

## PICK TESTERS



00264801

Box 341  
ling, CO 80751

Contractor Gear Drilling Co.  
 Rig No. 3  
 Spot 2175' FNL & 1785' FWL  
 Sec. 2  
 Twp. 9 N  
 Rng. 54 W  
 Field Horsetail  
 County Logan  
 State Colorado  
 Elevation 4263' KB  
 Formation D Sand

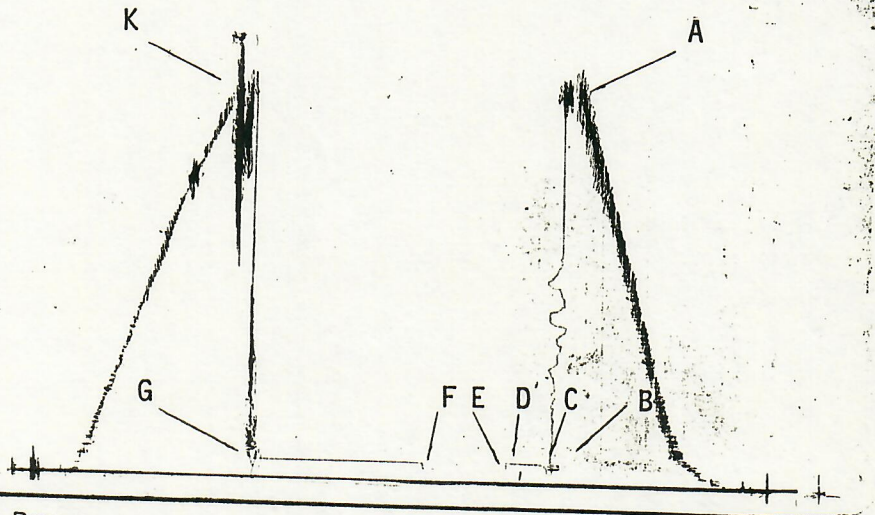
Surface Choke 1"  
 Bottom Choke 3/4"  
 Hole Size 7 7/8"  
 Core Hole Size None  
 DP Size & Wt. 4 1/2" 16.60  
 Wt. Pipe 5"  
 I.D. of DC 2 1/4"  
 Length of DC 347'  
 Total Depth 5066'  
 Type Test Straddle  
 Interval 5020' - 5038'

Mud Type Polymer  
 Weight 8.4  
 Viscosity 50+  
 Water Loss --  
 Filter Cake --  
 Resistivity .40 @ 70 OF  
15,501 Ppm. NaCl  
 B.H.T. 152 OF  
 Co. Rep. Floyd Miller  
 Tester David Pickering

	REPORTED	CORRECTED
Opened Tool @	<u>09:55</u>	hrs.
Flow No. 1	<u>5</u>	<u>4</u> min.
Shut-in No. 1	<u>30</u>	<u>27</u> min.
Flow No. 2	<u>60</u>	<u>59</u> min.
Shut-in No. 2	<u>120</u>	<u>120</u> min.
Flow No. 3	<u>None Taken</u>	min.
Shut-in No. 3	<u>"</u>	<u>"</u> min.

Recorder Type Kuster AK-1  
 No. 13617 Cap. 4550 psi  
 Depth 5003 feet  
 Inside x Outside

Initial Hydrostatic	A	<u>2264</u>
Final Hydrostatic	K	<u>2236</u>
Initial Flow	B	<u>55</u>
Final Initial Flow	C	<u>56</u>
Initial Shut-in	D	<u>111</u>
Second Initial Flow	E	<u>74</u>
Second Final Flow	F	<u>69</u>
Second Shut-in	G	<u>109</u>
Third Initial Flow	H	
Third Final Flow	I	
Third Shut-in	J	



Pipe Recovery:

241' Slightly water cut mud = 1.18 bbl.

Resistivity:

Top: .45 @ 72 Deg F/.22 @ Res Temp/13,276 ppm NaCl., 8,070 ppm Cl.  
 Middle: .48 @ 72 Deg F/.24 @ Res Temp/12,385 ppm NaCl., 7,529 ppm Cl.  
 Bottom: .55 @ 72 Deg F/.27 @ Res Temp/10,700 ppm NaCl., 6,505 ppm Cl.

Operator  
Ticket No.KENISA DRILLING CO.  
1439  
4/5/93Well Name & No.  
Location  
County, StateHORSETAIL "A"  
S-2 T-9N R-54W  
LOGAN COUNTY, CODST No.  
Interval  
Formation1  
5020' - 5038'  
D SAND

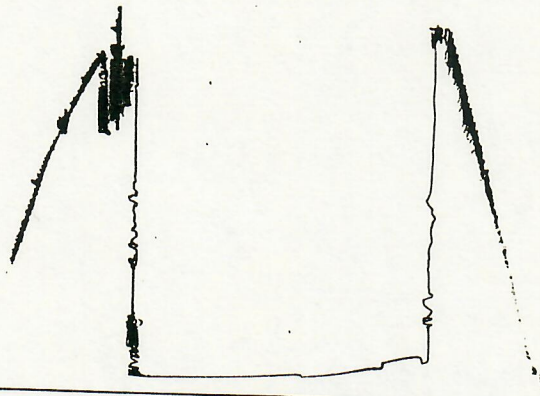


# PICK TESTERS

Kenisa Drilling Co.  
Operator

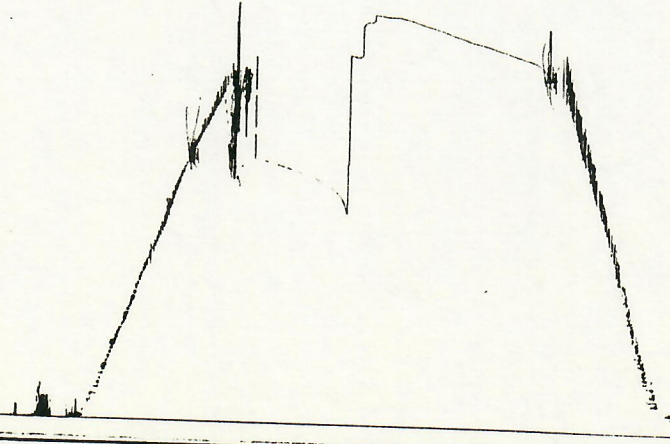
Horsetail "A"  
Well Name and No.

1  
DST No.



Recorder Type Kuster AK-1  
No. 13338 Cap. 4950 psi  
Depth 5016 feet  
Inside x Clock  
Outside Range 12 hrs.

Initial Hydrostatic	A	<u>2295</u>
Final Hydrostatic	K	<u>2257</u>
Initial Flow	B	<u>252</u>
Final Initial Flow	C	<u>238</u>
Initial Shut-In	D	<u>233</u>
Second Initial Flow	E	<u>200</u>
Second Final Flow	F	<u>129</u>
Second Shut-In	G	<u>104</u>
Third Initial Flow	H	
Third Final Flow	I	
Third Shut-In	J	



Recorder Type Kuster AK-1  
No. 6249 Cap. 4900 psi  
Depth 5035 feet  
Inside x Clock  
Outside Range 12 hrs.

Initial Hydrostatic	A	
Final Hydrostatic	K	
Initial Flow	B	
Final Initial Flow	C	
Initial Shut-In	D	
Second Initial Flow	E	
Second Final Flow	F	
Second Shut-In	G	
Third Initial Flow	H	
Third Final Flow	I	
Third Shut-In	J	

Final Pressure: 1706



# PICK TESTERS

## SAMPLER REPORT



Company Kenisa Drilling Co. Date 4/5/93  
Well Name & No. Horsetail "A" Ticket No. 1439  
County Logan State Colorado  
Test Interval 5020' - 5038' DST No. 1

Pressure in Sampler: 80 \_\_\_\_\_ psig  
Total Volume of Sampler: 2150 \_\_\_\_\_ cc.  
Total Volume of Sample: 900 \_\_\_\_\_ cc.  
Oil: None \_\_\_\_\_ cc.  
Water: -- \_\_\_\_\_ cc.  
Mud: 900 (water cut mud) \_\_\_\_\_ cc.  
Gas: 0.56 \_\_\_\_\_ cu. ft.  
Other: None \_\_\_\_\_

Sample RW: .55 @ 72 Deg F/.27 @ Res Temp/10,700 ppm NaCl., 6,505 ppm Cl.

### Resistivity

Make Up Water \_\_\_\_\_ @ \_\_\_\_\_ °F of Chloride Content \_\_\_\_\_ ppm.  
Mud Pit Sample .40 @ 70 °F of Chloride Content 15,501 ppm.  
Gas/Oil Ratio \_\_\_\_\_ Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F

Where was sample drained On Location.

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



# PICK TESTERS



Kenisa Drilling Co.

Operator

Horsetail "A"

Well Name and No.

1

DST No.

RECORDER NO. 13617 DEPTH 5003 FT.

## FINAL SHUT-IN

TOTAL FLOW TIME: T = 63 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(P SIG)	DP(P SIG)
0		68.9	0.0
1	1.806	99.4	30.5
2	1.512	101.7	32.9
3	1.342	102.6	33.7
4	1.224	103.3	34.4
5	1.134	104.0	35.2
6	1.061	105.0	36.1
7	1.000	105.6	36.7
8	0.948	105.6	36.8
9	0.903	105.7	36.8
10	0.863	105.7	36.8
12	0.796	106.0	37.1
14	0.740	106.4	37.6
16	0.694	106.8	38.0
18	0.653	106.9	38.1
20	0.618	107.0	38.1
22	0.587	107.1	38.2
24	0.559	107.2	38.3
26	0.534	107.2	38.4
28	0.512	107.3	38.5
30	0.491	107.4	38.5
35	0.447	107.6	38.7
40	0.411	107.8	38.9
45	0.380	108.0	39.1
50	0.354	108.2	39.3
55	0.332	108.2	39.4
60	0.312	108.3	39.5
70	0.279	108.4	39.5
80	0.252	108.4	39.5
90	0.230	108.4	39.6
100	0.212	108.4	39.5
110	0.197	108.5	39.7
120	0.183	108.6	39.7

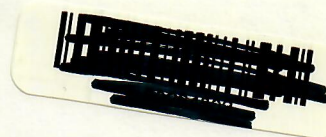
EXTRAPOLATED PRESSURE: 109.0 PSI

SLOPE: 2.4 PSI/LOG CYCLE

POINTS USED: 10



# PICK TESTERS



Kenisa Drilling Co.  
Operator

Horsetail "A"  
Well Name and No.

1  
DST No.

RECORDER NO. 13617 DEPTH 5003 FT.

## INITIAL SHUT-IN

INITIAL FLOW TIME: T = 4 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(PSIG)	DP(P SIG)
0		55.5	0.0
1	0.699	87.9	32.4
2	0.477	95.6	40.1
3	0.368	100.1	44.5
4	0.301	103.3	47.8
5	0.255	105.6	50.1
6	0.222	106.9	51.4
7	0.196	108.1	52.6
8	0.176	108.7	53.2
9	0.160	109.2	53.7
10	0.146	109.5	54.0
12	0.125	110.2	54.6
14	0.109	110.2	54.7
16	0.097	110.3	54.8
18	0.087	110.4	54.9
20	0.079	110.5	55.0
22	0.073	110.5	55.0
24	0.067	110.6	55.1
26	0.062	110.7	55.2
27	0.060	110.7	55.2

EXTRAPOLATED PRESSURE: 111.4 PSI  
SLOPE: 11.5 PSI/LOG CYCLE  
POINTS USED: 7

# PICK TESTERS



Kenisa Drilling Co.

Operator

Horsetail "A"

Well Name and No.

1

DST No.

RECORDER NO. 13617 DEPTH 5003 FT.

## INITIAL FLOW

DT(MIN) PRESSURE(PSIG)

0	55.3
1	53.8
2	53.8
3	54.3
4	55.5

RECORDER NO. 13617 DEPTH 5003 FT.

## FINAL FLOW

DT(MIN) PRESSURE(PSIG)

0	73.7
3	65.0
6	62.0
9	60.7
12	60.1
15	60.6
20	62.3
25	64.1
30	64.5
35	65.4
40	66.4
45	67.5
50	68.2
55	68.4
59	68.9



# PICK TESTERS



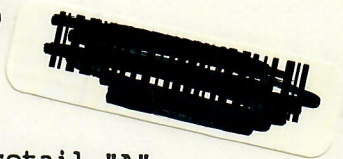
Kenisa Drilling Co.  
Operator

Horsetail "A"  
Well Name and No.

1  
DST No.

TIME	CHOKE SIZE	SURFACE PRESSURE	FLOW RATE MCF/D	REMARKS
09:55 Hr.	1.00"	.25"		Opened for initial flow:
09:57		12"		
10:00		12"		Closed for initial shut-in:
10:30		12"		
10:35		.50 psi	129.0	Opened for final flow:
10:40		.50	129.0	Gas to surface:
10:50		.50	129.0	
11:00		.75	151.0	
11:10		.75	151.0	
11:20		.75	151.0	
11:30		.75	151.0	Closed for final shut-in:

# PICK TESTERS



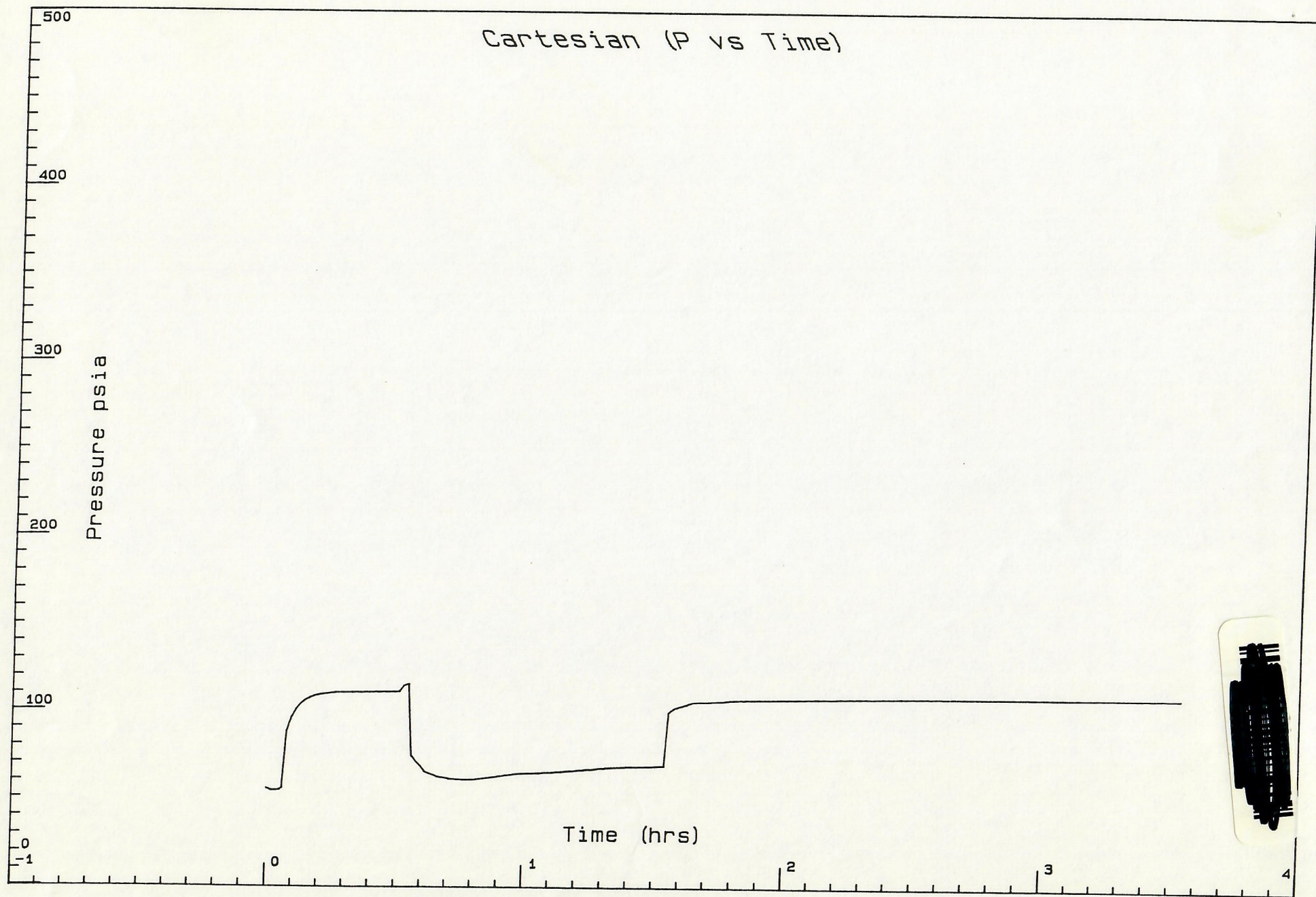
Kenisa Drilling Co.  
Operator

Horsetail "A"  
Well Name and No.

All  
DST No.

Kenisa Drilling Co. (5)  
410-17th St., Ste 1950  
Denver CO 80202



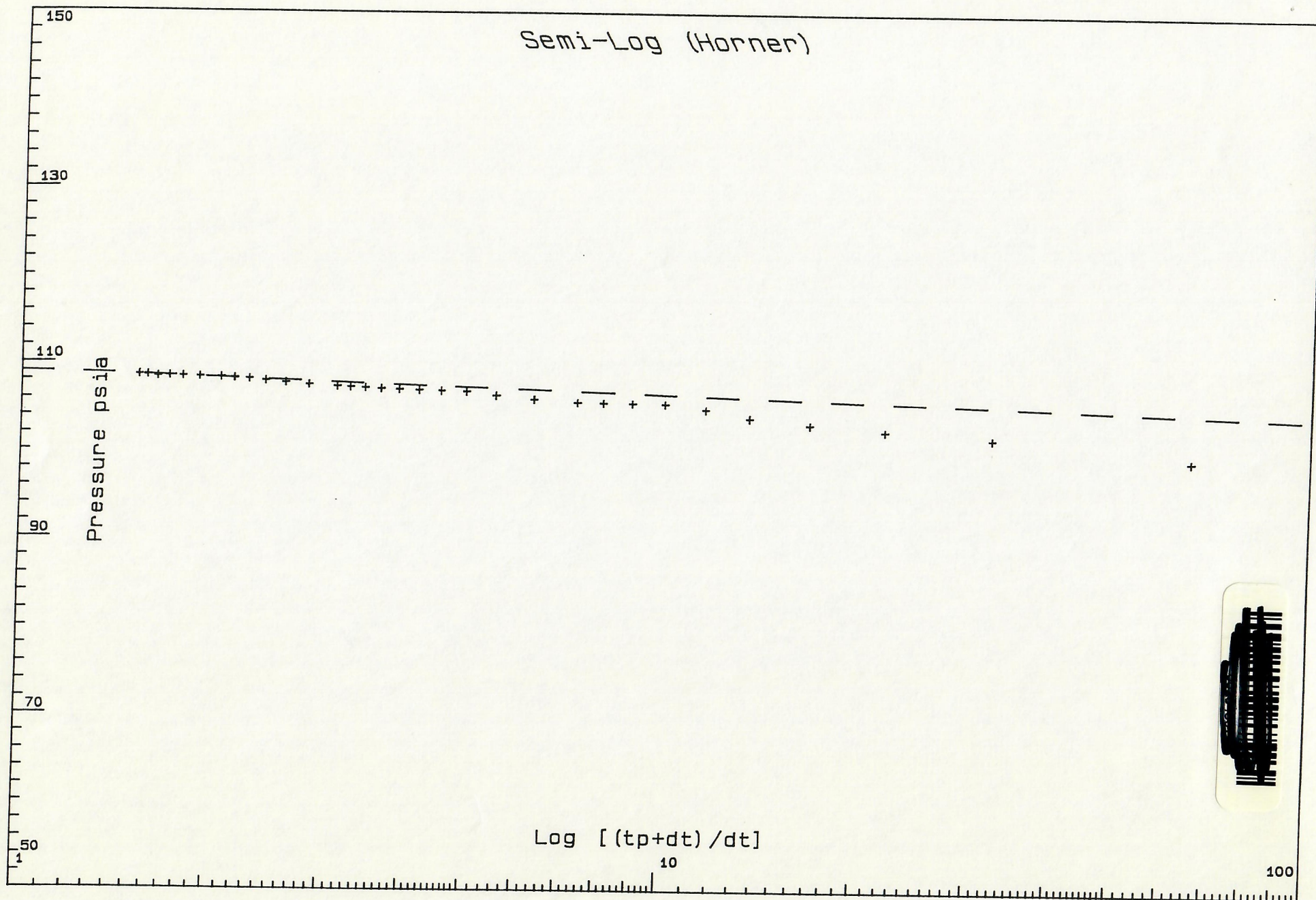


Company: Kenisa Drilling Co.  
Well: Horsetail "A", DST #1  
Field: Horsetail

Date: 04/05/1993



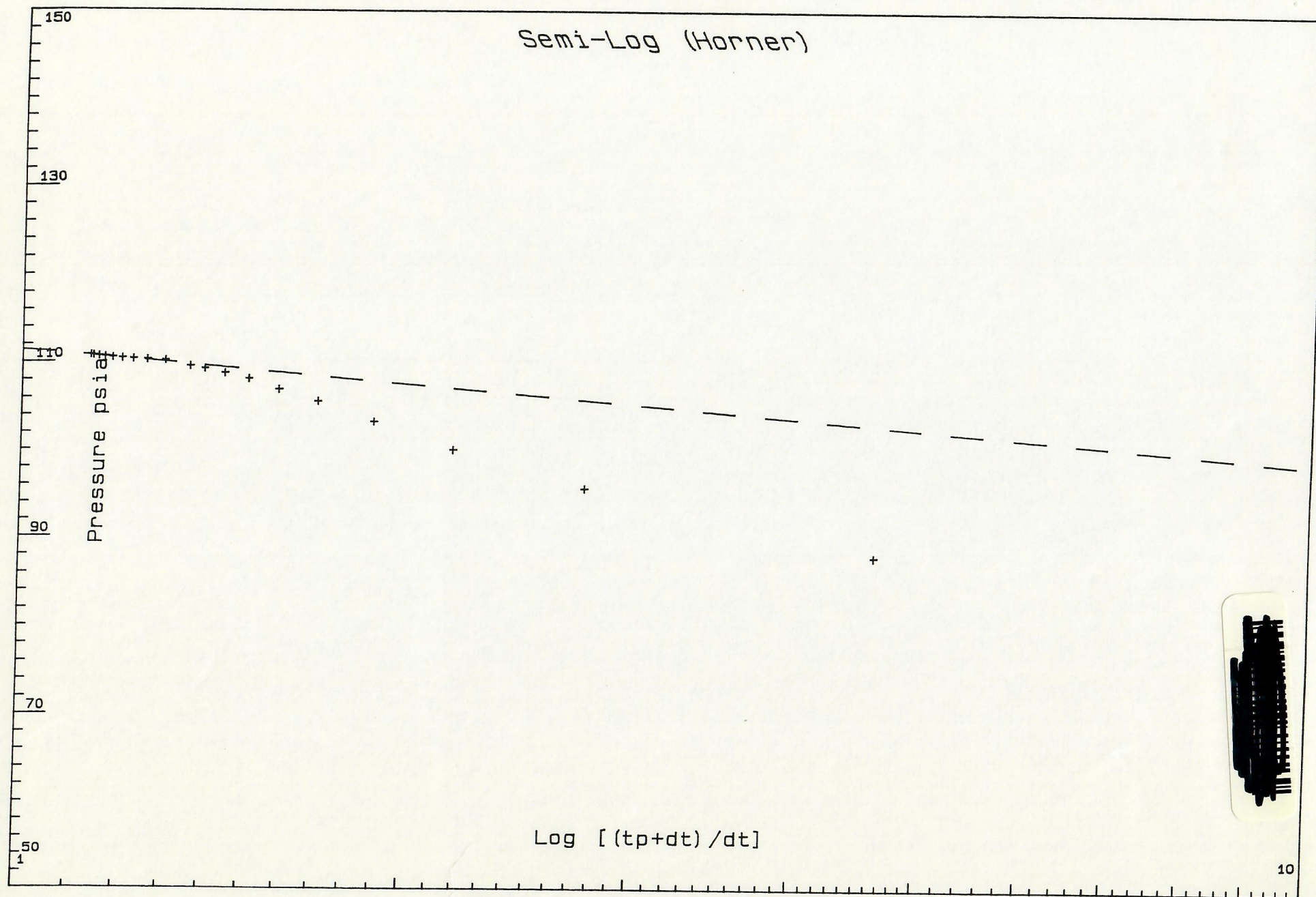
Semi-Log (Horner)



Shut-in #2  
 $P^* = 109.0$  psi  
 $M = -2.4$  psi/cycle



# Semi-Log (Horner)



Shut-in #1  
 $P^* = 111.4$  psi  
 $M = -11.5$  psi/cycle

