REPORT NO. 115652

PAGE NO. 1

TEST DATE: 03-Dec-1988

S T A R™

A Schlumberger Transient Analysis Report
Of A Schlumberger Drillstem Test

Schlumberger

Company: SANTA FE ENERGY

Well: Schinnery 14 "Fed" #1

TEST IDENTIFICATION

Test Type ..... MFE OH DST
Test No. ..... One
Formation ..... Bone Springs
Test Interval (ft) ... 7078 to 7140
Reference Depth ..... Kelly Bushing

WELL LOCATION 330/S & 1650/E 14-18-32

Field ..... n/a
County ..... Lea
State ..... New Mexico
Sec/Twn/Rng 14/18S/32E
Elevation (ft) 3738

HOLE CONDITIONS

Total Depth (MD/TUD)(ft) . 7140 / 7140
Hole Size (in) 7.875
Casing/Liner O.D. (in) ... 8 5/8
Perf'd Interv./Nt Pay(ft).
Shot Density/Diameter(in).

MUD PROPERTIES

Mud Type ..... Cut Brine
Mud Weight (lb/gal) 9.2
Mud Resistivity (ohm.m) .. .1 @ 65F
Filtrate Resistiv.(ohm.m).
Filtrate Chlorides (ppm) . 88000

INITIAL TEST CONDITIONS

Initial Hydrostatic (psi). 3436
Gas Cushion Type ..... None
Surface Pressure (psi) ...
Liquid Cushion Type ..... None
Cushion Length (ft) .....

TEST STRING CONFIGURATION

Pipe Length (ft)/O.D.(in). 6311 / 4.5
Collar Length ft/I.D.(in). 733 / 2.25
Packer Depths (ft) 7073,7078
Bottomhole Choke Size(in). 15/16
Gauge Depth (ft)/Type .... 7134 / J-1190

NET PIPE RECOVERY

Volume	Fluid Type	Properties
456 ft.	Form. Water	Rw = .1 @ 65F
		70,000 PPM

NET SAMPLE CHAMBER RECOVERY

Volume	Fluid Type	Properties
.3 cu.ft.	Gas	
1900 cc.	Water	Rw= .1 @ 65F
		82,000 PPM
Press. 175	GOR:	GLR:

VALIDATION RESULTS

Model of Behavior .....
Fluid Type Used .....
Reservoir Pressure (psi) .
Transmissivity (md.ft/cp)
Permeability (md) .....
Skin Factor/Damage Ratio .
Storativity Ratio .....
Interporosity Flow Coeff..
Distance to Anomaly (ft).
Investigation Radius (ft).
Potentiometric Surf. (ft).

ROCK/FLUID/WELLBORE PROPERTIES

Oil Density (deg. API) ...
Basic Solids (%) .....
Gas Gravity .....
Water Cut (%) .....
Viscosity (cp) .....
Tot. Compress. (1/psi) ...
Porosity (%) .....
Reservoir Temperature (F). 105
Form.Vol.Factor (bbl/STB).

PRODUCTION RATE DURING TEST: Data Report

COMMENTS:

This test was mechanically successful but the zone did not produce any significant volumes of oil or gas.

The general character of the buildup plots suggest that the zone has low effective permeability and no wellbore damage at the time and conditions of the test.

WELL TEST INTERPRETATION REPORT #:115652 CLIENT : SANTA FE ENERGY		PAGE: 2 4-DEC-88
REGION :W.T.D. DISTRICT:Hobbs BASE :Midland Engr :Smith/bb	SEQUENCE OF EVENTS	Field:n/a Zone :Bone Springs Well :Schinnery 14-1 Location:14/18S/32E

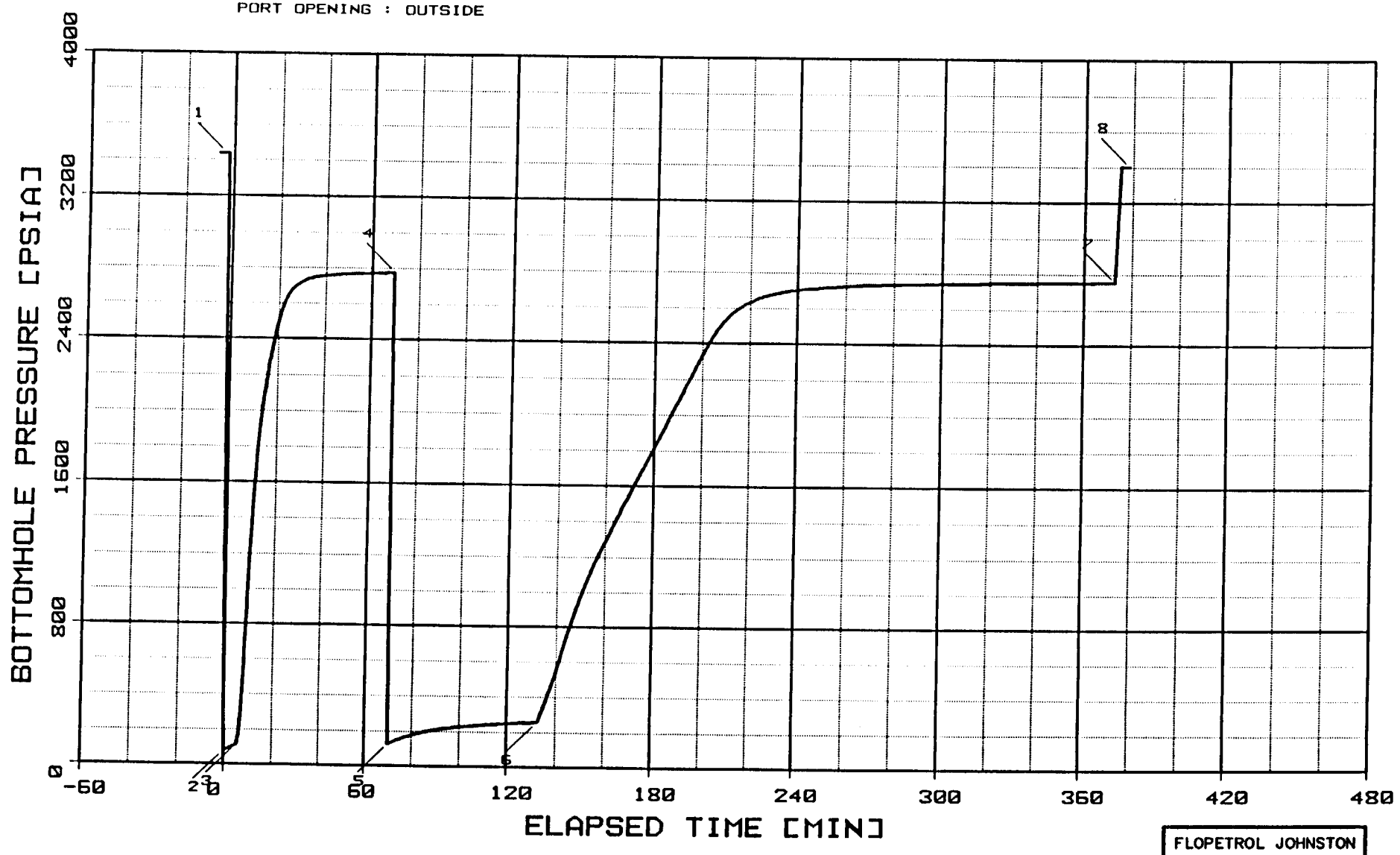
EVENT NO.	DATE	TIME (HR:MIN)	DESCRIPTION	ELAPSED TIME (HR:MIN)	BHP (PSIA)	WHP (PSIG)
1	3-DEC	11:30	SET PACKER, Hydrostatic		3436.0	
2		11:34	START FLOW, Bubble Hose	0:00	75.0	
			Weak Blow			
		11:36	1"	0:02		
3		11:39	END FLOW & START SHUT-IN	0:05	111.0	
4		12:43	END SHUT-IN	1:09	2775.0	
5		12:44	START FLOW, Bubble Hose	1:10	125.0	
			Weak Blow			
		12:45	1 oz.	1:11		
		12:50	3 oz.	1:16		
		13:05	4 oz.	1:31		
		13:25	5 oz.	1:51		
6		13:46	END FLOW & START SHUT-IN	2:12	253.0	
7		17:47	END SHUT-IN	6:13	2753.0	
8		17:49	PULLED LOOSE, Hydrostatic	6:15	3401.0	
			Did not reverse out			

SCHLUMBERGER

BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 115652
INSTRUMENT NO. J-1190
DEPTH : 7134 FT
CAPACITY : 4700 PSI
PORT OPENING : OUTSIDE

COMPANY : SANTA FE ENERGY
WELL : SHINNERY 14 FED. #1



FLOPETROL JOHNSTON
Schlumberger

****
* WELL TEST DATA PRINTOUT *
****

FIELD REPORT # : 115652

COMPANY : SANTA FE ENERGY
WELL : SHINNERY 14 FED. #1

INSTRUMENT # : J-1190
CAPACITY [PSI] : 4700.
DEPTH [FT] : 7134.0
PORT OPENING : OUTSIDE
TEMPERATURE [DEG F] : 105.0

LABEL POINT INFORMATION
****

#	TIME OF DAY HH:MM:SS	DATE DD-MM	EXPLANATION	ELAPSED TIME,MIN	BOT HOLE PRESSURE PSIA
1	11:30:15	3-DC	HYDROSTATIC MUD	-3.75	3436
2	11:34: 0	3-DC	START FLOW	0.00	75
3	11:39:23	3-DC	END FLOW & START SHUT-IN	5.38	111
4	12:43:29	3-DC	END SHUT-IN	69.48	2775
5	12:44: 8	3-DC	START FLOW	70.14	125
6	13:46:28	3-DC	END FLOW & START SHUT-IN	132.47	253
7	17:47: 2	3-DC	END SHUT-IN	373.04	2753
8	17:52:32	3-DC	HYDROSTATIC MUD	378.54	3401

SUMMARY OF FLOW PERIODS
****

PERIOD	START ELAPSED TIME,MIN	END ELAPSED TIME,MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA
1	0.00	5.38	5.38	75	111
2	70.14	132.47	62.33	125	253

SUMMARY OF SHUTIN PERIODS
****

PERIOD	START ELAPSED TIME,MIN	END ELAPSED TIME,MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA	FINAL FLOW PRESSURE PSIA	PRODUCING TIME, MIN
1	5.38	69.48	64.10	111	2775	111	5.38
2	132.47	373.04	240.57	253	2753	253	67.71

TEST PHASE : FLOW PERIOD # 1

TIME OF DAY HH:MM:SS	DATE DD-MM	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE PRESSURE PSIA
11:34: 0	3-DC	0.00	0.00	75
11:39: 0	3-DC	5.00	5.00	108
11:39:23	3-DC	5.38	5.38	111

TEST PHASE : SHUTIN PERIOD # 1
FINAL FLOW PRESSURE [PSIA] = 111
PRODUCING TIME [MIN] = 5.38

TIME OF DAY HH:MM:SS	DATE DD-MM	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
11:39:23	3-DC	5.38	0.00	111	0	
11:40:23	3-DC	6.38	1.00	194	83	0.805
11:41:23	3-DC	7.38	2.00	355	245	0.567
11:42:23	3-DC	8.38	3.00	658	547	0.446
11:43:23	3-DC	9.38	4.00	999	889	0.370
11:44:23	3-DC	10.38	5.00	1305	1194	0.317
11:45:23	3-DC	11.38	6.00	1549	1439	0.278
11:46:23	3-DC	12.38	7.00	1759	1648	0.248
11:47:23	3-DC	13.38	8.00	1909	1798	0.223
11:48:23	3-DC	14.38	9.00	2036	1925	0.204
11:49:23	3-DC	15.38	10.00	2132	2021	0.187
11:51:23	3-DC	17.38	12.00	2311	2201	0.161
11:53:23	3-DC	19.38	14.00	2450	2339	0.141
11:55:23	3-DC	21.38	16.00	2552	2442	0.126
11:57:23	3-DC	23.38	18.00	2625	2515	0.114
11:59:23	3-DC	25.38	20.00	2670	2560	0.103
12: 1:23	3-DC	27.38	22.00	2697	2587	0.095
12: 3:23	3-DC	29.38	24.00	2716	2605	0.088
12: 5:23	3-DC	31.38	26.00	2728	2617	0.082
12: 7:23	3-DC	33.38	28.00	2738	2627	0.076
12: 9:23	3-DC	35.38	30.00	2745	2634	0.072
12:14:23	3-DC	40.38	35.00	2755	2645	0.062
12:19:23	3-DC	45.38	40.00	2762	2651	0.055
12:24:23	3-DC	50.38	45.00	2766	2655	0.049
12:29:23	3-DC	55.38	50.00	2769	2658	0.044
12:34:23	3-DC	60.38	55.00	2771	2661	0.041
12:39:23	3-DC	65.38	60.00	2773	2662	0.037
12:43:29	3-DC	69.48	64.10	2775	2664	0.035

TEST PHASE : FLOW PERIOD # 2

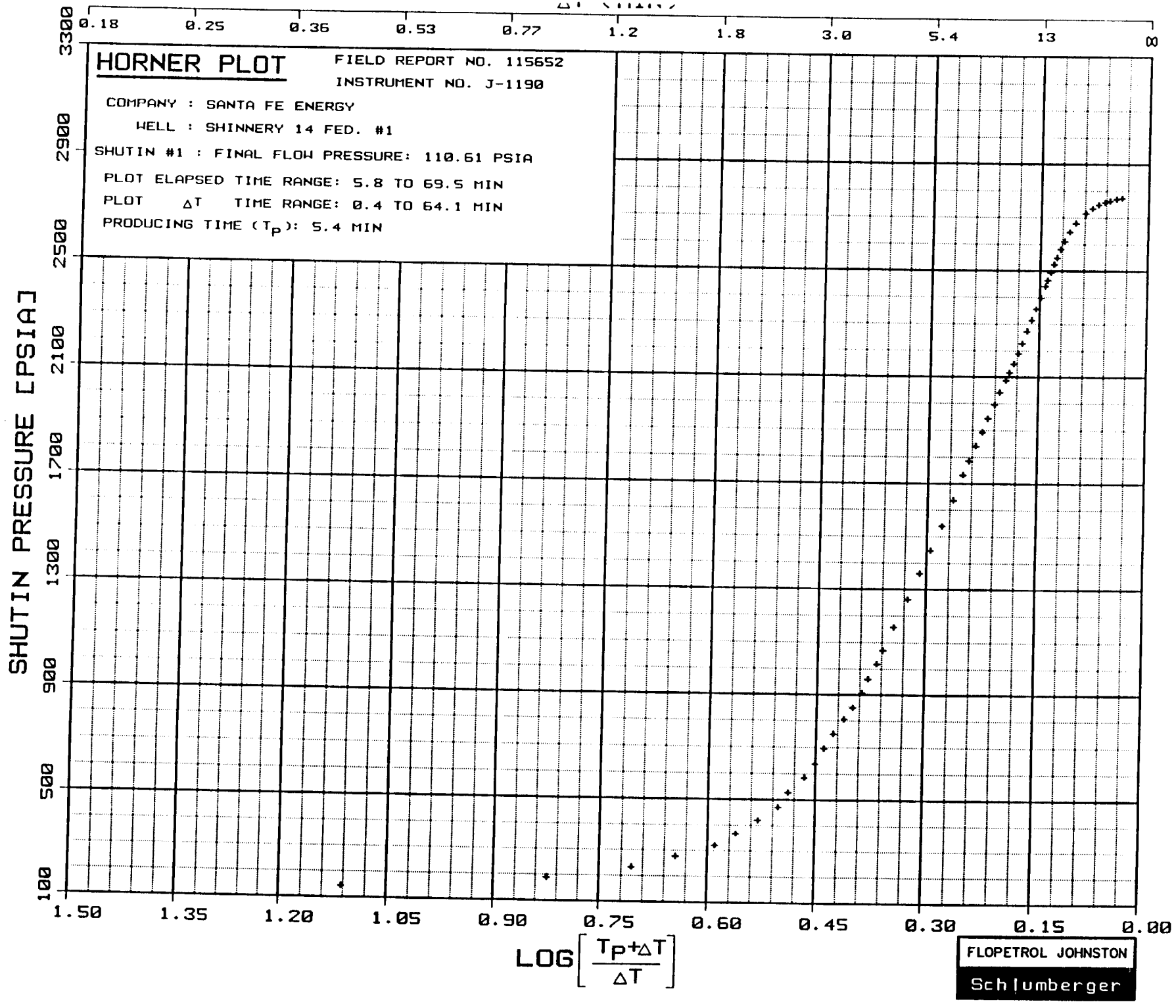
TIME OF DAY HH:MM:SS	DATE DD-MM	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE PRESSURE PSIA
12:44: 8	3-DC	70.14	0.00	125
12:49: 8	3-DC	75.14	5.00	153
12:54: 8	3-DC	80.14	10.00	175
12:59: 8	3-DC	85.14	15.00	192
13: 4: 8	3-DC	90.14	20.00	206
13: 9: 8	3-DC	95.14	25.00	216
13:14: 8	3-DC	100.14	30.00	225
13:19: 8	3-DC	105.14	35.00	230
13:24: 8	3-DC	110.14	40.00	237
13:29: 8	3-DC	115.14	45.00	242
13:34: 8	3-DC	120.14	50.00	247
13:39: 8	3-DC	125.14	55.00	250
13:44: 8	3-DC	130.14	60.00	253
13:46:28	3-DC	132.47	62.33	253

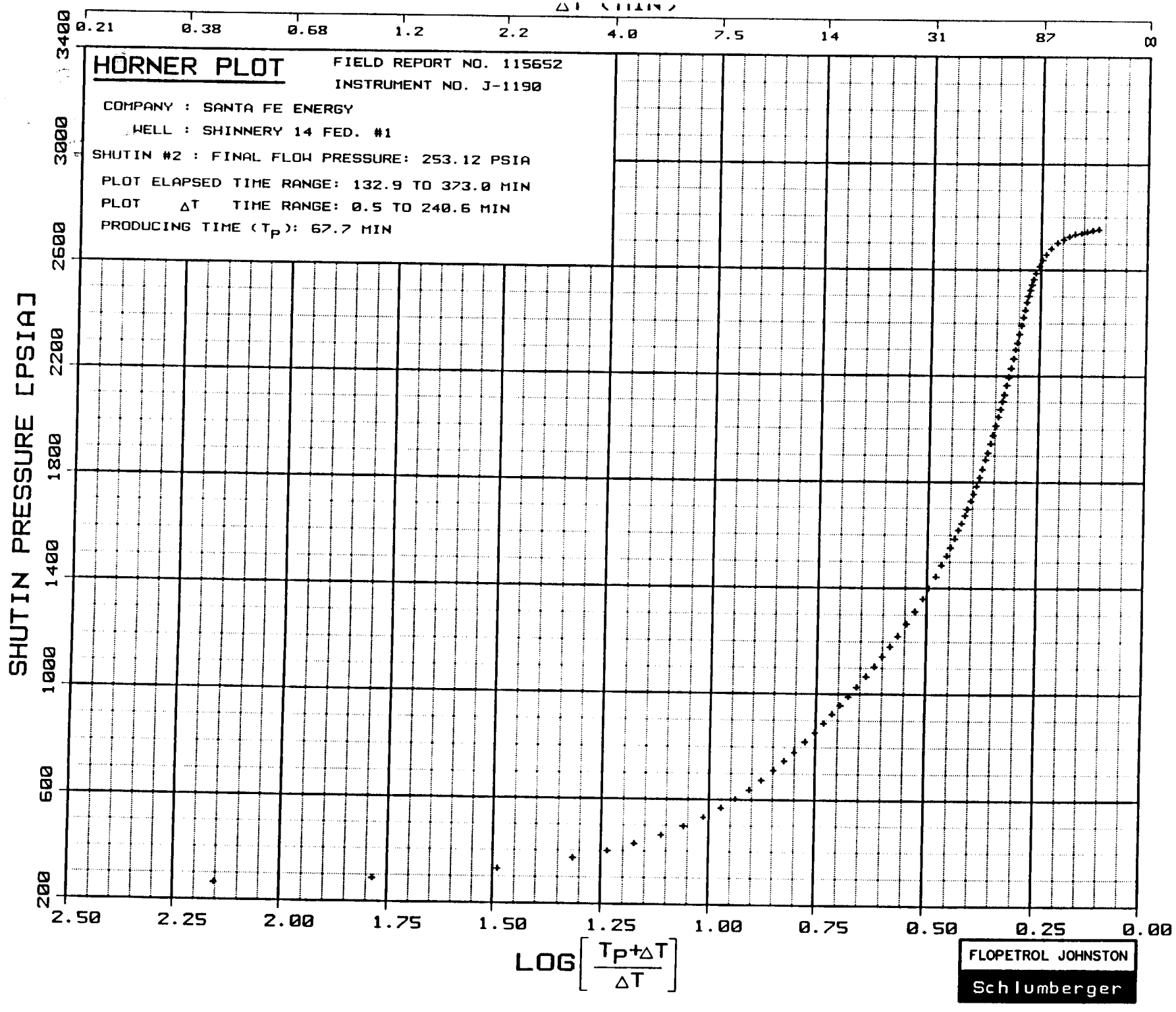
TEST PHASE : SHUTIN PERIOD # 2
FINAL FLOW PRESSURE [PSIA] = 253
PRODUCING TIME [MIN] = 67.71

TIME OF DAY HH:MM:SS	DATE DD-MM	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
13:46:28	3-DC	132.47	0.00	253	0	
13:47:28	3-DC	133.47	1.00	281	28	1.837
13:48:28	3-DC	134.47	2.00	317	64	1.542
13:49:28	3-DC	135.47	3.00	353	100	1.372
13:50:28	3-DC	136.47	4.00	391	138	1.254
13:51:28	3-DC	137.47	5.00	432	179	1.163
13:52:28	3-DC	138.47	6.00	475	221	1.089
13:53:28	3-DC	139.47	7.00	518	265	1.028
13:54:28	3-DC	140.47	8.00	563	310	0.976
13:55:28	3-DC	141.47	9.00	608	355	0.931
13:56:28	3-DC	142.47	10.00	654	401	0.890
13:58:28	3-DC	144.47	12.00	747	494	0.822
14: 0:28	3-DC	146.47	14.00	832	579	0.766
14: 2:28	3-DC	148.47	16.00	912	659	0.719
14: 4:28	3-DC	150.47	18.00	985	732	0.678
14: 6:28	3-DC	152.47	20.00	1053	800	0.642
14: 8:28	3-DC	154.47	22.00	1119	866	0.610
14:10:28	3-DC	156.47	24.00	1179	926	0.582
14:12:28	3-DC	158.47	26.00	1237	984	0.557
14:14:28	3-DC	160.47	28.00	1293	1040	0.534
14:16:28	3-DC	162.47	30.00	1348	1095	0.513
14:21:28	3-DC	167.47	35.00	1486	1233	0.468
14:26:28	3-DC	172.47	40.00	1618	1365	0.430
14:31:28	3-DC	177.47	45.00	1746	1493	0.399

TEST PHASE : SHUTIN PERIOD # 2
FINAL FLOW PRESSURE [PSIA] = 253
PRODUCING TIME [MIN] = 67.71

TIME OF DAY HH:MM:SS	DATE DD-MM	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
14:36:28	3-DC	182.47	50.00	1876	1623	0.372
14:41:28	3-DC	187.47	55.00	2006	1753	0.349
14:46:28	3-DC	192.47	60.00	2135	1882	0.328
14:51:28	3-DC	197.47	65.00	2266	2013	0.310
14:56:28	3-DC	202.47	70.00	2388	2135	0.294
15: 1:28	3-DC	207.47	75.00	2491	2238	0.279
15: 6:28	3-DC	212.47	80.00	2564	2311	0.266
15:11:28	3-DC	217.47	85.00	2612	2359	0.254
15:16:28	3-DC	222.47	90.00	2645	2392	0.244
15:21:28	3-DC	227.47	95.00	2668	2415	0.234
15:26:28	3-DC	232.47	100.00	2684	2430	0.225
15:31:28	3-DC	237.47	105.00	2696	2443	0.216
15:36:28	3-DC	242.47	110.00	2705	2452	0.208
15:41:28	3-DC	247.47	115.00	2711	2458	0.201
15:46:28	3-DC	252.47	120.00	2717	2464	0.194
15:51:28	3-DC	257.47	125.00	2722	2469	0.188
15:56:28	3-DC	262.47	130.00	2726	2473	0.182
16: 1:28	3-DC	267.47	135.00	2730	2477	0.177
16: 6:28	3-DC	272.47	140.00	2732	2479	0.171
16:11:28	3-DC	277.47	145.00	2734	2481	0.166
16:16:28	3-DC	282.47	150.00	2736	2483	0.162
16:21:28	3-DC	287.47	155.00	2737	2484	0.157
16:26:28	3-DC	292.47	160.00	2738	2485	0.153
16:31:28	3-DC	297.47	165.00	2740	2487	0.149
16:36:28	3-DC	302.47	170.00	2741	2488	0.146
16:41:28	3-DC	307.47	175.00	2742	2489	0.142
16:46:28	3-DC	312.47	180.00	2743	2490	0.139
16:51:28	3-DC	317.47	185.00	2745	2492	0.135
16:56:28	3-DC	322.47	190.00	2746	2493	0.132
17: 1:28	3-DC	327.47	195.00	2747	2494	0.129
17: 6:28	3-DC	332.47	200.00	2748	2495	0.127
17:11:28	3-DC	337.47	205.00	2749	2496	0.124
17:16:28	3-DC	342.47	210.00	2750	2497	0.121
17:21:28	3-DC	347.47	215.00	2751	2497	0.119
17:26:28	3-DC	352.47	220.00	2751	2498	0.117
17:31:28	3-DC	357.47	225.00	2752	2499	0.114
17:36:28	3-DC	362.47	230.00	2752	2499	0.112
17:41:28	3-DC	367.47	235.00	2753	2500	0.110
17:46:28	3-DC	372.47	240.00	2753	2500	0.108
17:47: 2	3-DC	373.04	240.57	2753	2500	0.108

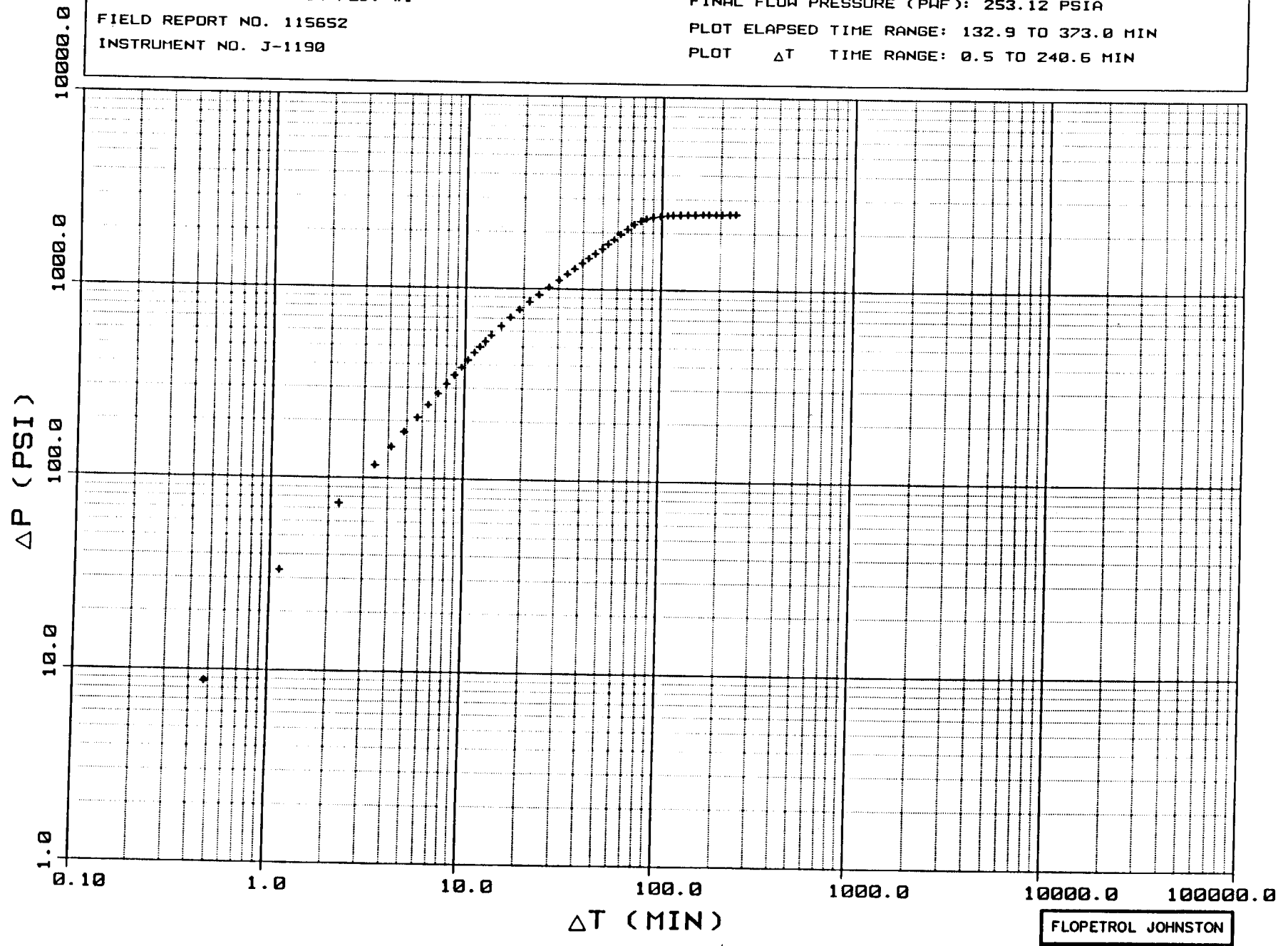

HORNER PLOT
FIELD REPORT NO. 115652
INSTRUMENT NO. J-1190
COMPANY : SANTA FE ENERGY
WELL : SHINNERY 14 FED. #1
SHUTIN #1 : FINAL FLOW PRESSURE: 110.61 PSIA
PLOT ELAPSED TIME RANGE: 5.8 TO 69.5 MIN
PLOT ΔT TIME RANGE: 0.4 TO 64.1 MIN
PRODUCING TIME (Tp): 5.4 MIN
SHUTIN PRESSURE [PSIA]
3300
2900
2500
2100
1700
1300
900
500
100
0.18
0.25
0.36
0.53
0.77
1.2
1.8
3.0
5.4
13
∞
1.50
1.35
1.20
1.05
0.90
0.75
0.60
0.45
0.30
0.15
0.00
LOG [Tp+ΔT / ΔT]
FLOPETROL JOHNSTON
Schlumberger


HORNER PLOT
FIELD REPORT NO. 115652
INSTRUMENT NO. J-1190
COMPANY : SANTA FE ENERGY
WELL : SHINNERY 14 FED. #1
SHUTIN #2 : FINAL FLOW PRESSURE: 253.12 PSIA
PLOT ELAPSED TIME RANGE: 132.9 TO 373.0 MIN
PLOT ΔT TIME RANGE: 0.5 TO 240.6 MIN
PRODUCING TIME (T_P): 67.7 MIN
SHUTIN PRESSURE [PSIA]
3400
3000
2600
2200
1800
1400
1000
600
200
0.21
0.38
0.68
1.2
2.2
4.0
7.5
14
31
87
∞
2.50
2.25
2.00
1.75
1.50
1.25
1.00
0.75
0.50
0.25
0.00
$LOG\left[\frac{T_P+\Delta T}{\Delta T}\right]$
FLOPETROL JOHNSTON
Schlumberger

LOG LOG PLOT

COMPANY : SANTA FE ENERGY
WELL : SHINNERY 14 FED. #1
FIELD REPORT NO. 115652
INSTRUMENT NO. J-1190

SHUTIN #2 :
FINAL FLOW PRESSURE (PWF): 253.12 PSIA
PLOT ELAPSED TIME RANGE: 132.9 TO 373.0 MIN
PLOT ΔT TIME RANGE: 0.5 TO 240.6 MIN



FLOPETROL JOHNSTON
Schlumberger

WELL TEST INTERPRETATION REPORT #:115652 CLIENT : SANTA FE ENERGY		PAGE: 11, 5-DEC-88
REGION :W.T.D. DISTRICT:Hobbs BASE :Midland Engr :Smith/bb	DISTRIBUTION OF REPORTS	Field:n/a Zone :Bone Springs Well :Schinnery 14-1 Location:14/18S/32E

FLOPETROL JOHNSTON has sent copies of this report to the following:

Santa Fe Energy
500 W. Illinois, 5th Floor
Midland, Texas 79701
Attn: John L. Thoma
(3 copies)

Esperanza Energy Corp.
7400 Dallas Pkwy., Ste. 210
Dallas, Texas 75252
Attn: Edith L. Petty
(1 copy)

Petro-Atlas Corp.
999 18th Street, Ste. 2908
Denver, CO 80202
(1 copy)

C. Daniel Walker, et ux, Jo Ann Walker
P.O. Box 12508
Ft. Worth, Texas 76116
(1 copy)

J. Cecil Rhodes
511 W. Texas
Midland, Texas 79701
(1 copy)

Jack Huff
P.O. Box 50190
Midland, Texas 79710-0190
(1 copy)

Statex Petroleum, Inc.
300 W. Carpenter Frwy, Ste. 1100
Irving, Texas 75015
Attn: Bill Brown
(1 copy)

Charles A. Heyne
3820 W. Alabama, Ste. 100
Houston, Texas 77027
(1 copy)

Heyne Oil & Gas Interests
3820 W. Alabama, Ste. 100
Houston, Texas 77027
Attn: Fred Heyne, Jr.
(1 copy)

SCHLUMBERGER