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REPORT NO.
078817

PAGE NO. 1

TEST DATE:
01-JAN-1997

S T A R

Schlumberger Testing Data Report
Pressure Data Report

Schlumberger

COMPANY: COBRA OIL & GAS CORP.

WELL: STATE-30 #1

TEST IDENTIFICATION

Test Type OPEN HOLE DST
 Test No. FOUR
 Formation ATOKA SAND
 Test Interval (ft) 14403 to 14463
 Depth Reference GL

WELL LOCATION

Field WILDCAT
 County LEA
 State NEW MEXICO
 Sec/Twn/Rng 30/24s/33e
 Elevation (ft) 3546

HOLE CONDITIONS

Total Depth (MD/TVD) (ft) 14463
 Hole Size (in) 6.125
 Casing/Liner I.D. (in) 7.625/6.625
 Perf'd Interval/Net Pay (ft) .. / 14
 Shot Density/Diameter (in) ...

MUD PROPERTIES

Mud Type CUT B/W MUD
 Mud Weight (lb/gal) 12.1
 Mud Resistivity (ohm.m)
 Filtrate Resistivity (ohm.m) .. 0.072 @ 60F
 Filtrate Chlorides (ppm) 131000

INITIAL TEST CONDITIONS

Initial Hydrostatic (psi) 9040.20
 Gas Cushion Type
 Surface Pressure (psi)
 Liquid Cushion Type F/W & NITRO
 Cushion Length (ft) 4000

TEST STRING CONFIGURATION

Pipe Length (ft)/I.D. (in) ... 13084 / 2.76
 Collar Length (ft)/I.D. (in) .. 0 / 2.25
 Packer Depths (ft)
 Bottomhole Choke Size (in) ... 0.75
 Gauge Depth (ft)/Type 14375/SLSR-672

NET PIPE RECOVERY

Volume	Fluid Type	Properties
	SLIGHTLY GAS	
26.46 bbl	CUT F/W CUSH	Rw 0.981 @ 60F 7000ppm
1.5 bbl	F/W CUT MUD	Rw 0.408 @ 60F 18000ppm

NET SAMPLE CHAMBER RECOVERY

Volume	Fluid Type	Properties
0 cuft	Gas	
0 cc	Oil	
0 cc	Water	
2500 cc	Mud	Rw 0.075 @ 60F 125000
Pressure: 350	GOR: 0	GLR: 0

INTERPRETATION RESULTS

Model of Behavior
 Fluid Type Used for Analysis..
 Reservoir Pressure (psi)
 Transmissibility (md.ft/cp) ..
 Effective Permeability (md) ..
 Skin Factor/Damage Ratio
 Storativity Ratio, Omega
 Interporos.Flow Coef., Lambda..
 Distance to an Anomaly (ft) ..
 Radius of Investigation (ft) ..
 Potentiometric Surface (ft) ..

ROCK/FLUID/WELLBORE PROPERTIES

Oil Density (deg. API)
 Basic Solids (%)
 Gas Gravity
 GOR (scf/STB)
 Water Cut (%)
 Viscosity (cp)
 Total Compressibility (1/psi)..
 Porosity (%) 5
 Reservoir Temperature (F) 204
 Form.Vol.Factor (bbl/STB)

PRODUCTION RATE DURING TEST: Data Report

COMMENTS:

We ran a combination of fresh water and nitrogen for a cushion on this test. The packer seat gave way during the final flow period when we had the nitrogen almost bled off. We saw a some gas after we dropped the bar and were reversing out. Only a 6 foot flare for a few minutes before the water cushion hit surface, through a 3/4" choke. Thank you for using Schlumberger.

WELL TEST INTERPRETATION REPORT #:078817		PAGE: 2,
CLIENT : COBRA OIL GAS CORP.		3-JAN-98
REGION :CSD	SEQUENCE OF EVENTS	FIELD:WILDCAT
DISTRICT:HOBBS		ZONE :ATOKA SAND
BASE :MIDLAND		WELL :STATE-30 #1
ENGINEER:BILL GRAYSHAW		LOCATION:30/24s/33e

DATE	TIME (HR:MIN)	DESCRIPTION	ET (MINS)	BHP (PSIA)	WHP (PSIG)
01-JAN	12:15	PUMP NITROGEN CUSION	-58		2325#
	12:55	SET PACKERS	-18		
	12:54	TOOL OPEN ON BOTTOM	-19		2325#
		TOOL OPENS BUT IT IS NOT OBVIOUS AT SURFACE BECAUSE BY COINCIDENCE THE DRILLER SLACKED OFF THE BRAKE AS THE TOOL JUMPS OPEN MAKING IT HARD TO TELL IF IT WAS THE RIG OR THE TOOL JUMPIN			2325#
	13:06	CYCLED TOOL	-7		2325#
		IT'S OBVIOUS TOOL WAS OPEN			
	13:12	CYCLED TOOL	-1		
	13:13	START FLOW	0	4823	2325#
	13:20	START NITROGEN BLEED-OFF ON 1/8" CHOKE	7		2325#
	13:30	CLOSED ON SURFACE	17		2190#
	13:36	END FLOW & START SHUT-IN	23	4586	2190#
	14:19	END SHUT-IN	66	5277	2190#
	14:21	START FLOW	68	4583	2190#
	14:21	START NITROGEN BLEED-OFF ON 1/8" CHOKE	68		2190#
	14:33	CHANGED CHOKE TO 1/4"	80		2010#
	15:01	CHANGED CHOKE TO 1/8"	108		1010#
	15:12	CLOSED ON SURFACE	119		950#
	15:23	END FLOW & START SHUT-IN	130	2909	950#

Continued next page

WELL TEST INTERPRETATION REPORT #:078817		PAGE: 3,
CLIENT : COBRA OIL & GAS CORP.		3-JAN-98
REGION :CSD	SEQUENCE OF EVENTS Continued	FIELD:WILDCAT
DISTRICT:HOBBS		ZONE :ATOKA SAND
BASE :MIDLAND		WELL :STATE-30 #1
ENGINEER:BILL GRAYSHAW		LOCATION:30/24s/33e

DATE	TIME (HR:MIN)	DESCRIPTION	ET (MINS)	BHP (PSIA)	WHP (PSIG)
	18:21	END SHUT-IN	308	4921	950#
	18:23	START FLOW	310	2872	950#
	18:23	START NITROGEN BLEED-OFF ON 1/8" CHOKE	310		950#
	18:29	CHANGED CHOKE TO 1/4"	316		760#
	19:24		371		190#
	20:24		431		25#
	20:54		461		5#
	20:51	END FLOW	458	1807	5#
	20:52	SEAT FAILED	459		
	20:20	DROP BAR REVERSE OUT GAS TO SURFACE 6' FLARE	427		

COBRA OIL & GAS CORP.
STATE-30 #1
TOOL STRING SCHEMATIC

	TOOL DESCRIPTION	OD	ID	LENGTH	DEPTH
	10 K SURFACE FLOWHEAD				0
	SINGLE BALL SAFETY VALVE	5.00	2.25	2.350	2.35
	DRILL PIPE 13.3#	3.50	2.76	13084	13086.35
	DRILL COLLARS-35	4.75	2.25	1088.	14176.35
	PUMP-OUT DISK REVERSING VALVE	4.75	2.42	0.740	14177.09
	DRILL COLLARS-3	4.75	2.25	90.56	14186.65
	BREAK-OFF PIN REVERSING VALVE	4.75	2.31	0.730	14187.38
	DRILL COLLARS-3	4.75	2.25	90.79	14196.17
	CROSS OVER SUB	4.75	1.87	1.010	14197.18
	MFE (MFEV-B)	5.00	0.94	10.02	14207.20
	MFE OH BYPASS (MBYP-B)	5.00	1.18	2.980	14210.18
	OUTSIDE RECORDER CARRIER	4.88	1.25	6.670	14216.85
	1 1/2" HYDRAULIC LAR	4.75	1.88	6.680	14223.53
	SAFETY JOINT	4.75	2.50	1.860	14225.39
	BOB TAIL PACKER	6.00	0.75	4.780	14230.17
	BOB TAIL PACKER	6.00	0.75	4.420	14234.59
	PERFORATED ANCHOR	4.75	2.25	4.930	14239.52
	CROSS OVER SUB	4.75	2.37	0.680	14240.20
	DRILL COLLAR	4.75	2.25	31.07	14243.27
	CROSS OVER SUB	4.75	1.87	0.820	14244.09
	PERFORATED ANCHOR	4.75	2.25	15.00	14249.09
	OUTSIDE RECORDER CARRIER	4.75	2.75	7.300	14256.39

Report Number: 078817

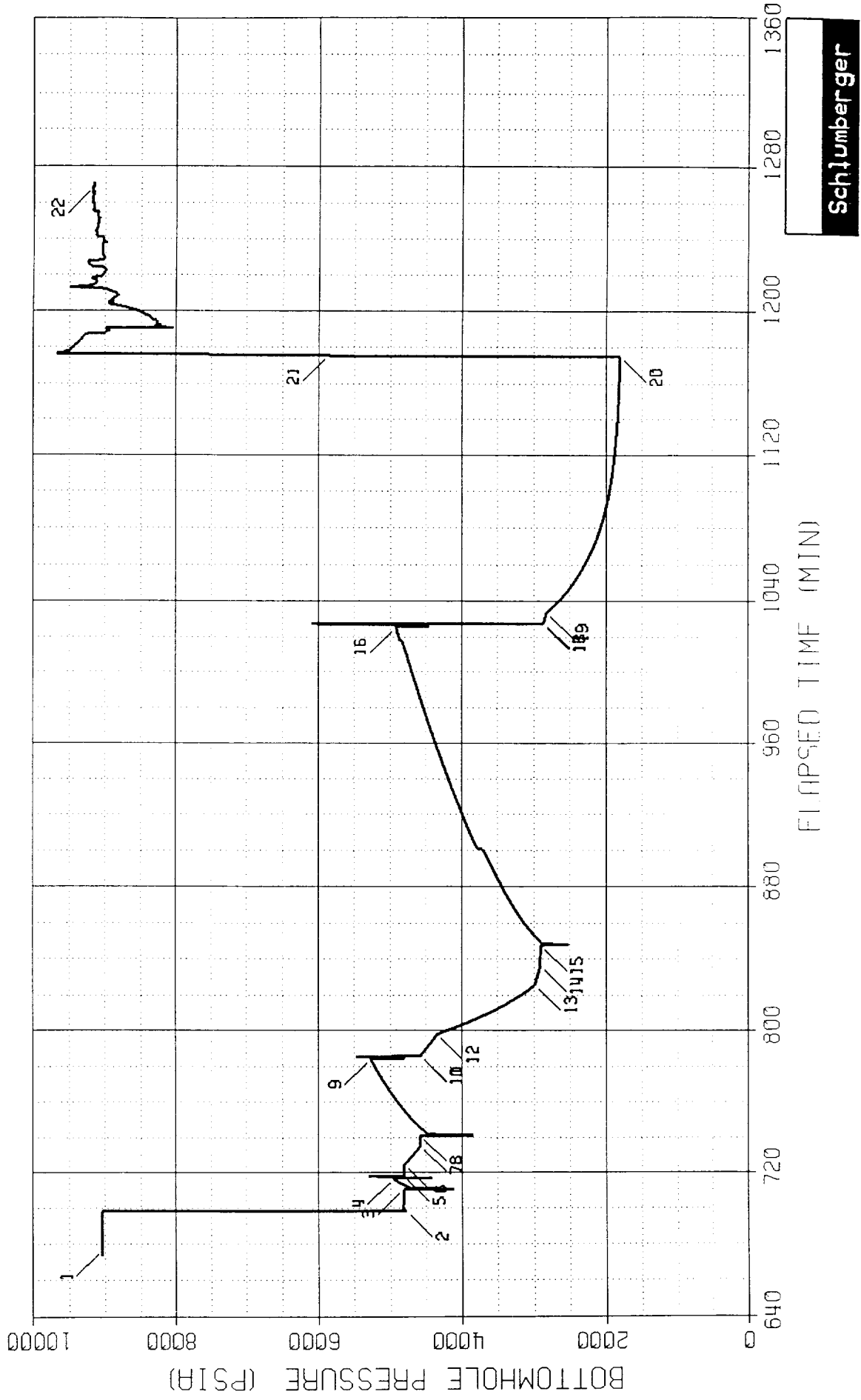
Test Number: FOUR

Test Date: 01-JAN-1997

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BOTTOMHOLE PRESSURE LOG

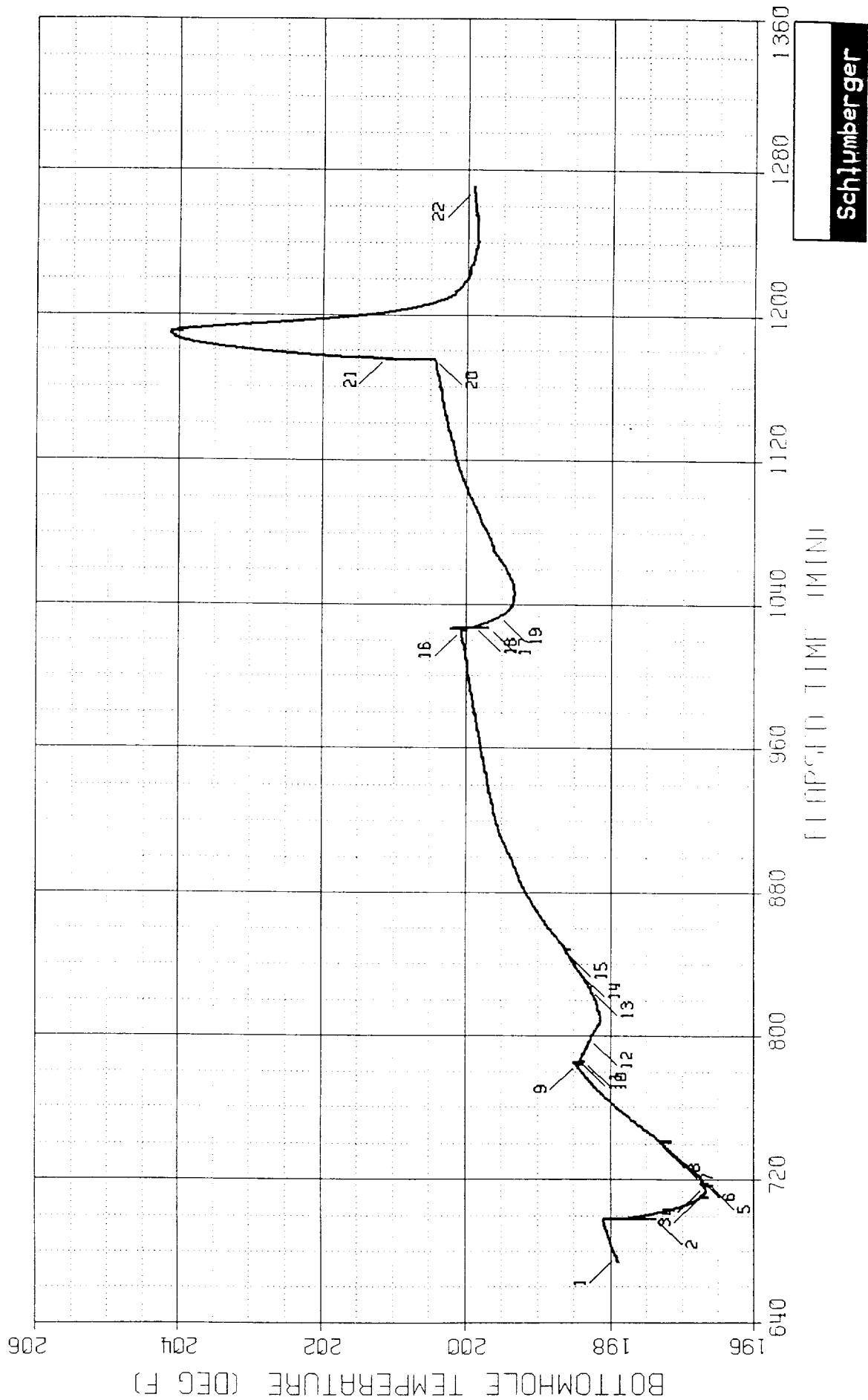
FIELD REPORT NO. 078817 COMPANY : COBRA OIL & GAS CORP.
INSTRUMENT NO. SLSR872 WELL : STATE-30 #1
DEPTH : 14385 FT
CAPACITY : 10000 PSI Electronic Pressure Data
PORT OPENING : INSIDE



BOTTOMHOLE TEMPERATURE LOG

FIELD REPORT NO. 078817 COMPANY : COBRA OIL & GAS CORP.
INSTRUMENT NO. SLSR872 WELL : STATE-30 #1
DEPTH : 14385 FT

Electronic Temperature Data



LOG LOG PLOT

COMPANY : COBRA OIL & GAS CORP.

WELL : STATE-30 #1

FIELD REPORT NO. 078817

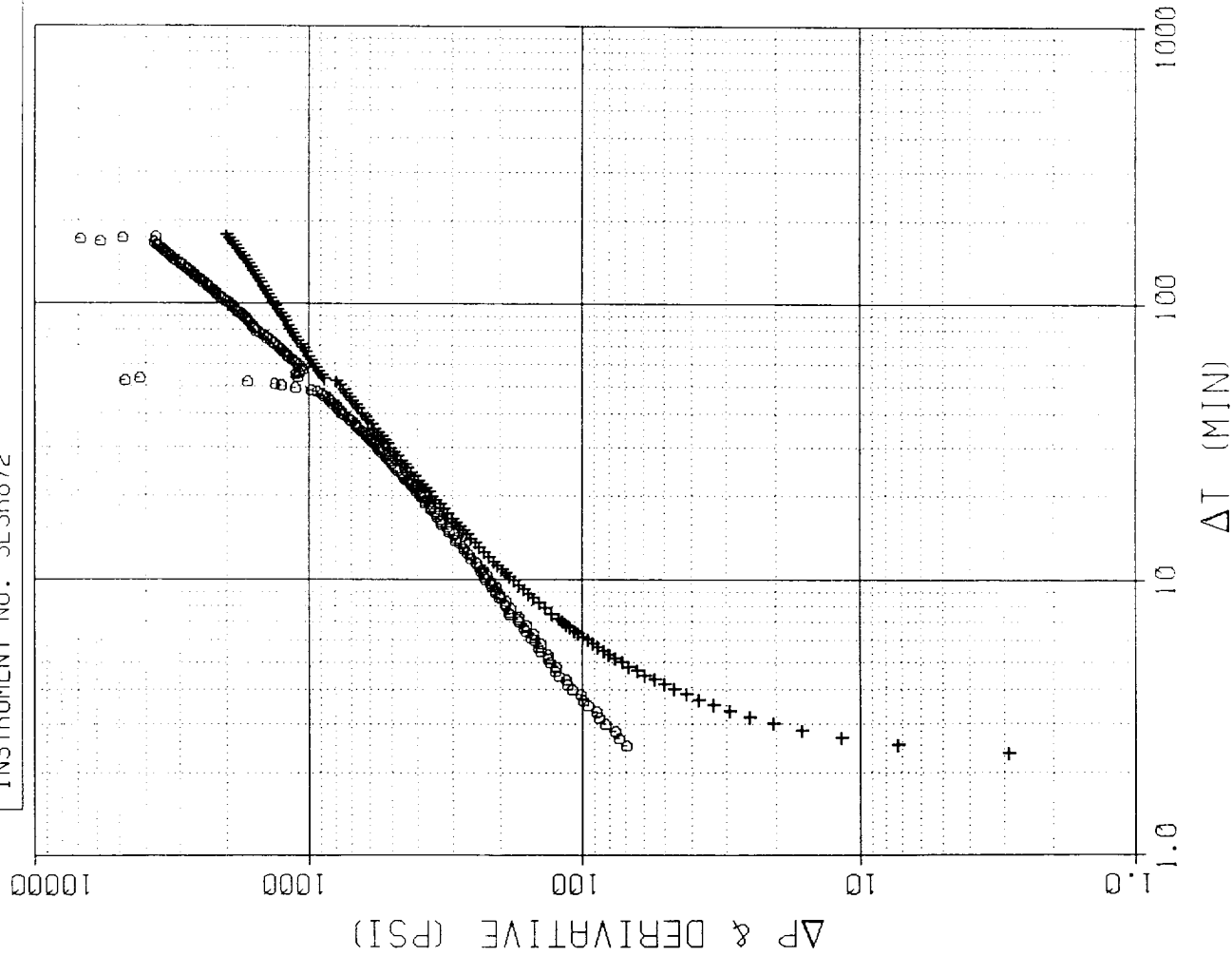
INSTRUMENT NO. SLSR872

SHUTIN #2 : PRODUCING TIME (Tp): 85.0 MIN

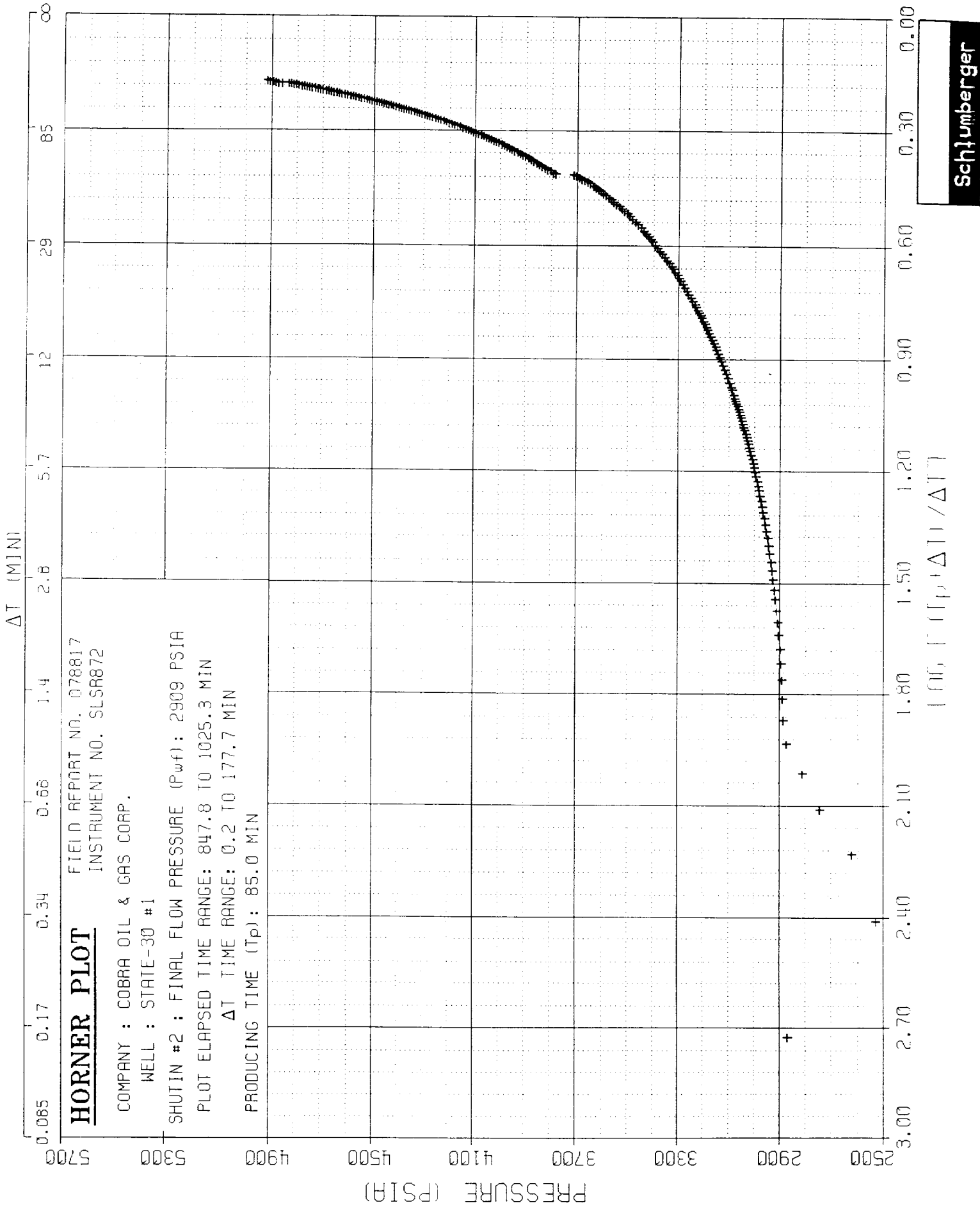
FINAL FLOW PRESSURE (Pwf): 2909 PSIA

PLOT ELAPSED TIME RANGE: 850.0 TO 1025.3 MIN

ΔT TIME RANGE: 2.3 TO 177.7 MIN



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ΔT (MIN)

0.073 0.13 0.23 0.42 0.75 1.4 2.6 5.0 11 30 80

HORNER PLOT

FIELD REPORT NO. 078817
INSTRUMENT NO. SLSR872

COMPANY : COBRA OIL & GAS CORP.
WELL : STATE-30 #1

SHUTIN #1 : FINAL FLOW PRESSURE (P_{wf}): 4586 PSIA

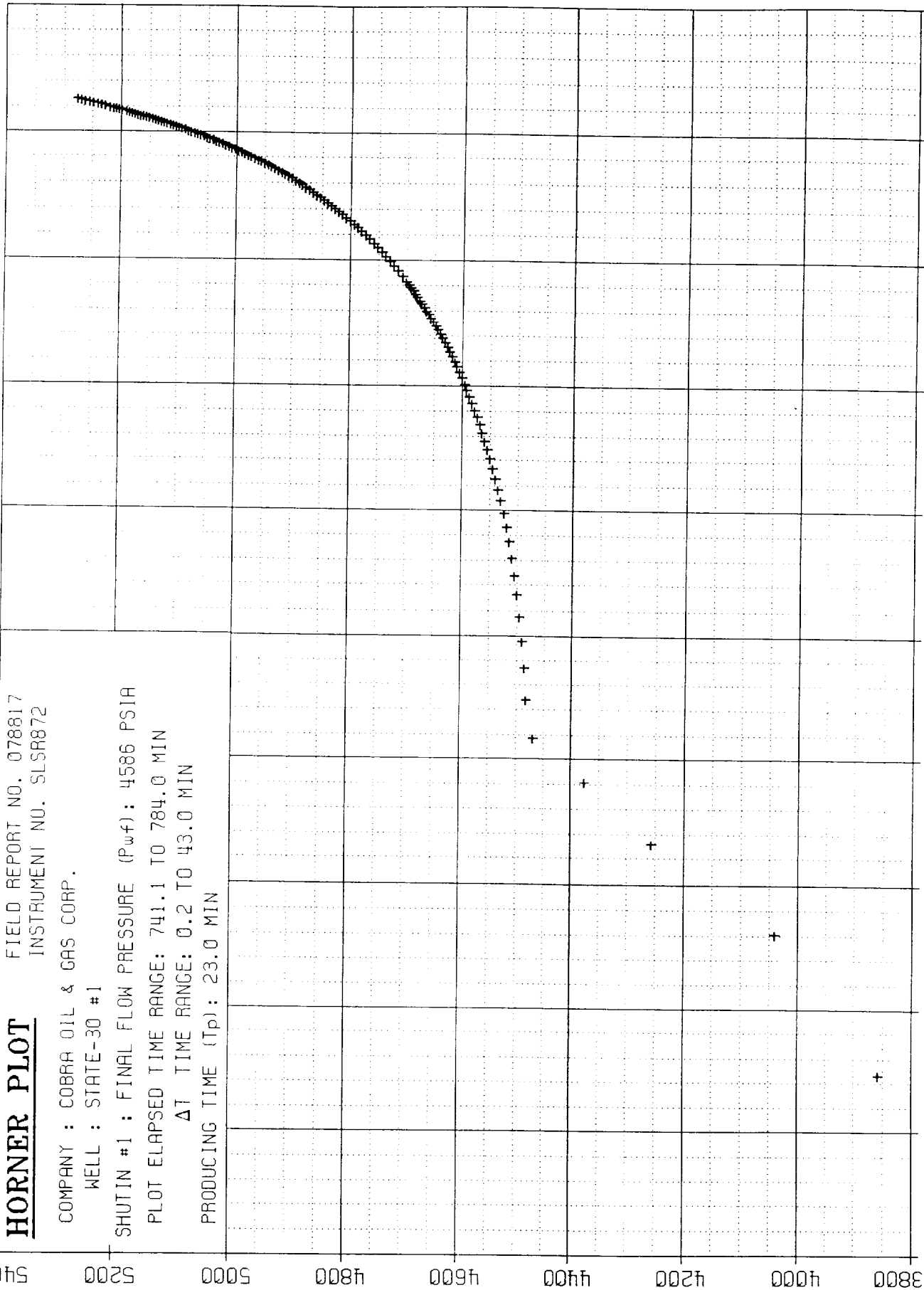
PLOT ELAPSED TIME RANGE: 741.1 TO 784.0 MIN

ΔT TIME RANGE: 0.2 TO 43.0 MIN

PRODUCING TIME (T_p): 23.0 MIN

PRESSURE (PSIA)

5400 5200 5000 4800 4600 4400 4200 4000 3800



$\log [(T_p + \Delta T) / \Delta T]$

0.25 0.50 0.75 1.00 1.25 1.50 1.75 2.00 2.25 2.50

 ** WELL TEST DATA PRINTOUT **

COMPANY: COBRA OIL & GAS CORP.
 WELL: STATE-30 #1

FIELD REPORT NO. 078817
 INSTRUMENT NO. SLSR872

RECORDER CAPACITY: 10000 PSI PORT OPENING: INSIDE DEPTH: 14385 FT

LABEL POINT INFORMATION

#	TIME OF DAY HH:MM:SS	DATE DD-MMM	EXPLANATION	ELAPSED TIME, MIN	BOT HOLE PRESSURE PSIA	BOT HOLE TEMP. DEG F
1	12:32:37	1-JAN	HYDROSTATIC MUD	676.62	9040.20	197.92
2	12:54:17	1-JAN	UNDETERMINED	698.28	4779.89	197.37
3	13:06:17	1-JAN	CYCLED TOOL	710.28	4812.52	196.75
4	13:12:27	1-JAN	CYCLED TOOL	716.45	4958.47	196.70
5	13:13:57	1-JAN	START FLOW	717.95	4822.73	196.63
6	13:20:27	1-JAN	START NITROGEN BLEED-OFF	724.45	4807.31	196.84
7	13:30:57	1-JAN	CLOSED ON SURFACE	734.95	4585.97	197.15
8	13:36:57	1-JAN	END FLOW & START SHUT-IN	740.95	4585.65	197.33
9	14:19:57	1-JAN	END SHUT-IN	783.95	5276.95	198.46
10	14:21:37	1-JAN	START FLOW	785.62	4583.23	198.36
11	14:21:57	1-JAN	START NITROGEN BLEED-OFF	785.95	4572.15	198.43
12	14:33:37	1-JAN	CHANGED CHOKE	797.62	4357.32	198.28
13	15:01:27	1-JAN	CHANGED CHOKE	825.45	2993.64	198.27
14	15:12:27	1-JAN	CLOSED ON SURFACE	836.45	2911.10	198.45
15	15:23:37	1-JAN	END FLOW & START SHUT-IN	847.62	2909.04	198.63
16	18:21:17	1-JAN	END SHUT-IN	1025.28	4921.22	200.07
17	18:23:27	1-JAN	START FLOW	1027.45	2871.92	199.69
18	18:23:47	1-JAN	START NITROGEN BLEED-OFF	1027.78	2864.64	199.89
19	18:29:27	1-JAN	CHANGED CHOKE	1033.45	2828.17	199.54
20	20:51:17	1-JAN	END FLOW	1175.28	1806.80	200.44
21	20:51:47	1-JAN	SEAT FAILED	1175.78	5854.44	201.13
22	22:24:17	1-JAN	HYDROSTATIC MUD	1268.28	9168.76	199.92

SUMMARY OF FLOW PERIODS

PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA	INITIAL PRESSURE PSIA
1	717.95	740.95	23.00	4822.73	4585.65	4822.73
2	785.62	847.62	62.00	4583.23	2909.04	4583.23
3	1027.45	1175.28	147.83	2871.92	1806.80	2871.92

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	740.95	783.95	43.00	4585.65	5276.95	4585.65	23.00
2	847.62	1025.28	177.66	2909.04	4921.22	2909.04	85.00

TEST PHASE: FLOW PERIOD # 1

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA
HH:MM:SS	DD-MMM				
13:13:57	1-JAN	717.95	0.00	196.63	4822.73
13:28:57	1-JAN	732.95	15.00	197.10	4620.07
13:36:57	1-JAN	740.95	23.00	197.33	4585.65

TEST PHASE: SHUTIN PERIOD # 1

FINAL FLOW PRESSURE = 4585.65 PSIA
PRODUCING TIME = 23.00 MIN

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
HH:MM:SS	DD-MMM						
13:36:57	1-JAN	740.95	0.00	197.33	4585.65	0.00	.
13:37:57	1-JAN	741.95	1.00	197.33	4483.05	-102.60	1.3802
13:38:57	1-JAN	742.95	2.00	197.37	4510.37	-75.28	1.0969
13:39:57	1-JAN	743.95	3.00	197.40	4540.07	-45.58	0.9379
13:40:57	1-JAN	744.95	4.00	197.42	4568.63	-17.02	0.8293
13:41:57	1-JAN	745.95	5.00	197.46	4595.89	10.24	0.7482
13:42:57	1-JAN	746.95	6.00	197.49	4622.14	36.49	0.6842
13:43:57	1-JAN	747.95	7.00	197.53	4647.42	61.77	0.6320
13:44:57	1-JAN	748.95	8.00	197.56	4671.80	86.15	0.5883
13:45:57	1-JAN	749.95	9.00	197.60	4695.35	109.70	0.5509
13:46:57	1-JAN	750.95	10.00	197.64	4718.18	132.53	0.5185
13:48:57	1-JAN	752.95	12.00	197.71	4761.79	176.14	0.4649
13:50:57	1-JAN	754.95	14.00	197.76	4803.33	217.68	0.4221
13:52:57	1-JAN	756.95	16.00	197.83	4842.76	257.11	0.3869
13:54:57	1-JAN	758.95	18.00	197.89	4880.89	295.24	0.3575
13:56:57	1-JAN	760.95	20.00	197.94	4917.75	332.10	0.3324
13:58:57	1-JAN	762.95	22.00	198.00	4953.53	367.88	0.3108
14:00:57	1-JAN	764.95	24.00	198.05	4988.25	402.60	0.2919
14:02:57	1-JAN	766.95	26.00	198.10	5021.91	436.26	0.2752
14:04:57	1-JAN	768.95	28.00	198.16	5054.69	469.04	0.2604
14:06:57	1-JAN	770.95	30.00	198.21	5086.63	500.98	0.2472
14:11:57	1-JAN	775.95	35.00	198.32	5163.23	577.58	0.2194
14:16:57	1-JAN	780.95	40.00	198.41	5235.87	650.22	0.1973
14:19:57	1-JAN	783.95	43.00	198.46	5276.95	691.30	0.1861

TEST PHASE: FLOW PERIOD # 2

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA
HH:MM:SS	DD-MMM				
14:21:37	1-JAN	785.62	0.00	198.36	4583.23
14:36:37	1-JAN	800.62	15.00	198.25	4163.71
14:51:37	1-JAN	815.62	30.00	198.18	3353.25
15:06:37	1-JAN	830.62	45.00	198.34	2953.05
15:21:37	1-JAN	845.62	60.00	198.59	2909.56
15:23:37	1-JAN	847.62	62.00	198.63	2909.04

TEST PHASE: SHUTIN PERIOD # 2

FINAL FLOW PRESSURE = 2909.04 PSIA

PRODUCING TIME = 85.00 MIN

TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
15:23:37	1-JAN	847.62	0.00	198.63	2909.04	0.00	
15:24:37	1-JAN	848.62	1.00	198.64	2871.22	-37.82	1.9345
15:25:37	1-JAN	849.62	2.00	198.64	2903.17	-5.87	1.6385
15:26:37	1-JAN	850.62	3.00	198.66	2929.45	20.41	1.4674
15:27:37	1-JAN	851.62	4.00	198.68	2955.23	46.19	1.3473
15:28:37	1-JAN	852.62	5.00	198.70	2980.39	71.35	1.2553
15:29:37	1-JAN	853.62	6.00	198.72	3004.02	94.98	1.1809
15:30:37	1-JAN	854.62	7.00	198.73	3026.57	117.53	1.1187
15:31:37	1-JAN	855.62	8.00	198.77	3048.49	139.45	1.0654
15:32:37	1-JAN	856.62	9.00	198.79	3069.56	160.52	1.0189
15:33:37	1-JAN	857.62	10.00	198.81	3089.75	180.71	0.9777
15:35:37	1-JAN	859.62	12.00	198.84	3128.27	219.23	0.9076
15:37:37	1-JAN	861.62	14.00	198.88	3164.69	255.65	0.8495
15:39:37	1-JAN	863.62	16.00	198.91	3199.56	290.52	0.8002
15:41:37	1-JAN	865.62	18.00	198.95	3233.06	324.02	0.7576
15:43:37	1-JAN	867.62	20.00	198.99	3265.22	356.18	0.7202
15:45:37	1-JAN	869.62	22.00	199.02	3296.27	387.23	0.6870
15:47:37	1-JAN	871.62	24.00	199.04	3326.45	417.41	0.6572
15:49:37	1-JAN	873.62	26.00	199.08	3355.73	446.69	0.6303
15:51:37	1-JAN	875.62	28.00	199.11	3384.34	475.30	0.6059
15:53:37	1-JAN	877.62	30.00	199.13	3412.20	503.16	0.5836
15:58:37	1-JAN	882.62	35.00	199.20	3479.25	570.21	0.5351
16:03:37	1-JAN	887.62	40.00	199.26	3543.65	634.61	0.4949
16:08:37	1-JAN	892.62	45.00	199.31	3605.92	696.88	0.4607
16:13:37	1-JAN	897.62	50.00	199.36	3668.96	759.92	0.4314
16:18:37	1-JAN	902.62	55.00	199.42	3807.96	898.92	0.4058
16:23:37	1-JAN	907.62	60.00	199.47	3863.75	954.71	0.3832
16:28:37	1-JAN	912.62	65.00	199.53	3916.46	1007.42	0.3632
16:33:37	1-JAN	917.62	70.00	199.56	3968.02	1058.98	0.3452
16:38:37	1-JAN	922.62	75.00	199.60	4018.67	1109.63	0.3291
16:43:37	1-JAN	927.62	80.00	199.63	4068.85	1159.81	0.3144
16:48:37	1-JAN	932.62	85.00	199.67	4118.39	1209.35	0.3010
16:53:37	1-JAN	937.62	90.00	199.69	4166.08	1257.04	0.2888
16:58:37	1-JAN	942.62	95.00	199.71	4212.75	1303.71	0.2775
17:03:37	1-JAN	947.62	100.00	199.74	4258.60	1349.56	0.2672
17:08:37	1-JAN	952.62	105.00	199.76	4303.74	1394.70	0.2576
17:13:37	1-JAN	957.62	110.00	199.78	4348.19	1439.15	0.2486
17:18:37	1-JAN	962.62	115.00	199.81	4392.00	1482.96	0.2403
17:23:37	1-JAN	967.62	120.00	199.83	4435.10	1526.06	0.2326
17:28:37	1-JAN	972.62	125.00	199.85	4477.69	1568.65	0.2253
17:33:37	1-JAN	977.62	130.00	199.87	4519.59	1610.55	0.2185
17:38:37	1-JAN	982.62	135.00	199.90	4560.92	1651.88	0.2121
17:43:37	1-JAN	987.62	140.00	199.92	4601.63	1692.59	0.2061
17:48:37	1-JAN	992.62	145.00	199.94	4641.92	1732.88	0.2004
17:53:37	1-JAN	997.62	150.00	199.96	4681.80	1772.76	0.1950
17:58:37	1-JAN	1002.62	155.00	199.98	4721.25	1812.21	0.1899
18:03:37	1-JAN	1007.62	160.00	199.99	4760.00	1850.96	0.1850
18:08:37	1-JAN	1012.62	165.00	200.01	4798.39	1889.35	0.1805
18:13:37	1-JAN	1017.62	170.00	200.03	4836.27	1927.23	0.1761
18:18:37	1-JAN	1022.62	175.00	200.07	4902.36	1993.32	0.1719

TEST PHASE: SHUTIN PERIOD # 2

FINAL FLOW PRESSURE = 2909.04 PSIA

PRODUCING TIME = 85.00 MIN

TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
18:21:17	1-JAN	1025.28	177.66	200.07	4921.22	2012.18	0.1698

TEST PHASE: FLOW PERIOD # 3

TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA
18:23:27	1-JAN	1027.45	0.00	199.69	2871.92
18:38:27	1-JAN	1042.45	15.00	199.35	2603.13
18:53:27	1-JAN	1057.45	30.00	199.42	2333.93
19:08:27	1-JAN	1072.45	45.00	199.63	2146.26
19:23:27	1-JAN	1087.45	60.00	199.80	2022.95
19:38:27	1-JAN	1102.45	75.00	199.98	1941.90
19:53:27	1-JAN	1117.45	90.00	200.12	1889.05
20:08:27	1-JAN	1132.45	105.00	200.21	1854.21
20:23:27	1-JAN	1147.45	120.00	200.30	1831.02
20:38:27	1-JAN	1162.45	135.00	200.37	1815.51
20:51:17	1-JAN	1175.28	147.83	200.44	1806.80