

DST #1

Hobbs

REPORT NO.
115649

PAGE NO. 1

TEST DATE:

27-APR-1989

S T A RTMA Schlumberger Transient Analysis Report
Of A Schlumberger Drillstem Test

Schlumberger

DST FILE
GEOLOGICAL OPERATIONS

Company: EXXON COMPANY USA

Well: New Mexico FI ST #1

TEST IDENTIFICATION

Test Type DST OH MFE
Test No. Two
Formation Sulurian
Test Interval (ft) ... 13755 to 13767
Reference Depth Kelly Bushing

WELL LOCATION

Field Wildcat
County Lea
State New Mexico
Sec/Twn/Rng S15 15S 33E
Elevation (ft) 4191

HOLE CONDITIONS

Total Depth (MD/TUD)(ft) . 13767
Hole Size (in) 8 1/2
Casing/Liner I.D. (in) ...
Perf'd Interv./Nt Pay(ft). --/8
Shot Density/Diameter(in).

MUD PROPERTIES

Mud Type
Mud Weight (lb/gal) 8.8
Mud Resistivity (ohm.m) .. .3 @ 85 F
Filtrate Resistiv.(ohm.m).
Filtrate Chlorides (ppm) . 17,000

INITIAL TEST CONDITIONS

Initial Hydrostatic (psi). 6288
Gas Cushion Type None
Surface Pressure (psi) ...
Liquid Cushion Type Water
Cushion Length (ft) 3000

TEST STRING CONFIGURATION

Pipe Length(ft)/I.D.(in). 12949 / 3.83
Collar Length ft/I.D.(in). 756 / 2.5
Packer Depths (ft) 13750 / 13755
Bottomhole Choke Size(in). 15/16
Gauge Depth (ft)/Type 13761 / J200

NET PIPE RECOVERY

Volume	Fluid Type	Properties
4237	Form. Water	Rw = .3 @ 85 F
		18,000 ppm
3000 ft.	Cushion	

NET SAMPLE CHAMBER RECOVERY

Volume	Fluid Type	Properties
1.4 scf	Gas	
520 cc	Oil	47 API @ 72 F
1700 cc	Water	Rw = .3 @ 85 F
Press. 2	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). 198
Form.Vol.Factor (bbl/STB).

PRODUCTION RATE DURING TEST: DATA REPORT

COMMENTS:

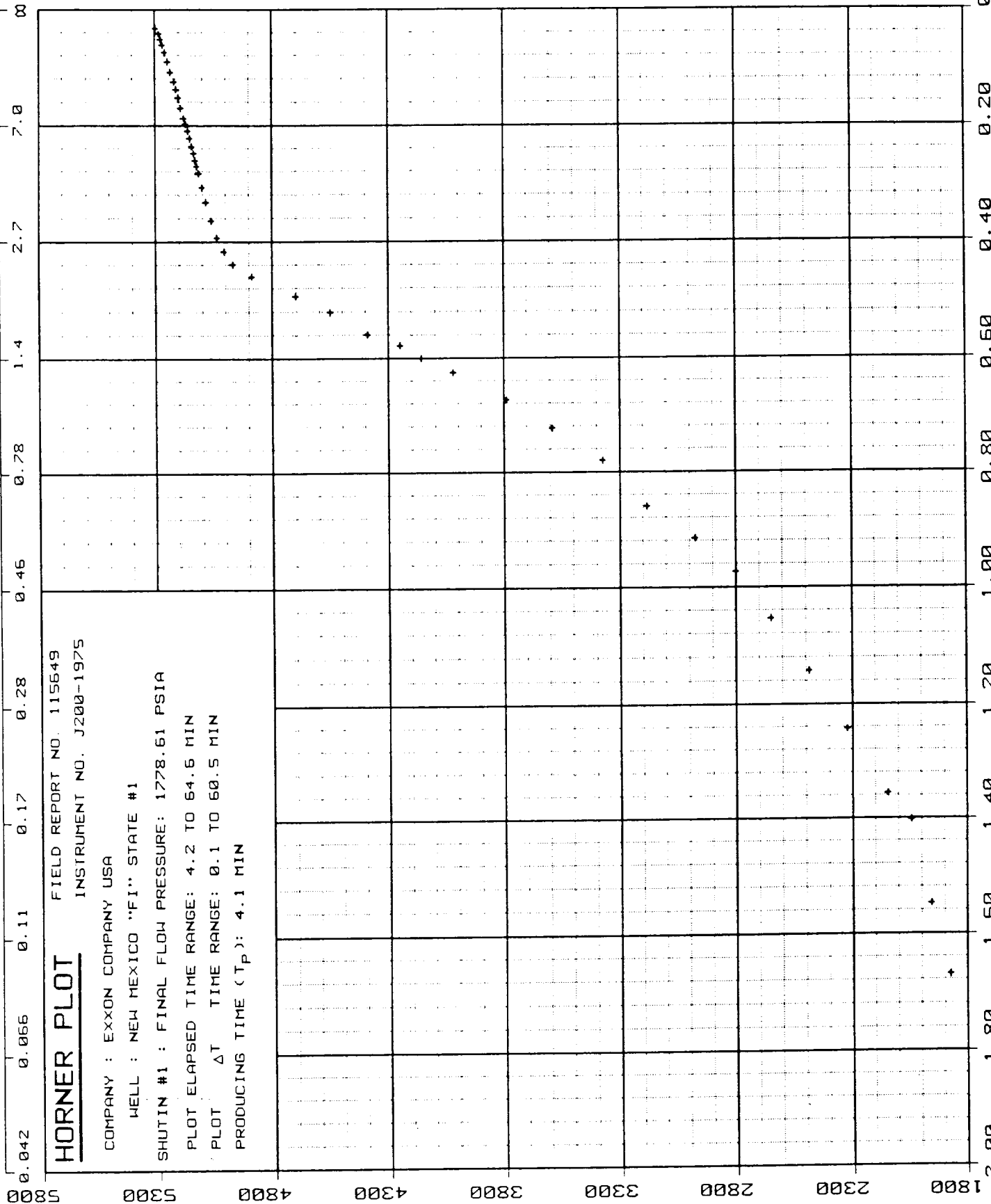
The zone flowed water with small amounts of oil and gas. Enough hydrocarbons were obtained in the downhole sample to analyze the properties of these fluids. Going into the final shutin, the tool was cycled four times. On the fourth cycle the jars hit, therefore, no further attempt to close the tool was made. After pulling packers loose, plugged drill collars prevented reversing valves from functioning. Because of this a joint of drill pipe was perforated in order to reverse.

The general character of the plots indicate a zone with a fair permeability to water and a wellbore with some skin damage. Since the properties of the reservoir were not calculated these characteristics are only estimates.

WELL TEST INTERPRETATION REPORT # 115649		PAGE: 2,
CLIENT : EXXON COMPANY USA		1-MAY-89
REGION : W.T.D.	SEQUENCE OF EVENTS	Field: Wildcat
DISTRICT: Hobbs		Zone : Sulurian
BASE : M.D.S.		Well : New Mexico FI
Engr : Browning / vk		Location: S15 15S 33E

DATE	TIME (HR:MIN)	DESCRIPTION	ET (MINS)	BHP (PSIA)	WHP (PSIG)
27-APR	05:36	SET PACKER, Hydrostatic		6288	
	05:44	START FLOW	0.00	1752	
	05:45				0.25
	05:46				0.31
	05:47				0.63
	05:48	END FLOW & START SHUTIN	4.12	1779	
	06:48	END SHUTIN	64.59	5301	
	06:48	START FLOW,	64.48	1847	
	06:58				0.63
	07:13				1.25
	07:53				3.0
	09:13				5.0
	10:03				6.1
	10:43				6.6
	11:35				7.6
	11:53	Cycled tool	369.85	3590	8.0
	14:55	END FLOW	492.38	4097	
	14:56	PULLED LOOSE	552.32	4215	
	15:02	HYDROSTATIC MUD	558.37	6293	
28-APR	11:23	START REVERSING			
	12:45	STOP REVERSING			

ΔT (MIN)



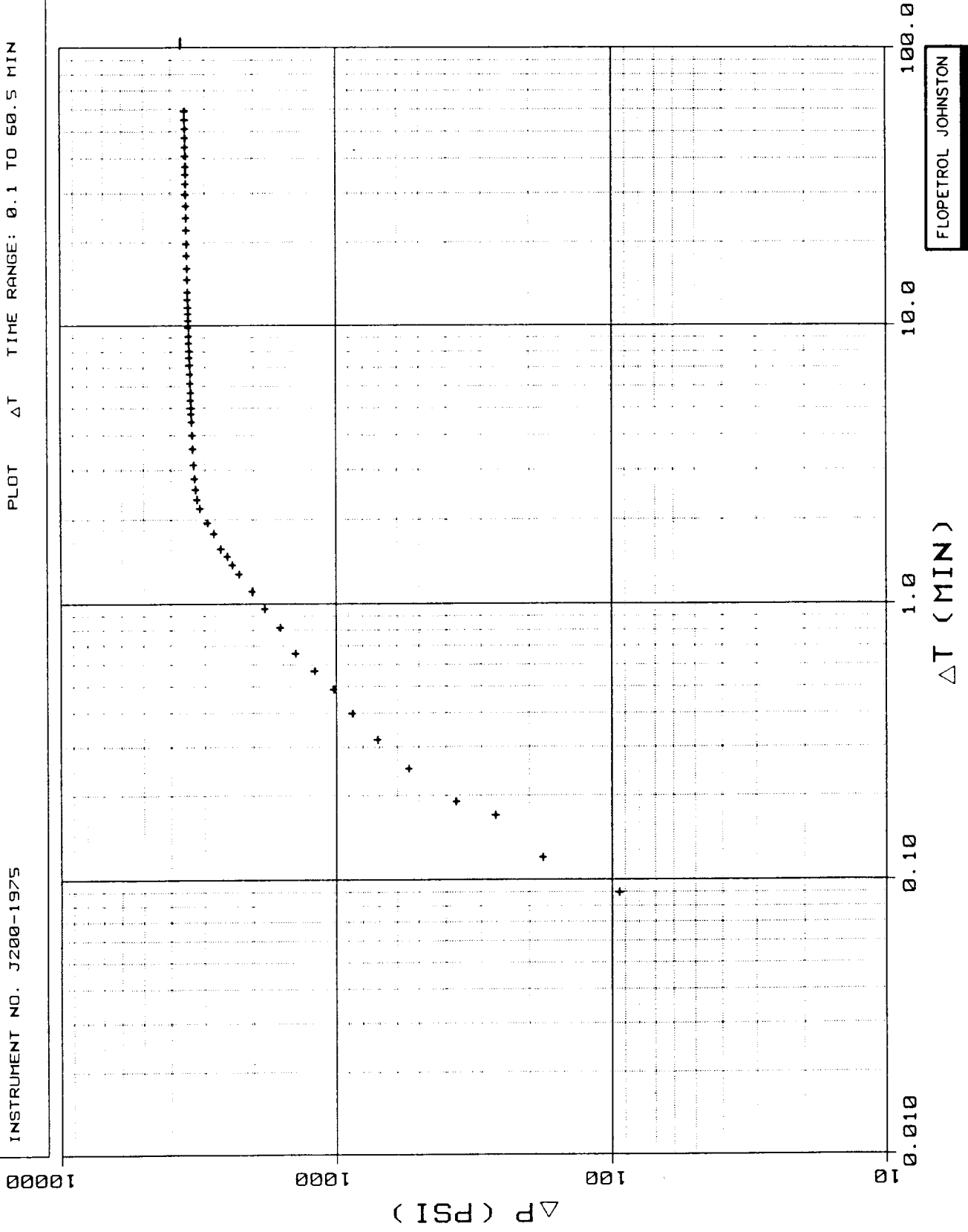
FLOPETROL JOHNSTON

Schlumberger

LOG LOG PLOT

COMPANY : EXXON COMPANY USA
WELL : NEW MEXICO "FI" STATE #1
FIELD REPORT NO. 115649
INSTRUMENT NO. J200-1975

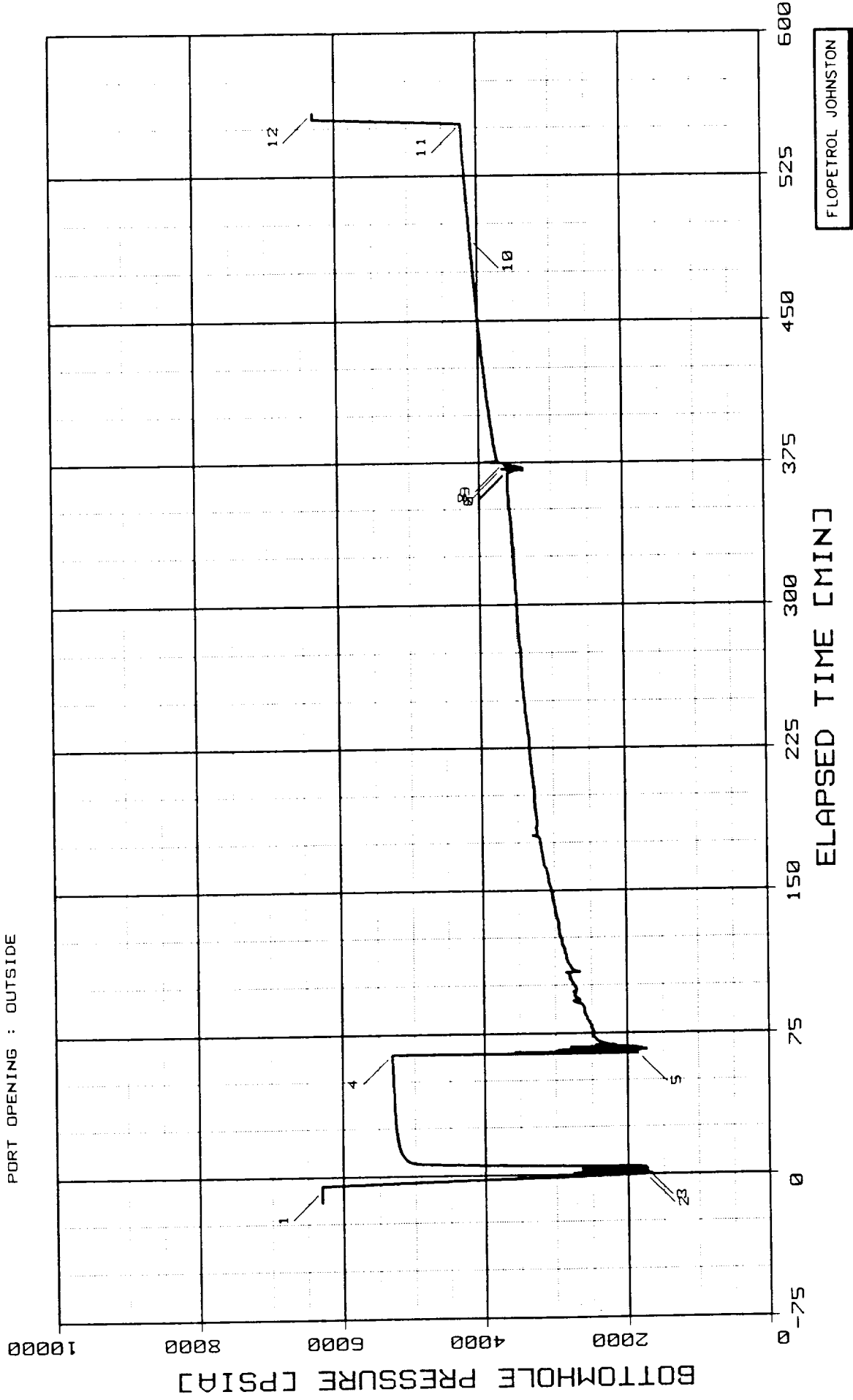
SHUTIN #1 :
FINAL FLOW PRESSURE (PWF): 1778.61 PSIA
PLOT ELAPSED TIME RANGE: 4.2 TO 64.6 MIN
PLOT ΔT TIME RANGE: 0.1 TO 60.5 MIN



FLOPETROL JOHNSTON
Schlumberger

BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 115649 COMPANY : EXXON COMPANY USA
INSTRUMENT NO. J200-1975 WELL : NEW MEXICO "FI" STATE #1
DEPTH : 13761 FT
CAPACITY : 9000 PSI
PORT OPENING : OUTSIDE



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

FIELD REPORT # : 115649

COMPANY : EXXON COMPANY USA
 WELL : NEW MEXICO "FI" STATE #1

INSTRUMENT # : J200-1975
 CAPACITY [PSI] : 9000.
 DEPTH [FT] : 13761.0
 PORT OPENING : OUTSIDE
 TEMPERATURE [DEG F] : 198.0

LABEL POINT INFORMATION

#	TIME OF DAY	DATE	EXPLANATION	ELAPSED TIME, MIN	BOT HOLE PRESSURE PSIA
1	5:36:56	27-AP	HYDROSTATIC MUD	-7.06	6288
2	5:44: 0	27-AP	START FLOW	0.00	1752
3	5:48: 7	27-AP	END FLOW & START SHUT-IN	4.12	1779
4	6:48:35	27-AP	END SHUT-IN	64.59	5301
5	6:48:29	27-AP	START FLOW	64.48	1847
6	11:53:51	27-AP	CYCLED TOOL	369.85	3590
7	11:54:43	27-AP	CYCLED TOOL	370.71	3597
8	11:55:28	27-AP	CYCLED TOOL	371.47	3678
9	11:58:50	27-AP	CYCLED TOOL	374.83	3636
10	13:56:23	27-AP	END FLOW & START FLOW	492.38	4097
11	14:56:19	27-AP	PULLED LOOSE	552.32	4215
12	15: 2:22	27-AP	HYDROSTATIC MUD	558.37	6293

SUMMARY OF FLOW PERIODS

PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA
1	0.00	4.12	4.12	1752	1779
2	64.48	492.38	427.90	1847	4097

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	4.12	64.59	60.47	1779	5301	1779	4.12

TEST PHASE : FLOW PERIOD # 1

TIME OF DAY	DATE	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE PRESSURE PSIA
HH:MM:SS	DD-MM			
*****	*****	*****	*****	*****

5:44: 0	27-AP	0.00	0.00	1752
5:48: 7	27-AP	4.12	4.12	1779

TEST PHASE : SHUTIN PERIOD # 1

FINAL FLOW PRESSURE [PSIA] = 1779

PRODUCING TIME [MIN] = 4.12

TIME OF DAY	DATE	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
HH:MM:SS	DD-MM					
*****	*****	*****	*****	*****	*****	*****

5:48: 7	27-AP	4.12	0.00	1779	0	
5:49: 7	27-AP	5.12	1.00	3642	1863	0.709
5:50: 7	27-AP	6.12	2.00	4737	2959	0.486
5:51: 7	27-AP	7.12	3.00	5048	3269	0.375
5:52: 7	27-AP	8.12	4.00	5097	3318	0.307
5:53: 7	27-AP	9.12	5.00	5127	3349	0.261
5:54: 7	27-AP	10.12	6.00	5147	3369	0.227
5:55: 7	27-AP	11.12	7.00	5165	3386	0.201
5:56: 7	27-AP	12.12	8.00	5180	3402	0.180
5:57: 7	27-AP	13.12	9.00	5192	3413	0.164
5:58: 7	27-AP	14.12	10.00	5201	3422	0.150
6: 0: 7	27-AP	16.12	12.00	5215	3436	0.128
6: 2: 7	27-AP	18.12	14.00	5228	3449	0.112
6: 4: 7	27-AP	20.12	16.00	5236	3458	0.100
6: 6: 7	27-AP	22.12	18.00	5244	3465	0.090
6: 8: 7	27-AP	24.12	20.00	5250	3472	0.081
6:10: 7	27-AP	26.12	22.00	5255	3477	0.075
6:12: 7	27-AP	28.12	24.00	5260	3481	0.069
6:14: 7	27-AP	30.12	26.00	5264	3485	0.064
6:16: 7	27-AP	32.12	28.00	5267	3489	0.060
6:18: 7	27-AP	34.12	30.00	5271	3492	0.056
6:23: 7	27-AP	39.12	35.00	5278	3500	0.048
6:28: 7	27-AP	44.12	40.00	5279	3501	0.043
6:33: 7	27-AP	49.12	45.00	5287	3508	0.038
6:38: 7	27-AP	54.12	50.00	5292	3513	0.034
6:43: 7	27-AP	59.12	55.00	5297	3518	0.031
6:48: 7	27-AP	64.12	60.00	5302	3523	0.029
6:48:35	27-AP	64.59	60.47	5301	3522	0.029

TEST PHASE : FLOW PERIOD # 2

TIME OF DAY	DATE	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE PRESSURE PSIA
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6:48:29	27-AP	64.48	0.00	1847
6:53:29	27-AP	69.48	5.00	2285
6:58:29	27-AP	74.48	10.00	2479
7: 3:29	27-AP	79.48	15.00	2487
7: 8:29	27-AP	84.48	20.00	2570
7:13:29	27-AP	89.48	25.00	2611
7:18:29	27-AP	94.48	30.00	2711
7:23:29	27-AP	99.48	35.00	2717
7:28:29	27-AP	104.48	40.00	2782
7:33:29	27-AP	109.48	45.00	2764
7:38:29	27-AP	114.48	50.00	2830
7:43:29	27-AP	119.48	55.00	2861
7:48:29	27-AP	124.48	60.00	2901
7:53:29	27-AP	129.48	65.00	2932
7:58:29	27-AP	134.48	70.00	2947
8: 3:29	27-AP	139.48	75.00	2980
8: 8:29	27-AP	144.48	80.00	3006
8:13:29	27-AP	149.48	85.00	3028
8:18:29	27-AP	154.48	90.00	3063
8:23:29	27-AP	159.48	95.00	3085
8:28:29	27-AP	164.48	100.00	3133
8:33:29	27-AP	169.48	105.00	3154
8:38:29	27-AP	174.48	110.00	3176
8:43:29	27-AP	179.48	115.00	3223
8:48:29	27-AP	184.48	120.00	3224
8:53:29	27-AP	189.48	125.00	3233
8:58:29	27-AP	194.48	130.00	3249
9: 3:29	27-AP	199.48	135.00	3260
9: 8:29	27-AP	204.48	140.00	3264
9:13:29	27-AP	209.48	145.00	3279
9:18:29	27-AP	214.48	150.00	3292
9:23:29	27-AP	219.48	155.00	3308
9:28:29	27-AP	224.48	160.00	3315
9:33:29	27-AP	229.48	165.00	3325
9:38:29	27-AP	234.48	170.00	3340
9:43:29	27-AP	239.48	175.00	3353
9:48:29	27-AP	244.48	180.00	3371
9:53:29	27-AP	249.48	185.00	3383
9:58:29	27-AP	254.48	190.00	3397
10: 3:29	27-AP	259.48	195.00	3404
10: 8:29	27-AP	264.48	200.00	3415
10:13:29	27-AP	269.48	205.00	3420
10:18:29	27-AP	274.48	210.00	3428
10:23:29	27-AP	279.48	215.00	3444
10:28:29	27-AP	284.48	220.00	3455
10:33:29	27-AP	289.48	225.00	3465
10:38:29	27-AP	294.48	230.00	3472
10:43:29	27-AP	299.48	235.00	3479
10:48:29	27-AP	304.48	240.00	3485

TEST PHASE : FLOW PERIOD # 2

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE PRESSURE PSIA
HH:MM:SS	DD-MM	*****	*****	*****
10:53:29	27-AP	309.48	245.00	3494
10:58:29	27-AP	314.48	250.00	3502
11: 3:29	27-AP	319.48	255.00	3510
11: 8:29	27-AP	324.48	260.00	3520
11:13:29	27-AP	329.48	265.00	3526
11:18:29	27-AP	334.48	270.00	3538
11:23:29	27-AP	339.48	275.00	3545
11:28:29	27-AP	344.48	280.00	3553
11:33:29	27-AP	349.48	285.00	3569
11:38:29	27-AP	354.48	290.00	3577
11:43:29	27-AP	359.48	295.00	3587
11:48:29	27-AP	364.48	300.00	3589
11:53:29	27-AP	369.48	305.00	3590
11:58:29	27-AP	374.48	310.00	3636
12: 3:29	27-AP	379.48	315.00	3759
12: 8:29	27-AP	384.48	320.00	3783
12:13:29	27-AP	389.48	325.00	3803
12:18:29	27-AP	394.48	330.00	3823
12:23:29	27-AP	399.48	335.00	3843
12:28:29	27-AP	404.48	340.00	3858
12:33:29	27-AP	409.48	345.00	3875
12:38:29	27-AP	414.48	350.00	3892
12:43:29	27-AP	419.48	355.00	3907
12:48:29	27-AP	424.48	360.00	3922
12:53:29	27-AP	429.48	365.00	3937
12:58:29	27-AP	434.48	370.00	3951
13: 3:29	27-AP	439.48	375.00	3965
13: 8:29	27-AP	444.48	380.00	3981
13:13:29	27-AP	449.48	385.00	3994
13:18:29	27-AP	454.48	390.00	4007
13:23:29	27-AP	459.48	395.00	4020
13:28:29	27-AP	464.48	400.00	4033
13:33:29	27-AP	469.48	405.00	4046
13:38:29	27-AP	474.48	410.00	4058
13:43:29	27-AP	479.48	415.00	4070
13:48:29	27-AP	484.48	420.00	4081
13:53:29	27-AP	489.48	425.00	4091
13:56:23	27-AP	492.38	427.90	4097

RECEIVED

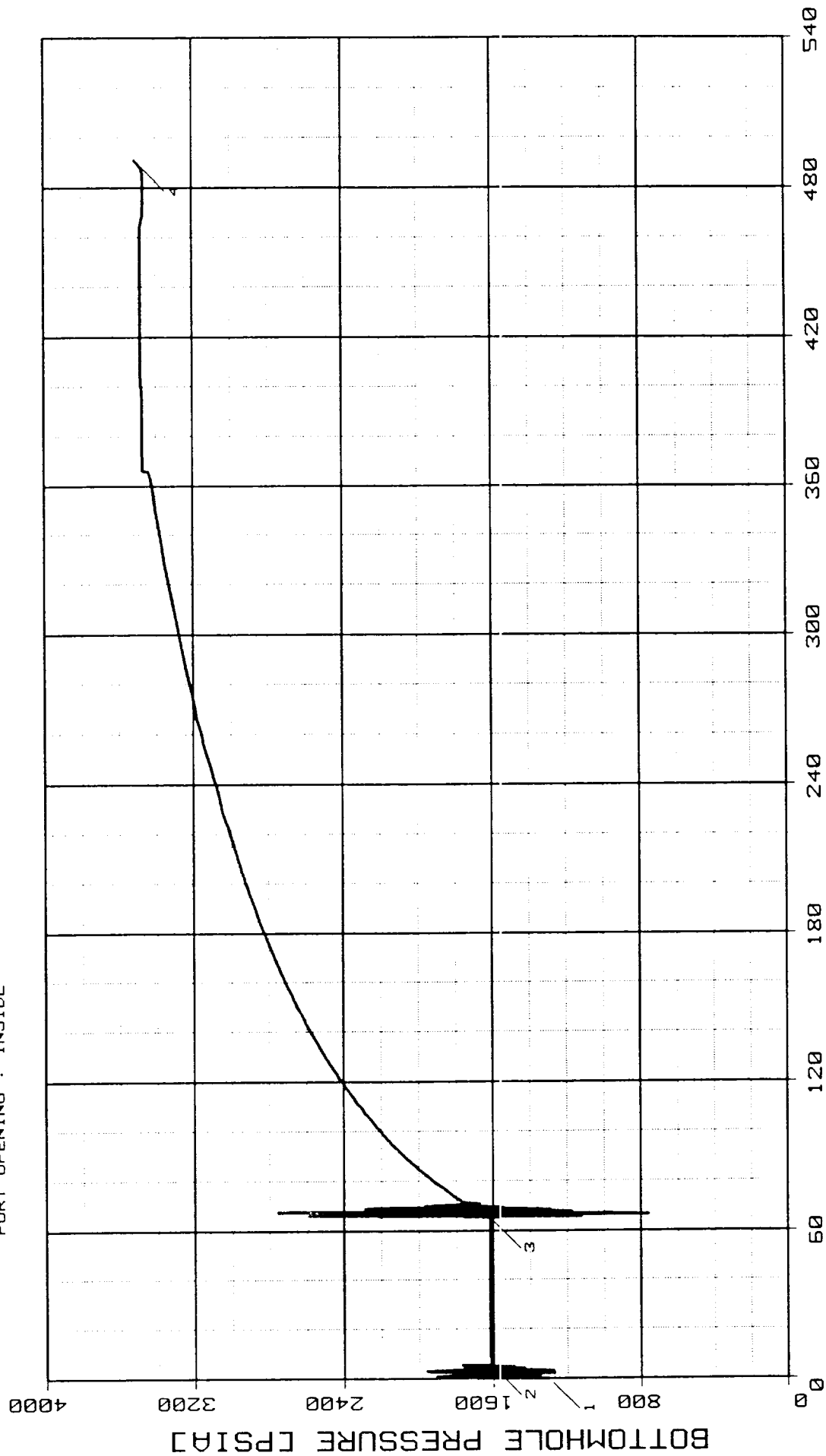
JUN 5 1989

ODD
HONOLULU OFFICE

BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 115649
INSTRUMENT NO. J200-2104
DEPTH : 13708 FT
CAPACITY : 6400 PSI
PORT OPENING : INSIDE

COMPANY : EXXON COMPANY USA
WELL : NEW MEXICO "FI" STATE #1



FLOPETROL JOHNSTON

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

FIELD REPORT # : 115649

COMPANY : EXXON COMPANY USA

WELL : NEW MEXICO "FI" STATE #1

INSTRUMENT # : J200-2104
 CAPACITY [PSI] : 6400.
 DEPTH [FT] : 13708.0
 PORT OPENING : INSIDE
 TEMPERATURE [DEG F] : 198.0

LABEL POINT INFORMATION

#	TIME OF DAY	DATE	EXPLANATION	ELAPSED TIME, MIN	BOT HOLE PRESSURE PSIA
***	*****	*****	*****	*****	*****
1	5:44:00	27-AP	START FLOW	0.00	1298
2	5:49:37	27-AP	END FLOW	5.62	1614
3	6:49:11	27-AP	START FLOW	65.19	1614
4	13:54:51	27-AP	END FLOW	490.85	3510

SUMMARY OF FLOW PERIODS

PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA
*****	*****	*****	*****	*****	*****
1	0.00	5.62	5.62	1298	1614
2	65.19	490.85	425.66	1614	3510

TEST PHASE : FLOW PERIOD # 1

TIME OF DAY	DATE	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE PRESSURE PSIA
HH:MM:SS	DD-MM			
*****	*****	*****	*****	*****

5:44: 0	27-AP	0.00	0.00	1298
5:49: 0	27-AP	5.00	5.00	1575
5:49:37	27-AP	5.62	5.62	1614

TEST PHASE : FLOW PERIOD # 2

TIME OF DAY	DATE	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE PRESSURE PSIA
HH:MM:SS	DD-MM			
*****	*****	*****	*****	*****

6:49:11	27-AP	65.19	0.00	1614
6:54:11	27-AP	70.19	5.00	1877
6:59:11	27-AP	75.19	10.00	1834
7: 4:11	27-AP	80.19	15.00	1923
7: 9:11	27-AP	85.19	20.00	2002
7:14:11	27-AP	90.19	25.00	2076
7:19:11	27-AP	95.19	30.00	2147
7:24:11	27-AP	100.19	35.00	2198
7:29:11	27-AP	105.19	40.00	2255
7:34:11	27-AP	110.19	45.00	2308
7:39:11	27-AP	115.19	50.00	2359
7:44:11	27-AP	120.19	55.00	2409
7:49:11	27-AP	125.19	60.00	2454
7:54:11	27-AP	130.19	65.00	2496
7:59:11	27-AP	135.19	70.00	2535
8: 4:11	27-AP	140.19	75.00	2573
8: 9:11	27-AP	145.19	80.00	2610
8:14:11	27-AP	150.19	85.00	2645
8:19:11	27-AP	155.19	90.00	2676
8:24:11	27-AP	160.19	95.00	2709
8:29:11	27-AP	165.19	100.00	2740
8:34:11	27-AP	170.19	105.00	2769
8:39:11	27-AP	175.19	110.00	2795
8:44:11	27-AP	180.19	115.00	2823
8:49:11	27-AP	185.19	120.00	2850
8:54:11	27-AP	190.19	125.00	2873
8:59:11	27-AP	195.19	130.00	2898
9: 4:11	27-AP	200.19	135.00	2922
9: 9:11	27-AP	205.19	140.00	2945
9:14:11	27-AP	210.19	145.00	2965
9:19:11	27-AP	215.19	150.00	2985
9:24:11	27-AP	220.19	155.00	3005
9:29:11	27-AP	225.19	160.00	3027
9:34:11	27-AP	230.19	165.00	3049
9:39:11	27-AP	235.19	170.00	3064
9:44:11	27-AP	240.19	175.00	3083

TEST PHASE : FLOW PERIOD # 2

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE PRESSURE PSIA
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9:49:11	27-AP	245.19	180.00	3102
9:54:11	27-AP	250.19	185.00	3122
9:59:11	27-AP	255.19	190.00	3142
10: 4:11	27-AP	260.19	195.00	3156
10: 9:11	27-AP	265.19	200.00	3178
10:14:11	27-AP	270.19	205.00	3189
10:19:11	27-AP	275.19	210.00	3204
10:24:11	27-AP	280.19	215.00	3220
10:29:11	27-AP	285.19	220.00	3234
10:34:11	27-AP	290.19	225.00	3248
10:39:11	27-AP	295.19	230.00	3262
10:44:11	27-AP	300.19	235.00	3276
10:49:11	27-AP	305.19	240.00	3291
10:54:11	27-AP	310.19	245.00	3304
10:59:11	27-AP	315.19	250.00	3318
11: 4:11	27-AP	320.19	255.00	3331
11: 9:11	27-AP	325.19	260.00	3344
11:14:11	27-AP	330.19	265.00	3357
11:19:11	27-AP	335.19	270.00	3367
11:24:11	27-AP	340.19	275.00	3379
11:29:11	27-AP	345.19	280.00	3390
11:34:11	27-AP	350.19	285.00	3403
11:39:11	27-AP	355.19	290.00	3412
11:44:11	27-AP	360.19	295.00	3421
11:49:11	27-AP	365.19	300.00	3435
11:54:11	27-AP	370.19	305.00	3469
11:59:11	27-AP	375.19	310.00	3474
12: 4:11	27-AP	380.19	315.00	3474
12: 9:11	27-AP	385.19	320.00	3474
12:14:11	27-AP	390.19	325.00	3474
12:19:11	27-AP	395.19	330.00	3474
12:24:11	27-AP	400.19	335.00	3477
12:29:11	27-AP	405.19	340.00	3480
12:34:11	27-AP	410.19	345.00	3481
12:39:11	27-AP	415.19	350.00	3480
12:44:11	27-AP	420.19	355.00	3480
12:49:11	27-AP	425.19	360.00	3480
12:54:11	27-AP	430.19	365.00	3480
12:59:11	27-AP	435.19	370.00	3480
13: 4:11	27-AP	440.19	375.00	3480
13: 9:11	27-AP	445.19	380.00	3480
13:14:11	27-AP	450.19	385.00	3480
13:19:11	27-AP	455.19	390.00	3480
13:24:11	27-AP	460.19	395.00	3480
13:29:11	27-AP	465.19	400.00	3478
13:34:11	27-AP	470.19	405.00	3468
13:39:11	27-AP	475.19	410.00	3465
13:44:11	27-AP	480.19	415.00	3464
13:49:11	27-AP	485.19	420.00	3467

TEST PHASE : FLOW PERIOD # 2

TIME OF DAY	DATE	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE PRESSURE PSIA
HH:MM:SS	DD-MM			
*****	*****	*****	*****	*****

13:54:11	27-AP	490.19	425.00	3502
13:54:51	27-AP	490.85	425.66	3510

WELL TEST INTERPRETATION REPORT #:115649		PAGE: 15,
CLIENT : EX ON COMPANY USA		29-APR-89
REGION :W.T.D.	DISTRIBUTION OF REPORTS	Field:Wildcat
DISTRICT:Hobbs		Zone :Sulurian
BASE :M.D.S.		Well :New Mexico FI
Engr :Browning / uk		Location:S15 15S 33E

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