



COMPANY : SAHARA OPERATING CO.
 LEASE : STATE SIMS "31"
 WELL NO. : # 1
 FIELD : EUMONT
 COUNTY/STATE : LEA / NEW MEXICO

TEST DATE : 05-16-96
 D.S.T. NO. : 1
 TEST TKT. NO. : 18933
 INVOICE NO. : 17122
 ORDER NO. :

FORMATION : UPPER SEVEN RIVER HOLE SIZE (in) : 7.875 ANCHOR LENGTH (ft): 59
 INTERVAL (ft) : 3794 TO 3853 DRILL PIPE ID (in) : 3.75 TOOL LENGTH (ft) : 78
 TOTAL DEPTH (ft): 3853 DRILL COLLAR ID(in): 2.25 TOOL O.D. (in) : 5
 ELEVATION (ft) : 3644 DRILL COLLAR feet : 642 PACKER SIZE (in) : 6.75

RECORDER DATA
 AK-IKUSTER/STARBURST

TOP RECORDER: IN
 RECORDER NO. : 20234
 CAPACITY (psi): 10000
 DEPTH (ft) : 3777
 CLOCK NO. : 20234
 DURATION (hrs): 48

BOTTOM RECORDER: OUT
 RECORDER NO. : 11026
 CAPACITY (psi): 5025
 DEPTH (ft) : 3801
 CLOCK NO. : 16299
 DURATION (hrs): 12

MUD PROPERTIES

MUD TYPE : CHEM / GEL
 MUD WT. (#/gal) : 10.0

WATER LOSS (cc) : 8.00
 FILTER CAKE (in) : FILM
 VISCOSITY (sec) : 30

CHLORIDE PPM : 19500
 RESISTIVITY(ohm-m): .041

EQUIPMENT DATA

CONVENTIONAL : YES
 STRADDLE : NO
 SELECTIVE ZONE : NO
 SAMPLE CHAMBER : YES
 GAS ANALYSIS : NO

ROTARY JARS : YES
 NO. OF PACKERS : 2
 SAFETY JOINT : YES
 CIRCULATING SUB : YES
 REVERSED OUT : NO

MULTIFLOW : NO
 MILEAGE : NO
 OPERATOR TIME : NO
 OTHER : YES
 ELECTRONIC RECORDER

SUCCESSFUL : YES

PACKER FAILURE : NO

TOOL PLUG : NO

DECIDED NOT TO TEST : NO

FAIL TO REACH BOTTOM : NO

TIME INTERVAL DATA (min)

TOOL OPENED : 7:40 AM

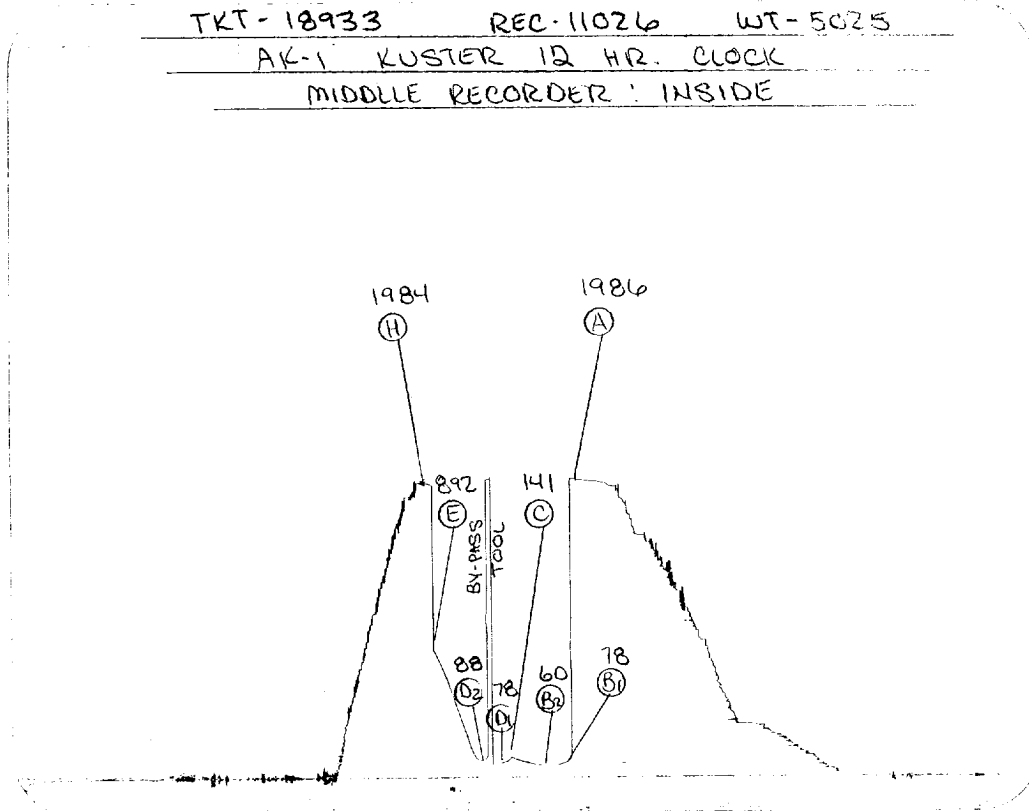
TOTAL TEST TIME: 102

INITIAL FLOW : 11
 SECOND FLOW : 19
 THIRD FLOW :

INITIAL SHUT-IN: 34
 SECOND SHUT-IN : 38
 THIRD SHUT IN :

TEST TOOL OPERATOR: TRACY WIEST

	CORRECTED READING	FIELD READING
A INITIAL HYDROSTATIC:	1986 PSI	1987 PSI
B-1 INITIAL FIRST FLOW :	78 PSI	116 PSI
B-2 FINAL FIRST FLOW :	60 PSI	64 PSI
C FIRST SHUT-IN :	141 PSI	129 PSI
D-1 INITIAL SECOND FLOW:	78 PSI	116 PSI
D-2 FINAL SECOND FLOW :	88 PSI	77 PSI
E SECOND SHUT-IN :	892 PSI	852 PSI
H FINAL HYDROSTATIC :	1984 PSI	1961 PSI



RECOVERY DATA

PIPE RECOVERY

B.H. TEMP. (deg F) : 93

SAMPLE CHAMBER

110 FT. OF DRILLING MUD
185,000 PPM CHLORIDES -.042 OHMS @ 85 DEGREES

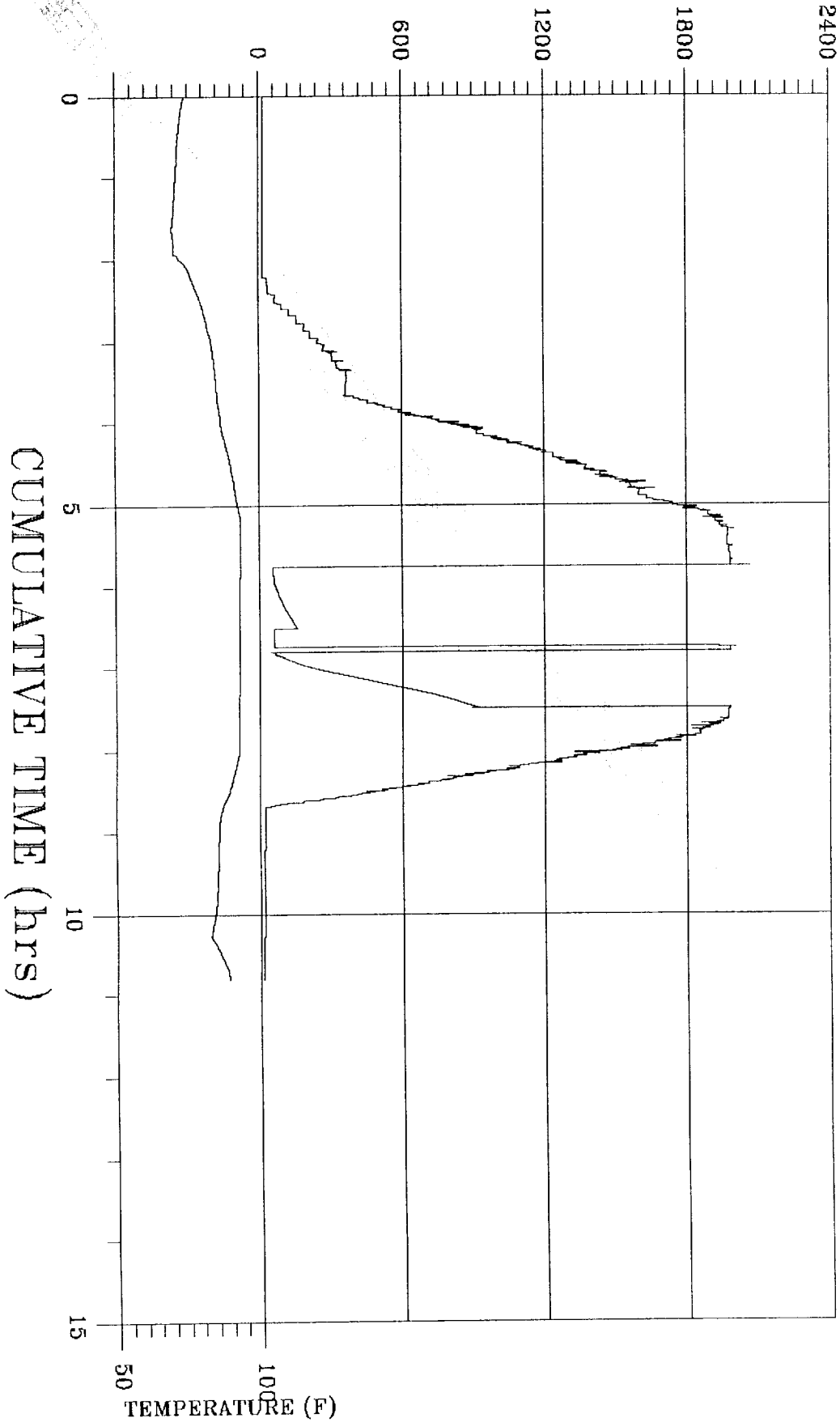
0 LBS. OF PRESSURE
0 CU. FT. OF GAS
2000 CC'S DRLG MUD

TEST REMARKS

OPENED TOOL WITH A VERY WEAK BLOW WHICH DIED IN 7 MIN. OF THE 10 MIN. FIRST FLOW PERIOD. REOPENED TOOL WITH NO BLOW, BY-PASSED TOOL 15 MIN. INTO FINAL FLOW AND REOPENED WITH VERY WEAK BLOW AND DIED FOR REMAINDER OF 17 MIN. FINAL FLOW PERIOD.



PRESSURE (PSIA)



SAHARA OPERATING CO.
STATE SIMS '31' (LEA CO., NEW MEXICO)
Probe: 20234
Pressure vs Time
By RIG TESTERS INC.



INCREMENTAL PRESSURE DATA

RECORDER NO : 20234

RECORDER CAPACITY : 10000 psi

RECORDER DEPTH : 3777 ft

ELAPSED TIME ---MIN---	TOTAL FLOW TIME, T ---MIN---	INCREMENTAL SHUT-IN TIME, DT ---MIN---	(T+DT)/DT (HORNER) -----	PRESSURE ---PSIG---	DELTA P ---PSIG---
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FIRST FLOW

.0	.0			55.	0.
1.0	1.0			58.	4.
2.0	2.0			59.	4.
3.0	3.0			60.	5.
4.0	4.0			59.	5.
5.0	5.0			59.	5.
6.0	6.0			60.	5.
7.0	7.0			60.	5.
8.0	8.0			60.	5.
9.0	9.0			60.	6.
10.0	10.0			60.	5.
11.2	11.2			60.	6.

FIRST SHUT-IN

11.2	11.2	.00	.000	60.	0.
12.2	11.2	1.00	12.220	63.	3.
13.2	11.2	2.00	6.610	66.	6.
14.2	11.2	3.00	4.740	68.	8.
15.2	11.2	4.00	3.805	70.	10.
16.2	11.2	5.00	3.244	73.	13.
17.2	11.2	6.00	2.870	75.	15.
18.2	11.2	7.00	2.603	78.	17.
19.2	11.2	8.00	2.403	80.	20.
20.2	11.2	9.00	2.247	82.	22.
21.2	11.2	10.00	2.122	85.	25.
23.2	11.2	12.00	1.935	90.	30.
25.2	11.2	14.00	1.801	95.	35.
27.2	11.2	16.00	1.701	100.	40.
29.2	11.2	18.00	1.623	105.	45.
31.2	11.2	20.00	1.561	111.	51.
33.2	11.2	22.00	1.510	117.	56.
35.2	11.2	24.00	1.468	123.	63.
37.2	11.2	26.00	1.432	129.	69.
39.2	11.2	28.00	1.401	135.	75.
41.2	11.2	30.00	1.374	142.	81.
43.2	11.2	32.00	1.351	148.	88.
45.2	11.2	34.02	1.330	155.	95.

SECOND FLOW

45.7	11.7			62.	0.
48.7	14.7			62.	0.
51.7	17.7			62.	0.
54.7	20.7			62.	1.
57.7	23.7			62.	1.



INCREMENTAL PRESSURE DATA

RECORDER NO : 20234

RECORDER CAPACITY : 10000 psi

RECORDER DEPTH : 3777 ft

ELAPSED TIME ---MIN---	TOTAL FLOW TIME, T ---MIN---	INCREMENTAL SHUT-IN TIME, DT ---MIN---	(T+DT)/DT (HORNER) -----	PRESSURE ---PSIG---	DELTA P ---PSIG---
SECOND FLOW					
60.7	26.7			1985.	1923.
63.7	29.7			65.	4.
64.7	30.7			64.	2.
SECOND SHUT-IN					
64.7	30.7	.00	.000	64.	0.
65.7	30.7	1.00	31.720	79.	15.
66.7	30.7	2.00	16.360	94.	31.
67.7	30.7	3.00	11.240	107.	44.
68.7	30.7	4.00	8.680	123.	60.
69.7	30.7	5.00	7.144	138.	75.
70.7	30.7	6.00	6.120	154.	91.
71.7	30.7	7.00	5.389	173.	109.
72.7	30.7	8.00	4.840	191.	128.
73.7	30.7	9.00	4.413	210.	147.
74.7	30.7	10.00	4.072	232.	168.
76.7	30.7	12.00	3.560	279.	216.
78.7	30.7	14.00	3.194	333.	270.
80.7	30.7	16.00	2.920	387.	324.
82.7	30.7	18.00	2.707	440.	377.
84.7	30.7	20.00	2.536	494.	431.
86.7	30.7	22.00	2.396	548.	485.
88.7	30.7	24.00	2.280	604.	540.
90.7	30.7	26.00	2.182	661.	598.
92.7	30.7	28.00	2.097	712.	649.
94.7	30.7	30.00	2.024	754.	691.
96.7	30.7	32.00	1.960	798.	735.
98.7	30.7	34.00	1.904	838.	774.
100.7	30.7	36.00	1.853	872.	808.
103.0	30.7	38.22	1.804	914.	850.

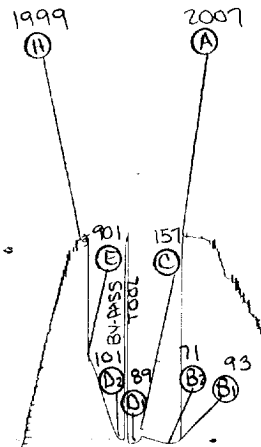
REMARKS

WE ARE UNABLE TO COMPLETE AN ACCURATE ANALYSIS DUE TO THE LIMITED HYDRO-CARBON RECOVERED AND THE INSUFFICIENT BREAKOVER ON BOTH SHUT-IN PERIODS. THE SHUT-INS WILL NOT ACCURATELY EXTRAPOLATE DUE TO DOMINATION OF STORAGE.

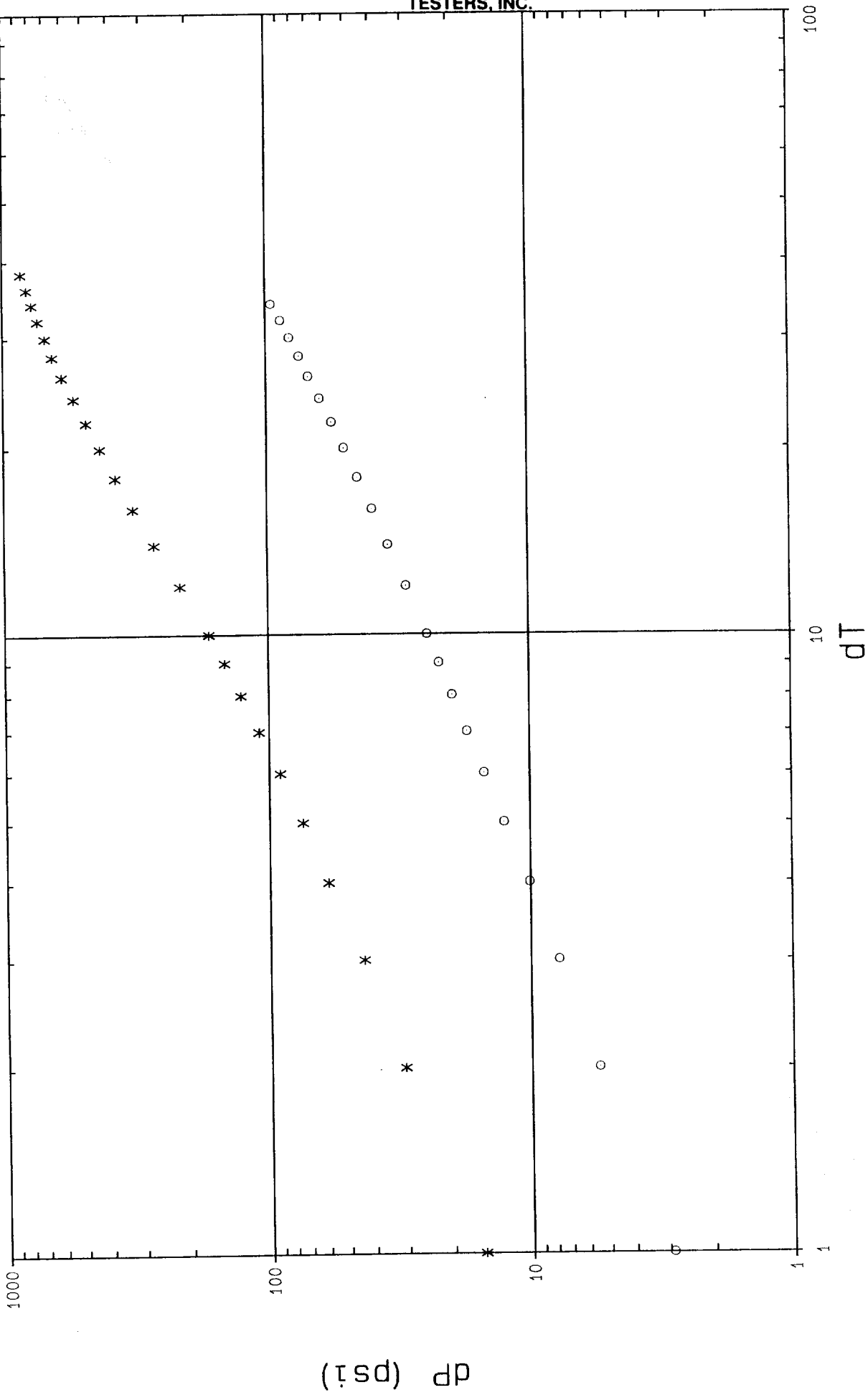
TKT-18933 REC-1353B WT-7025

AK-1 KUSTER 18 HR. CLOCK

BOTTOM RECORDER : OUTSIDE



LOG-LOG PLOT

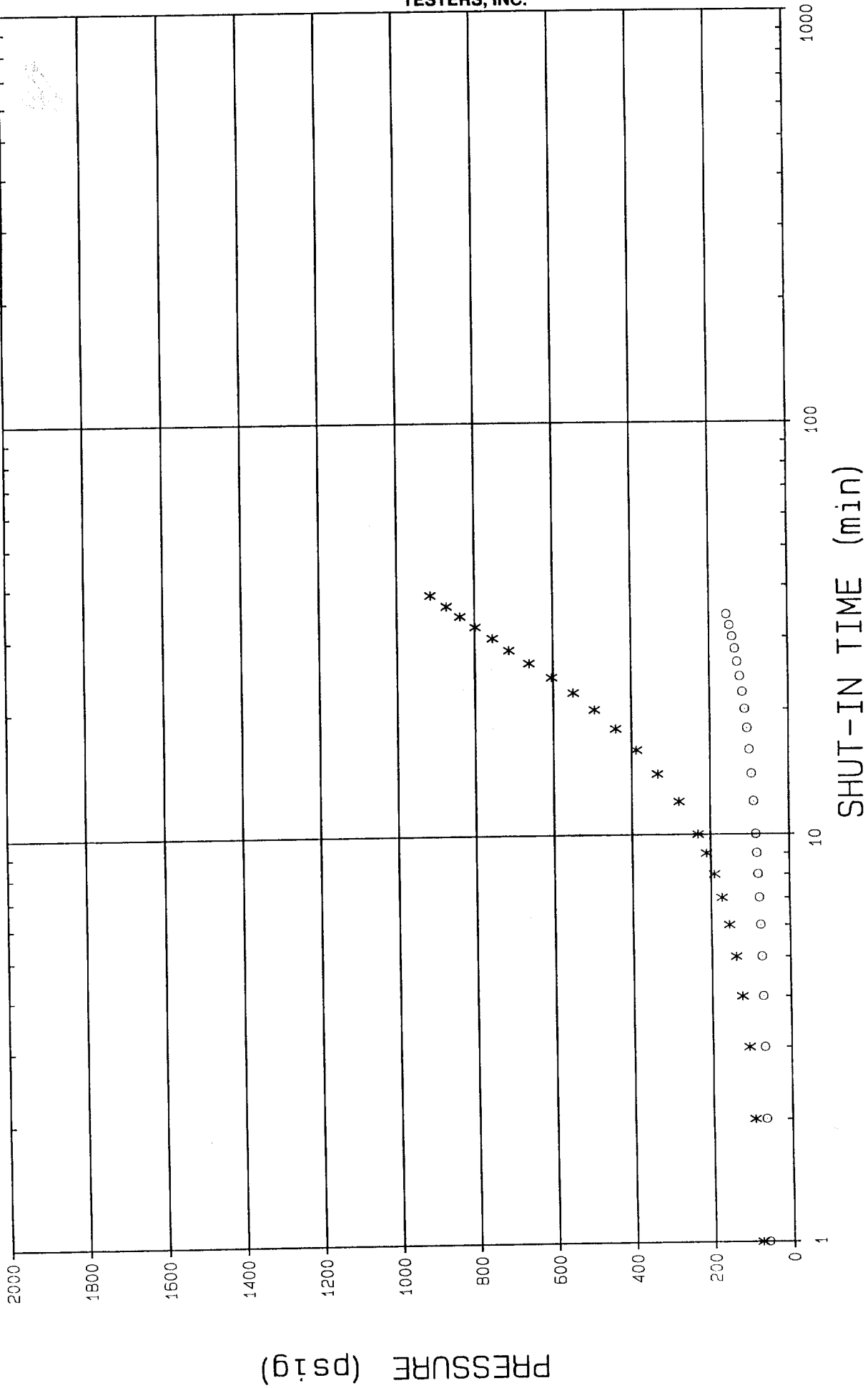


o FIRST SHUT-IN
* SECOND SHUT-IN

SAHARA OPERATING CO.
STATE SIMS "31" # 1



PRESSURE TIME



○ FIRST SHUT-IN
* SECOND SHUT-IN

SAHARA OPERATING CO.
STATE SIMS "31" # 1



RigTesters, Inc.
 ABILENE - MIDLAND - GRAHAM
 SAHARA OPERATING CO.



**Well Test
 Report**

Well identification

Well ID	STATE SIMS "31"#1	Well location	W. SEMINOLE
County/District	LEA	State, Country	NEW MEXICO
Company	SAHARA OPER. CO.	Division	MIDLAND

Fluid properties

Prod/Inj fluid	WATER	GOR	N/A
Water cut	100%	Condensate yield	UNKNOWN
API gravity	N/A	Gas spec. grav.	0.675
Viscosity	1.116 cp	Pseudo-critical T	377.17 deg R
Pseudo-critical P	666.05 psia	H2S mole fraction	UNKNOWN
CO2 mole fraction	UNKNOWN	N2 mole fraction	UNKNOWN
Compressibility(t)	21.877 e-6/psi	Formation vol factor	1.0062 RB/STB

Reservoir properties

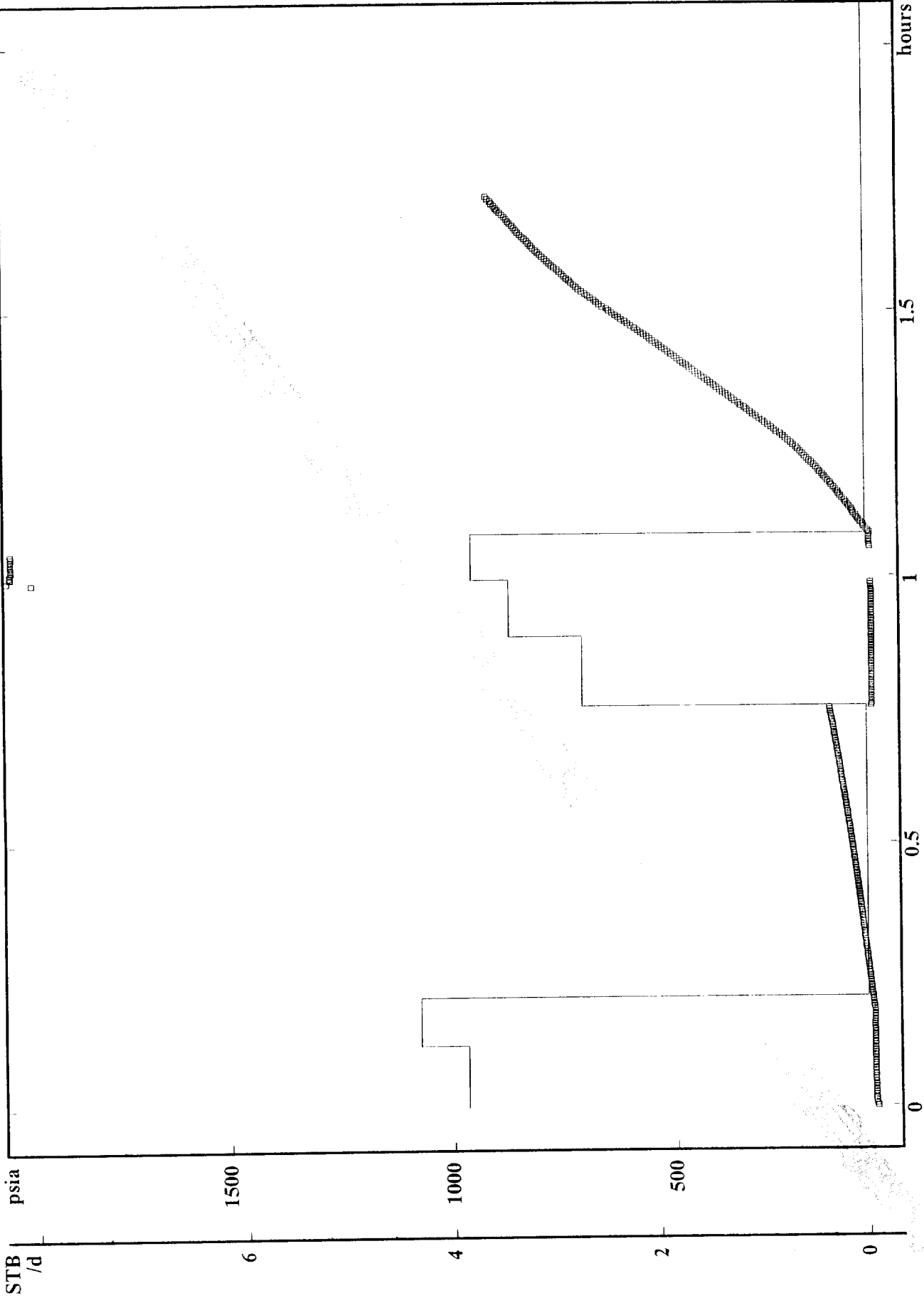
Porosity	8e-2 frac	Formation thickness	9 ft
Wellbore radius	0.32813 ft	Prod-observer distance	N/A
Water-Oil Contact	UNKNOWN	Gas-Oil Contact	N/A
Gas-Water Contact	N/A	Rock compressibility	
Reservoir temperature	93 deg F	Pressure for properties	1540 psia

Comments

THE DERIVATIVES CONFIRM DOMINATION OF WELLBORE STORAGE EFFECT ON BOTH SHUT-IN PERIODS. ANY CALCULATIONS (EXTRAPOLATIONS, PERMEABILITY AND SKIN) WOULD NOT BE RELIABLE UNDER THIS CONDITION. THE FIXED PARAMETERS USED WERE AN EST. 8% POROSITY, 9 FT. OF NET PAY AND AVERAGE RATE OF 3.78 BBLS. OF FLUID (WATER) FOR THE FINAL FLOW PERIOD. THE RATES WERE BASED ON DENSITY OF FLUID RECOVERED VS. THE FINAL FLOWING PRESSURES.

SAHARA OPERATING CO. STATE SIMS "31" #1

Pressure and flow rate vs time during test sequence

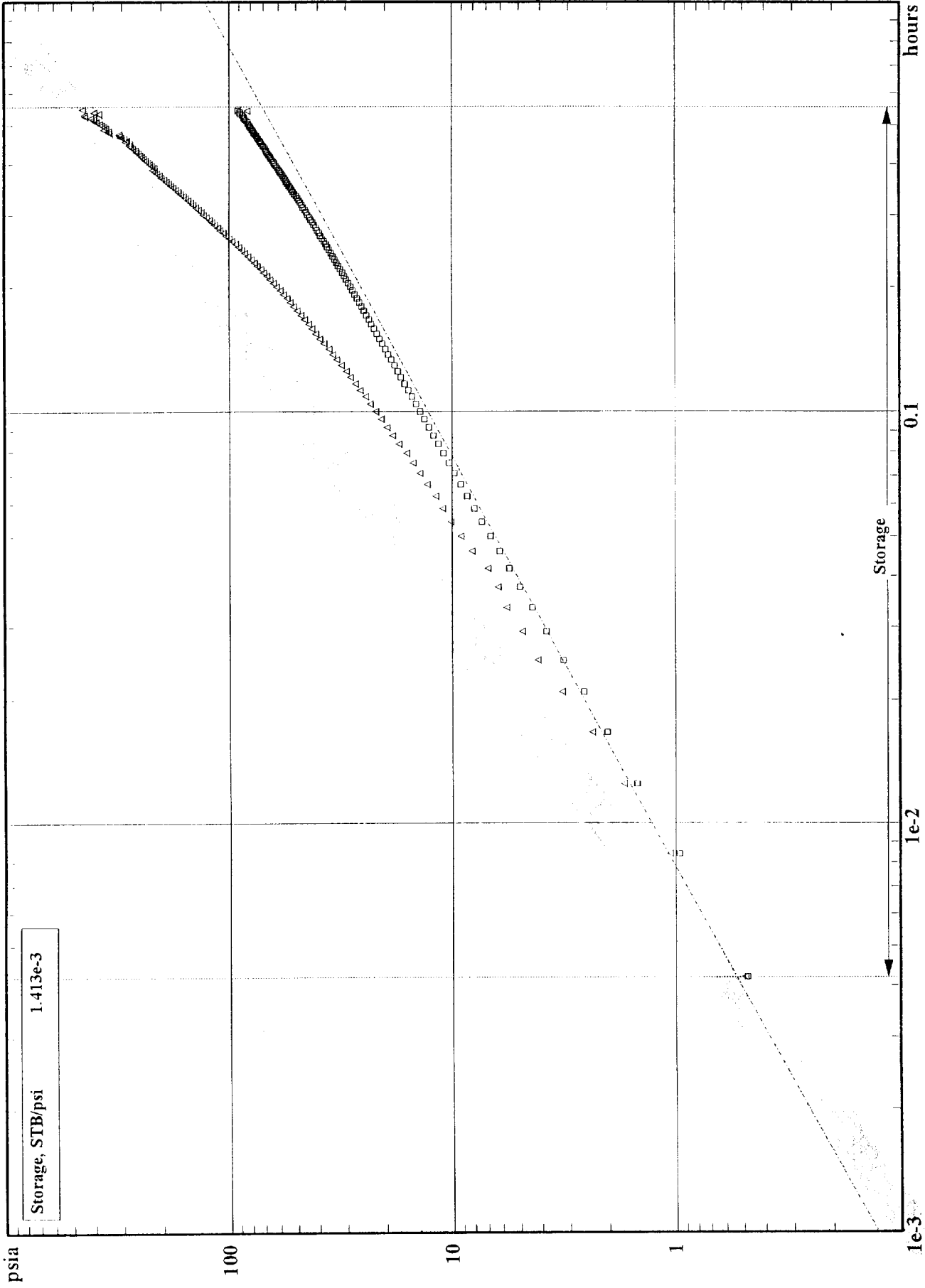


DST #1 3794 - 3853 FT. UPPER SEVEN RIVERS



SAHARA OPERATING CO. STATE SIMS "31" #1

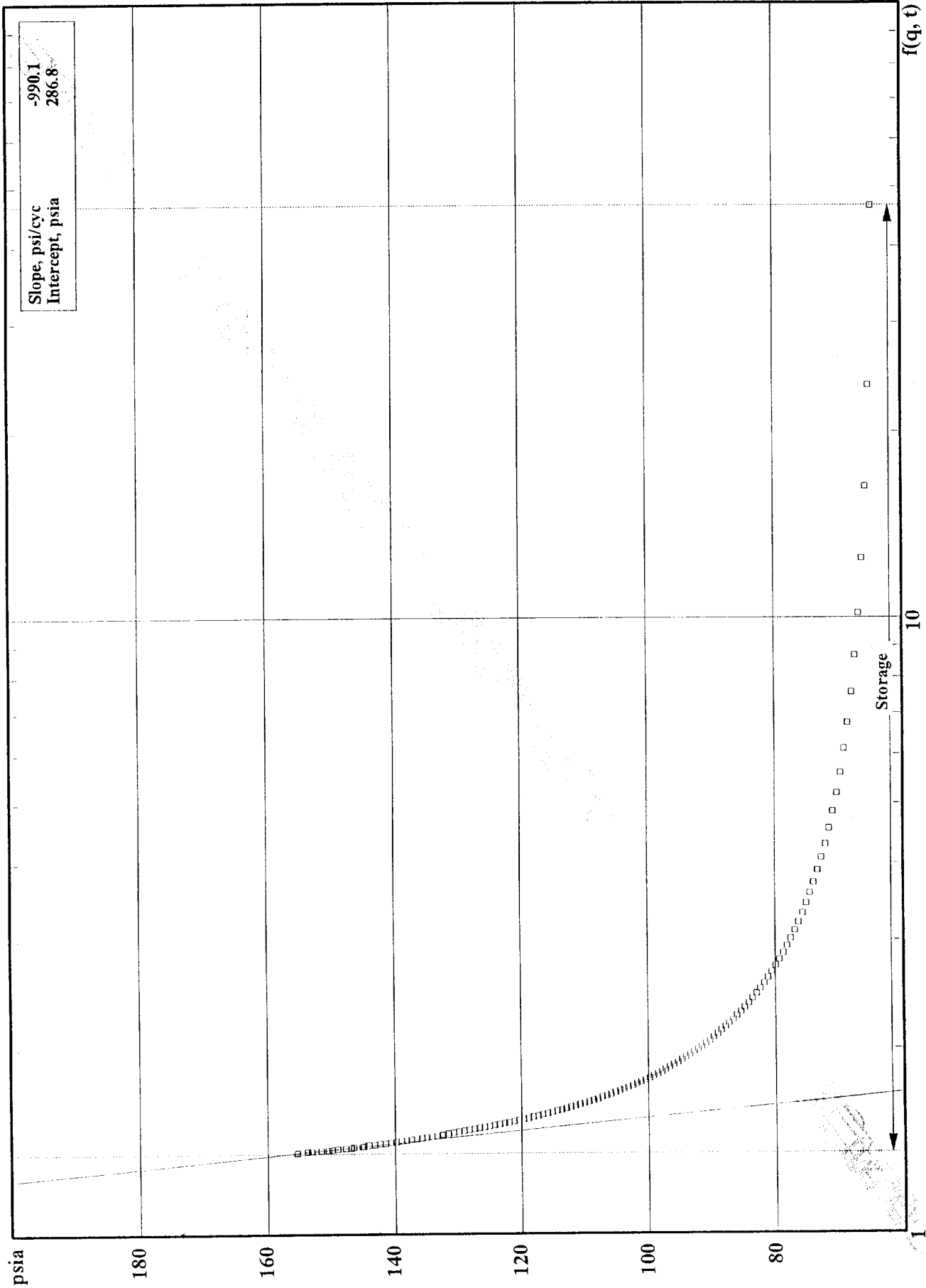
Diagnostic plot (pressure & time)



INITIAL SHUT-IN PERIOD DST #1

SAHARA OPERATING CO. STATE SIMS "31" #1

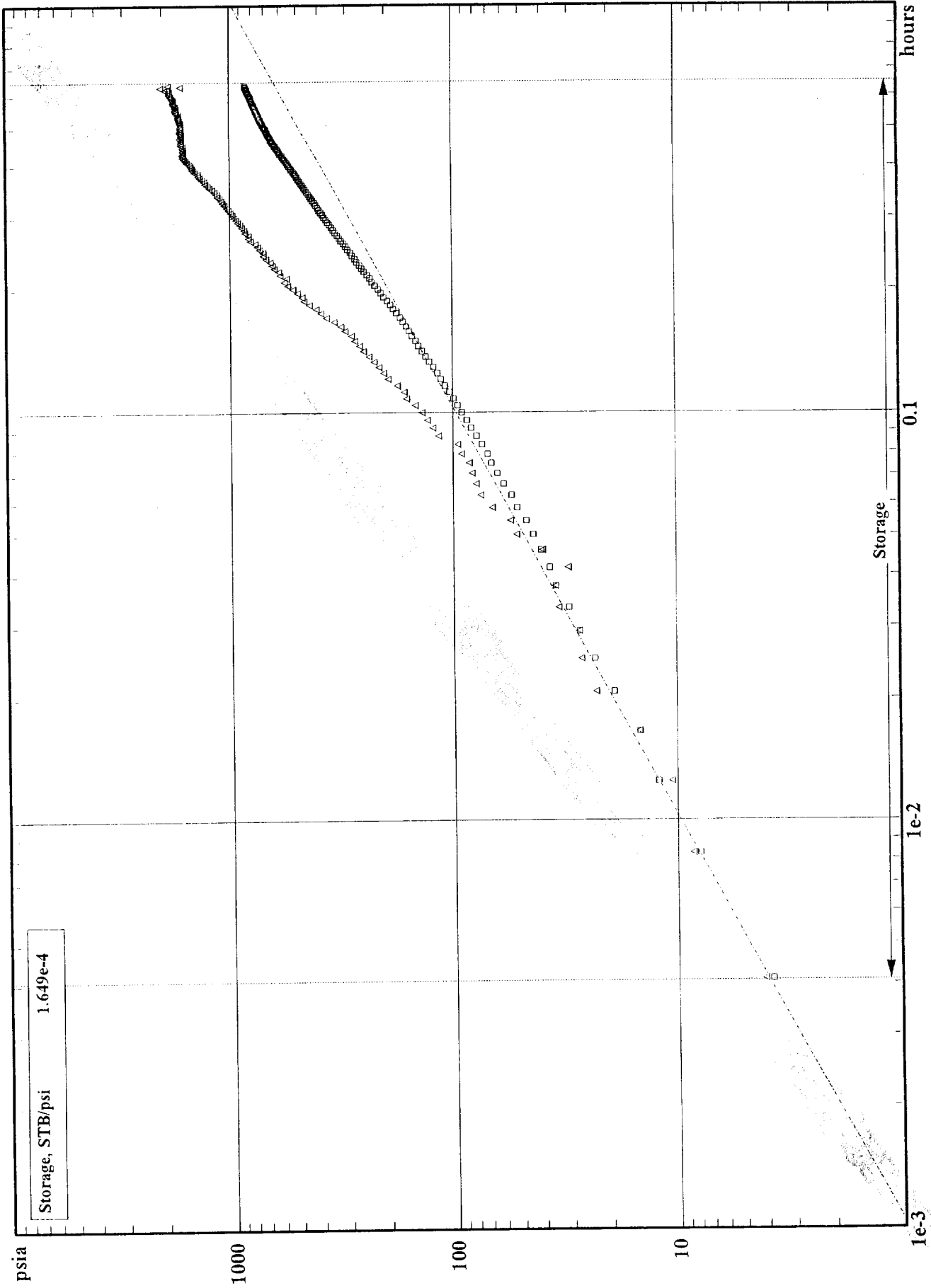
Variable rate Horner plot (pressure & time)



INITIAL SHUT-IN PERIOD DST #1

SAHARA OPERATING CO. STATE SIMS "31" #1

Diagnostic plot (pressure & time)

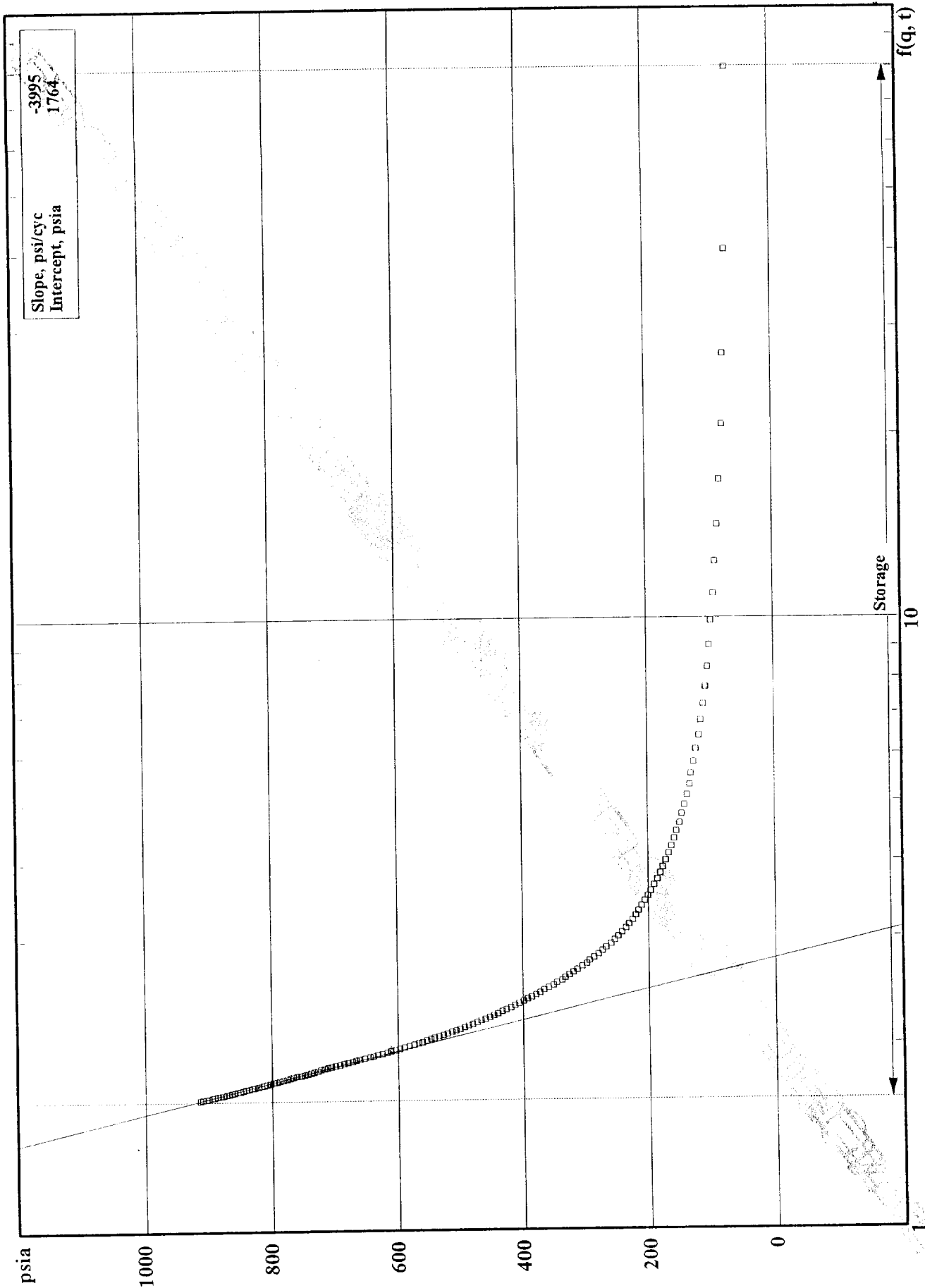


FINAL SHUT-IN PERIOD DST #1



SAHARA OPERATING CO. STATE SIMS "31" #1

Variable rate Horner plot (pressure & time)



FINAL SHUT-IN PERIOD DST #1