log Run (Submit Copy.)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Council Grove	3169'	-483
List All E.Logs Run:		Base Heebner/Toronto	4455'	-1769
Array Induction-SP/Gamma Ray		Upper Lansing Porosity	4641'	-1955
Compensated Neutron/Litho-Density		Kansas City A	5075'	-2389
Borehole Compensated Sonic		Kansas City B	5111'	-2425
Microlog		Marmaton A	5243'	-2557
		Novinger	5305'	-2619
		Base Novinger	5382'	-2696

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
Conductor	36"	20"	54#	80'	Ready Mix	6 yds	N/A
Surface	12-1/4"	8-5/8"	24#	1514'	Mid Con Premium Plus	330 sks 150 sks	3% CaCl ₂ , 1/4 #/sk Cellof, 3/4% Versaset,
Longstring	7-7/8"	5-1/2"	15.5#	5449'	Prem. "H"	190 sks	5% KCl, 1% HR-5

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 Specify Footage of Each Interval Perforated		Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used) Depth	
	4 jspf	5305'-5307.5' isolated under CIBP @ 5290'		spotted 150 gal HCl-Fe acid prior to perforating
4 jspf	5246'-5250'		spotted 200 gal HCl-Fe acid prior to perforating	5250'

TUBING RECORD	Size <u>2-3/8", 4.7#</u>	Set At <u>5279'</u>	Packer At <u>N/A</u>	Liner Run <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Date of First, Resumed Production, SWD or Inj.	Producing Method <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)			
01/08/96				
Estimated Production Per 24 Hours	Oil 15 Bbls.	Gas 8 Mcf	Water 90 Bbls.	Gas-Oil Ratio 533 SCF/Ebl Gravity 41 API

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: 5246 - 5250'

15-119-20953

CONFIDENTIAL

Well Name: NOVINGER SOUTH #5
Company : GIANT EXPLORATION & PRODUCTION
Location - Sec: 36 Twp: 33S Rge: 30W
County: MEADE State: KS
Date: 26-Oct-95

ORIGINAL

RELEASED

MAR 11 1997

FROM CONFIDENTIAL

KCC

JAN 25

CONFIDENTIAL

CONFIDENTIAL

ORIGINAL

TRILOBITE TESTING L.L.C.

OPERATOR : Giant Exploration & Prod
WELL NAME: Novinger South #5
LOCATION : 36-33S-30W, Meade Cty KS
INTERVAL : 4635.00 To 4655.00 ft

DATE 10/21/95
KB 2686.00 ft TICKET NO: 8096 DST #1
GR 0.00 ft FORMATION: Lansing "A"
TD 4655.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins		Field	1	2	3	4	TIME DATA-----
PF 30	Rec.		13339	13339	13309		PF Fr. 1915 to 1945 hr
SI 60	Range(Psi)	4025.0	4025.0	4700.0	0.0	0.0	IS Fr. 1945 to 2045 hr
SF 60	Clock(hrs)	23832	23832	27573			SF Fr. 2045 to 2145 hr
FS 120	Depth(ft)	4645.0	4645.0	4650.0	0.0	0.0	FS Fr. 2145 to 2345 hr

	Field	1	2	3	4	
A. Init Hydro	2203.0	2216.0	0.0	0.0	0.0	T STARTED hr
B. First Flow	31.0	50.0	0.0	0.0	0.0	T ON BOTM hr
B1. Final Flow	62.0	88.0	0.0	0.0	0.0	T OPEN 1915 hr
C. In Shut-in	1220.0	1243.0	0.0	0.0	0.0	T PULLED 2345 hr
D. Init Flow	124.0	151.0	0.0	0.0	0.0	T OUT hr
E. Final Flow	166.0	190.0	0.0	0.0	0.0	
F. Fl Shut-in	1220.0	1239.0	0.0	0.0	0.0	
G. Final Hydro	2153.0	2157.0	0.0	0.0	0.0	
Inside/Outside	I	I	O			

TOOL DATA-----

Tool Wt.	0.00 lbs
Wt Set On Packer	0.00 lbs
Wt Pulled Loose	0.00 lbs
Initial Str Wt	0.00 lbs
Unseated Str Wt	0.00 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	615.00 ft
D.P. Length	0.00 ft

RECOVERY

Tot Fluid 90.00 ft of 90.00 ft in DC and 0.00 ft in DP
90.00 ft of Very gas cut mud - 80% gas, 20% mud

8.00 ft of Pay (est)
RW 2.5 @ 85 F
SALINITY 1900.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Blow -
Fair to strong blow off bottom in
1.25 min; Gas to surface 22 min on
1st open

Final Blow -
Strong return off bottom 2 min;
gauged 17" water @ 60 min, .375
orifice

SAMPLES:
SENT TO:

RELEASED

MAR 11 1997

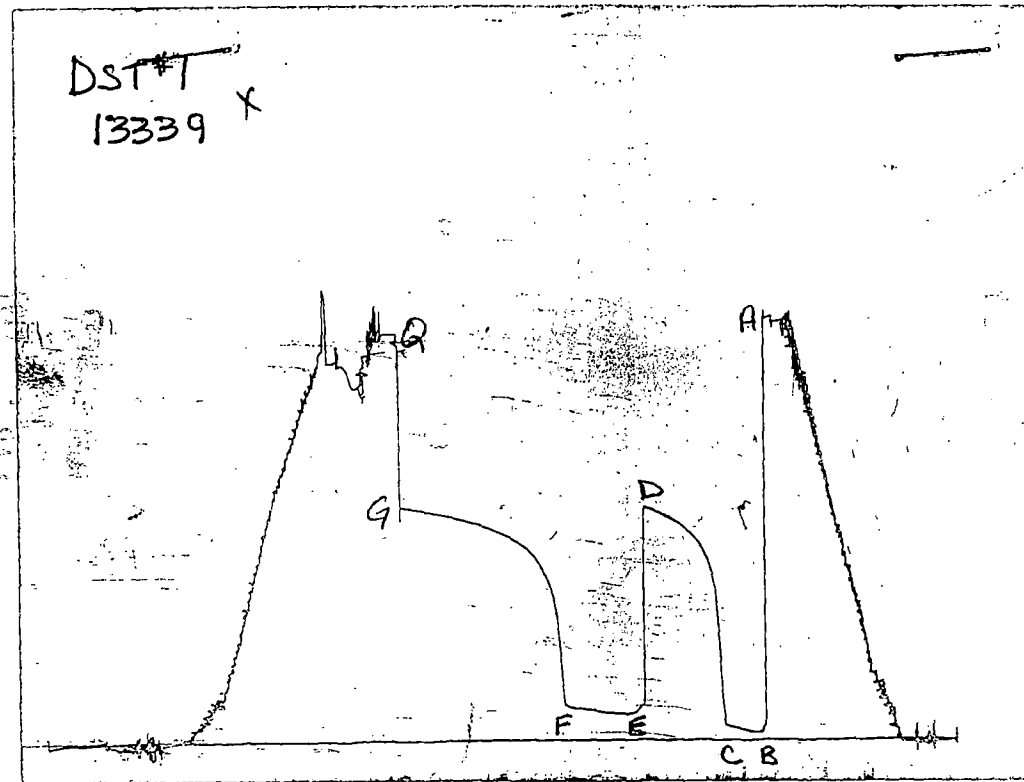
FROM CONFIDENTIAL

Test Successful: Y

MUD DATA-----

Mud Type	Chemical
Weight	8.80 lb/cf
Vis.	42.00 S/L
W.L.	7.90 in3
F.C.	0.00 in
Mud Drop	
Amt. of fill	0.00 ft
Btm. H. Temp.	145.00 F
Hole Condition	
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out	
Tool Chased	
Tester	Rod Steinbrink
Co. Rep.	L Benedict
Contr.	Beredco
Rig #	2
Unit #	
Pump T.	

CHART PAGE



This is an actual photograph of recorder chart

CALCULATED RECOVERY ANALYSIS - DRILL COLLARS

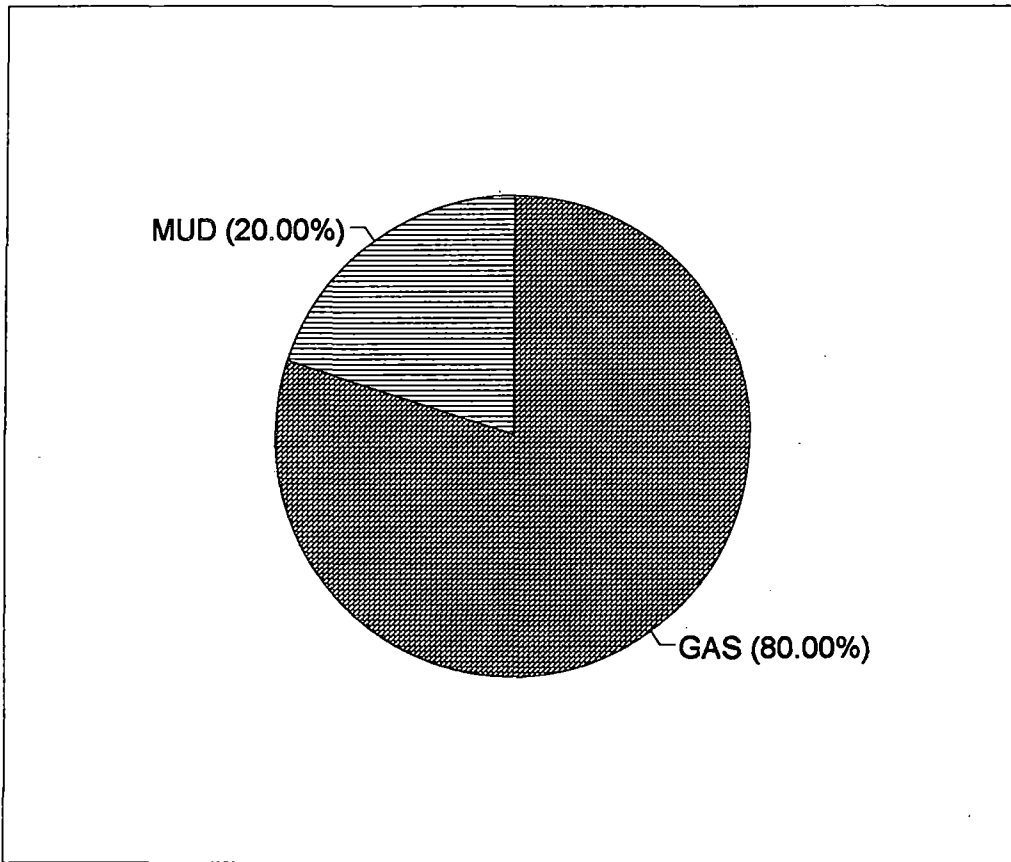
DST # 1

TICKET # 8096

SAMPLE #	TOTAL FEET	GAS		OIL		WATER		MUD	
		%	FEET	%	FEET	%	FEET	%	FEET
1	90	80	72	0	0	0	0	20	18
2			0	0	0	0	0		0
3			0	0	0	0	0		0
4			0	0	0	0	0		0
5			0	0	0	0	0		0
TOTAL	90	80.00	72	0.00	0	0.00	0	20	18

HRS OPE BBL/DAY

BBL OIL=	0	*	1.50	0
BBL WAT	0	*		0
BBL MUD	0.08802			
BBL GAS	0.35208			



FLUID SAMPLER DATA

Ticket No.: 8096

Date: 10/21/95

Company: GIANT EXPLORATION & PRODUCTION

Lease: NOVINGER SOUTH #5

Test No.: 1

County: MEADE

Sec.: 36

Twp.: 33S

Rng.: 30W

SAMPLER RECOVERY

Gas 3700 ML

Oil 300 ML

Mud ML

Water ML

Other ML

Pressure 1800 PSI

TOTAL 4000 ML

SAMPLER ANALYSIS

Resistivity ohms@ F

Chlorides ppm.

Gravity corrected @60F

PIT MUD ANALYSIS

Chlorides 1900

Resistivit 3 ohms@ 70 F

Viscosity 42

Mud Wt. 8.8

Filtrate 7.9

Other LCM 2#

PIPE RECOVERY

TOP

Resistivit ohms@ F

Chlorides ppm.

MIDDLE

Resistivit ohms@ F

Chlorides ppm.

BOTTOM

Resistivit 2.5 ohms@ 85 F

Chlorides 1900 ppm.

GAS RECOVERY

COMPANY: Giant Exploration & Prod

DATE: 10/21/95

WELL NAME: Novinger South #5

KB Elev: 2686.00 ft TICKET #8096

DST #1

WELL LOCATION: 36-33S-30W, Meade Cty KS

GR Elev: 0.00

ft FORMATION: Lansing "A"

INTERVAL Fr.: 4635.00 To 4655.00 T.D.: 4655.00 ft TEST TYPE: CONVENTIONAL

GAS RECOVERY MEASURED WITH Merla

***** GAS RATES FOR FLOW #1

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
30	0.50	0	16	25100.0

***** GAS RATES FOR FLOW #2

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
10	0.38	0	74	30600.0
20	0.38	0	64	28500.0
30	0.38	0	52	25700.0
40	0.38	0	40	22500.0
50	0.38	0	25	17800.0
60	0.38	0	17	14700.0

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, L.L.C.
728 North Roosevelt
Liberal, Kansas 67901
Phone: 316-624-5389
Fax: 316-626-7108

Lab Number:	950576	Analyzed:	10/22/95
Sample From:	Novinger South #5 DST 1	Pressure:	
Producer:	Giant Exploration & Production	Temperature:	
Date:		Location:	26-33S-30W
Time:		County:	Meade
Sampler:		State:	Kansas
Source:		Formation:	Lans A

	Mole %	GPM
Helium	He: 0.034	0.000
Oxygen	O2: 0.000	0.000
Nitrogen	N2: 8.216	0.000
Carbon Dioxide	CO2: 0.160	0.000
Methane	C1: 47.035	0.000
Ethane	C2: 10.655	2.850
Propane	C3: 15.942	4.393
Iso Butane	iC4: 3.152	1.031
Normal Butane	nC4: 7.787	2.455
Iso Pentane	iC5: 1.888	0.691
Normal Pentane	nC5: 2.076	0.752
Hexanes Plus	C6+: 3.055	1.333

TOTAL: 100.000 13.504
Z Fact: 0.9918
SP.GR.: 1.1216
BTU (SAT): 1724.6 @ 14.73 psia
BTU (DRY): 1755.1 @ 14.73 psia
OCTANE RATING: 101.1

COMMENTS: Sample entered under vacuum 0.009

TRILOBITE TESTING L.L.C.

OPERATOR : Giant Exploration DATE 10-23-95
 WELL NAME: Novinger South #5 KB 2686.00 ft TICKET NO: 8097 DST #2
 LOCATION : 36-33S-30W, Meade Cty KS GR 2674.00 ft FORMATION: Kansas City
 INTERVAL : 5102.00 To 5125.00 ft TD 5125.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	13339	13339	2346			PF Fr. 2127 to 2157 hr
SI 60 Range(Psi)	4025.0	4995.0	4995.0	0.0	0.0	IS Fr. 2157 to 2257 hr
SF 60 Clock(hrs)	AK-1	AK-1	Alpin			SF Fr. 2257 to 2357 hr
FS 145 Depth(ft)	5120.0	5120.0	5104.0	0.0	0.0	FS Fr. 2357 to 0225 hr

	Field	1	2	3	4	
A. Init Hydro	2393.0	2378.0	2376.0	0.0	0.0	T STARTED 1820 hr
B. First Flow	176.0	195.0	166.0	0.0	0.0	T ON BOTM 2115 hr
B1. Final Flow	569.0	597.0	642.0	0.0	0.0	T OPEN 2127 hr
C. In Shut-in	1441.0	1464.0	1422.0	0.0	0.0	T PULLED 0225 hr
D. Init Flow	699.0	724.0	0.0	0.0	0.0	T OUT 0615 hr
E. Final Flow	1060.0	1084.0	0.0	0.0	0.0	
F. Fl Shut-in	1451.0	1460.0	0.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2333.0	2350.0	0.0	0.0	0.0	Tool Wt. 2000.00 lbs
Inside/Outside	0	0	I			Wt Set On Packer 30000.00 lbs
						Wt Pulled Loose 130000.00 lbs
						Initial Str Wt 97000.00 lbs
						Unseated Str Wt 110000.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.88 in
						D Col. ID 2.25 in
						D. Pipe ID 3.70 in
						D.C. Length 615.00 ft
						D.P. Length 4481.00 ft

RECOVERY

Tot Fluid 2275.00 ft of 615.00 ft in DC and 1660.00 ft in DP
 500.00 ft of Gas in pipe
 2275.00 ft of Salt water
 Reversed out 31 bbl into frac tank

SALINITY 31000.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Blow -
 Fair to strong blow off bottom in
 2.5 min

Initial Shutin -
 Bled off blow, .5" return blow, steady
 throughout

Final Blow -
 Fair to strong blow off bottom in
 3 min

SAMPLES:
 SENT TO:

MUD DATA-----

Mud Type	Chemical
Weight	9.00 lb/c
Vis.	46.00 S/L
W.L.	7.60 in3
F.C.	0.00 in
Mud Drop N	
Amt. of fill	0.00 ft
Btm. H. Temp.	124.00 F
Hole Condition	Good
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out Y	
Tool Chased N	
Tester	Rod Steinbrink
Co. Rep.	Larry Benedict
Contr.	Beredco
Rig #	#2
Unit #	
Pump T.	

Test Successful: Y

TEST HISTORY

8097 DST #2 Novinger South #5 Giant Explor.

Flag Points
t (Min.) P (PSIg)

A:	0.00	2376.66
B:	0.00	166.25
C:	30.00	642.29
Q:	0.00	1422.15

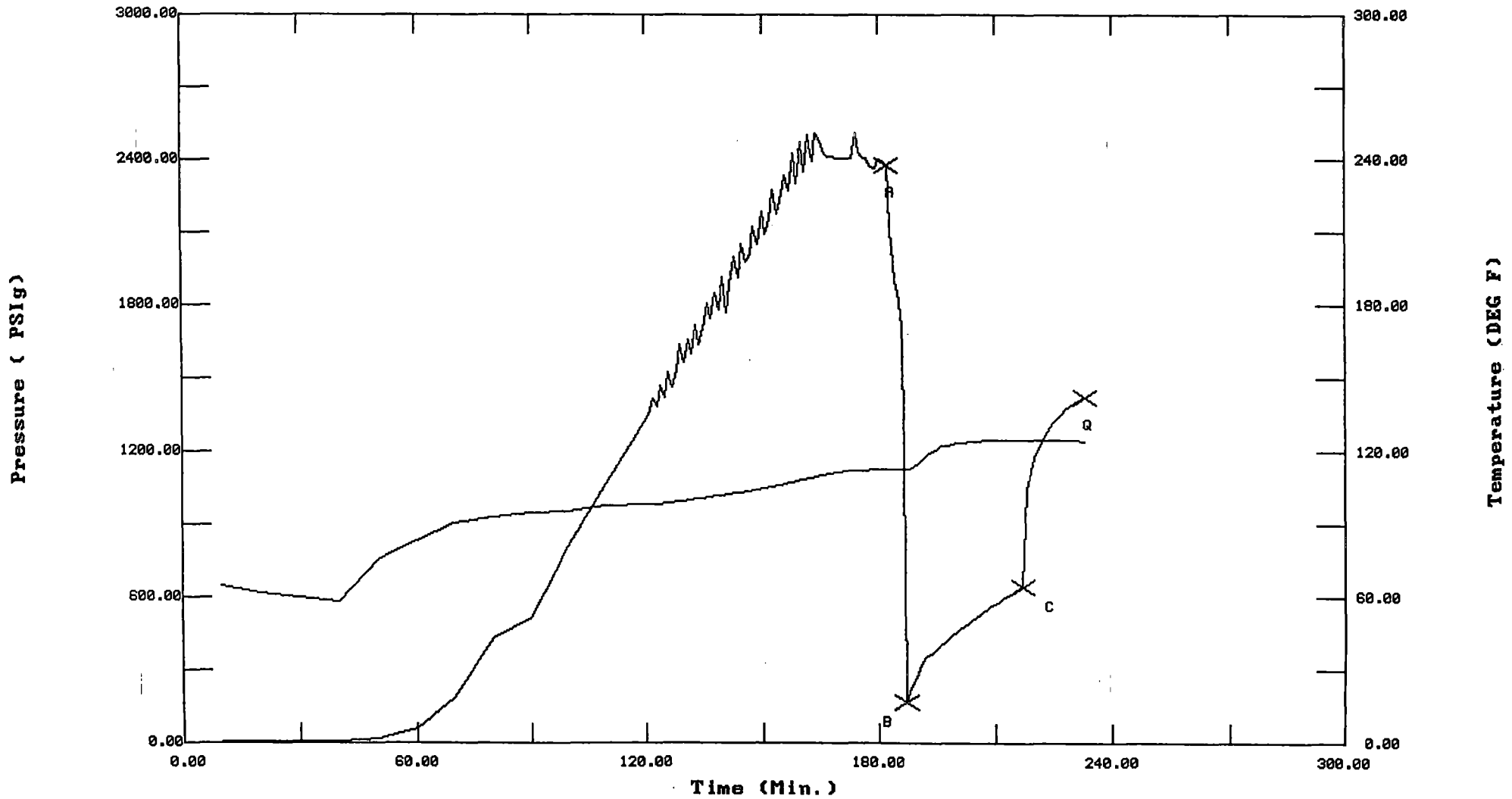
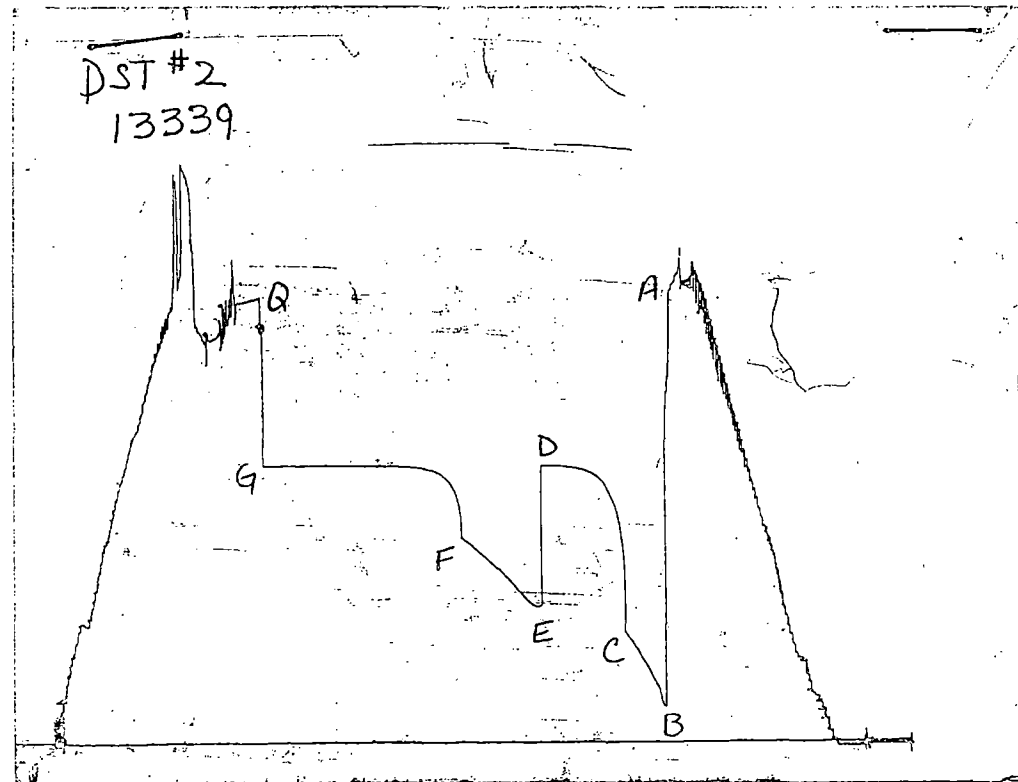


CHART PAGE



This is an actual photograph of recorder chart

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8097 DST #2 Novinger South #5 Giant Explor.

DATE: 10/23/95 TIME: 18:20:29

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
***** Initial Hydro.	182.00	2376.7	0.0	112.55		
***** Start Flow 1	0.00	166.3	0.0	112.48		
	1.00	211.2	44.9	112.63		
	2.00	248.8	82.5	113.62		
	3.00	287.0	120.8	115.00		
	4.00	322.3	156.0	116.51		
	5.00	350.7	184.5	117.93		
	6.00	359.8	193.5	119.13		
	7.00	372.3	206.0	120.18		
	8.00	385.5	219.2	121.07		
	9.00	400.5	234.2	122.10		
	10.00	413.6	247.3	122.11		
	11.00	427.4	261.2	122.13		
	12.00	441.4	275.1	122.91		
	13.00	454.4	288.1	123.28		
	14.00	466.7	300.5	123.57		
	15.00	479.1	312.9	123.79		
	16.00	491.6	325.4	123.97		
	17.00	502.7	336.5	124.13		
	18.00	514.7	348.5	124.26		
	19.00	526.0	359.7	124.34		
	20.00	537.8	371.5	124.44		
	21.00	548.5	382.3	124.50		
	22.00	560.0	393.8	124.56		
	23.00	570.6	404.4	124.62		
	24.00	581.4	415.1	124.68		
	25.00	592.5	426.3	124.71		
	26.00	602.6	436.3	124.76		
	27.00	612.9	446.7	124.79		
	28.00	622.7	456.4	124.84		
	29.00	632.2	466.0	124.86		
***** End Flow 1	30.00	642.3	476.0	124.87		
***** Start Shutin 1	0.00	642.3	0.0	124.87	0.0000	0.413
	1.00	1043.5	401.2	124.90	31.0000	1.089
	2.00	1123.0	480.7	124.94	16.0000	1.261
	3.00	1174.8	532.5	124.96	11.0000	1.380
	4.00	1215.0	572.7	124.97	8.5000	1.476
	5.00	1247.4	605.1	124.94	7.0000	1.556
	6.00	1275.4	633.2	124.92	6.0000	1.627
	7.00	1299.4	657.1	124.87	5.2857	1.688
	8.00	1320.4	678.1	124.80	4.7500	1.744
	9.00	1339.1	696.9	124.76	4.3333	1.793
	10.00	1355.8	713.6	124.72	4.0000	1.838
	11.00	1370.4	728.2	124.62	3.7273	1.878
	12.00	1383.5	741.2	124.56	3.5000	1.914
	13.00	1395.0	752.7	124.50	3.3077	1.946
	14.00	1405.1	762.8	124.45	3.1429	1.974
	15.00	1414.1	771.8	124.39	3.0000	2.000
***** End Shut-in 1	16.00	1422.1	779.9	124.33	2.8750	2.023
***** Final Hydro.	233.00	1422.1	0.0	124.33		

TRILOBITE TESTING L.L.C.

OPERATOR : Giant Exploration DATE 10-25-95
 WELL NAME: Novinger South #5 KB 2686.00 ft TICKET NO: 8098 DST #3
 LOCATION : 36-33s-30w Meade KS. GR 2674.00 ft FORMATION: Marmaton
 INTERVAL : 5236.00 To 5273.00 ft TD 5273.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	13339	13339	2341			PF Fr. 0230 to 0300 hr
SI 60 Range(Psi)	4025.0	4025.0	4995.0	0.0	0.0	IS Fr. 0300 to 0400 hr
SF 60 Clock(hrs)	AK-1	AK-1	Alpin			SF Fr. 0400 to 0500 hr
FS 140 Depth(ft)	5268.0	5268.0	5238.0	0.0	0.0	FS Fr. 0500 to 0720 hr

	Field	1	2	3	4	
A. Init Hydro	2516.0	2583.0	2517.0	0.0	0.0	T STARTED 0040 hr
B. First Flow	58.0	127.0	58.0	0.0	0.0	T ON BOTM 0220 hr
B1. Final Flow	139.0	162.0	139.0	0.0	0.0	T OPEN 0230 hr
C. In Shut-in	1918.0	1931.0	1918.0	0.0	0.0	T PULLED 0700 hr
D. Init Flow	189.0	233.0	190.0	0.0	0.0	T OUT 1100 hr
E. Final Flow	303.0	318.0	304.0	0.0	0.0	
F. Fl Shut-in	1924.0	1939.0	1925.0	0.0	0.0	
G. Final Hydro	2499.0	2546.0	2499.0	0.0	0.0	
Inside/Outside	0	0	I			

TOOL DATA-----
 Tool Wt. 2000.00 lbs
 Wt Set On Packer 35000.00 lbs
 Wt Pulled Loose 120000.00 lbs
 Initial Str Wt 97000.00 lbs
 Unseated Str Wt 98000.00 lbs
 Bot Choke 0.75 in
 Hole Size 8.88 in
 D Col. ID 2.25 in
 D. Pipe ID 3.70 in
 D.C. Length 615.00 ft
 D.P. Length 4604.00 ft

RECOVERY

Tot Fluid 900.00 ft of 615.00 ft in DC and 285.00 ft in DP
 900.00 ft of Heavy gassy oil cut mud -
 50% gas, 25% emulsion, 3% oil, 2% H2O,
 20% mud

SALINITY 0.00 P.P.M. A.P.I. Gravity 40.00

MUD DATA-----
 Mud Type Chemical
 Weight 9.00 lb/c
 Vis. 4.90 S/L
 W.L. 6.80 in3
 F.C. 0.00 in
 Mud Drop N
 Amt. of fill 0.00 ft
 Btm. H. Temp. 128.00 F
 Hole Condition Good
 % Porosity 0.00
 Packer Size 6.75 in
 No. of Packers 2
 Cushion Amt. 0.00
 Cushion Type
 Reversed Out Y
 Tool Chased N
 Tester Rod Steinbrink
 Co. Rep. Larry Benedick
 Contr. Beredco
 Rig # #2
 Unit #
 Pump T.

BLOW DESCRIPTION

Initial Blow -
 Strong blow off bottom 30 sec; Gas to
 surface 24 min, gas burns blue flame

Initial Shutin -
 Bled off blow, fair return off bottom
 in 2 min

Final Blow -
 Strong return, gauged gas - 16" of
 water on 3/8" = 14.2 mcf/day

Final Shutin -
 Ran Gradient check on wireline

SAMPLES:
 SENT TO:

Test Successful: Y

Operator.....: Giant Exploration
Well Name.....: Novinger South #5
DST Number.....: 3

Location.: 36-33S-30W, Meade Cty Recorder No....: 2341
Test Type: Conventional Recorder Depth: 5238
Formation: Marmaton Test Interval.: 5236-5273

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

RESERVOIR PARAMETERS USED:

Net Pay.....: 8.00 ft
Porosity.....: 11.00 %
Bottom Hole Temp.....: 128.00 F
Specific Gravity.....: 0.716
Z factor.....: %7/3f %s
Compressibility.....: 0.013822 /psi
Viscosity.....: 0.0166 cp
Total Flowing Time.....: 90.00 min.
Flow Rate.....: 28000.00
Final Flowing Pressure.....: 351.00 psi
Horner Slope.....: 0.7161 *10⁶ psi²/cycle
Extrapolated Pressure.....: 1963.86 psi
Assumed Drainage Radius.....: 1500.00 ft
Well Bore Radius.....: 3.94 in

RESULTS:

Effective Permeability.....: 77.832099 md
Flow Capacity.....: 622.6568 md.ft
Transmissibility.....: 37509.4454 md.ft/cp
Skin Factor.....: 3.4151
Pressure Drop Across Skin.....: 1148.4636 psi
Radius of Investigation.....: 62.3716 ft
Damage Ratio.....: 1.2954
Absolute Open Flow.....: 28920.3530
Absolute Open Flow W/O Damage.: 37463.6450
Estimated Stabilized AOF.....: 14398.1276

CALCULATED RECOVERY ANALYSIS

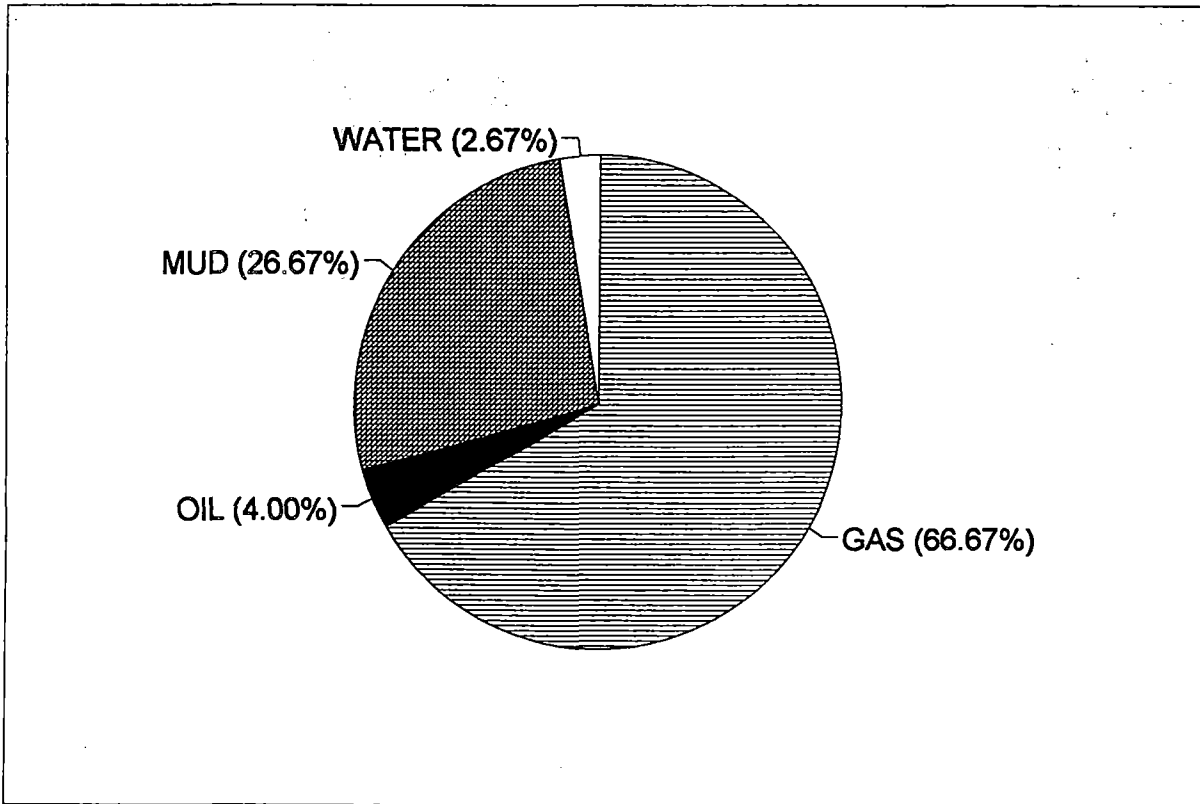
DST # 3

TICKET # 8098

SAMPLE #	TOTAL FEET	GAS		OIL		WATER		MUD	
		%	FEET	%	FEET	%	FEET	%	FEET
DRILL PIPE 1	285	50	142.5	3	8.55	2	5.7	20	57
2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
6			0		0		0		0
WEIGHT PIPE 1			0		0		0		0
2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
DRL COLLAR 1	615	50	307.5	3	18.45	2	12.3	20	123
2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
TOTAL	900	50	450	3	27	2	18	20	180

HRS OPE BBL/DAY

BBL OIL=	0.211802	*	1.50	3.388824
BBL WATER=	0.141201	*		2.259216
BBL MUD=	1.41201			
BBL GAS =	3.530025			



*Percentages listed above only account for 75% of recovery because the balance was emulsion.

GAS RECOVERY

COMPANY: Giant Exploration DATE: 10-25-95
WELL NAME: Novinger South #5 KB Elev: 2686.00 ft TICKET #8098 DST #3
WELL LOCATION: 36-33s-30w Meade KS. GR Elev: 2674.00 ft FORMATION: Marmaton
INTERVAL Fr.: 5236.00 To 5273.00 T.D.: 5273.00 ft TEST TYPE: CONVENTIONAL

GAS RECOVERY MEASURED WITH 2" MERLA GAUGE

***** GAS RATES FOR FLOW #1

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
30	0.50	0	20	28000.0

***** GAS RATES FOR FLOW #2

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
10	0.38	0	58	27100.0
20	0.38	0	35	21000.0
30	0.38	0	23	17000.0
40	0.38	0	22	16700.0
50	0.38	0	18	14700.0
60	0.38	0	16	14200.0

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, L.L.C.
728 North Roosevelt
Liberal, Kansas 67901
Phone: 316-624-5389
Fax: 316-626-7108

Lab Number:	950585	Analyzed:	10/25/95
Sample From:	Novinger South #5 DST 3	Pressure:	
Producer:	Giant Exploration & Production	Temperature:	
Date:		Location:	26-33S-30W
Time:		County:	Meade
Sampler:		State:	Kansas
Source:		Formation:	Marmaton

	Mole %	GPM
Helium	He: 0.180	0.000
Oxygen	O2: 0.000	0.000
Nitrogen	N2: 10.632	0.000
Carbon Dioxide	CO2: 0.000	0.000
Methane	C1: 74.108	0.000
Ethane	C2: 8.472	2.266
Propane	C3: 4.855	1.338
Iso Butane	iC4: 0.404	0.132
Normal Butane	nC4: 0.876	0.276
Iso Pentane	iC5: 0.163	0.060
Normal Pentane	nC5: 0.133	0.048
Hexanes Plus	C6+: 0.177	0.077

TOTAL: 100.000 4.197
Z Fact: 0.9973
SP.GR.: 0.7161
BTU (SAT): 1069.7 @ 14.73 psia
BTU (DRY): 1088.6 @ 14.73 psia
OCTANE RATING: 111.2

COMMENTS:

0.005

TEST HISTORY

8898 Giant Exploration Novinger South DST #3

Flag Points

t(Min.) P(PSig)

A:	0.00	2516.99
B:	0.00	58.41
C:	29.00	139.14
D:	60.00	1918.08
E:	0.00	189.67
F:	58.00	303.64
G:	139.00	1924.79
Q:	0.00	2499.11

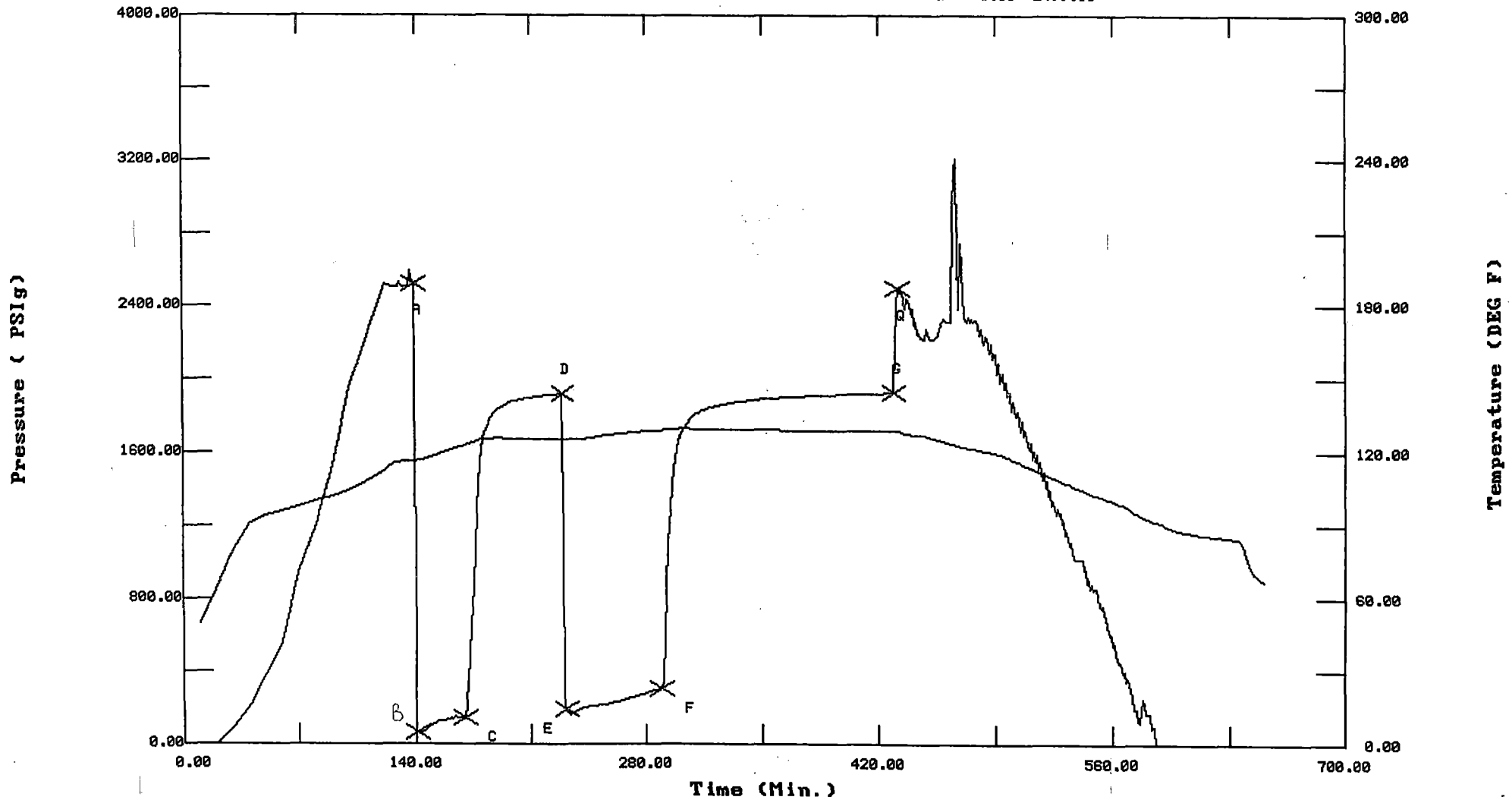
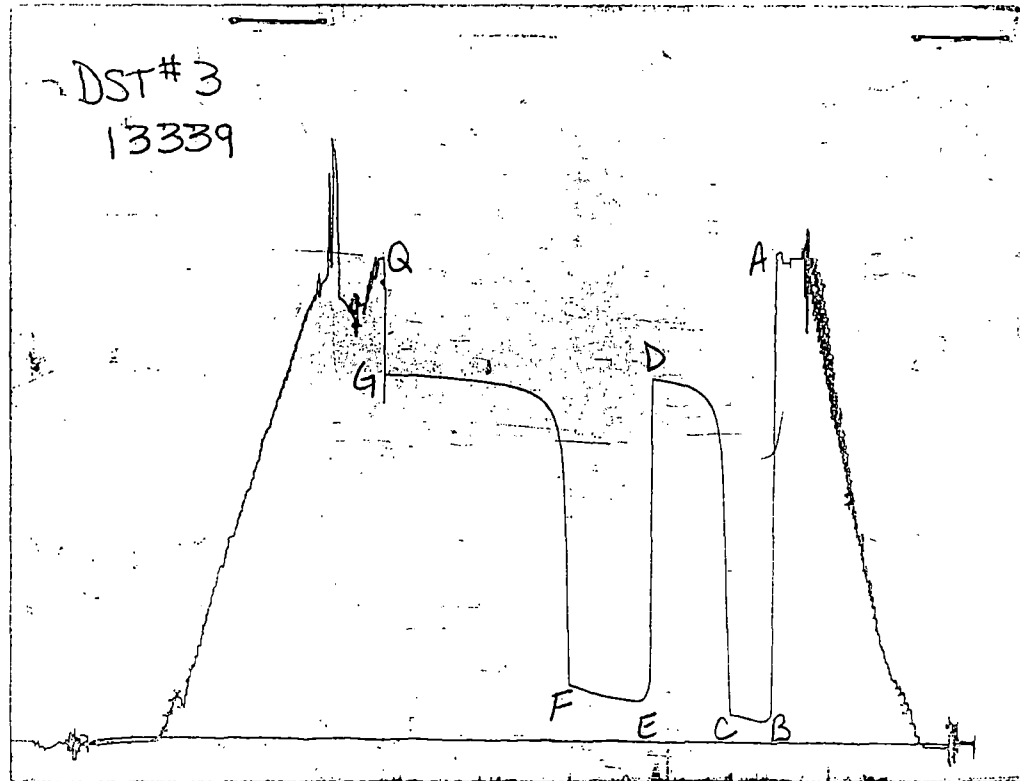


CHART PAGE



This is an actual photograph of recorder chart

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8098 Giant Exploration Novinger South DST #3

DATE: 10/24/95 TIME: 13:41:20

	Time	Pressure PSIg	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
***** Initial Hydro.	139.00	2517.0	0.0	116.60		
***** Start Flow 1	0.00	58.4	0.0	116.78		
	1.00	59.2	0.8	116.78		
	2.00	62.3	3.9	116.96		
	3.00	65.5	7.1	117.14		
	4.00	72.0	13.6	117.32		
	5.00	77.7	19.3	117.50		
	6.00	84.3	25.8	117.68		
	7.00	89.9	31.5	118.04		
	8.00	97.1	38.7	118.22		
	9.00	104.9	46.5	118.40		
	10.00	111.7	53.3	118.76		
	11.00	116.3	57.9	118.94		
	12.00	121.3	62.9	119.12		
	13.00	125.0	66.6	119.48		
	14.00	128.7	70.3	119.66		
	15.00	128.0	69.6	119.84		
	16.00	125.3	66.9	120.20		
	17.00	125.2	66.8	120.38		
	18.00	131.1	72.7	120.56		
	19.00	132.6	74.2	120.92		
	20.00	137.7	79.3	121.10		
	21.00	132.7	74.3	121.28		
	22.00	138.1	79.6	121.64		
	23.00	145.7	87.3	121.82		
	24.00	140.2	81.7	122.00		
	25.00	140.9	82.5	122.18		
	26.00	139.2	80.8	122.36		
	27.00	142.0	83.6	122.54		
	28.00	143.3	84.9	122.90		
***** End Flow 1	29.00	139.1	80.7	123.08		
***** Start Shutin 1	0.00	139.1	0.0	123.08	0.0000	0.019
	1.00	220.1	80.9	123.26	30.0000	0.048
	2.00	341.9	202.8	123.44	15.5000	0.117
	3.00	484.7	345.5	123.80	10.6667	0.235
	4.00	654.5	515.4	123.98	8.2500	0.428
	5.00	858.2	719.0	124.34	6.8000	0.736
	6.00	1082.3	943.2	124.52	5.8333	1.171
	7.00	1280.6	1141.5	124.70	5.1429	1.640
	8.00	1432.1	1292.9	124.88	4.6250	2.051
	9.00	1540.1	1400.9	125.06	4.2222	2.372
	10.00	1615.7	1476.5	125.24	3.9000	2.610
	11.00	1669.6	1530.4	125.24	3.6364	2.787
	12.00	1708.9	1569.8	125.42	3.4167	2.920
	13.00	1738.6	1599.5	125.42	3.2308	3.023
	14.00	1761.7	1622.6	125.42	3.0714	3.104
	15.00	1780.1	1641.0	125.60	2.9333	3.169
	16.00	1794.3	1655.1	125.60	2.8125	3.219
	17.00	1807.0	1667.8	125.60	2.7059	3.265
	18.00	1817.2	1678.1	125.78	2.6111	3.302
	19.00	1825.8	1686.7	125.78	2.5263	3.334

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8098 Giant Exploration Novinger South DST #3

DATE: 10/24/95

TIME: 13:41:20

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
20.00	1833.3	1694.2	125.78	2.4500	3.361
21.00	1839.7	1700.5	125.78	2.3810	3.384
22.00	1845.4	1706.3	125.78	2.3182	3.405
23.00	1850.6	1711.5	125.60	2.2609	3.425
24.00	1855.0	1715.9	125.60	2.2083	3.441
25.00	1859.0	1719.8	125.60	2.1600	3.456
26.00	1862.5	1723.4	125.60	2.1154	3.469
27.00	1868.9	1729.8	125.60	2.0741	3.493
28.00	1872.5	1733.4	125.60	2.0357	3.506
29.00	1875.5	1736.4	125.60	2.0000	3.518
30.00	1878.3	1739.2	125.60	1.9667	3.528
31.00	1880.8	1741.7	125.60	1.9355	3.537
32.00	1883.2	1744.0	125.60	1.9062	3.546
33.00	1885.4	1746.3	125.60	1.8788	3.555
34.00	1887.4	1748.2	125.60	1.8529	3.562
35.00	1889.3	1750.1	125.60	1.8286	3.569
36.00	1891.0	1751.8	125.60	1.8056	3.576
37.00	1892.8	1753.7	125.42	1.7838	3.583
38.00	1894.5	1755.4	125.60	1.7632	3.589
39.00	1896.1	1756.9	125.42	1.7436	3.595
40.00	1897.6	1758.5	125.42	1.7250	3.601
41.00	1898.9	1759.8	125.42	1.7073	3.606
42.00	1900.5	1761.3	125.42	1.6905	3.612
43.00	1901.7	1762.6	125.42	1.6744	3.617
44.00	1902.8	1763.7	125.42	1.6591	3.621
45.00	1904.1	1764.9	125.42	1.6444	3.625
46.00	1905.3	1766.2	125.42	1.6304	3.630
47.00	1906.4	1767.3	125.42	1.6170	3.634
48.00	1907.4	1768.3	125.42	1.6042	3.638
49.00	1908.5	1769.4	125.42	1.5918	3.642
50.00	1909.6	1770.5	125.42	1.5800	3.647
51.00	1910.5	1771.4	125.24	1.5686	3.650
52.00	1911.5	1772.4	125.42	1.5577	3.654
53.00	1912.3	1773.1	125.42	1.5472	3.657
54.00	1913.3	1774.2	125.42	1.5370	3.661
55.00	1914.1	1775.0	125.42	1.5273	3.664
56.00	1915.0	1775.8	125.42	1.5179	3.667
57.00	1915.9	1776.8	125.42	1.5088	3.671
58.00	1916.6	1777.4	125.42	1.5000	3.673
59.00	1917.4	1778.3	125.42	1.4915	3.676
60.00	1918.1	1778.9	125.42	1.4833	3.679
***** End Shut-in 1					
***** Start Flow 2	0.00	189.7	0.0	125.24	
	1.00	173.7	-15.9	125.06	
	2.00	165.1	-24.6	125.06	
	3.00	159.3	-30.4	125.06	
	4.00	164.2	-25.5	125.06	
	5.00	168.9	-20.8	125.06	
	6.00	173.1	-16.6	125.24	
	7.00	180.9	-8.8	125.24	
	8.00	188.2	-1.5	125.24	
	9.00	190.2	0.5	125.42	

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8098 Giant Exploration Novinger South DST #3

DATE: 10/24/95 TIME: 13:41:20

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
10.00	194.9	5.2	125.42		
11.00	200.9	11.2	125.60		
12.00	199.4	9.7	125.60		
13.00	199.8	10.2	125.78		
14.00	203.3	13.7	125.78		
15.00	203.7	14.0	125.96		
16.00	205.4	15.7	125.96		
17.00	207.3	17.6	126.14		
18.00	207.6	18.0	126.32		
19.00	208.4	18.7	126.32		
20.00	209.9	20.2	126.50		
21.00	211.2	21.6	126.68		
22.00	212.4	22.7	126.68		
23.00	214.6	24.9	126.86		
24.00	215.9	26.2	126.86		
25.00	216.9	27.2	127.04		
26.00	219.0	29.3	127.04		
27.00	221.2	31.6	127.22		
28.00	223.1	33.4	127.40		
29.00	225.3	35.7	127.40		
30.00	227.7	38.0	127.58		
31.00	230.7	41.0	127.58		
32.00	232.6	42.9	127.76		
33.00	235.0	45.3	127.76		
34.00	237.6	47.9	127.76		
35.00	239.9	50.3	127.94		
36.00	242.9	53.2	127.94		
37.00	245.8	56.1	127.94		
38.00	247.4	57.7	128.12		
39.00	250.9	61.3	128.12		
40.00	254.0	64.3	128.30		
41.00	256.2	66.6	128.30		
42.00	258.2	68.6	128.30		
43.00	260.9	71.3	128.48		
44.00	264.7	75.0	128.48		
45.00	267.6	77.9	128.48		
46.00	270.3	80.7	128.66		
47.00	272.8	83.2	128.66		
48.00	276.9	87.2	128.66		
49.00	278.0	88.3	128.84		
50.00	281.6	91.9	128.84		
51.00	284.3	94.7	128.84		
52.00	286.9	97.3	129.02		
53.00	289.5	99.8	129.02		
54.00	291.8	102.1	129.02		
55.00	295.2	105.5	129.20		
56.00	298.4	108.8	129.20		
57.00	301.1	111.5	129.20		
58.00	303.6	114.0	129.20		

***** End Flow 2

***** Start Shutin 2

0.00	303.6	0.0	129.20	0.0000	0.092
1.00	351.6	48.0	129.38	88.0000	0.124

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8098 Giant Exploration Novinger South DST #3

DATE: 10/24/95 TIME: 13:41:20

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
2.00	591.5	287.9	129.38	44.5000	0.350
3.00	857.8	554.2	129.38	30.0000	0.736
4.00	1112.7	809.1	129.56	22.7500	1.238
5.00	1296.4	992.8	129.56	18.4000	1.681
6.00	1422.3	1118.7	129.74	15.5000	2.023
7.00	1510.6	1207.0	129.74	13.4286	2.282
8.00	1574.5	1270.8	129.74	11.8750	2.479
9.00	1622.6	1318.9	129.74	10.6667	2.633
10.00	1659.7	1356.1	129.74	9.7000	2.755
11.00	1688.9	1385.2	129.92	8.9091	2.852
12.00	1712.8	1409.1	129.92	8.2500	2.934
13.00	1732.4	1428.8	129.92	7.6923	3.001
14.00	1748.7	1445.1	129.92	7.2143	3.058
15.00	1762.4	1458.7	129.92	6.8000	3.106
16.00	1774.1	1470.5	129.92	6.4375	3.148
17.00	1784.2	1480.6	129.74	6.1176	3.183
18.00	1792.9	1489.2	129.74	5.8333	3.214
19.00	1800.5	1496.9	129.74	5.5789	3.242
20.00	1807.2	1503.6	129.74	5.3500	3.266
21.00	1813.1	1509.4	129.74	5.1429	3.287
22.00	1818.4	1514.7	129.74	4.9545	3.306
23.00	1823.2	1519.6	129.74	4.7826	3.324
24.00	1827.7	1524.0	129.74	4.6250	3.340
25.00	1831.6	1528.0	129.74	4.4800	3.355
26.00	1835.2	1531.6	129.74	4.3462	3.368
27.00	1838.6	1535.0	129.74	4.2222	3.380
28.00	1841.8	1538.1	129.74	4.1071	3.392
29.00	1844.7	1541.1	129.56	4.0000	3.403
30.00	1847.4	1543.8	129.56	3.9000	3.413
31.00	1850.1	1546.5	129.56	3.8065	3.423
32.00	1852.4	1548.8	129.56	3.7188	3.432
33.00	1854.7	1551.1	129.56	3.6364	3.440
34.00	1856.8	1553.2	129.56	3.5588	3.448
35.00	1859.0	1555.4	129.56	3.4857	3.456
36.00	1860.8	1557.2	129.56	3.4167	3.463
37.00	1862.8	1559.1	129.56	3.3514	3.470
38.00	1864.5	1560.9	129.38	3.2895	3.476
39.00	1866.2	1562.6	129.38	3.2308	3.483
40.00	1867.8	1564.2	129.38	3.1750	3.489
41.00	1869.5	1565.8	129.38	3.1220	3.495
42.00	1871.1	1567.4	129.38	3.0714	3.501
43.00	1872.4	1568.8	129.38	3.0233	3.506
44.00	1873.8	1570.2	129.38	2.9773	3.511
45.00	1875.4	1571.7	129.38	2.9333	3.517
46.00	1876.6	1573.0	129.38	2.8913	3.522
47.00	1877.9	1574.2	129.38	2.8511	3.526
48.00	1879.1	1575.4	129.38	2.8125	3.531
49.00	1880.3	1576.7	129.38	2.7755	3.536
50.00	1881.4	1577.8	129.38	2.7400	3.540
51.00	1882.6	1578.9	129.38	2.7059	3.544
52.00	1883.7	1580.0	129.38	2.6731	3.548

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8098 Giant Exploration Novinger South DST #3

DATE: 10/24/95 TIME: 13:41:20

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
53.00	1884.6	1580.9	129.38	2.6415	3.552
54.00	1885.8	1582.1	129.38	2.6111	3.556
55.00	1886.7	1583.0	129.38	2.5818	3.560
56.00	1887.6	1584.0	129.38	2.5536	3.563
57.00	1888.7	1585.1	129.56	2.5263	3.567
58.00	1889.6	1586.0	129.56	2.5000	3.571
59.00	1890.6	1587.0	129.56	2.4746	3.574
60.00	1891.4	1587.7	129.56	2.4500	3.577
61.00	1892.2	1588.6	129.56	2.4262	3.581
62.00	1893.1	1589.4	129.56	2.4032	3.584
63.00	1893.9	1590.3	129.56	2.3810	3.587
64.00	1894.7	1591.1	129.38	2.3594	3.590
65.00	1895.4	1591.8	129.38	2.3385	3.593
66.00	1896.3	1592.6	129.38	2.3182	3.596
67.00	1897.0	1593.4	129.38	2.2985	3.599
68.00	1897.8	1594.1	129.38	2.2794	3.602
69.00	1898.4	1594.8	129.38	2.2609	3.604
70.00	1899.1	1595.5	129.38	2.2429	3.607
71.00	1899.8	1596.1	129.20	2.2254	3.609
72.00	1900.5	1596.8	129.20	2.2083	3.612
73.00	1900.4	1596.7	129.20	2.1918	3.611
74.00	1901.0	1597.3	129.20	2.1757	3.614
75.00	1901.6	1598.0	129.20	2.1600	3.616
76.00	1902.2	1598.6	129.20	2.1447	3.618
77.00	1902.7	1599.1	129.20	2.1299	3.620
78.00	1903.3	1599.7	129.20	2.1154	3.623
79.00	1904.0	1600.3	129.20	2.1013	3.625
80.00	1904.5	1600.8	129.20	2.0875	3.627
81.00	1905.1	1601.4	129.02	2.0741	3.629
82.00	1905.6	1601.9	129.02	2.0610	3.631
83.00	1906.2	1602.5	129.02	2.0482	3.633
84.00	1906.7	1603.0	129.02	2.0357	3.635
85.00	1907.1	1603.4	129.02	2.0235	3.637
86.00	1907.7	1604.0	129.02	2.0116	3.639
87.00	1908.3	1604.6	129.02	2.0000	3.641
88.00	1908.4	1604.8	129.02	1.9886	3.642
89.00	1909.0	1605.4	129.02	1.9775	3.644
90.00	1909.5	1605.9	129.02	1.9667	3.646
91.00	1910.0	1606.4	129.02	1.9560	3.648
92.00	1910.4	1606.7	129.02	1.9457	3.649
93.00	1910.9	1607.2	129.02	1.9355	3.651
94.00	1911.3	1607.6	129.02	1.9255	3.653
95.00	1911.8	1608.1	129.02	1.9158	3.655
96.00	1912.1	1608.5	129.02	1.9062	3.656
97.00	1912.5	1608.8	129.02	1.8969	3.657
98.00	1913.0	1609.4	129.02	1.8878	3.660
99.00	1913.4	1609.7	129.02	1.8788	3.661
100.00	1913.7	1610.1	129.02	1.8700	3.662
101.00	1914.1	1610.5	129.02	1.8614	3.664
102.00	1914.6	1610.9	129.02	1.8529	3.666
103.00	1914.9	1611.2	129.02	1.8447	3.667

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8098 Giant Exploration Novinger South DST #3

DATE: 10/24/95 TIME: 13:41:20

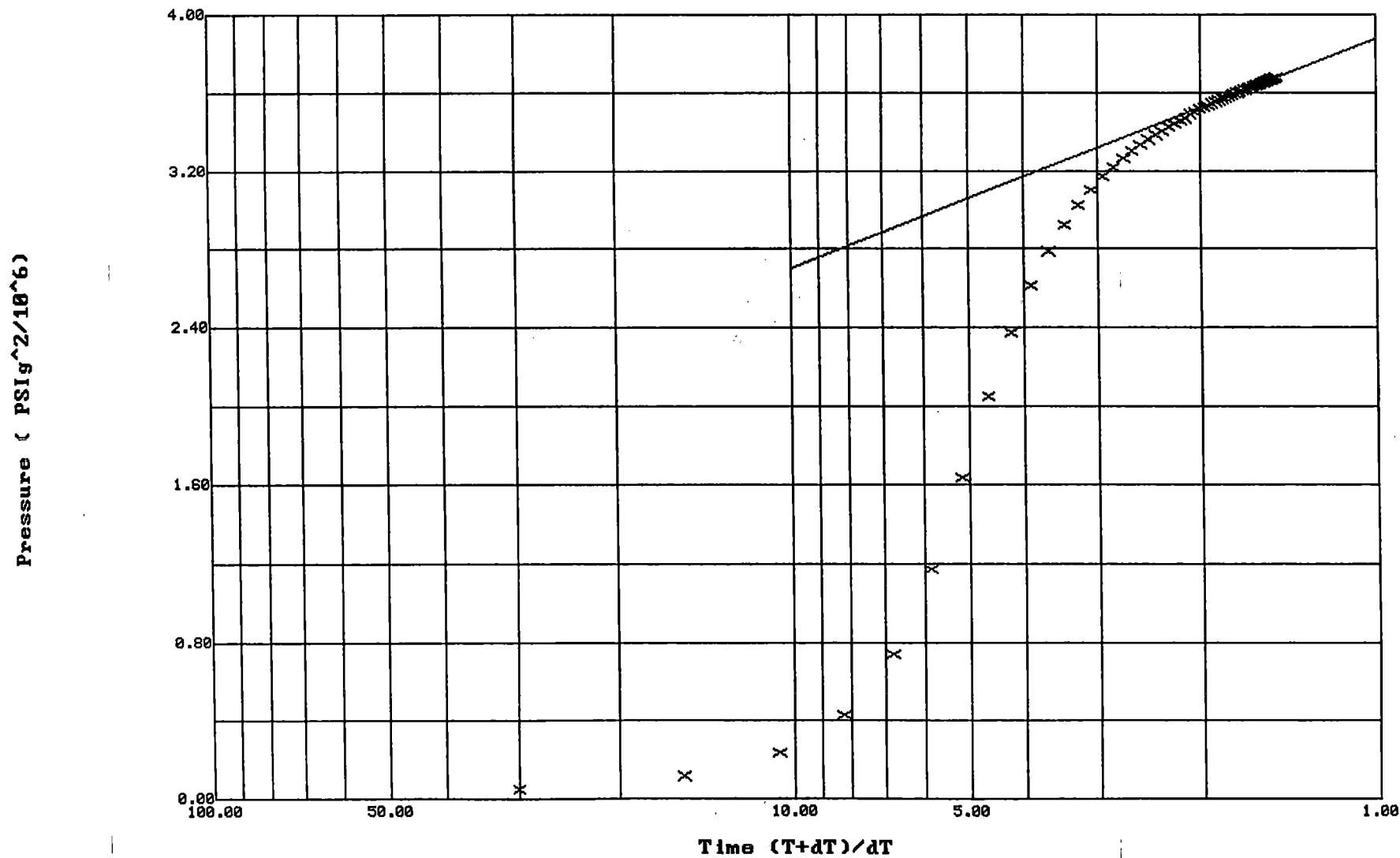
Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
104.00	1915.2	1611.6	129.02	1.8365	3.668
105.00	1915.5	1611.8	129.02	1.8286	3.669
106.00	1915.9	1612.3	129.02	1.8208	3.671
107.00	1916.2	1612.6	129.02	1.8131	3.672
108.00	1916.6	1612.9	128.84	1.8056	3.673
109.00	1917.0	1613.3	128.84	1.7982	3.675
110.00	1917.2	1613.6	128.84	1.7909	3.676
111.00	1917.5	1613.8	128.84	1.7838	3.677
112.00	1917.8	1614.2	128.84	1.7768	3.678
113.00	1918.2	1614.5	128.84	1.7699	3.679
114.00	1918.4	1614.8	128.84	1.7632	3.680
115.00	1918.7	1615.1	128.84	1.7565	3.682
116.00	1919.0	1615.4	128.84	1.7500	3.683
117.00	1919.3	1615.7	128.84	1.7436	3.684
118.00	1919.6	1615.9	129.02	1.7373	3.685
119.00	1919.9	1616.3	128.84	1.7311	3.686
120.00	1920.3	1616.7	128.84	1.7250	3.688
121.00	1920.6	1617.0	128.84	1.7190	3.689
122.00	1920.8	1617.2	128.84	1.7131	3.690
123.00	1921.1	1617.5	128.84	1.7073	3.691
124.00	1921.4	1617.7	128.84	1.7016	3.692
125.00	1921.6	1618.0	128.84	1.6960	3.693
126.00	1921.9	1618.3	128.84	1.6905	3.694
127.00	1922.2	1618.5	128.84	1.6850	3.695
128.00	1922.4	1618.7	128.84	1.6797	3.695
129.00	1922.6	1619.0	128.84	1.6744	3.696
130.00	1922.8	1619.1	128.84	1.6692	3.697
131.00	1923.1	1619.5	128.84	1.6641	3.698
132.00	1923.3	1619.6	128.84	1.6591	3.699
133.00	1923.6	1620.0	128.84	1.6541	3.700
134.00	1923.8	1620.1	128.84	1.6493	3.701
135.00	1924.0	1620.3	128.84	1.6444	3.702
136.00	1924.3	1620.6	128.84	1.6397	3.703
137.00	1924.5	1620.8	128.84	1.6350	3.704
138.00	1924.5	1620.9	128.84	1.6304	3.704
***** End Shut-in 2	139.00	1924.8	1621.1	128.84	3.705
***** Final Hydro.	431.00	2499.1	0.0	128.84	

P² Horner Plot: shut-in #1

8098 Giant Exploration Novinger South DST #3

Slope: 1.1816 PSig²/10⁶/cycle

Ext. Pressure: 1970.1388 PSig

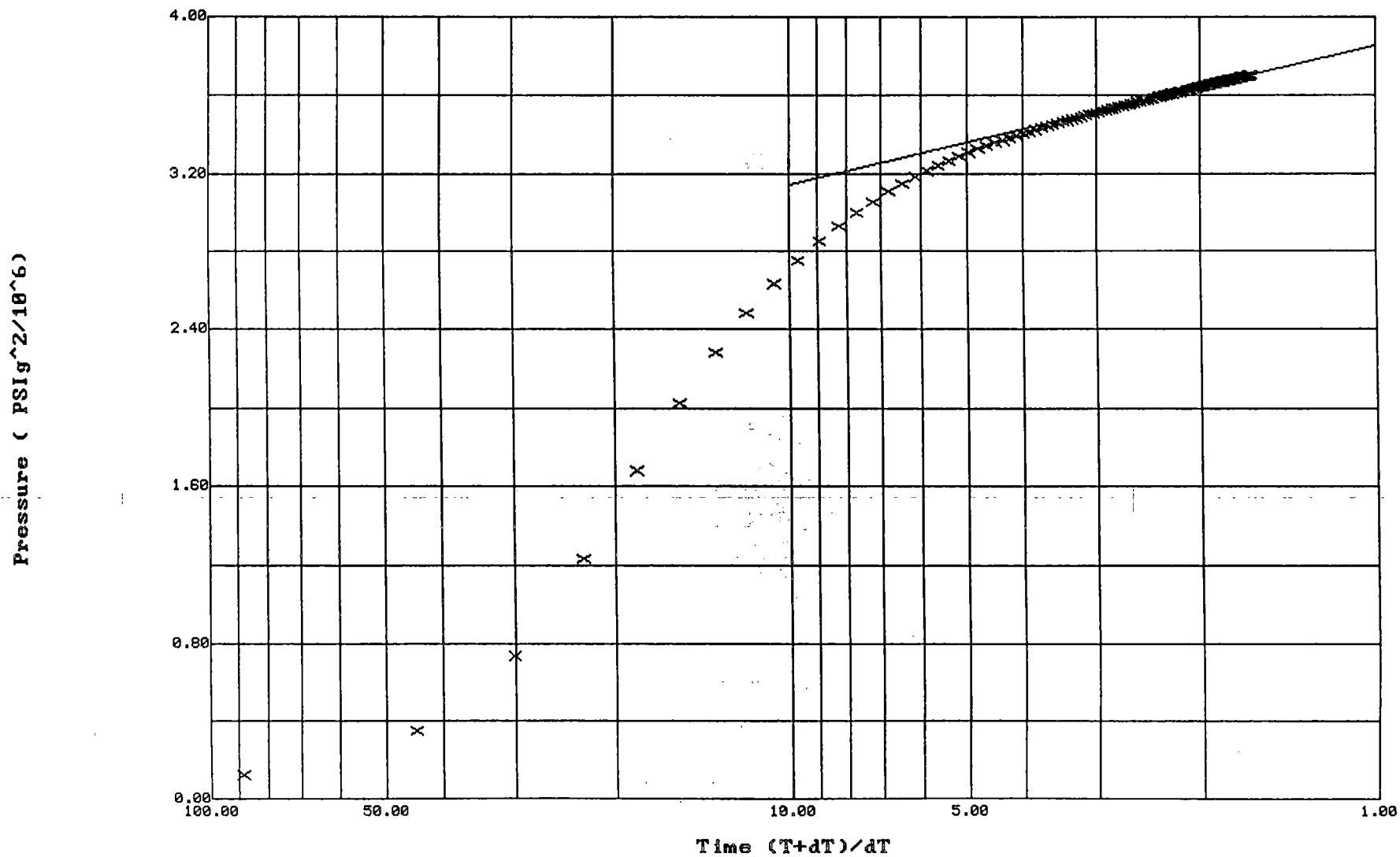


P² Horner Plot: shut-in #2

8098 Giant Exploration Novinger South DST #3

Slope: 0.7161 PSig²/10⁶/cycle

Ext. Pressure: 1963.8577 PSig



*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Novinger South #5
 LOCATION : 36-33s-30w Meade KS.
 TICKET No. 8098 D.S.T. No. 3 DATE 10-25-95
 TOTAL TOOL TO BOTTOM OF TOP PACKERS 27
 INTERVAL TOOL 37
 BOTTOM PACKERS AND ANCHOR
 TOTAL TOOL 64
 DRILL COLLAR ANCHOR IN INTERVAL
 D.C. ANCHOR STND.Stands Single Total
 D.P. ANCHOR STND.Stands Single Total
 TOTAL ASSEMBLY 37
 D.C. ABOVE TOOLS.Stands7 Single Total 615
 D.P. ABOVE TOOLS.Stands49 Single 1 Total 4604
 TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5283
 TOTAL DEPTH 5273
 TOTAL DRILL PIPE ABOVE K.B. 10

REMARKS:

FLUID SAMPLER DATA

SAMPLER RECOVERY -

Gas 2500 ml, Oil 1425 ml, Mud 75 ml,
 Pressure 1250 PSI, Total 4000 ml

SAMPLER ANALYSIS -

Gravity 40 corrected @ 60 F

PIT MUD ANALYSIS -

Chlorides 2500 ppm; Viscosity 49, Mud Wt 9,
 Filtrate 6.8, LCM 2#/bbl

	P.O. SUB @ TOP of 90' DC.	5119
	C.O. SUB 1'	5210
	S.I. TOOL STERLING	5211
	STERLING SAMPLER	5216
	HMV STERLING	5219
	JARS STERLING	5224
	SAFETY JOINT BOWEN	5229
	PACKER TOP	5231
	PACKER BOTTOM	5236
	DEPTH	
	STUBB 1'	5237
	ANCHOR	
	31' Perf.	
	W/Elec. Rec.@	5238
	T.C.	
	DEPTH	
	AK-1 Rec. @	5268
	BULLNOSE	
	T.D. 5' Perf.	5273

TRILOBITE TESTING L.L.C.

OPERATOR : Giant Exploration DATE 10-26-95
 WELL NAME: Novinger South #5 KB 2686.00 ft TICKET NO: 8099 DST #4
 LOCATION : 36-33S-30W, Meade Cty KS GR 2674.00 ft FORMATION: Novinger
 INTERVAL : 5292.00 To 5311.00 ft TD 5311.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	13339	13339	2341			PF Fr. 0247 to 0317 hr
SI 60 Range(Psi)	4025.0	4025.0	4995.0	0.0	0.0	IS Fr. 0317 to 0417 hr
SF 60 Clock(hrs)	AK-1	AK-1	Alpin			SF Fr. 0417 to 0517 hr
FS 120 Depth(ft)	5306.0	5306.0	5295.0	0.0	0.0	FS Fr. 0517 to 0717 hr

	Field	1	2	3	4	
A. Init Hydro	2543.0	2567.0	2508.0	0.0	0.0	T STARTED 0010 hr
B. First Flow	187.0	183.0	181.0	0.0	0.0	T ON BOTM 0230 hr
B1. Final Flow	124.0	146.0	124.0	0.0	0.0	T OPEN 0247 hr
C. In Shut-in	1301.0	1317.0	1332.0	0.0	0.0	T PULLED 0717 hr
D. Init Flow	155.0	187.0	145.0	0.0	0.0	T OUT 1115 hr
E. Final Flow	187.0	214.0	205.0	0.0	0.0	
F. Fl Shut-in	1271.0	1289.0	1296.0	0.0	0.0	
G. Final Hydro	2523.0	2553.0	2503.0	0.0	0.0	
Inside/Outside	0	0	I			

TOOL DATA-----
 Tool Wt. 2000.00 lbs
 Wt Set On Packer 37000.00 lbs
 Wt Pulled Loose 110000.00 lbs
 Initial Str Wt 97000.00 lbs
 Unseated Str Wt 97000.00 lbs
 Bot Choke 0.75 in
 Hole Size 8.88 in
 D Col. ID 2.25 in
 D. Pipe ID 3.70 in
 D.C. Length 615.00 ft
 D.P. Length 4667.00 ft

RECOVERY

Tot Fluid 1100.00 ft of 615.00 ft in DC and 485.00 ft in DP
 1100.00 ft of With Gradient check -
 0.00 ft of Heavy gas cut oil & mud -
 90% gas, 5% oil, 5% mud

SALINITY 0.00 P.P.M. A.P.I. Gravity 39.60

BLOW DESCRIPTION

Initial Blow -
 Strong blow off bottom in 30 sec;
 Gas to surface in 3.5 min, burns blue

Initial Shutin -
 Bled off blow, no return

Final Blow -
 Strong return off bottom immediately;
 gauged 3# psi on .75" = 133 mcf/day

Final Shutin -
 Wireline gradient check showed 1100'
 fluid

SAMPLES:
 SENT TO:

MUD DATA-----
 Mud Type Chemical
 Weight 8.90 lb/cf
 Vis. 55.00 s/L
 W.L. 6.00 in3
 F.C. 0.00 in
 Mud Drop N
 Amt. of fill 0.00 ft
 Btm. H. Temp. 124.00 F
 Hole Condition Good
 % Porosity 0.00
 Packer Size 6.75 in
 No. of Packers 2
 Cushion Amt. 0.00
 Cushion Type
 Reversed Out Y
 Tool Chased N
 Tester Rod Steinbrink
 Co. Rep. Larry Benedick
 Contr. Beredco
 Rig # #2
 Unit #
 Pump T.

Test Successful: Y

Operator.....: Giant Exploration
Well Name.....: Novinger South #5
DST Number.....: 4

Location.: 36-33S-30W, Meade Cty Recorder No...: 2341
Test Type: Conventional Recorder Depth: 5295
Formation: Novinger Test Interval.: 5292-5311

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

RESERVOIR PARAMETERS USED:

Net Pay.....: 4.00 ft
Porosity.....: 13.00 %
Bottom Hole Temp.....: 124.00 F
Specific Gravity.....: 0.709
Z factor.....: %7/3f %s
Compressibility.....: 0.013819 /psi
Viscosity.....: 0.0146 cp
Total Flowing Time.....: 90.00 min.
Flow Rate.....: 133000.00
Final Flowing Pressure.....: 204.00 psi
Horner Slope.....: 1.7429 *10⁶ psi²/cycle
Extrapolated Pressure.....: 1445.44 psi
Assumed Drainage Radius....: 1500.00 ft
Well Bore Radius.....: 3.94 in

RESULTS:

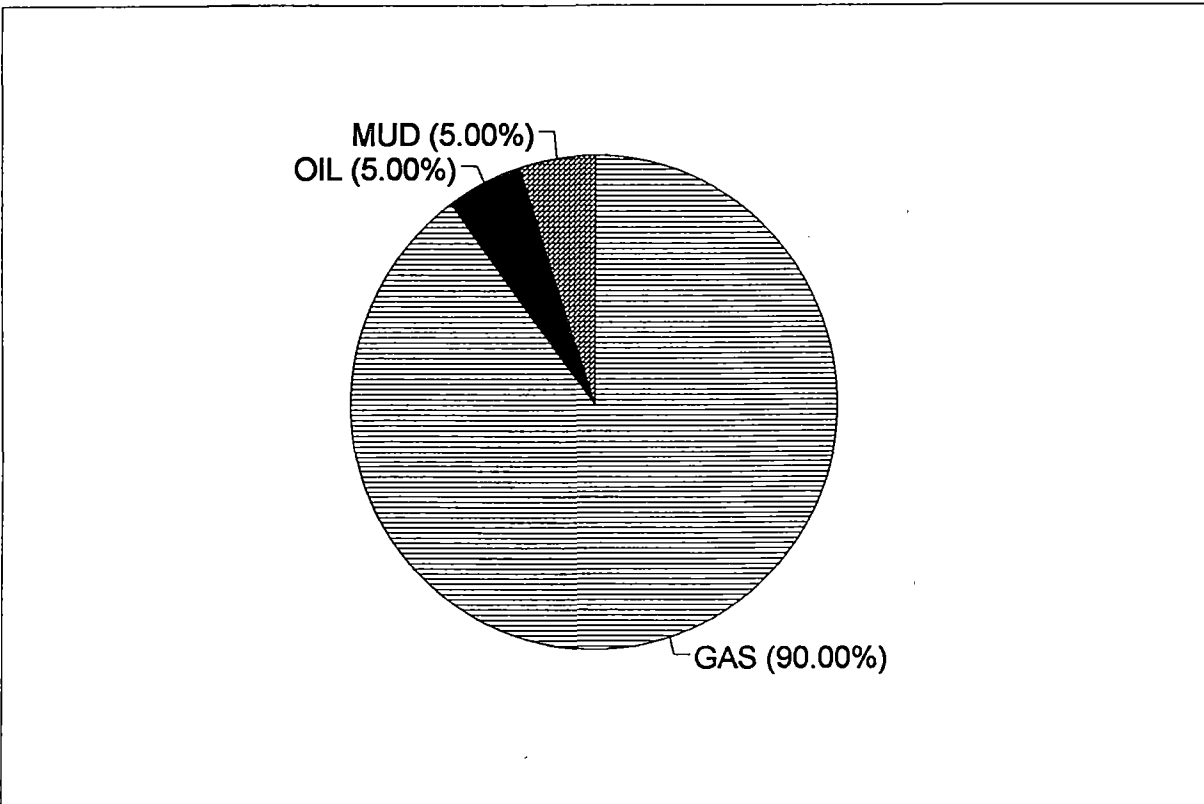
Effective Permeability.....: 265.429325 md
Flow Capacity.....: 1061.7173 md.ft
Transmissibility.....: 72720.3630 md.ft/cp
Skin Factor.....: -1.8276
Pressure Drop Across Skin.....: -204.0000 psi
Radius of Investigation.....: 112.9866 ft
Damage Ratio.....: 0.2587
Absolute Open Flow.....: 135743.1963
Absolute Open Flow W/O Damage.: 135743.1963
Estimated Stabilized AOF.....: 15222.3422

CALCULATED RECOVERY ANALYSIS

DST # 4

TICKET # 8099

SAMPLE #	TOTAL FEET	GAS		OIL		WATER		MUD	
		%	FEET	%	FEET	%	FEET	%	FEET
DRILL PIPE 1	485	90	436.5	5	24.25		0	5	24.25
2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
6			0		0		0		0
WEIGHT PIPE 1			0		0		0		0
2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
DRL COLLAR 1	615	90	553.5	5	30.75		0	5	30.75
2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
TOTAL	1100	90	990	5	55	0	0	5	55
		HRS OPE BBL/DAY							
BBL OIL=	0.495203	*	1.50	7.92324					
BBL WATER=	0	*		0					
BBL MUD=	0.495203								
BBL GAS =	8.913645								



GAS RECOVERY

COMPANY: Giant Exploration DATE: 10-26-95
WELL NAME: Novinger South #5 KB Elev: 2686.00 ft TICKET #8099 DST #4
WELL LOCATION: 36-33S-30W, Meade Cty KS GR Elev: 2674.00 ft FORMATION: Novinger
INTERVAL Fr.: 5292.00 To 5311.00 T.D.: 5311.00 ft TEST TYPE: CONVENTIONAL

GAS RECOVERY MEASURED WITH 2" Merla Gauge

***** GAS RATES FOR FLOW #1

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
10	0.75	16	0	338000.0
20	0.75	12	0	288000.0
30	0.75	10	0	259000.0

***** GAS RATES FOR FLOW #2

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
10	0.75	10	0	259000.0
20	0.75	7	0	211000.0
30	0.75	6	0	185000.0
40	0.75	5	0	175000.0
50	0.75	5	0	175000.0
60	0.75	3	0	133000.0

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, L.L.C.
 728 North Roosevelt
 Liberal, Kansas 67901
 Phone: 316-624-5389
 Fax: 316-626-7108

Lab Number:	950592	Analyzed:	10/26/95
Sample From:	Novinger South #5 DST 4	Pressure:	
Producer:	Giant Exploration & Production	Temperature:	
Date:		Location:	26-33S-30W
Time:		County:	Meade
Sampler:		State:	Kansas
Source:		Formation:	Novinger

	Mole %	GPM
Helium	He: 0.226	0.000
Oxygen	O2: 0.000	0.000
Nitrogen	N2: 11.836	0.000
Carbon Dioxide	CO2: 0.096	0.000
Methane	C1: 74.169	0.000
Ethane	C2: 7.708	2.062
Propane	C3: 4.531	1.249
Iso Butane	iC4: 0.354	0.116
Normal Butane	nC4: 0.728	0.230
Iso Pentane	iC5: 0.111	0.041
Normal Pentane	nC5: 0.111	0.040
Hexanes Plus	C6+: 0.130	0.057

TOTAL: 100.000 3.793
 Z Fact: 0.9975
 SP.GR.: 0.7093
 BTU (SAT): 1037.0 @ 14.73 psia
 BTU (DRY): 1055.4 @ 14.73 psia
 OCTANE RATING: 109.9

COMMENTS:

0.000

TEST HISTORY

8099 Giant Exploration Novinger South DST#4

Flag Points

t(Min.) P(PSig)

A:	0.00	2508.43
B:	0.00	181.28
C:	30.00	123.53
D:	58.00	1332.35
E:	0.00	144.85
F:	58.00	204.69
G:	122.00	1295.75
Q:	0.00	2503.47

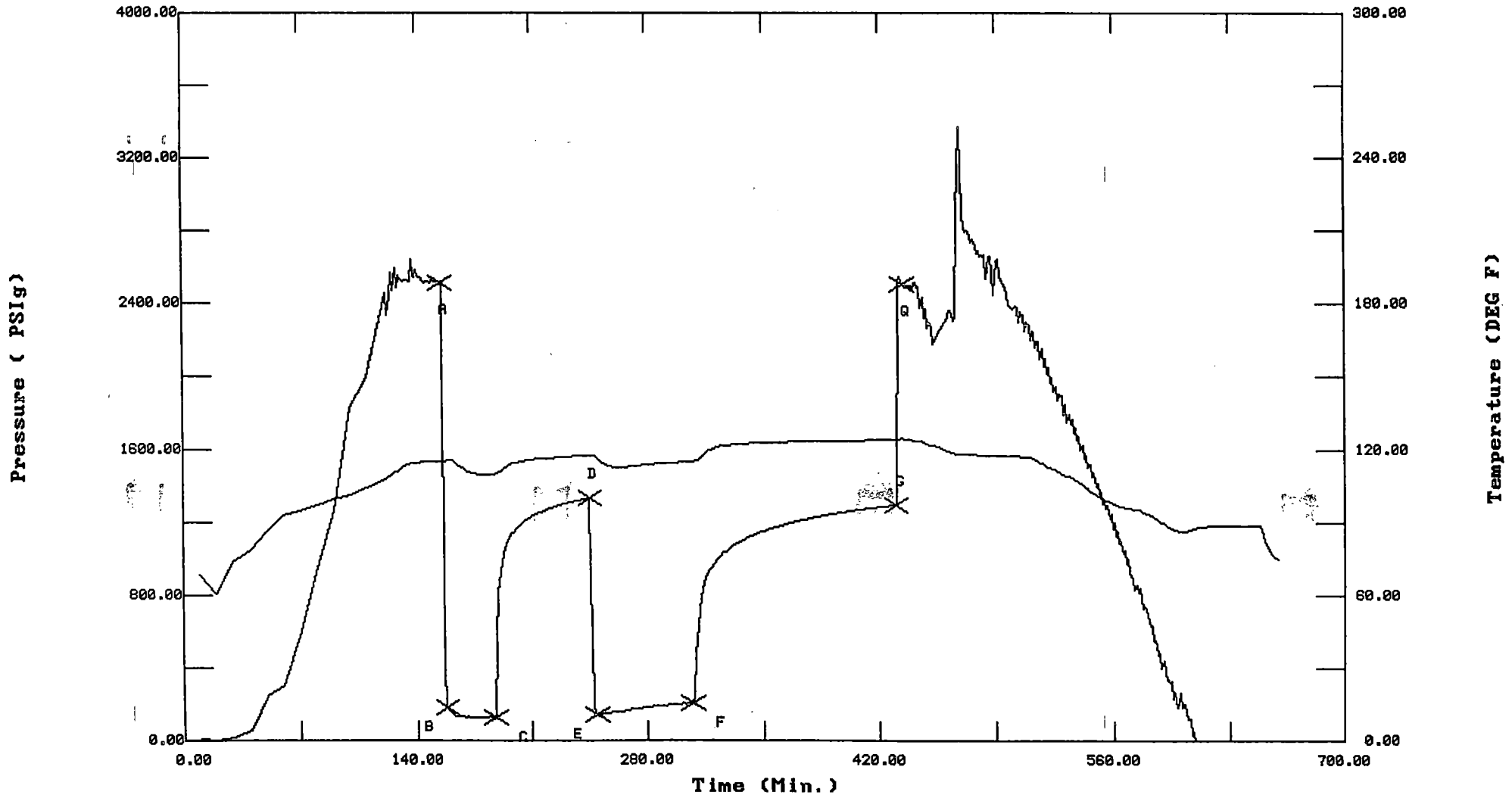
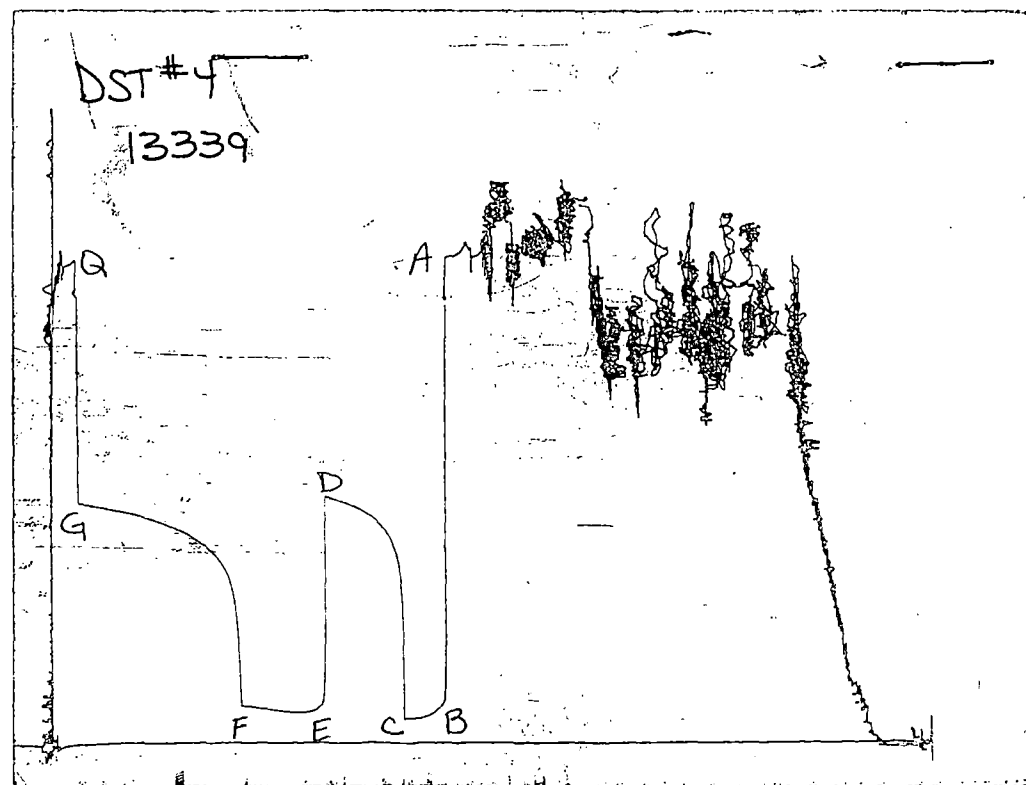


CHART PAGE



This is an actual photograph of recorder chart

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8099 Giant Exploration Novinger South DST#4

DATE: 10/25/95 TIME: 13:41:55

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
***** Initial Hydro.	155.00	2508.4	0.0	115.34		
***** Start Flow 1	0.00	181.3	0.0	115.34		
	1.00	162.6	-18.7	115.70		
	2.00	157.2	-24.1	115.88		
	3.00	149.3	-32.0	115.88		
	4.00	140.2	-41.1	115.70		
	5.00	136.6	-44.6	115.34		
	6.00	134.6	-46.7	114.80		
	7.00	136.7	-44.6	114.08		
	8.00	132.9	-48.3	113.54		
	9.00	133.6	-47.7	113.00		
	10.00	132.8	-48.4	112.46		
	11.00	128.8	-52.5	111.92		
	12.00	128.4	-52.9	111.56		
	13.00	129.4	-51.9	111.20		
	14.00	125.9	-55.4	110.84		
	15.00	123.4	-57.9	110.66		
	16.00	124.6	-56.7	110.48		
	17.00	127.0	-54.3	110.30		
	18.00	123.7	-57.6	110.12		
	19.00	124.5	-56.8	109.94		
	20.00	125.8	-55.5	109.94		
	21.00	126.8	-54.5	109.94		
	22.00	124.5	-56.8	109.76		
	23.00	122.4	-58.8	109.76		
	24.00	128.1	-53.1	109.76		
	25.00	127.4	-53.9	109.94		
	26.00	132.0	-49.3	109.94		
	27.00	128.1	-53.1	109.94		
	28.00	123.4	-57.9	109.94		
	29.00	123.3	-58.0	109.94		
***** End Flow 1	30.00	123.5	-57.7	109.94		
***** Start Shutin 1	0.00	123.5	0.0	109.94	0.0000	0.015
	1.00	561.3	437.8	110.12	31.0000	0.315
	2.00	810.1	686.5	110.30	16.0000	0.656
	3.00	923.4	799.9	110.84	11.0000	0.853
	4.00	985.8	862.3	111.38	8.5000	0.972
	5.00	1026.8	903.3	111.92	7.0000	1.054
	6.00	1057.4	933.9	112.46	6.0000	1.118
	7.00	1081.6	958.0	113.00	5.2857	1.170
	8.00	1101.5	978.0	113.36	4.7500	1.213
	9.00	1118.3	994.8	113.72	4.3333	1.251
	10.00	1133.2	1009.7	114.08	4.0000	1.284
	11.00	1146.3	1022.7	114.26	3.7273	1.314
	12.00	1158.3	1034.7	114.44	3.5000	1.342
	13.00	1168.9	1045.3	114.62	3.3077	1.366
	14.00	1174.1	1050.5	114.80	3.1429	1.378
	15.00	1183.1	1059.6	114.98	3.0000	1.400
	16.00	1191.4	1067.9	115.16	2.8750	1.420
	17.00	1199.1	1075.5	115.34	2.7647	1.438
	18.00	1206.0	1082.5	115.34	2.6667	1.455

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8099 Giant Exploration Novinger South DST#4

DATE: 10/25/95

TIME: 13:41:55

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶	
19.00	1212.6	1089.0	115.52	2.5789	1.470	
20.00	1218.7	1095.2	115.52	2.5000	1.485	
21.00	1224.5	1101.0	115.70	2.4286	1.499	
22.00	1229.9	1106.3	115.70	2.3636	1.513	
23.00	1235.0	1111.5	115.88	2.3043	1.525	
24.00	1240.0	1116.5	115.88	2.2500	1.538	
25.00	1244.6	1121.1	116.06	2.2000	1.549	
26.00	1249.0	1125.5	116.06	2.1538	1.560	
27.00	1253.2	1129.7	116.24	2.1111	1.571	
28.00	1257.1	1133.6	116.24	2.0714	1.580	
29.00	1260.8	1137.3	116.24	2.0345	1.590	
30.00	1264.6	1141.1	116.42	2.0000	1.599	
31.00	1268.2	1144.7	116.42	1.9677	1.608	
32.00	1271.6	1148.0	116.42	1.9375	1.617	
33.00	1274.7	1151.2	116.42	1.9091	1.625	
34.00	1277.9	1154.3	116.60	1.8824	1.633	
35.00	1280.9	1157.4	116.60	1.8571	1.641	
36.00	1283.9	1160.4	116.60	1.8333	1.648	
37.00	1286.8	1163.2	116.78	1.8108	1.656	
38.00	1289.5	1165.9	116.78	1.7895	1.663	
39.00	1292.1	1168.6	116.78	1.7692	1.670	
40.00	1294.7	1171.2	116.96	1.7500	1.676	
41.00	1297.3	1173.7	116.96	1.7317	1.683	
42.00	1299.8	1176.2	116.96	1.7143	1.689	
43.00	1302.2	1178.7	116.96	1.6977	1.696	
44.00	1304.6	1181.0	116.96	1.6818	1.702	
45.00	1306.8	1183.3	117.14	1.6667	1.708	
46.00	1309.1	1185.6	117.14	1.6522	1.714	
47.00	1311.3	1187.7	117.14	1.6383	1.719	
48.00	1313.2	1189.7	117.32	1.6250	1.725	
49.00	1315.4	1191.9	117.32	1.6122	1.730	
50.00	1317.5	1194.0	117.32	1.6000	1.736	
51.00	1319.4	1195.9	117.32	1.5882	1.741	
52.00	1321.4	1197.9	117.50	1.5769	1.746	
53.00	1323.3	1199.7	117.50	1.5660	1.751	
54.00	1325.2	1201.7	117.50	1.5556	1.756	
55.00	1327.1	1203.5	117.50	1.5455	1.761	
56.00	1328.9	1205.4	117.68	1.5357	1.766	
57.00	1330.7	1207.1	117.68	1.5263	1.771	
***** End Shut-in 1	58.00	1332.3	1208.8	117.68	1.5172	1.775
***** Start Flow 2	0.00	144.9	0.0	116.78		
	1.00	145.3	0.4	116.06		
	2.00	144.9	0.1	115.52		
	3.00	144.9	0.0	114.98		
	4.00	150.1	5.3	114.44		
	5.00	150.3	5.5	114.08		
	6.00	150.9	6.0	113.72		
	7.00	151.8	7.0	113.36		
	8.00	152.1	7.2	113.18		
	9.00	153.6	8.7	113.18		
	10.00	155.0	10.2	113.00		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8099 Giant Exploration Novinger South DST#4

DATE: 10/25/95

TIME: 13:41:55

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	11.00	156.3	11.4	112.82		
	12.00	157.2	12.3	112.82		
	13.00	159.2	14.4	112.82		
	14.00	159.9	15.0	112.82		
	15.00	160.4	15.5	112.82		
	16.00	160.9	16.0	112.82		
	17.00	162.1	17.2	113.00		
	18.00	163.6	18.7	113.00		
	19.00	165.3	20.5	113.00		
	20.00	167.8	22.9	113.18		
	21.00	169.1	24.3	113.18		
	22.00	170.0	25.2	113.18		
	23.00	172.5	27.7	113.36		
	24.00	172.7	27.9	113.36		
	25.00	174.6	29.7	113.36		
	26.00	175.1	30.3	113.54		
	27.00	176.6	31.7	113.54		
	28.00	178.4	33.6	113.72		
	29.00	179.0	34.2	113.72		
	30.00	180.6	35.8	113.72		
	31.00	181.8	36.9	113.90		
	32.00	183.3	38.4	113.90		
	33.00	183.7	38.9	114.08		
	34.00	185.2	40.4	114.08		
	35.00	186.9	42.0	114.08		
	36.00	188.3	43.5	114.26		
	37.00	189.4	44.6	114.26		
	38.00	190.9	46.1	114.26		
	39.00	191.3	46.5	114.44		
	40.00	192.7	47.8	114.44		
	41.00	191.9	47.1	114.44		
	42.00	192.8	47.9	114.44		
	43.00	194.0	49.2	114.62		
	44.00	195.0	50.1	114.62		
	45.00	196.8	52.0	114.62		
	46.00	195.0	50.1	114.80		
	47.00	196.0	51.2	114.80		
	48.00	197.1	52.2	114.80		
	49.00	199.1	54.2	114.80		
	50.00	199.4	54.6	114.98		
	51.00	198.2	53.4	114.98		
	52.00	203.5	58.7	114.98		
	53.00	200.4	55.6	115.16		
	54.00	201.5	56.7	115.16		
	55.00	205.4	60.5	115.16		
	56.00	204.5	59.7	115.34		
	57.00	207.4	62.5	115.34		
*****	End Flow 2	58.00	204.7	59.8	115.34	
*****	Start Shutin 2	0.00	204.7	0.0	115.34	0.0000
		1.00	251.7	47.0	115.34	89.0000
		2.00	476.8	272.1	115.52	45.0000

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8099 Giant Exploration Novinger South DST#4

DATE: 10/25/95 TIME: 13:41:55

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
3.00	628.9	424.3	115.88	30.3333	0.396
4.00	728.6	523.9	116.42	23.0000	0.531
5.00	793.4	588.8	117.14	18.6000	0.630
6.00	838.3	633.6	117.68	15.6667	0.703
7.00	871.5	666.8	118.22	13.5714	0.760
8.00	897.3	692.7	118.76	12.0000	0.805
9.00	918.4	713.7	119.30	10.7778	0.843
10.00	936.4	731.7	119.66	9.8000	0.877
11.00	951.9	747.2	120.02	9.0000	0.906
12.00	965.4	760.7	120.38	8.3333	0.932
13.00	977.8	773.1	120.74	7.7692	0.956
14.00	989.0	784.3	120.92	7.2857	0.978
15.00	999.3	794.6	121.10	6.8667	0.999
16.00	1009.0	804.3	121.28	6.5000	1.018
17.00	1017.9	813.2	121.46	6.1765	1.036
18.00	1026.3	821.7	121.64	5.8889	1.053
19.00	1034.3	829.6	121.64	5.6316	1.070
20.00	1042.0	837.3	121.82	5.4000	1.086
21.00	1049.1	844.4	121.82	5.1905	1.101
22.00	1056.0	851.3	122.00	5.0000	1.115
23.00	1062.4	857.7	122.00	4.8261	1.129
24.00	1068.7	864.0	122.18	4.6667	1.142
25.00	1074.6	869.9	122.18	4.5200	1.155
26.00	1080.4	875.7	122.18	4.3846	1.167
27.00	1085.8	881.2	122.36	4.2593	1.179
28.00	1091.2	886.5	122.36	4.1429	1.191
29.00	1096.4	891.7	122.36	4.0345	1.202
30.00	1101.4	896.7	122.54	3.9333	1.213
31.00	1106.2	901.5	122.54	3.8387	1.224
32.00	1110.9	906.2	122.54	3.7500	1.234
33.00	1115.2	910.5	122.54	3.6667	1.244
34.00	1119.6	914.9	122.54	3.5882	1.253
35.00	1123.8	919.1	122.72	3.5143	1.263
36.00	1127.8	923.1	122.72	3.4444	1.272
37.00	1131.8	927.1	122.72	3.3784	1.281
38.00	1135.5	930.8	122.72	3.3158	1.289
39.00	1139.2	934.5	122.72	3.2564	1.298
40.00	1142.8	938.1	122.72	3.2000	1.306
41.00	1146.4	941.8	122.90	3.1463	1.314
42.00	1149.6	944.9	122.90	3.0952	1.322
43.00	1153.2	948.6	122.90	3.0465	1.330
44.00	1156.6	951.9	122.90	3.0000	1.338
45.00	1159.6	954.9	122.90	2.9556	1.345
46.00	1162.8	958.1	122.90	2.9130	1.352
47.00	1165.7	961.1	122.90	2.8723	1.359
48.00	1168.8	964.1	122.90	2.8333	1.366
49.00	1171.7	967.0	123.08	2.7959	1.373
50.00	1174.6	970.0	123.08	2.7600	1.380
51.00	1177.3	972.6	123.08	2.7255	1.386
52.00	1180.0	975.3	123.08	2.6923	1.392
53.00	1182.7	978.0	123.08	2.6604	1.399

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8099 Giant Exploration Novinger South DST#4

DATE: 10/25/95

TIME: 13:41:55

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
54.00	1185.3	980.6	123.08	2.6296	1.405
55.00	1187.9	983.2	123.08	2.6000	1.411
56.00	1190.5	985.8	123.08	2.5714	1.417
57.00	1193.0	988.3	123.08	2.5439	1.423
58.00	1195.4	990.7	123.26	2.5172	1.429
59.00	1197.8	993.1	123.26	2.4915	1.435
60.00	1200.0	995.3	123.26	2.4667	1.440
61.00	1202.4	997.7	123.26	2.4426	1.446
62.00	1204.7	1000.0	123.26	2.4194	1.451
63.00	1206.9	1002.2	123.26	2.3968	1.457
64.00	1209.1	1004.4	123.26	2.3750	1.462
65.00	1211.2	1006.5	123.26	2.3538	1.467
66.00	1213.3	1008.6	123.26	2.3333	1.472
67.00	1215.4	1010.7	123.26	2.3134	1.477
68.00	1217.4	1012.8	123.26	2.2941	1.482
69.00	1219.5	1014.8	123.44	2.2754	1.487
70.00	1221.5	1016.8	123.26	2.2571	1.492
71.00	1223.3	1018.6	123.44	2.2394	1.497
72.00	1225.3	1020.6	123.44	2.2222	1.501
73.00	1227.3	1022.6	123.44	2.2055	1.506
74.00	1229.0	1024.3	123.44	2.1892	1.511
75.00	1230.9	1026.2	123.44	2.1733	1.515
76.00	1232.7	1028.0	123.44	2.1579	1.520
77.00	1234.6	1029.9	123.44	2.1429	1.524
78.00	1236.2	1031.6	123.44	2.1282	1.528
79.00	1238.0	1033.3	123.44	2.1139	1.533
80.00	1239.6	1034.9	123.62	2.1000	1.537
81.00	1241.4	1036.7	123.62	2.0864	1.541
82.00	1243.0	1038.3	123.62	2.0732	1.545
83.00	1244.6	1039.9	123.62	2.0602	1.549
84.00	1246.2	1041.5	123.62	2.0476	1.553
85.00	1247.8	1043.1	123.62	2.0353	1.557
86.00	1249.3	1044.6	123.62	2.0233	1.561
87.00	1251.0	1046.3	123.62	2.0115	1.565
88.00	1252.4	1047.7	123.62	2.0000	1.568
89.00	1254.0	1049.3	123.62	1.9888	1.573
90.00	1255.5	1050.8	123.62	1.9778	1.576
91.00	1257.0	1052.3	123.62	1.9670	1.580
92.00	1258.5	1053.8	123.62	1.9565	1.584
93.00	1260.0	1055.3	123.80	1.9462	1.588
94.00	1261.4	1056.7	123.80	1.9362	1.591
95.00	1262.8	1058.1	123.80	1.9263	1.595
96.00	1264.1	1059.4	123.80	1.9167	1.598
97.00	1265.5	1060.8	123.80	1.9072	1.602
98.00	1267.0	1062.3	123.80	1.8980	1.605
99.00	1268.2	1063.5	123.80	1.8889	1.608
100.00	1269.7	1065.0	123.80	1.8800	1.612
101.00	1270.9	1066.2	123.80	1.8713	1.615
102.00	1272.1	1067.4	123.80	1.8627	1.618
103.00	1273.5	1068.8	123.80	1.8544	1.622
104.00	1274.8	1070.1	123.98	1.8462	1.625

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8099 Giant Exploration Novinger South DST#4

DATE: 10/25/95

TIME: 13:41:55

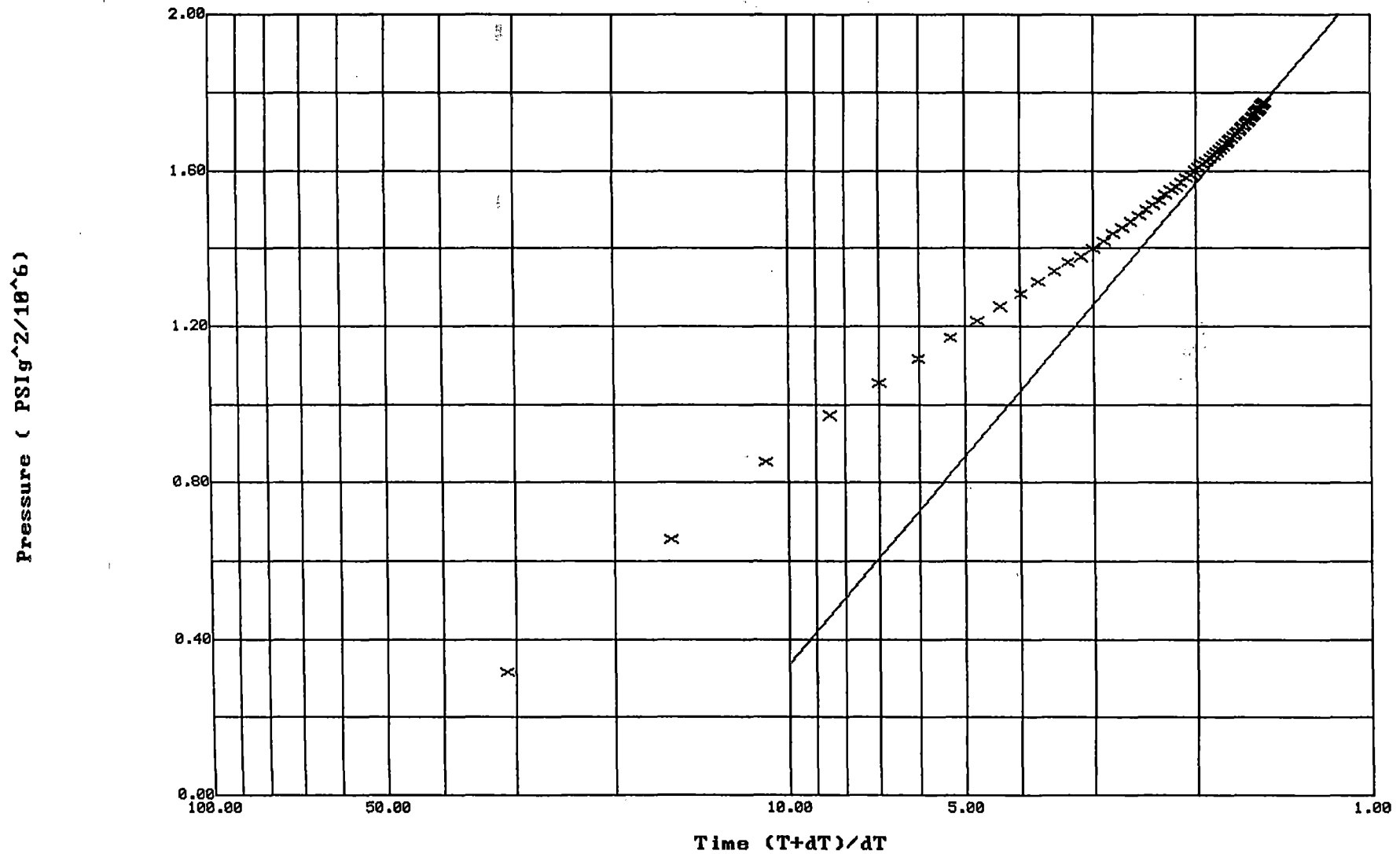
	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
	105.00	1276.0	1071.3	123.98	1.8381	1.628
	106.00	1277.2	1072.5	123.98	1.8302	1.631
	107.00	1278.5	1073.9	123.98	1.8224	1.635
	108.00	1279.7	1075.0	123.98	1.8148	1.638
	109.00	1281.0	1076.3	123.98	1.8073	1.641
	110.00	1282.2	1077.5	123.98	1.8000	1.644
	111.00	1283.3	1078.6	123.98	1.7928	1.647
	112.00	1284.6	1079.9	123.98	1.7857	1.650
	113.00	1285.8	1081.1	123.98	1.7788	1.653
	114.00	1286.8	1082.1	123.98	1.7719	1.656
	115.00	1288.0	1083.3	123.98	1.7652	1.659
	116.00	1289.2	1084.5	123.98	1.7586	1.662
	117.00	1290.3	1085.6	124.16	1.7521	1.665
	118.00	1291.4	1086.7	124.16	1.7458	1.668
	119.00	1292.5	1087.8	124.16	1.7395	1.671
	120.00	1293.6	1088.9	124.16	1.7333	1.673
	121.00	1294.7	1090.0	124.16	1.7273	1.676
***** End Shut-in 2	122.00	1295.8	1091.1	124.16	1.7213	1.679
***** Final Hydro.	434.00	2503.5	0.0	124.52		

P² Horner Plot: shut-in #1

8099 Giant Exploration Novinger South DST#4

Slope: 1.7564 PSig²/10⁶/cycle

Ext. Pressure: 1446.7878 PSig

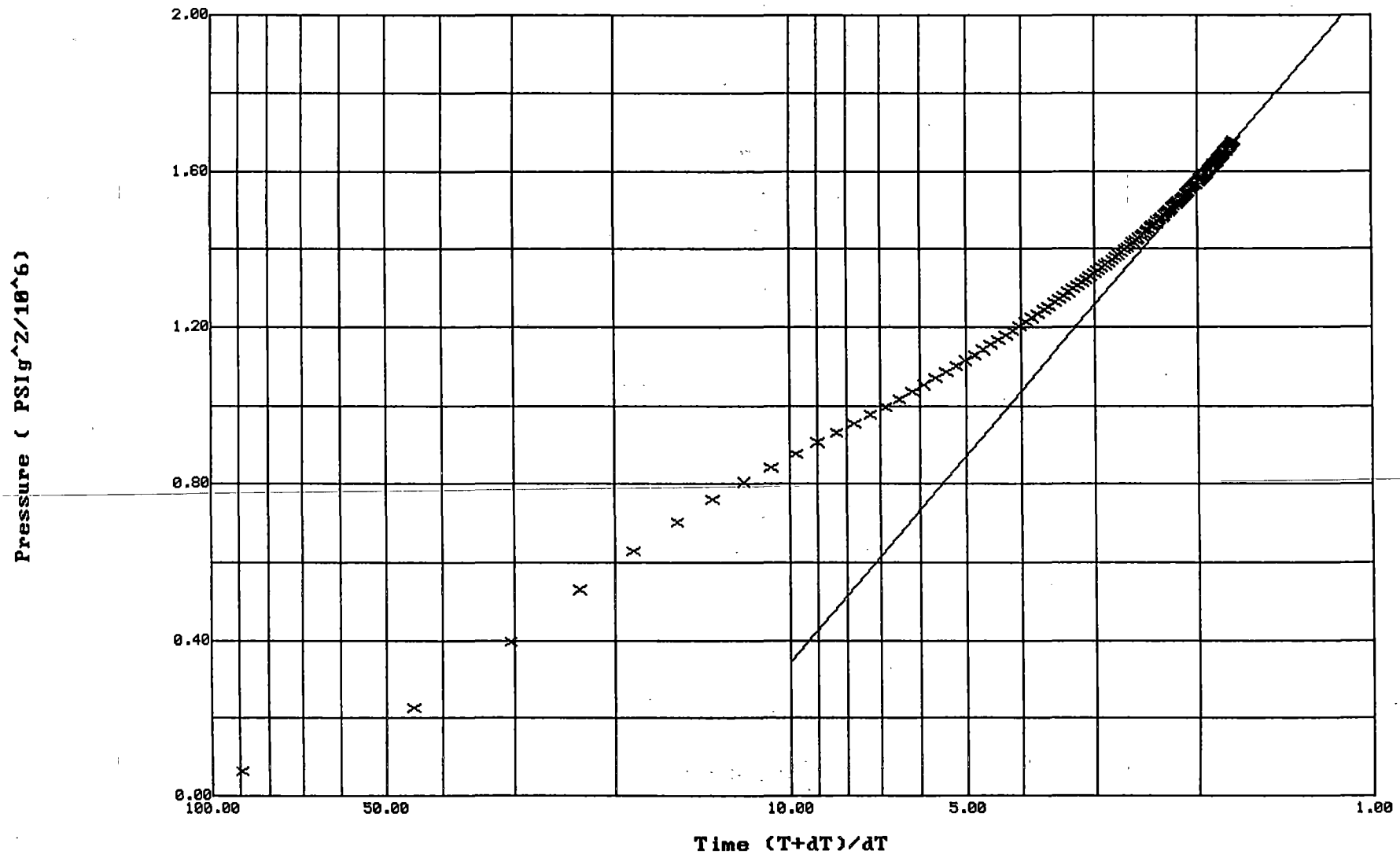


P² Horner Plot: shut-in #2

8099 Giant Exploration Novinger South DST#4

Slope: 1.7429 PSig²/10⁶/cycle

Ext. Pressure: 1445.4409 PSig



*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Novinger South #5

LOCATION : 36-33S-30W, Meade Cty KS

TICKET No. 8099 D.S.T. No. 4 DATE 10-26-95

TOTAL TOOL TO BOTTOM OF TOP PACKERS 27

INTERVAL TOOL 19

BOTTOM PACKERS AND ANCHOR

TOTAL TOOL 46

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.	Stands	Single	Total
-------------------	--------	--------	-------

D.P. ANCHOR STND.	Stands	Single	Total
-------------------	--------	--------	-------

TOTAL ASSEMBLY 19

D.C. ABOVE TOOLS.	Stands	7	Single	Total	615
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D.P. ABOVE TOOLS.	Stands	50	Single	Total	4667
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TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5328

TOTAL DEPTH 5311

TOTAL DRILL PIPE ABOVE K.B. 17

REMARKS:

FLUID SAMPLER DATA

SAMPLER RECOVERY -

Gas 4000 ml, Pressure 1000 PSI, Ttl 4000 ml

SAMPLER ANALYSIS -

Gravity 39.6 corrected @ 60 F

BIT MUD ANALYSIS -

Chlorides 3000 ppm; Viscosity 55,
Mud Wt 8.9, Filtrate 6, LCM 2#/bbl

P.O. SUB 1' above 90' DC	5173
C.O. SUB 1'	5264
S.I. TOOL STERLING	5265
STERLING SAMPLER	5270
HMV STERLING	5275
JARS STERLING	5280
SAFETY JOINT BOWEN	5285
PACKER TOP	5287
PACKER BOTTOM	5292
DEPTH 5292	
STUBB 1'	5293
ANCHOR	
13' Perf. w/Elec. Rec.@	5295
T.C. DEPTH	
AK-1 Rec. @	5306
BULLNOSE	
T.D. 5' Perf.	5311



HAL-1906-N

CHARGE TO: **Giant Exploration**
 ADDRESS: _____
 CITY, STATE, ZIP CODE: _____

TICKET No. **881199**
 PAGE 1 OF 1

RECEIVED KANSAS CORP COMM

SERVICE LOCATIONS: **25540 Liberal Ks** WELL/PROJECT NO. **5#** LEASE **Wauinger, South** COUNTY/PARISH **199# Florence** STATE **Ks** CITY/OFFSHORE LOCATION _____ DATE **10-15-95** OWNER **Giant Expro**
25535 Hugoton Ks TICKET TYPE **SALES** NITROGEN SERVICE JOB? YES NO CONTRACTOR **Benedict Job** RIG NAME/NO. _____ SHIPPED VIA **Loc** DELIVERED TO _____ ORDER NO. _____
 3. WELL TYPE _____ WELL CATEGORY **0103** JOB PURPOSE **010 8 1/8 SURFACE** WELL PERMIT NO. _____ WELL LOCATION **SOE Plains Ks**
 4. REFERRAL LOCATION _____ INVOICE INSTRUCTIONS _____

PRICE REFERENCE	SECONDARY REFERENCE/ PART-NUMBER	ACCOUNTING			DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
000-117		1			MILEAGE	60	mls			2.85	171.00
001-016		1			Pump charge	1515	FT			0.85	1320.00
030-018		1			5 w Top Plug	1	Earl	8 1/8		130.00	130.00
12 A	825-217				Guide shoe	1	Earl	8 1/8		216.00	216.00
24 A	815-19502				Insect Float	1				171.00	171.00
27	815-19415				Fill up	1				64.00	64.00
41	806-61048				Centralizers	3				61.00	183.00

ORIGINAL

CONFIDENTIAL

RELEASED

MAR 11 1997

FROM CONFIDENTIAL

KUL

JAN 25

CONFIDENTIAL

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

X Larry G. Benedict
 DATE SIGNED _____ TIME SIGNED _____
 A.M. P.M.

I do do not require IPC (Instrument Protection). Not offered

SUB SURFACE SAFETY VALVE WAS:
 PULLED & RETURN PULLED RUN

TYPE LOCK _____ DEPTH _____
 BEAN SIZE _____ SPACERS _____
 TYPE OF EQUALIZING SUB. _____ CASING PRESSURE _____
 TUBING SIZE _____ TUBING PRESSURE _____ WELL DEPTH _____
 TREE CONNECTION _____ TYPE VALVE _____

SURVEY

OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN? AGREE UN-DECIDED DIS-AGREE

WE UNDERSTOOD AND MET YOUR NEEDS? AGREE UN-DECIDED DIS-AGREE

OUR SERVICE WAS PERFORMED WITHOUT DELAY? AGREE UN-DECIDED DIS-AGREE

WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY? AGREE UN-DECIDED DIS-AGREE

ARE YOU SATISFIED WITH OUR SERVICE?
 YES NO

CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL	2255	00
FROM CONTINUATION PAGE(S)	10114	53
	12369	53
SUB-TOTAL APPLICABLE TAXES WILL BE ADDED ON INVOICE	8411	30

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

CUSTOMER OR CUSTOMER'S AGENT (PLEASE PRINT) **LARRY G. BENEDICK** CUSTOMER OR CUSTOMER'S AGENT (SIGNATURE) *Larry G. Benedict* HALLIBURTON OPERATOR/ENGINEER **Dennis Coe** EMP # **59179** HALLIBURTON APPROVAL **D Coe** **32%**



JOB SUMMARY

DIVISION Halliburton
 HALLIBURTON LOCATION Liberal, Ks

BILLED ON TICKET NO. 88199

WELL DATA

FIELD _____ SEC. 36 TWP. 33^s RNG. 30^w COUNTY Meade STATE Ks

FORMATION NAME _____ TYPE _____
 FORMATION THICKNESS _____ FROM _____ TO _____
 INITIAL PROD: OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD _____
 PRESENT PROD: OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD _____
 COMPLETION DATE _____ MUD TYPE _____ MUD WT. _____
 PACKER TYPE _____ SET AT _____
 BOTTOM-HOLE TEMP. _____ PRESSURE _____
 MISC. DATA _____ TOTAL DEPTH _____

	NEW USED	WEIGHT	SIZE	FROM	TO	MAXIMUM PSI ALLOWABLE
CASING		24	8 5/8	KB	1515	56
LINER						
TUBING						
OPEN HOLE			12 1/4	GL	1520	SHOTS/FT.
PERFORATIONS						
PERFORATIONS						
PERFORATIONS						

JOB DATA

CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE <u>10-15</u>	DATE <u>10-15</u>	DATE <u>10-15</u>	DATE <u>10-15</u>
TIME <u>1200</u>	TIME <u>1445</u>	TIME <u>1800</u>	TIME <u>1930</u>

TOOLS AND ACCESSORIES

TYPE AND SIZE	QTY.	MAKE
8 5/8 Taser Float	1	Hanco
Fill up	1	
1 Reg	1	
3	3	
1	1	
1	1	

PERSONNEL AND SERVICE UNITS			
NAME	UNIT NO. & TYPE	LOCATION	
D. Gier	420541	Liberal Ks	
5917A			
P. E. Lurool	50938 A	" "	
04360	7131		
M. Longworth	50404	Horton Ks	
69510	4734		
D. Corring	3675	" "	
62728	75237		

MATERIALS

TREAT. FLUID _____ DENSITY _____ LB/GAL. °API _____
 DISPL. FLUID _____ DENSITY _____ LB/GAL. °API _____
 PROP. TYPE _____ SIZE _____ LB. _____
 PROP. TYPE _____ SIZE _____ LB. _____
 ACID TYPE _____ GAL. _____ % _____
 ACID TYPE _____ GAL. _____ % _____
 ACID TYPE _____ GAL. _____ % _____
 SURFACTANT TYPE _____ GAL. _____ IN _____
 NE AGENT TYPE _____ GAL. _____ IN _____
 FLUID LOSS ADD. TYPE _____ GAL.-LB. _____ IN _____
 GELLING AGENT TYPE _____ GAL.-LB. _____ IN _____
 FRIC. RED. AGENT TYPE _____ GAL.-LB. _____ IN _____
 BREAKER TYPE _____ GAL.-LB. _____ IN _____
 BLOCKING AGENT TYPE _____ GAL.-LB. _____ IN _____
 PERFPAC BALLS TYPE _____ GAL.-LB. _____ IN _____
 OTHER _____
 OTHER _____

DEPARTMENT Cement
 DESCRIPTION OF JOB 8 5/8 SURFACE
 JAN 2 5
 CONFIDENTIAL
 RELEASED
 MAR 1 1 1991
 JOB DONE THRU: TUBING CASING ANNULUS TBG./ANN.
 CUSTOMER REPRESENTATIVE Larry G. Benedict
 HALLIBURTON OPERATOR Dennis Love COPIES REQUESTED _____

CEMENT DATA

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LBS./GAL.
	330	Mickan	3		3% CC 1/2 # Flocebe	3.23	11.1
	150	Premium			2% CC 1/4 # Flocebe	1.32	14.8

PRESSURES IN PSI

CIRCULATING _____ DISPLACEMENT _____
 BREAKDOWN _____ MAXIMUM _____
 AVERAGE _____ FRACTURE GRADIENT _____
 SHUT-IN: INSTANT _____ 5-MIN _____ 15-MIN. _____
 HYDRAULIC HORSEPOWER _____

ORDERED _____ AVAILABLE _____ USED _____
 AVERAGE RATES IN BPM _____

TREATING _____ DISPL. _____ OVERALL _____
 CEMENT LEFT IN PIPE _____
 FEET 34 84 REASON Shoe short

SUMMARY

VOLUMES

PRESLUSH: BBL.-GAL. _____ TYPE _____
 LOAD & BKDN: BBL.-GAL. _____ PAD: BBL.-GAL. _____
 TREATMENT: BBL.-GAL. _____ DISPL: BBL.-GAL. 94.32
 CEMENT SLURRY: BBL.-GAL. 225.09
 TOTAL VOLUME: BBL.-GAL. _____

REMARKS

CUSTOMER Great Exploration LEASE Devingere WELL NO. 5 JOB TYPE 8 5/8 Surface DATE 10-15-95



JOB LOG HAL-2013-C

CUSTOMER Giant Exploration WELL NO. 5 LEASE Nourmger South JOB TYPE 8 5/8 SURFACE TICKET NO. 881199

CHART NO. TIME RATE (BPM) VOLUME (BBL) (GAL) PUMPS T C PRESSURE (PSI) TUBING CASING DESCRIPTION OF OPERATION AND MATERIALS

1200 Time Called
1600 Time Ready
1445 Time on Loc.

1700 Start Pump casing

1800 casing in hole

1801 CONFIDENTIAL Hookup To Circulate casing
1810 Circulate casing w/ pump
1811 Circulate Mud To Grand Level

1830 Hookup To Pump Jack

1833 6.6 250 Start Mixing Cement
1858 189.83 350 Start Tack Cement
1903 35.26 400 Finish Mixing Cement
1904 225.09 400 Shut Down Deep Plug

1905 6 175 Start Displacement
3.7 294.32

1930 350/1000 Plug Down Wash Pumps + Lines show BE 4 20 28 PM 80
Float Held
Circulate low to pit 20 35 SK

Thanks for calling Halliburton Energy Service crew

ORIGINAL

huc

JAN 25

RELEASED

CONFIDENTIAL

MAR 1 1997

1:30 For JOB
4:45 on Loc.

FROM CONFIDENTIAL



HALLIBURTON ENERGY SERVICES

HAL-1906-N

CHARGE TO: **GIANT EXPLORATION**
 ADDRESS: **CONFIDENTIAL**
 CITY, STATE, ZIP CODE: **CONFIDENTIAL**

TICKET No. 811399 - 6

PAGE 1 OF 2

SERVICE LOCATIONS: 1. **LIBERAL KS 025540** WELL/PROJECT NO. **5** LEASE **NOVINGER** COUNTY/PARISH **KANSAS CORP** STATE **KS** CITY/OFFSHORE LOCATION **CONFIDENTIAL** DATE **10-27-28-95** OWNER **SAME**
 2. **HUGOTON KS 025535** TICKET TYPE SERVICE NITROGEN JOB? YES NO CONTRACTOR **BEREKO DRUG** REG NAME AND NO. **BEREKO DRUG** SHIPPED **CONFIDENTIAL** DELIVERED TO **Loc 5/8 PLAINS** ORDER NO.
 3. WELL TYPE **02** WELL CATEGORY **01** JOB PURPOSE **035** WELL PERMIT NO. WELL LOCATION
 4. REFERRAL LOCATION INVOICE INSTRUCTIONS

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
000-117					MILEAGE	46	mi	1	unit	2.85	131.10
000-119					CREW MILEAGE	46	mi	1	unit	1.50	69.00
007-013	001-016				Pump CHARGE	5450	ft	6	NR	RELEASED	895.00
007-161					2ND STAGE Pump CHARGE	3277	ft	6	NR	RELEASED	400.00
75	813.16511			15	D.V. LATCHDOWN PLUG & BAFFLE SET 5 1/2 IN				1	EA	695.00
27	815.19311				Fillup Assy.	"	"	"	"	EA	69.00
26	843.6318				INSERT FLOAT SHOE	"	"	"	"	EA	350.00
40	806.60022				CENTRALIZERS	"	"	8	EA	60.00	480.00
66	806.72030				FAS GRIP	"	"	1	EA		11.00
350	890.10802				Howco weld "A"	1	lb	1	EA		16.75
71	813.56325			15	D.V. TOOL	5 1/2	in	1	EA		2450.00
018-317					Super J-LAS N	Per	SK	12	SK	100.00	1200.00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

DATE SIGNED **10-28-95** TIME SIGNED **0900** A.M. P.M.
 Signature: **Larry G. Benedick**

SUB SURFACE SAFETY VALVE WAS:
 PULLED & RETURN PULLED RUN
 TYPE LOCK DEPTH
 BEAN SIZE SPACERS
 TYPE OF EQUALIZING SUB. CASING PRESSURE
 TUBING SIZE TUBING PRESSURE WELL DEPTH
 TREE CONNECTION TYPE VALVE

SURVEY
 AGREE UN-DECIDED DIS-AGREE
 OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?
 WE UNDERSTOOD AND MET YOUR NEEDS?
 OUR SERVICE WAS PERFORMED WITHOUT DELAY?
 WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?
 ARE YOU SATISFIED WITH OUR SERVICE? YES NO
 CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL	8766	85
FROM CONTINUATION PAGE(S)	5984	05
	14740	90
SUB-TOTAL APPLICABLE TAXES WILL BE ADDED ON INVOICE	10790	40

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

CUSTOMER OR CUSTOMER'S AGENT (PLEASE PRINT) **LARRY G. BENEDICK** CUSTOMER OR CUSTOMER'S AGENT (SIGNATURE) **Larry G. Benedick** HALLIBURTON OPERATOR/ENGINEER **L. Benedick** EMP # **29604** HALLIBURTON APPROVAL **L. Benedick 30%**



JOB SUMMARY

HALLIBURTON DIVISION
HALLIBURTON LOCATION

MID CONTINENT AREA
LIBERAL KS.

BILLED ON TICKET NO. 811399

WELL DATA
FIELD _____ SEC. 36 TWP. 33 RING. 30 COUNTY. MEADE STATE KS

FORMATION NAME _____ TYPE _____
FORMATION THICKNESS _____ FROM _____ TO _____
INITIAL PROD. OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD
PRESENT PROD. OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD
COMPLETION DATE _____ MUD TYPE _____ MUD WT. _____
PACKER TYPE D.V. CEMENTER SET AT 3277
BOTTOM HOLE TEMP. _____ PRESSURE _____
MISC. DATA _____ TOTAL DEPTH _____

	NEW USED	WEIGHT	SIZE	FROM	TO	MAXIMUM PSI ALLOWABLE
CASING	N	15.5	5 1/2	KB	5450	
INNER CS6	W		8 3/8	GL	1520	
TUBING						
OPEN HOLE			7 1/8	1520	5450	SHOTS/FT.
PERFORATIONS						
PERFORATIONS						
PERFORATIONS						

JOB DATA

TOOLS AND ACCESSORIES			
TYPE AND SIZE	QTY.	MAKE	
LATCH DOWN BAFFLES	1		
LATCH DOWN PLUGS	1		
GUIDE SHOE AUTO FILL	1	O	
CENTRALIZERS S-4	8		
BOTTOM PLUG D.V. TOOL	1	W	
TOP PLUG INSERT	1		
HEAD JAS GRIP	1	C	
LOWES WELD "A" 1/2 LB	1		
OTHER		O	

CALLLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE <u>10-27-95</u>	DATE <u>10-27-95</u>	DATE <u>10-28-95</u>	DATE <u>10-28-95</u>
TIME <u>2230</u>	TIME <u>2220</u>	TIME <u>0220</u>	TIME <u>0830</u>

PERSONNEL AND SERVICE UNITS

NAME	UNIT NO. & TYPE	LOCATION
T. BROADFOOT		LIBERAL KS
D#604	420045	
C. CORNELSON	52947	"
G2369	75496	
C. ASHLEY	51984	HUGOTON KS.
D44061	77031	
J. ADAIR	50866	"
G3813	4734	

MATERIALS

TREAT. FLUID _____ DENSITY _____ LB/GAL. °API

DISPL. FLUID _____ DENSITY _____ LB/GAL. °API

PROP. TYPE _____ SIZE _____ LB.

PROP. TYPE _____ SIZE _____ LB.

ACID TYPE _____ GAL. _____ %

ACID TYPE _____ GAL. _____ %

ACID TYPE _____ GAL. _____ %

SURFACTANT TYPE _____ GAL. _____ IN

NE AGENT TYPE _____ GAL. _____ IN

FLUID LOSS ADD. TYPE _____ GAL.-LB. _____ IN

GELLING AGENT TYPE _____ GAL.-LB. _____ IN

FRIC. RED. AGENT TYPE _____ GAL.-LB. _____ IN

BREAKER TYPE _____ GAL.-LB. _____ IN

BLOCKING AGENT TYPE _____ GAL.-LB. _____ IN

PERFPAC BALLS TYPE _____ GAL. _____ IN

OTHER _____

OTHER _____

JAN 25

CONFIDENTIAL

DEPARTMENT. CEMENT

DESCRIPTION OF JOB CEMENT 5 1/2 IN. LONG STRING.

JOB DONE THRU: TUBING CASING ANNULUS TBG./ANN.

CUSTOMER REPRESENTATIVE X Larry D. Benedict

HALLIBURTON OPERATOR Broadfoot COPIES REQUESTED _____

CEMENT DATA

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LBS./GAL.
1	190	PREM		B	3/4% VERSASET-5% KCL - 1/10% H2S - 1/2% HAD	1.54	14.1
2	40	MIDCON II PLUS		B	2% C.C. 1/2" HOLES	3.23	11.1
2	30	PREM PLUS		B	1% C.C.	3.23	11.1

PRESSURES IN PSI

CIRCULATING _____ DISPLACEMENT _____

BREAKDOWN _____ MAXIMUM _____

AVERAGE _____ FRACTURE GRADIENT _____

SHUT-IN: INSTANT _____ 5-MIN _____ 15-MIN _____

HYDRAULIC HORSEPOWER _____

ORDERED _____ AVAILABLE _____ USED _____

AVERAGE RATES IN BPM _____

TREATING _____ DISPL _____ OVERALL _____

CEMENT LEFT IN PIPE _____

FEET 43.50 REASON SHAPE JT

SUMMARY

VOLUMES

PRESLUSH: BBL-GAL. 10-10 TYPE Super Flush H-20

LOAD & BKDN: BBL-GAL. _____

TREATMENT (BBL-GAL.) 50.8 H2O - 78 mud PAD: BBL-GAL. _____

CEMENT SLURRY: BBL-GAL. 53-23-7 DISPL: BBL-GAL. 78 H2O

TOTAL VOLUME: BBL-GAL. _____

REMARKS

M SAS GIVEN TO CO MAN

JOB WENT WELL - NO ACCIDENTS.

CUSTOMER: GIANT EXPLORATION

LEASE: ADJINGER

WELL NO: 5

JOB TYPE: 5 1/2 IN LONG STRING

DATE: 10-27-95

JOB LOG HAL-2013-C

CUSTOMER	WELL NO.	LEASE	JOB TYPE
GIANT EXPLORATION	5	NOJINGER	5" DIA LONG STRING

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1930							CALLED OUT - READY 2230
	2220							ON LOCT - RIGGING UP TO RUN CSG,
	2240							START CSG IN HOLE
	0100							HOOK UP 3 JTS OFF BOTTOM
								TO CIRCULATE BALL OUT
	0105							CIRCULATION TO PIT
	0115							SHUT DOWN RUN LAST 3 JTS.
	0130							HOOK UP TO CIRCULATE
	0144							CIRCULATION TO PIT - SAFETY MEETING
	0220							HOOK UP CMT LINE
	0224	3.3	10				220	START SUPER FLUSH
	0227	3.3	10				300	START H ₂ O SPACER
	0230	4.8	53				190	START CMT, 14.1 #/GAL
	0241	0	0				0	SHUT OFF - WASH UP - DROP PLUG.
	0248	7.2	51				0	START DISPLACEMENT H ₂ O
	0318	3.4	68				300	START MUD DISPLACEMENT. HOSE BROKE
	0313	2	10				500	SLOW RATE - (12.8.8 TOTAL BBCS)
	0320	-	-	JAN 25			1200	PLUG LANDED - FLOAT-PLUG HELD
	0322			CONFIDENTIAL			0	DROP OPENING TOOL
	0335	3.3	10				750	OPENED TOOL - CIRCULATE
	0338						380	SHUT OFF - RIG UP TO RIG.
							0	WAIT 4 HR TO CMT 2ND STAGE
	0730	-	-				0	HOOK UP TO CMT HEAD
	0735	3.3	23	RELEASED			180	LEAD CMT 11.1 #/GAL
	0742	2	7				180	TAIL CMT 14.8 #/GAL
	0746	0	0	MAR 11 1997			0	SHUT OFF - WASH UP - DROP PLUG
	0752	5.2	68				0	DISPLACEMENT H ₂ O
	0805	2	78	FROM CONFIDENTIAL			200	SLOW RATE - (78 TOTAL BBL)
	0810	0	0				500	PLUG LANDED - PLUG HELD
							1500	JOB OVER

Job Time 1 HR 58 MIN
Loct Time 10 HR 50 MIN



THANK FOR CALLING
HALLIBURTON ENERGY SERVICES
LIBERAL KS.
"HAVE A GOOD DAY"
BROADFOOT-CORNELSON-ADAIR-ASHLEY
MS DS GIVEN TO CO MAN

Job WENT WELL - NO ACCIDENTS