15-189-21185 16-31-35W

REPORT NO. 107161

PAGE NO. 1

TEST DATE: 12-MAY-88

S T A R™

A Schlumberger Transient Analysis Report
Based On Model Verified™ Interpretation
Of A Schlumberger Drillstem Test

Schlumberger

Company: MOBIL OIL CORP.

Well: H. E. SHULER

TEST IDENTIFICATION

Test Type ..... MFE OH DST
Test No. 1
Formation ..... CHESTER
Test Interval (ft) ... 5967 - 6004
Reference Depth ..... KELLY BUSHING

WELL LOCATION

Field .....
County ..... STEVENS
State ..... KANSAS
Sec/Twn/Rng S16T31SR35W
Elevation (ft) 3022

HOLE CONDITIONS

Total Depth (MD/TVD)(ft) . 6004 / 6004
Hole Size (in) 7 7/8
Casing/Liner I.D. (in) ...
Perf'd Interv./Nt Pay(ft). -- / 28
Shot Density/Diameter(in).

MUD PROPERTIES

Mud Type ..... LSND
Mud Weight (lb/gal) ..... 9.0+
Mud Resistivity (ohm.m) ..
Filtrate Resistiv.(ohm.m).
Filtrate Chlorides (ppm) . 1000

INITIAL TEST CONDITIONS

Initial Hydrostatic (psi). 2837
Gas Cushion Type ..... NONE
Surface Pressure (psi) ... --
Liquid Cushion Type ..... NONE
Cushion Length (ft) ..... --

TEST STRING CONFIGURATION

Pipe Length (ft)/I.D.(in). 5121 / 3.83
Collar Length ft/I.D.(in). 810 / 2.25
Packer Depths (ft) 5967
Bottomhole Choke Size(in). 15/16
Gauge Depth (ft)/Type .... 5998 / MECHANICAL

NET PIPE RECOVERY

Volume	Fluid Type	Properties
0.88 BBLS.	MUD & OIL	ASSUMED 35 API OIL
REPORTED:		
90 FT.	DRLG. MUD	.7 @ 58 DEG. F.
		1000 PPM CL.
90 FT.	GC OIL&MUD	.7 @ 58 DEG. F.

NET SAMPLE CHAMBER RECOVERY

Volume	Fluid Type	Properties
0.16 SCF	GAS	CORRECTED TO PWF
1.2 SCF	GAS	MEASURED @ SC PRES
1800 CC	OIL & MUD	.7 @ 58 DEG. F.
		1000 PPM CL.
Press. 1100	GOR: 14	GLR: 14

VALIDATION RESULTS

Model of Behavior ..... HOMOGENEOUS
Fluid Type Used ..... OIL
Reservoir Pressure (psi) . 1841
Transmissivity (md.ft/cp) 8.601
Permeability (md) 0.964
Skin Factor/Damage Ratio . 5.021
Storativity Ratio .....
Interporosity Flow Coeff..
Distance to Anomaly (ft).
Investigation Radius (ft). 25
Potentiometric Surf. (ft).

ROCK/FLUID/WELLBORE PROPERTIES

Oil Density (deg. API) ... ASSUMED 35
Basic Solids (%) 0
Gas Gravity 0.650
Water Cut (%) 0
Viscosity (cp) 3.137
Tot. Compress. (1/psi) ... 8.545E-6
Porosity (%) ..... 10 - 12 (11)
Reservoir Temperature (F). 143
Form.Vol.Factor (bbl/STB). 1.023

PRODUCTION RATE DURING TEST: 12 BOPD Q-AUG.

COMMENTS:

THE FINAL SHUT-IN PRESSURE BUILD-UP DATA WAS ANALYZED USING LOG-LOG ANALYSIS TECHNIQUES TO DETERMINE RESERVOIR PARAMETERS OF P*, Kh/u, AND SKIN. ANALYSIS OF THE SHUT-IN DATA INDICATES THE PRESENCE OF A HOMOGENEOUS SYSTEM WITH WELLBORE STORAGE AND SKIN AT EARLY TIME AND TRANSITIONAL DATA AT LATER TIME; INFINITE-ACTING RADIAL FLOW REGIME WAS NOT REACHED DURING THE SHUT-IN PERIOD. THE DATA WAS MODEL- VERIFIED(TM) TO CONFIRM THE ACCURACY OF THE RESERVOIR MODEL CHOSEN AND THE ANALYSIS RESULTS, WITH GOOD AGREEMENT BETWEEN THE THEORETICAL MODEL RESPONSE AND THE ACTUAL DATA, WITH THE EXCEPTION OF THE EARLY TIME DATA WHICH IS DOMINATED BY CHANGING WELLBORE STORAGE EFFECTS.

16-31-35W

REPORT NO.
107161

PAGE NO. 2

TRANSIENT IPR & TUBING INTAKE

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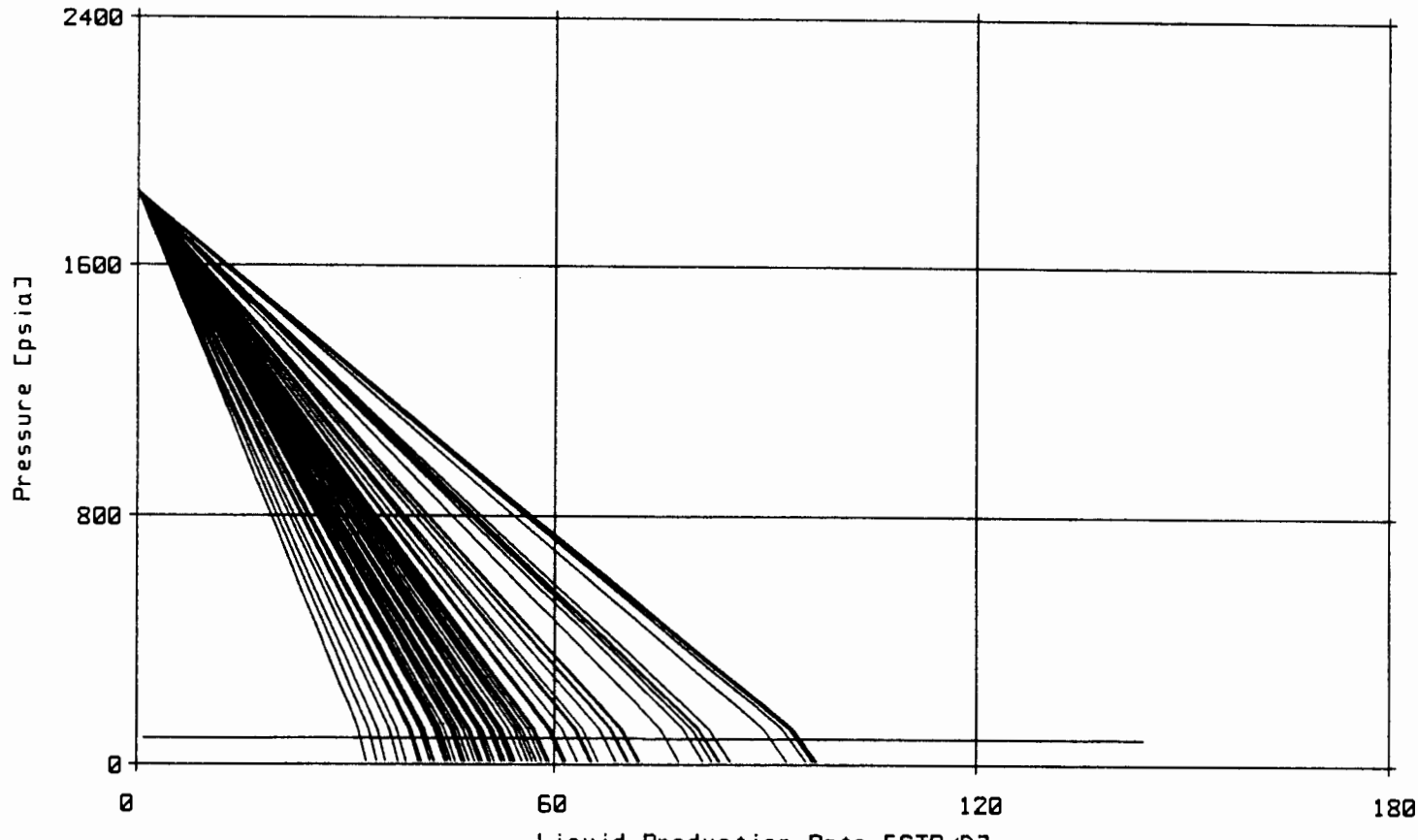


DRAWDOWN T-C : FINITE CONDUCTIVITY VERTICAL FRACTURE
FCD=5.19E-01 ; CDF=0.00E+00

16-31-35W

REPORT NO. 107161

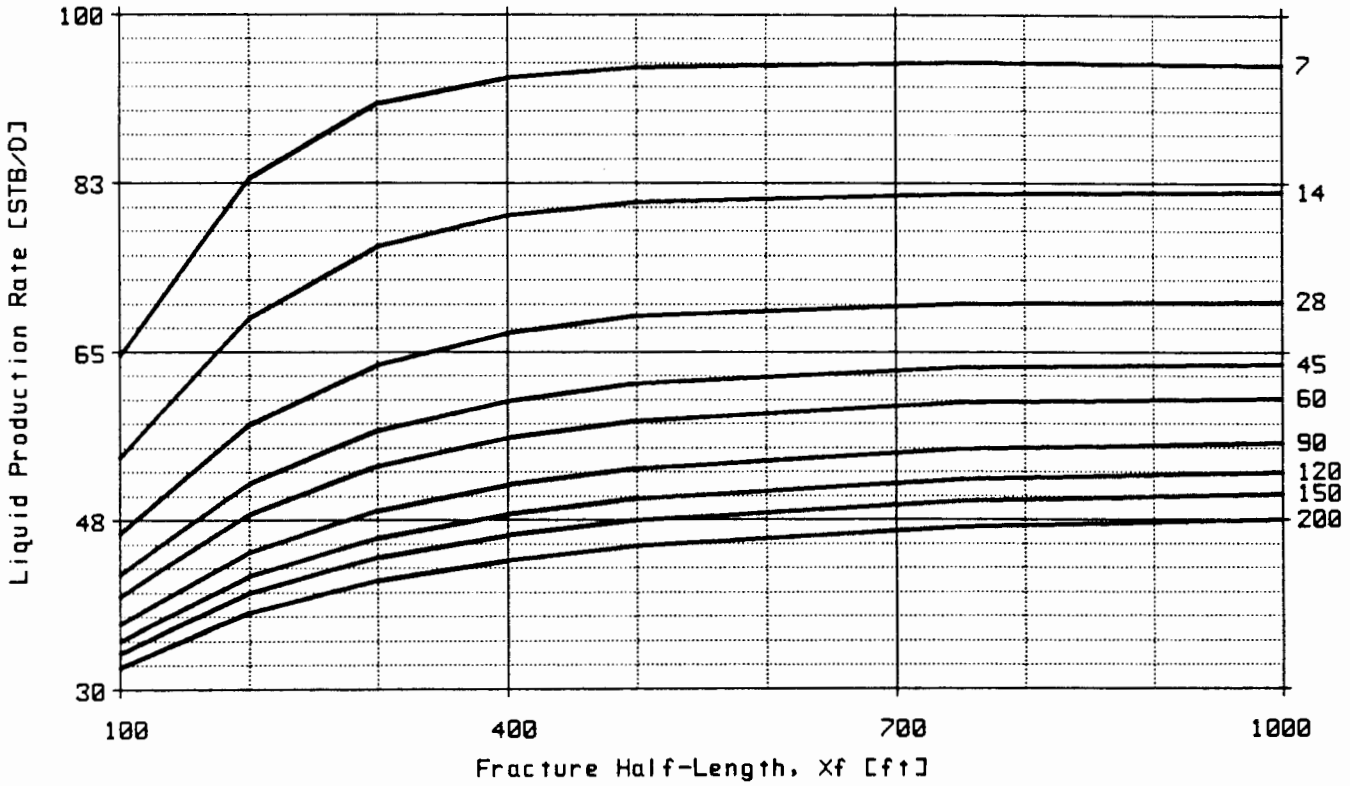
PAGE NO. 3

SENSITIVITY ANALYSIS
Rate vs. Xf (vs. Time)
WELL ON PUMP @ 50 PSI FL.BHP

Schlumberger

Reservoir Pressure: 1841 psi Gas/Liquid Ratio: 14.0 SCF/STB
Permeability: 0.964 md Tubing Size: 2.441 in (id)
Net Thickness: 28.0 ft Flowing BH Pressure: 50.0 psi

Fracture Conductivity, kf*w: 500.0 md.ft



Production Rate vs. Frac. Half-Length, Transient Conditions
7 to 200 days : WELL ON PUMP @ 50 PSI FL.BHP

16-31-35W

REPORT NO. 107161

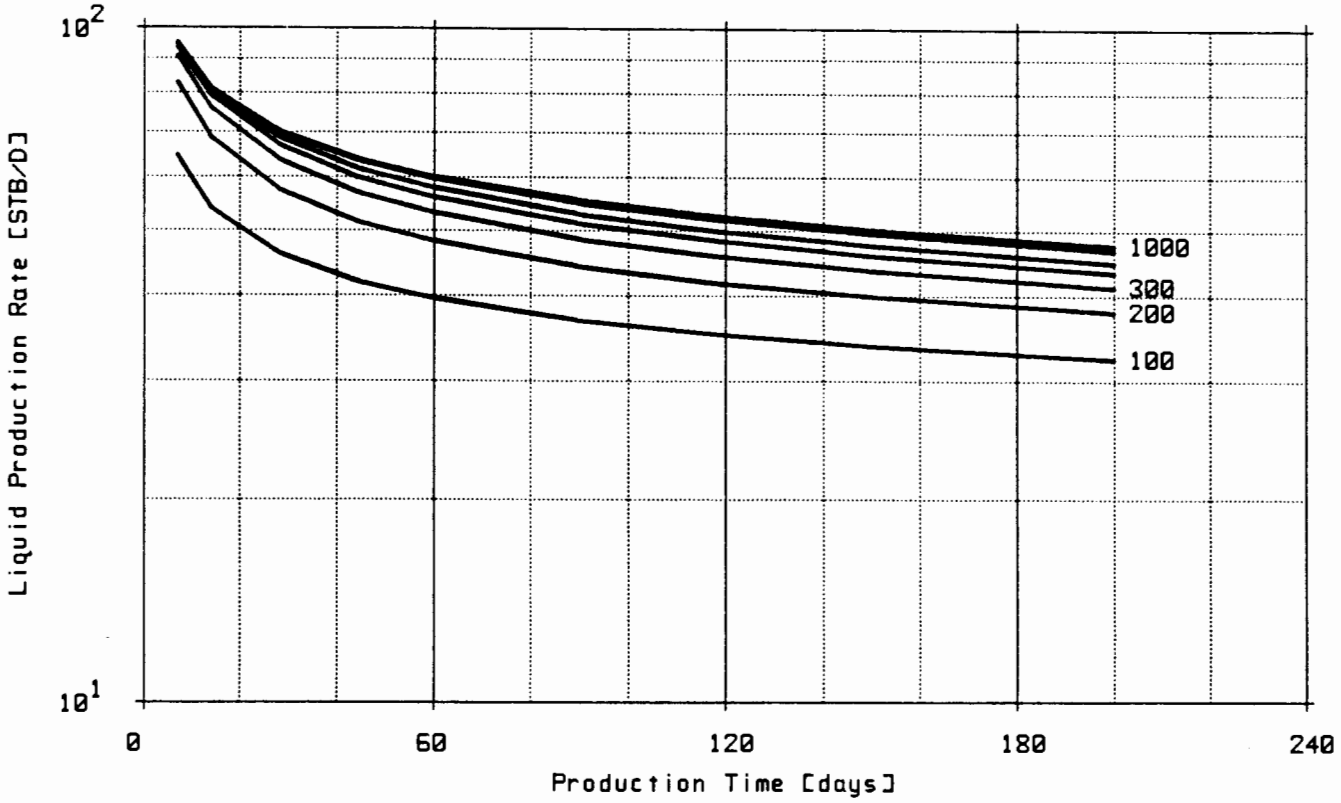
PAGE NO. 4

SENSITIVITY ANALYSIS
Rate vs. Time (vs. Xf)
WELL ON PUMP @ 50 PSI FL.BHP

Schlumberger

Reservoir Pressure: 1841 psi Gas/Liquid Ratio: 14.0 SCF/STB
Permeability: 0.964 md Tubing Size: 2.441 in (id)
Net Thickness: 28.0 ft Flowing BH Pressure: 50.0 psi

Fracture Conductivity, kf*w: 500.0 md.ft



Effect of Time on Production Rate, for Fracture Half-Lengths from 100 to 1000 ft : WELL ON PUMP @ 50 PSI FL.BHP

16-31-35W

REPORT NO. 107161

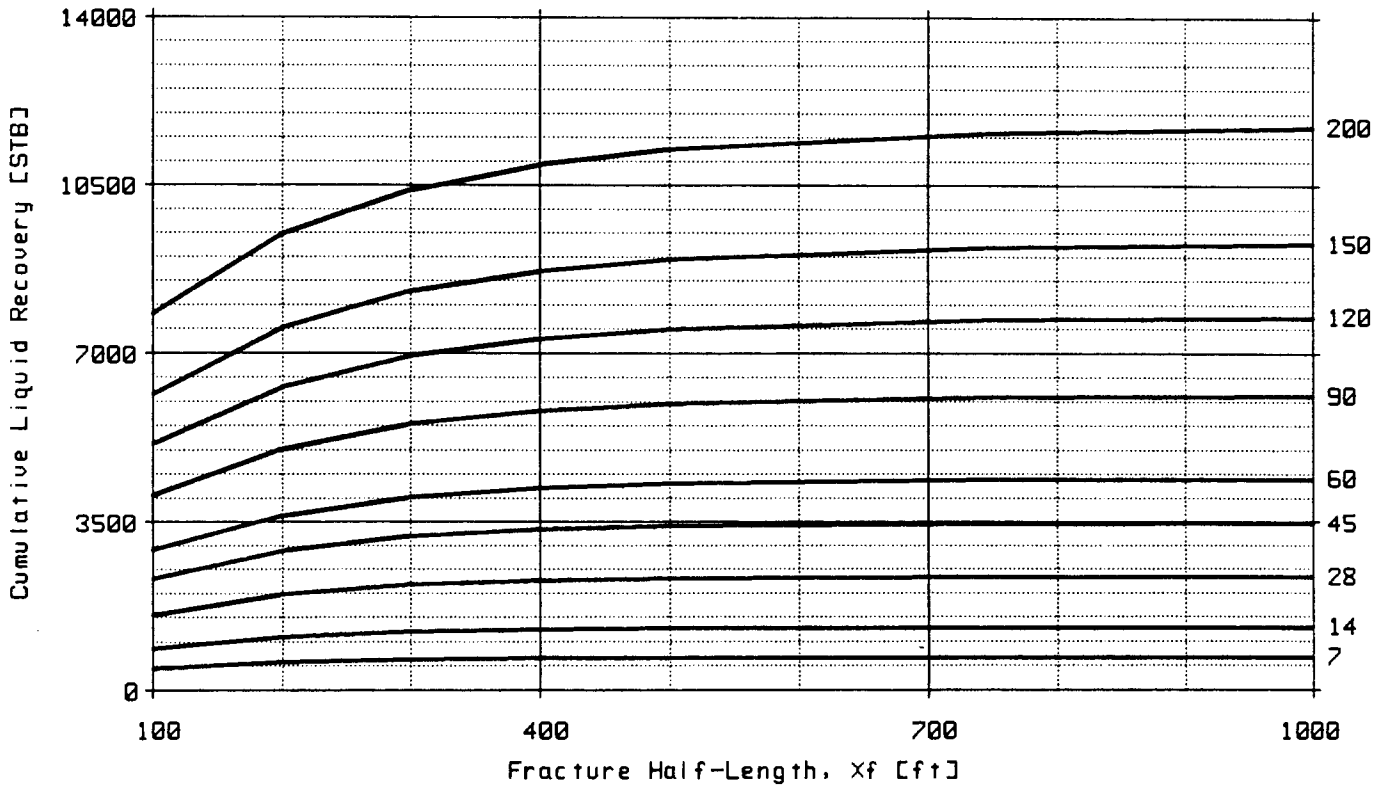
PAGE NO. 5

SENSITIVITY ANALYSIS
Recovery vs. Xf (vs. Time)
WELL ON PUMP @ 50 PSI FL.BHP

Schlumberger

Reservoir Pressure: 1841 psi
Permeability: 0.964 md
Net Thickness: 28.0 ft
Gas/Liquid Ratio: 14.0 SCF/STB
Tubing Size: 2.441 in (id)
Flowing BH Pressure: 50.0 psi

Fracture Conductivity, kf*w: 500.0 md.ft



Cumulative Recovery vs. Frac. Half-Length, Transient Conditions
7 to 200 days : WELL ON PUMP @ 50 PSI FL.BHP

16-31-85W

REPORT NO. 107161

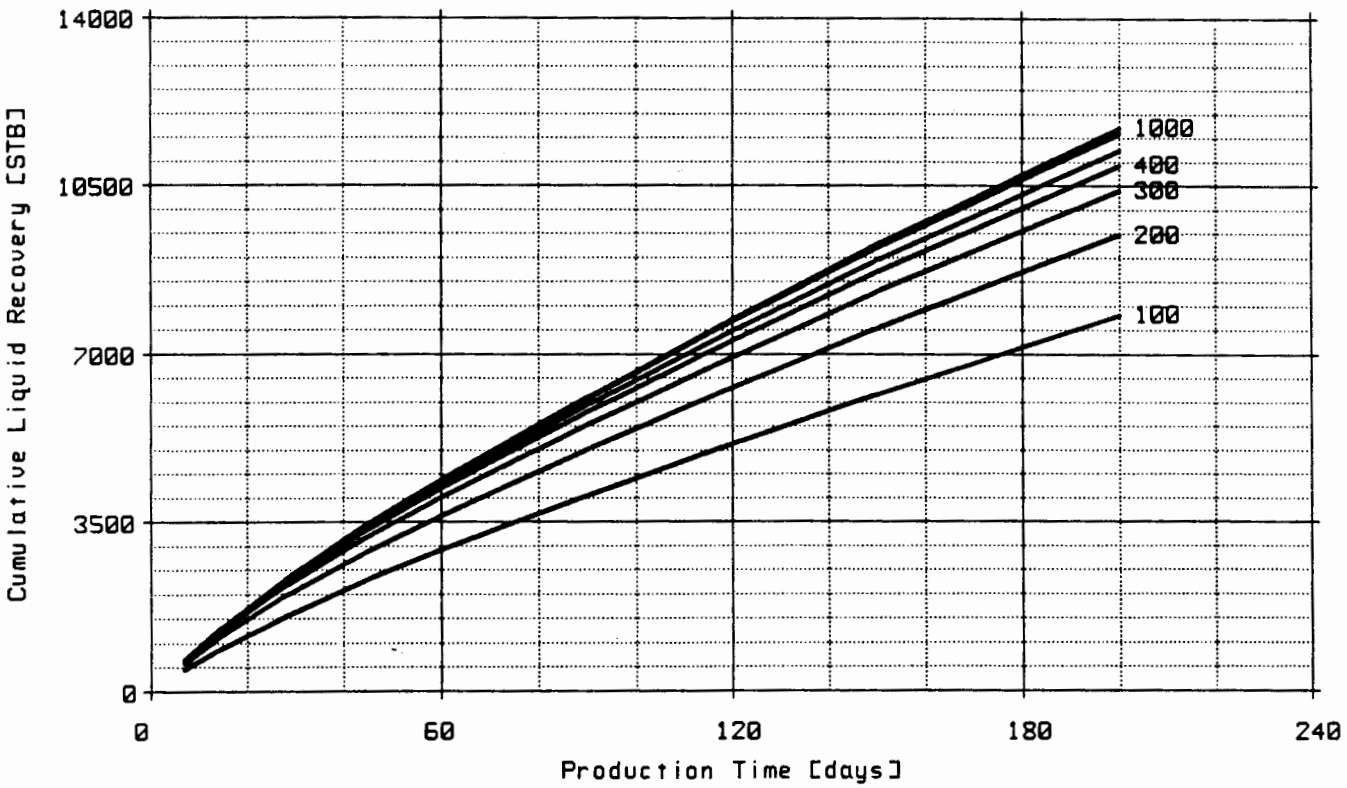
PAGE NO. 6

SENSITIVITY ANALYSIS
Recovery vs. Time (vs. Xf)
WELL ON PUMP @ 50 PSI FL.BHP

Schlumberger

Reservoir Pressure: 1841 psi
Permeability: 0.964 md
Net Thickness: 28.0 ft
Gas/Liquid Ratio: 14.0 SCF/STB
Tubing Size: 2.441 in (id)
Flowing BH Pressure: 50.0 psi

Fracture Conductivity, kf*w: 500.0 md.ft



Effect of Time on Cumulative Recovery, for Fracture Half-Lengths from 100 to 1000 ft : WELL ON PUMP @ 50 PSI FL.BHP

16-31-35W

REPORT NO.
107161

PAGE NO. 7

SENSITIVITY ANALYSIS
Input Data Summary
WELL ON PUMP @ 50 PSI FL.BHP

Schlumberger

Production Time [days]

7.0	14.0	28.0	45.0	60.0
90.0	120.0	150.0	200.0	

Fracture Half-Length, Xf [ft]

100.0	200.0	300.0	400.0	500.0
750.0	1000.			

16-31-35W

REPORT NO. 107161

PAGE NO. 8

SEQUENCE OF EVENTS

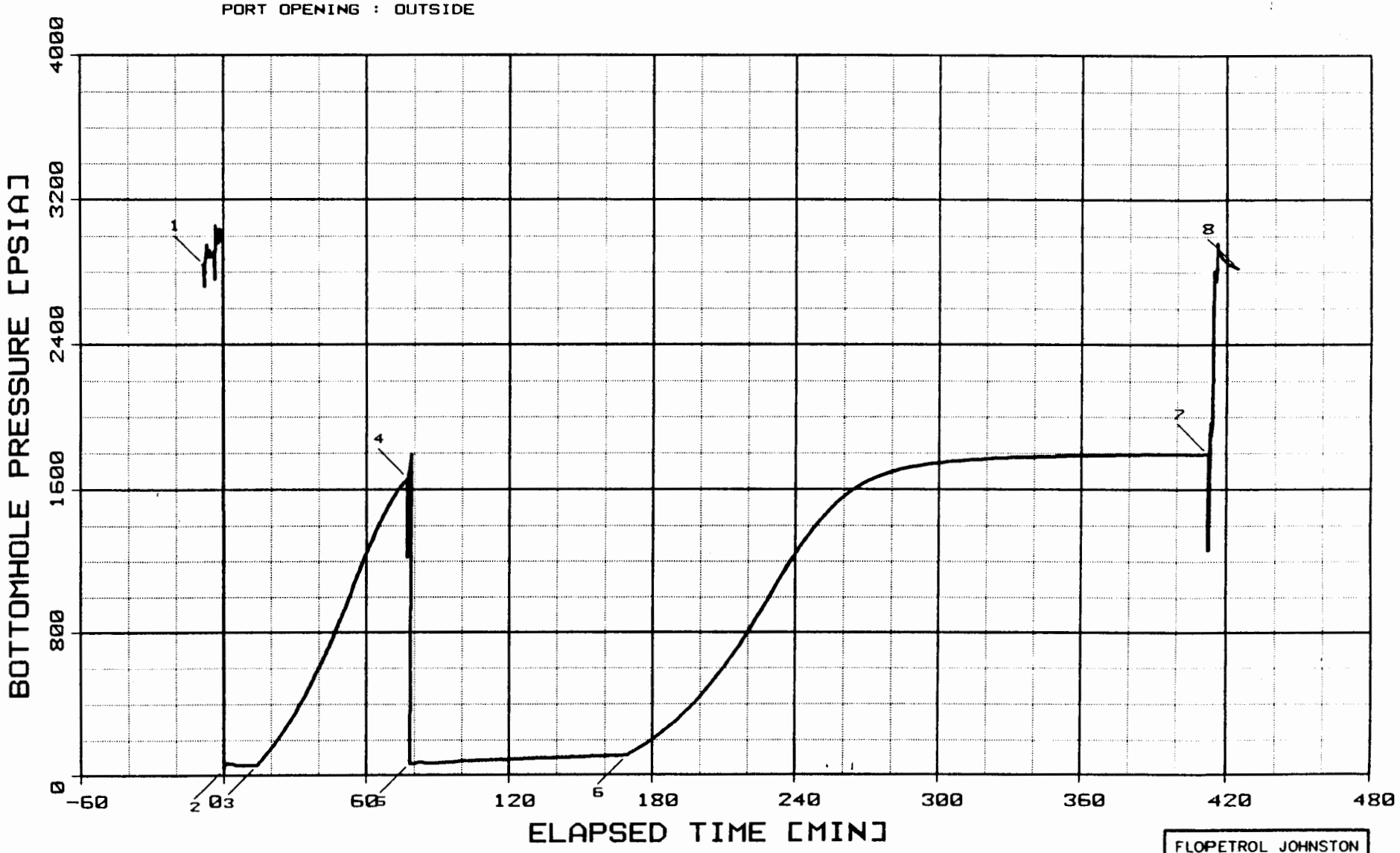
Schlumberger

EVENT NO.	DATE	TIME (HR:MIN)	DESCRIPTION	ELAPSED TIME (MINS)	BHP (PSIA)	BLOW (IN.-H2O)
1	12-MAY	2102	SET PACKERS	-8.15	2837	
2		2104	OPENED TOOL - BUBBLE HOSE	0.00	33	WEAK BLOW
3		2119	CLOSED FOR INITIAL SHUTIN	14.11	55	BTM. BUCKT
4		2219	FINISHED SHUT-IN	77.06	1654	
5		2222	RE-OPENED TOOL	78.21	63	GOOD BLOW
		2223				BTM. BUCKT
			NO GAS TO SURFACE			
6		2357	CLOSED FOR FINAL SHUT-IN	169.60	109	BTM. BUCKT
7	13-MAY	0357	FINISHED SHUT-IN	412.99	1792	
8		0358	PULLED PACKERS LOOSE	424.36	2821	

BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 107161
INSTRUMENT NO. J-1290
DEPTH : 5998 FT
CAPACITY : 6400 PSI
PORT OPENING : OUTSIDE

COMPANY : MOBIL OIL CORP.
WELL : H.E. SHULER



FLOPETROL JOHNSTON

16-31-35W

16-31-85W

* WELL TEST DATA PRINTOUT *

FIELD REPORT # : 107161

COMPANY : MOBIL OIL CORP.
WELL : H.E. SHULER

INSTRUMENT # : J-1290
CAPACITY [PSI] : 6400.
DEPTH [FT] : 5998.0
PORT OPENING : OUTSIDE
TEMPERATURE [DEG F] : 143.0

LABEL POINT INFORMATION

#	TIME OF DAY HH:MM:SS	DATE DD-MM	EXPLANATION	ELAPSED TIME,MIN	BOT HOLE PRESSURE PSIA
1	20:55:51	12-MY	HYDROSTATIC MUD	-8.15	2837
2	21: 4: 0	12-MY	START FLOW	0.00	33
3	21:18: 7	12-MY	END FLOW & START SHUT-IN	14.11	55
4	22:21: 4	12-MY	END SHUT-IN	77.06	1654
5	22:22:13	12-MY	START FLOW	78.21	63
6	23:53:36	12-MY	END FLOW & START SHUT-IN	169.60	109
7	3:56:59	13-MY	END SHUT-IN	412.99	1792
8	4: 8:22	13-MY	HYDROSTATIC MUD	424.36	2821

SUMMARY OF FLOW PERIODS

PERIOD	START ELAPSED TIME,MIN	END ELAPSED TIME,MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA
1	0.00	14.11	14.11	33	55
2	78.21	169.60	91.39	63	109

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	14.11	77.06	62.95	55	1654	55	14.11
2	169.60	412.99	243.39	109	1792	109	105.50

16-31-35W

TEST PHASE : FLOW PERIOD # 1

TIME OF DAY HH:MM:SS	DATE DD-MM	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE PRESSURE PSIA
21: 4: 0	12-MY	0.00	0.00	33
21: 9: 0	12-MY	5.00	5.00	53
21:14: 0	12-MY	10.00	10.00	54
21:18: 7	12-MY	14.11	14.11	55

TEST PHASE : SHUTIN PERIOD # 1
FINAL FLOW PRESSURE [PSIA] = 55
PRODUCING TIME [MIN] = 14.11

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
21:18: 7	12-MY	14.11	0.00	55	0	
21:19: 7	12-MY	15.11	1.00	72	17	1.179
21:20: 7	12-MY	16.11	2.00	88	33	0.906
21:21: 7	12-MY	17.11	3.00	104	49	0.756
21:22: 7	12-MY	18.11	4.00	120	65	0.656
21:23: 7	12-MY	19.11	5.00	136	81	0.582
21:24: 7	12-MY	20.11	6.00	152	97	0.525
21:25: 7	12-MY	21.11	7.00	168	113	0.479
21:26: 7	12-MY	22.11	8.00	185	130	0.441
21:27: 7	12-MY	23.11	9.00	203	147	0.410
21:28: 7	12-MY	24.11	10.00	221	165	0.382
21:30: 7	12-MY	26.11	12.00	260	205	0.338
21:32: 7	12-MY	28.11	14.00	301	246	0.303
21:34: 7	12-MY	30.11	16.00	344	289	0.275
21:36: 7	12-MY	32.11	18.00	391	336	0.251
21:38: 7	12-MY	34.11	20.00	439	384	0.232
21:40: 7	12-MY	36.11	22.00	491	436	0.215
21:42: 7	12-MY	38.11	24.00	544	488	0.201
21:44: 7	12-MY	40.11	26.00	597	542	0.188
21:46: 7	12-MY	42.11	28.00	654	599	0.177
21:48: 7	12-MY	44.11	30.00	712	657	0.167
21:53: 7	12-MY	49.11	35.00	871	815	0.147
21:58: 7	12-MY	54.11	40.00	1038	983	0.131
22: 3: 7	12-MY	59.11	45.00	1211	1156	0.118
22: 8: 7	12-MY	64.11	50.00	1372	1317	0.108
22:13: 7	12-MY	69.11	55.00	1507	1452	0.099
22:18: 7	12-MY	74.11	60.00	1610	1555	0.092
22:21: 4	12-MY	77.06	62.95	1654	1599	0.088

16-31-35W

TEST PHASE : FLOW PERIOD # 2

TIME OF DAY HH:MM:SS	DATE DD-MM	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE PRESSURE PSIA
22:22:13	12-MY	78.21	0.00	63
22:27:13	12-MY	83.21	5.00	71
22:32:13	12-MY	88.21	10.00	66
22:37:13	12-MY	93.21	15.00	69
22:42:13	12-MY	98.21	20.00	74
22:47:13	12-MY	103.21	25.00	78
22:52:13	12-MY	108.21	30.00	80
22:57:13	12-MY	113.21	35.00	83
23: 2:13	12-MY	118.21	40.00	84
23: 7:13	12-MY	123.21	45.00	90
23:12:13	12-MY	128.21	50.00	91
23:17:13	12-MY	133.21	55.00	94
23:22:13	12-MY	138.21	60.00	96
23:27:13	12-MY	143.21	65.00	98
23:32:13	12-MY	148.21	70.00	100
23:37:13	12-MY	153.21	75.00	103
23:42:13	12-MY	158.21	80.00	104
23:47:13	12-MY	163.21	85.00	108
23:52:13	12-MY	168.21	90.00	109
23:53:36	12-MY	169.60	91.39	109

TEST PHASE : SHUTIN PERIOD # 2
FINAL FLOW PRESSURE [PSIA] = 109
PRODUCING TIME [MIN] = 105.50

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
23:53:36	12-MY	169.60	0.00	109	0	
23:54:36	12-MY	170.60	1.00	121	12	2.027
23:55:36	12-MY	171.60	2.00	129	20	1.730
23:56:36	12-MY	172.60	3.00	137	28	1.558
23:57:36	12-MY	173.60	4.00	145	36	1.437
23:58:36	12-MY	174.60	5.00	153	44	1.344
23:59:36	12-MY	175.60	6.00	161	52	1.269
0: 0:36	13-MY	176.60	7.00	169	61	1.206
0: 1:36	13-MY	177.60	8.00	179	70	1.152
0: 2:36	13-MY	178.60	9.00	188	79	1.105
0: 3:36	13-MY	179.60	10.00	198	89	1.063
0: 5:36	13-MY	181.60	12.00	217	108	0.991
0: 7:36	13-MY	183.60	14.00	236	128	0.931
0: 9:36	13-MY	185.60	16.00	258	149	0.880
0:11:36	13-MY	187.60	18.00	279	170	0.836
0:13:36	13-MY	189.60	20.00	300	192	0.798
0:15:36	13-MY	191.60	22.00	327	218	0.763
0:17:36	13-MY	193.60	24.00	351	242	0.732

16-31-35W

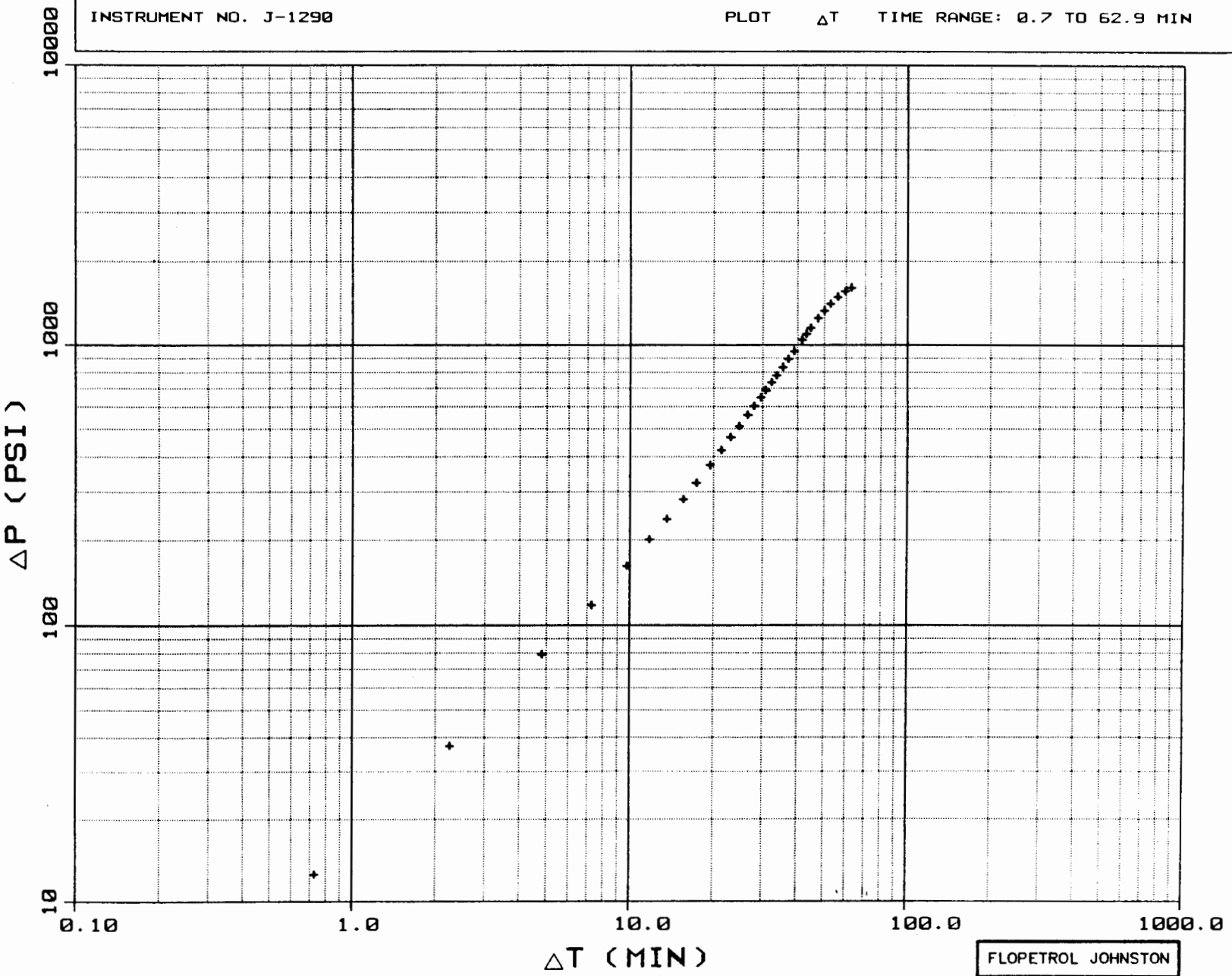
TEST PHASE : SHUTIN PERIOD # 2
FINAL FLOW PRESSURE [PSIA] = 109
PRODUCING TIME [MIN] = 105.50

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
0:19:36	13-MY	195.60	26.00	377	268	0.704
0:21:36	13-MY	197.60	28.00	404	295	0.678
0:23:36	13-MY	199.60	30.00	432	323	0.655
0:28:36	13-MY	204.60	35.00	510	401	0.604
0:33:36	13-MY	209.60	40.00	594	485	0.561
0:38:36	13-MY	214.60	45.00	688	579	0.524
0:43:36	13-MY	219.60	50.00	788	679	0.493
0:48:36	13-MY	224.60	55.00	898	789	0.465
0:53:36	13-MY	229.60	60.00	1011	902	0.441
0:58:36	13-MY	234.60	65.00	1125	1016	0.419
1: 3:36	13-MY	239.60	70.00	1231	1122	0.399
1: 8:36	13-MY	244.60	75.00	1329	1220	0.381
1:13:36	13-MY	249.60	80.00	1417	1308	0.365
1:18:36	13-MY	254.60	85.00	1490	1381	0.350
1:23:36	13-MY	259.60	90.00	1552	1443	0.337
1:28:36	13-MY	264.60	95.00	1601	1492	0.324
1:33:36	13-MY	269.60	100.00	1640	1531	0.313
1:38:36	13-MY	274.60	105.00	1669	1560	0.302
1:43:36	13-MY	279.60	110.00	1692	1583	0.292
1:48:36	13-MY	284.60	115.00	1711	1602	0.283
1:53:36	13-MY	289.60	120.00	1724	1615	0.274
1:58:36	13-MY	294.60	125.00	1736	1627	0.266
2: 3:36	13-MY	299.60	130.00	1742	1633	0.258
2: 8:36	13-MY	304.60	135.00	1751	1642	0.251
2:13:36	13-MY	309.60	140.00	1755	1646	0.244
2:18:36	13-MY	314.60	145.00	1760	1651	0.237
2:23:36	13-MY	319.60	150.00	1764	1655	0.231
2:28:36	13-MY	324.60	155.00	1768	1659	0.225
2:33:36	13-MY	329.60	160.00	1771	1662	0.220
2:38:36	13-MY	334.60	165.00	1773	1664	0.215
2:43:36	13-MY	339.60	170.00	1776	1667	0.210
2:48:36	13-MY	344.60	175.00	1778	1669	0.205
2:53:36	13-MY	349.60	180.00	1779	1670	0.200
2:58:36	13-MY	354.60	185.00	1781	1672	0.196
3: 3:36	13-MY	359.60	190.00	1782	1673	0.192
3: 8:36	13-MY	364.60	195.00	1784	1675	0.188
3:13:36	13-MY	369.60	200.00	1785	1676	0.184
3:18:36	13-MY	374.60	205.00	1786	1677	0.180
3:23:36	13-MY	379.60	210.00	1787	1678	0.177
3:28:36	13-MY	384.60	215.00	1788	1679	0.173
3:33:36	13-MY	389.60	220.00	1789	1680	0.170
3:38:36	13-MY	394.60	225.00	1789	1680	0.167
3:43:36	13-MY	399.60	230.00	1790	1682	0.164
3:48:36	13-MY	404.60	235.00	1791	1682	0.161
3:53:36	13-MY	409.60	240.00	1791	1682	0.158
3:56:59	13-MY	412.99	243.39	1792	1683	0.156

LOG LOG PLOT

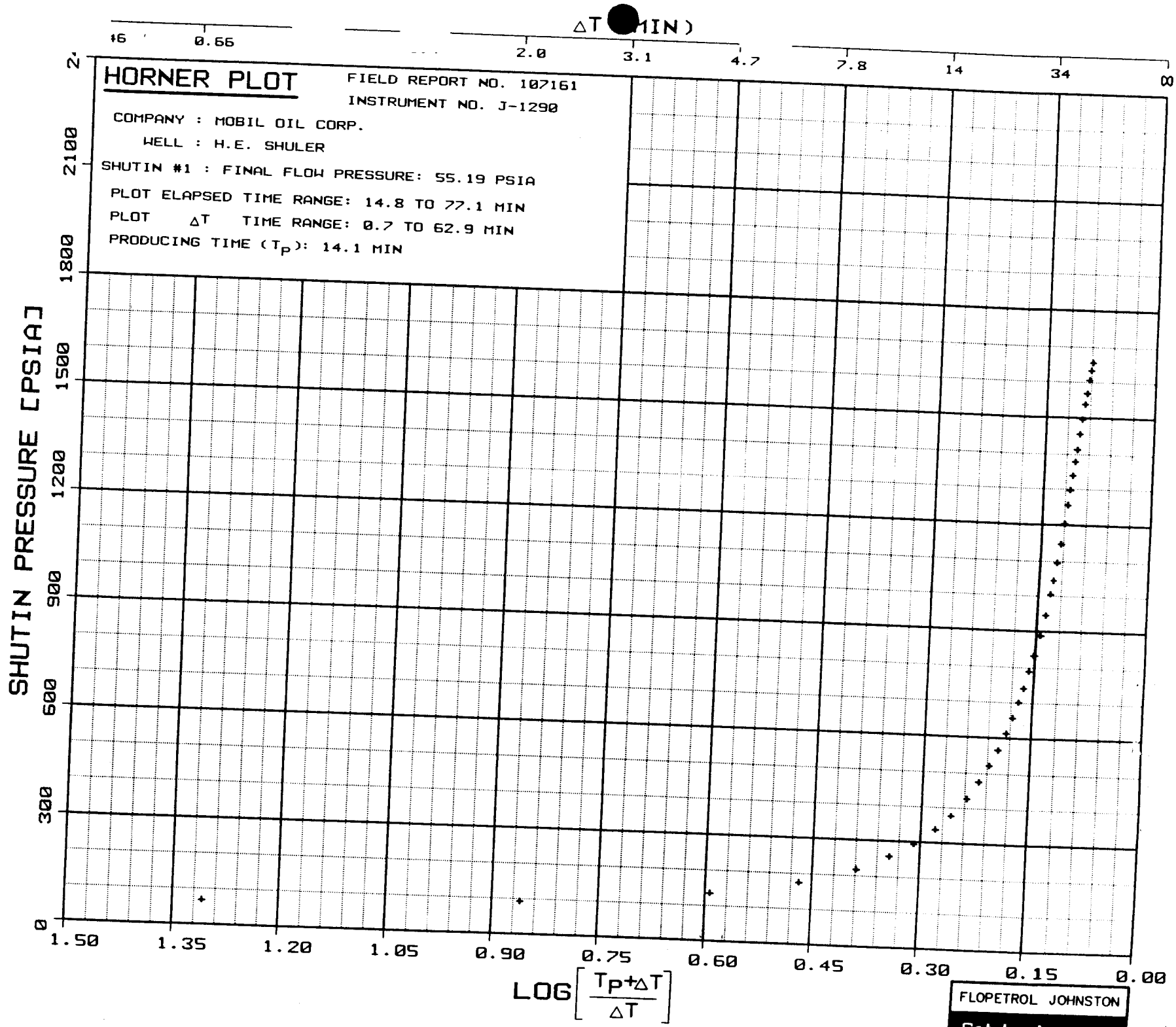
COMPANY : MOBIL OIL CORP.
WELL : H.E. SHULER
FIELD REPORT NO. 107161
INSTRUMENT NO. J-1290

SHUTIN #1 :
FINAL FLOW PRESSURE (PWF): 55.19 PSIA
PLOT ELAPSED TIME RANGE: 14.8 TO 77.1 MIN
PLOT ΔT TIME RANGE: 0.7 TO 62.9 MIN



FLOPETROL JOHNSTON
Schlumberger

16-21-85W

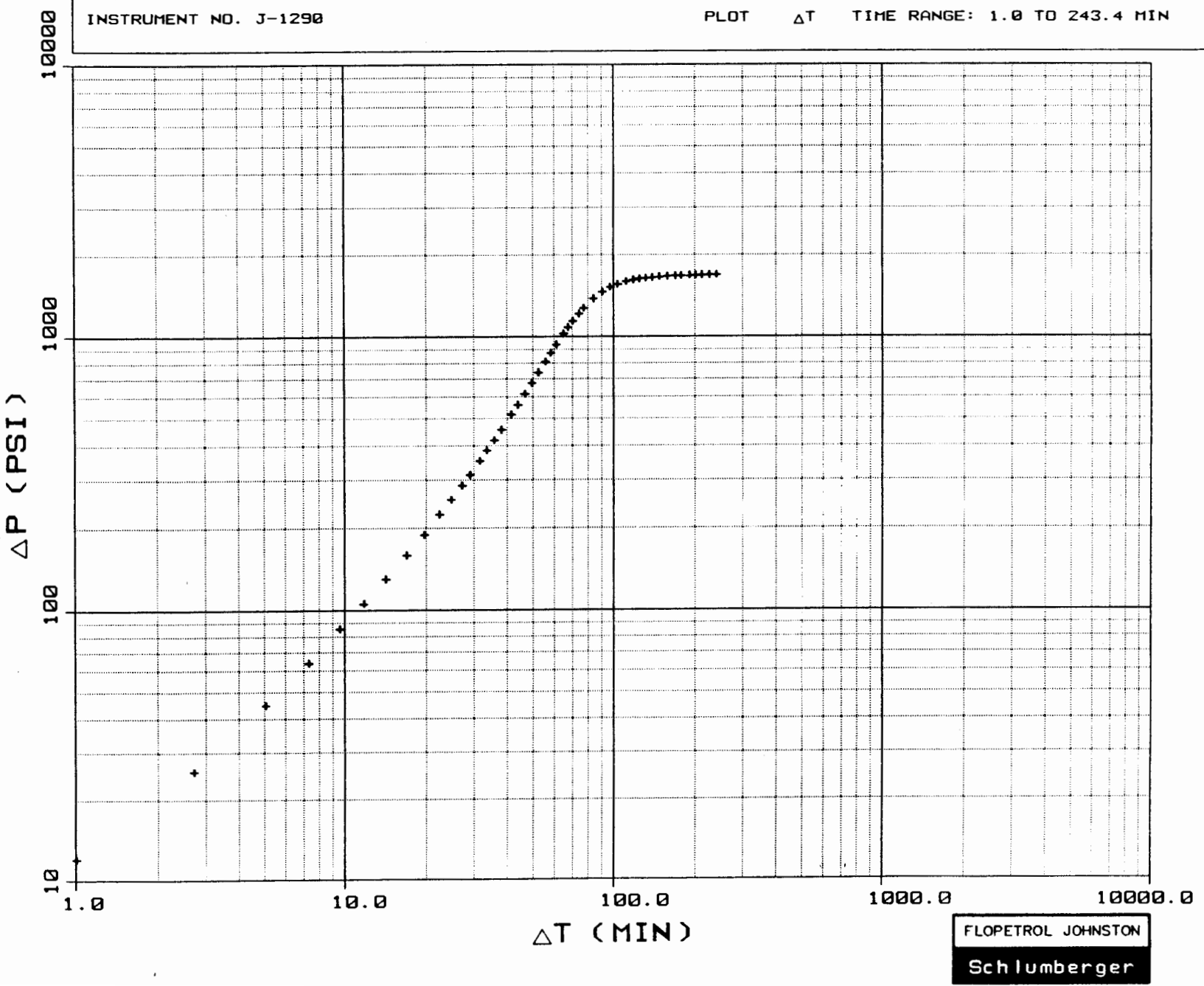

HORNER PLOT
FIELD REPORT NO. 107161
INSTRUMENT NO. J-1290
COMPANY : MOBIL OIL CORP.
WELL : H.E. SHULER
SHUTIN #1 : FINAL FLOW PRESSURE: 55.19 PSIA
PLOT ELAPSED TIME RANGE: 14.8 TO 77.1 MIN
PLOT ΔT TIME RANGE: 0.7 TO 62.9 MIN
PRODUCING TIME (T_p): 14.1 MIN
ΔT (MIN)
0.66
2.0
3.1
4.7
7.8
14
34
∞
SHUTIN PRESSURE [PSIA]
2100
1800
1500
1200
900
600
300
0
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

16-81-85W

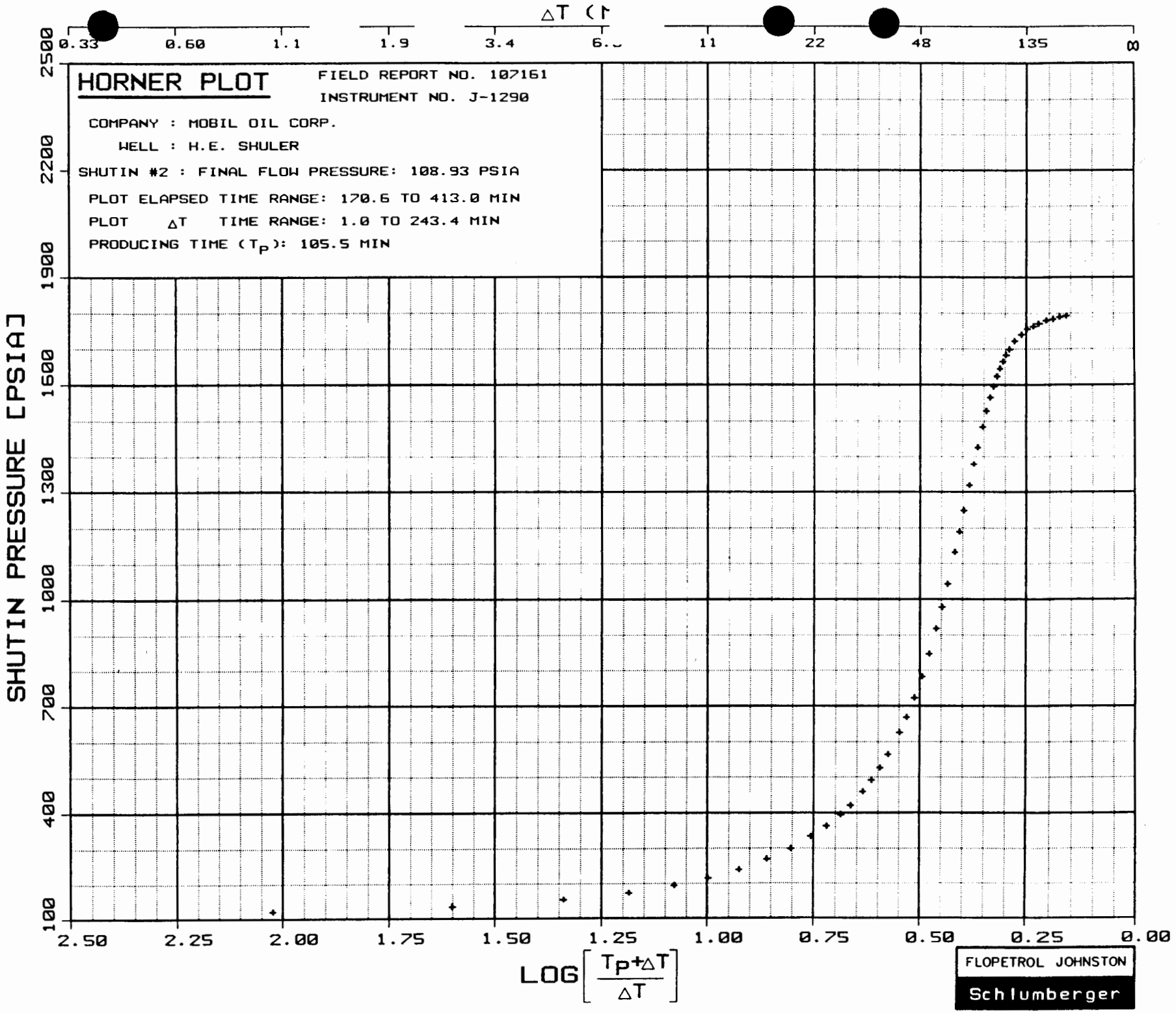
LOG LOG PLOT

COMPANY : MOBIL OIL CORP.
WELL : H.E. SHULER
FIELD REPORT NO. 107161
INSTRUMENT NO. J-1290

SHUTIN #2 :
FINAL FLOW PRESSURE (PWF): 108.93 PSIA
PLOT ELAPSED TIME RANGE: 170.6 TO 413.0 MIN
PLOT ΔT TIME RANGE: 1.0 TO 243.4 MIN



16-31-85W


ΔT (h
0.33
0.60
1.1
1.9
3.4
6.
11
22
48
135
∞
HORNER PLOT
FIELD REPORT NO. 107161
INSTRUMENT NO. J-1290
COMPANY : MOBIL OIL CORP.
WELL : H.E. SHULER
SHUTIN #2 : FINAL FLOW PRESSURE: 108.93 PSIA
PLOT ELAPSED TIME RANGE: 170.6 TO 413.0 MIN
PLOT ΔT TIME RANGE: 1.0 TO 243.4 MIN
PRODUCING TIME (T_P): 105.5 MIN
SHUTIN PRESSURE [PSIA]
2500
2200
1900
1600
1300
1000
700
400
100
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

14-31-85W

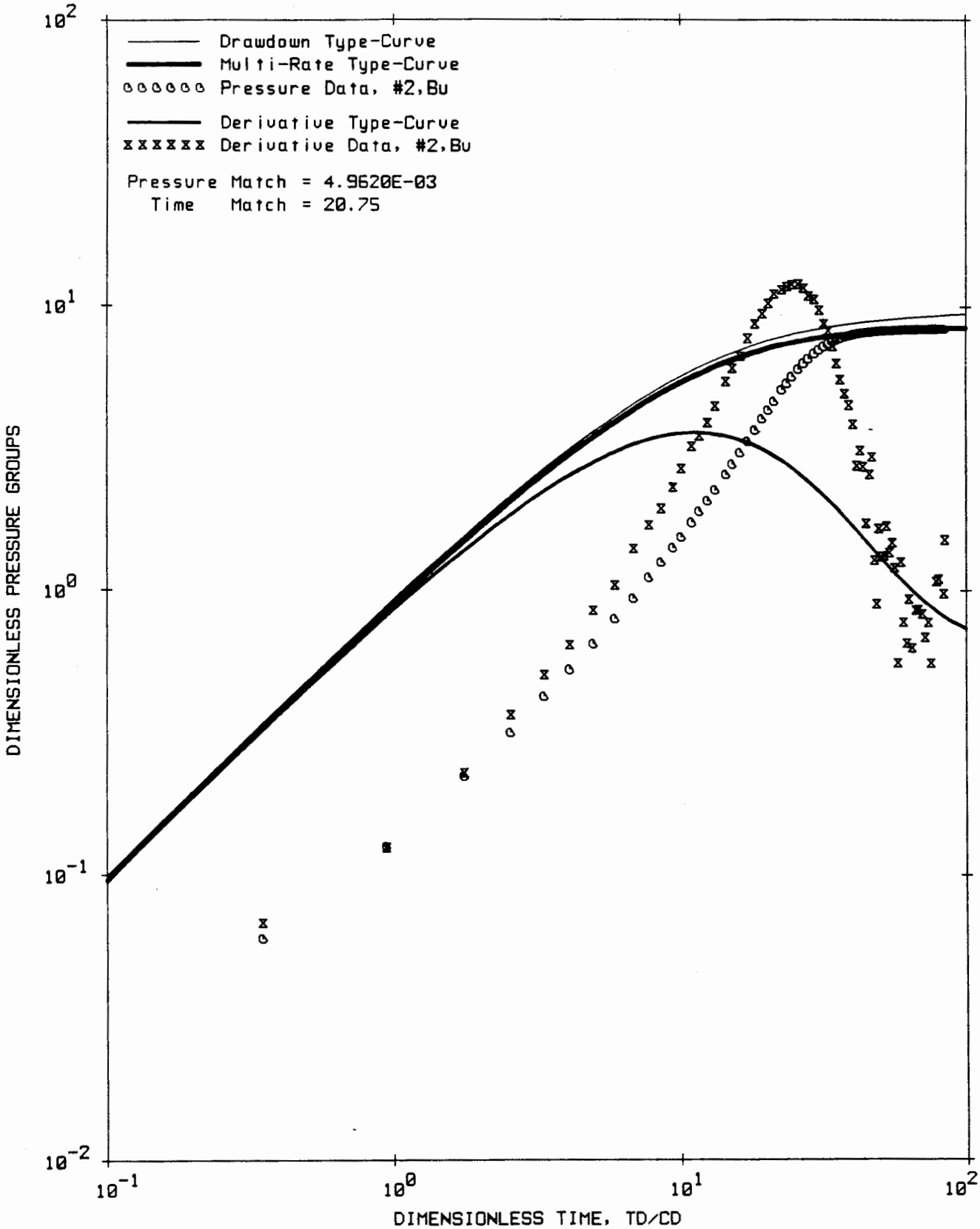
16-31-35W

REPORT NO. 107161

PAGE NO. 13

DIMENSIONLESS MULTI-RATE PLOT : LOG-LOG MATCH FOR #2, Bu

Schlumberger



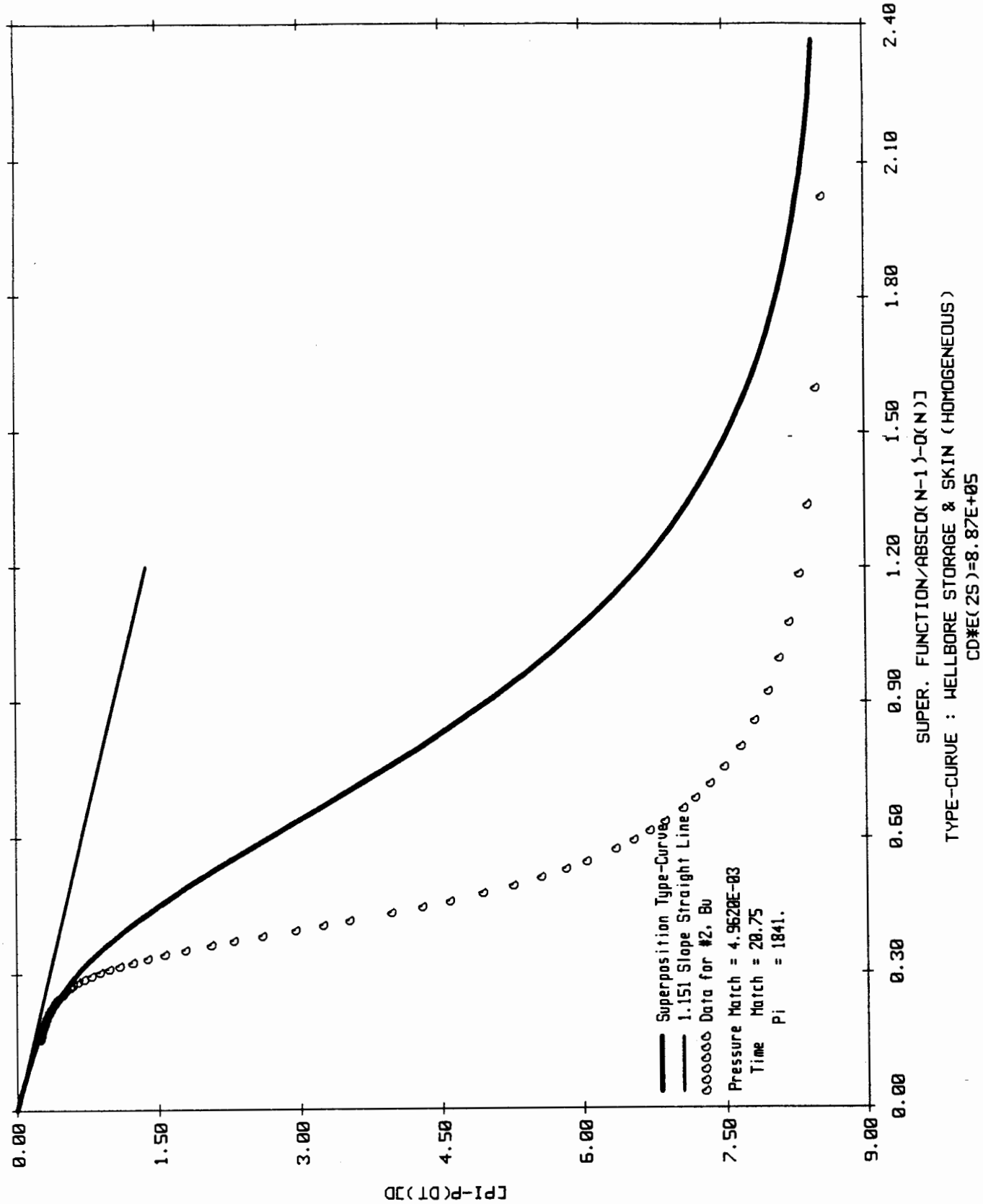
16-31-35W

REPORT NO. 107161

PAGE NO. 14

DIMENSIONLESS SUPERPOSITION PLOT FOR #2, Bu

Schlumberger



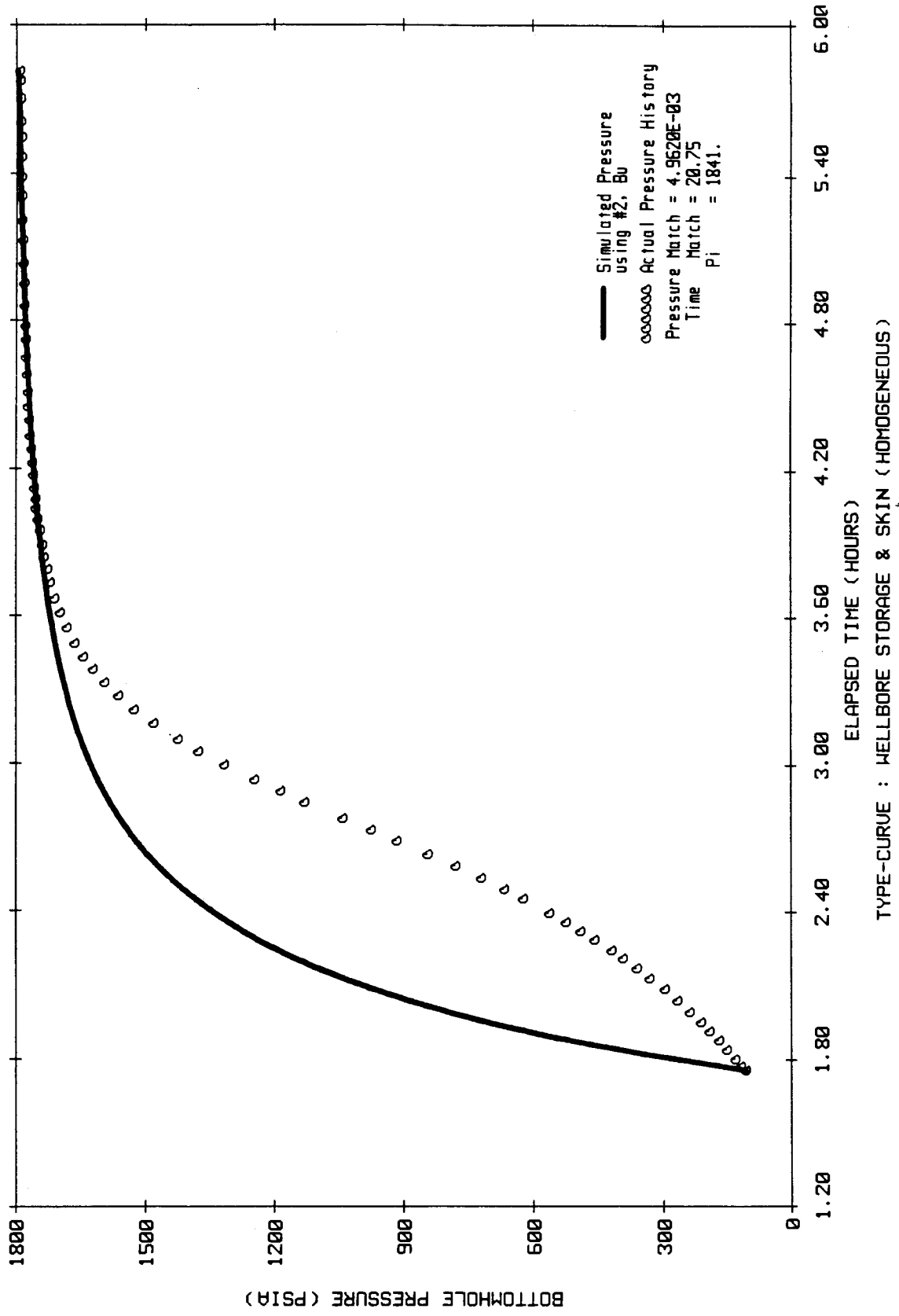
16-31-35W

REPORT NO.
107161

PAGE NO. 15

PRESSURE HISTORY MATCH
SIMULATION

Schlumberger



16-31-35W

MOBIL OIL CORPORATION

DRILLING COMPLETION SUMMARY

WELL:	HE SHULER 2	MATCH NUMBER: 881041
API:	1518921185	
WELL TYPE:	DEVELOPMENT	
COORDINATES:	990' FSL 4292' FEL	
ECTION:	16-31S-35W	FIELD: KS OUTPOST
OUNTY:	STEVENS	STATE: KS
ELL SPUDDED:	88 MAY 07	
REACHED TD:	88 MAY 13	
RIG RELEASE:	88 MAY 15	
ROUND ELEVATION:	3006	
B ELEVATION:	3022	
OBJECTIVE:	CHESTER	
PROD. CASING DEPTH:	0	

ADDITIONAL COMMENTS

AUG 25 1988

KANSAS GEOLOGICAL SURVEY
WICHITA BRANCH

RECEIVED
STATE CORPORATION COMMISSION

AUG 15 1988

CONSERVATION DIVISION
Wichita, Kansas

08/11/88

16-31-35W

PERATOR: MOBIL OIL CORPORATION
IELD: KS OUTPOST COUNTY: STEVENS
WELL: HE SHULER 2 SECTION: 16-31S-35W
API NO. 1518921185

DATE	REMARKS
88 MAY 07	SPUD WELL; DRILLED FROM 70' TO 1549'
	SERVICE RIG
	DRILLED FROM 1549' TO 1766'
	CIRC HI-VIS PILL; SHORT TRIP TO DC
	CIRC HI-VIS PILL; DROP SURVEY; POH
	RU CSG CREW; RUN 8-5/8" CSG; SET AT 1766'
	RU CEMENTERS AND CEMENT 8-5/8" CSG
	CUT OFF PIPE; NU CSG HEAD & TEST
38 MAY 08	NU BOP; TEST BLIND RAMS & CHOKE MANIFOLD
	MU BIT #2; TIH; TEST HYDRIL; PIPE RAMS
	DRILL PLUG; INSERT; 5' CMT; TEST CSG TO 1500
	DRILL CEMENT & SHOE; DRILL FROM 1766' TO 1776'; TEST FORM.
	DRILLED FROM 1776' TO 1890'
	DRILLED FROM 1890' TO 1984'
	SERVICE RIG
	DRILLED FROM 1984' TO 2512
	SERVICE RIG
	DRILLED FROM 2512' TO 2960'
	SERVICE RIG
	DRILLED FROM 2960' TO 3320'
88 MAY 09	DRILLED FROM 3320' TO 3360'
	SERVICE RIG
	DRILLED FROM 3360' TO 3825'
	SERVICE RIG
	DRILLED FROM 3825' TO 4240'
	SERVICE RIG
	DRILLED FROM 4240' TO 4565'
88 MAY 10	DRILLED FROM 4565' TO 4600'
	SERVICE RIG
	DRILLED FROM 4600' TO 4912'
	SERVICE RIG
	DRILLED FROM 4912' TO 5172'
	SERVICE RIG
	DRILLED FROM 5172' TO 5371'
88 MAY 11	DRILLED FROM 5371' TO 5400'
	SERVICE RIG
	DRILLED FROM 5400' TO 5640'
	RIG SERVICE
	DRILLED FROM 5640' TO 5679'
	SURVYED; TRIP FOR BIT #3; (SLM-NO CORRECTION); REAM & WASH
	DRILLED FROM 5679' TO 5740'

16-31-35W

OPERATOR: MOBIL OIL CORPORATION
FIELD: KS OUTPOST COUNTY: STEVENS
WELL: HE SHULER 2 SECTION: 16-31S-35W
API NO. 1518921185

DATE	REMARKS
88 MAY 11	SERVICE RIG
	DRILLED FROM 5740' TO 5921'
88 MAY 12	DRILLED FROM 5921' TO 5948'
	RIG SERVICE
	DRILLED FROM 5948' TO 5983'
	CIRC SAMPLES AT 5983'
	DRILLED FROM 5983' TO 6004'
	CIRC SAMPLES AT 6004'
	SHORT TRIP 10 STDS (NO FILL)
	CIRC AND COND FOR DST #1
	TOH FOR DST #1
	PICK & MAKE UP TEST TOOL
	TIH W/TEST TOOL; HEAD UP TOOL
	TESTING DST #1
88 MAY 13	TOH W/DST #1 (RECOVERED 180' GAS CUT MUD-OIL;GOOD SHOE OF
	BREAK TEST TOOL DOWN & LOAD OUT TOOL
	TIH W/ BIT #4
	DRILL FROM 6004' TO 6115'
	RIG SERVICE
	DRILL FROM 6115' TO 6250' TD
	CIRC SAMPLES; BOTTOMS UP
	SHORT TRIP, 10 STANDS; NO FILL
	CIRC & COND FOR LOGS
88 MAY 14	SURVEY, TOH FOR LOGS, SLM; NO CORRECTION
	RU & LOG
	LOGGING
	TIH W/ DC'S
	W/O ORDERS FROM GEOLOGIST
	TIH W/ BIT TO COND FOR 5-1/2" CSG
	CIRC & COND MUD TO RUN CSG
	W/O LD MACHINE
	RU & LD MACHINE, LDDP & DC'S, BREAK KELLY
88 MAY 15	RU CSG CREW; RUN 5-1/2" CSG
	FINISH RUNNING 5-1/2" CSG, SET @ 6250'
	CEMENTED 5-1/2" CSG
	CEMENT 5-1/2" CSG
	DROP BOMB, OPEN DV TOOL; CIRC CSG FOR 2ND STAGE
	CEMENT 2ND STAGE (FLOAT HELD)
	ND BOPS, SET 5-1/2" SLIPS
	ND BOPS, SET 5-1/2" SLIPS, CLEAN MUD TANKS; RIG RELEASED

16-31-35W

OPERATOR: MOBIL OIL CORPORATION
FIELD: KS OUTPOST COUNTY: STEVENS
WELL: HE SHULER 2 SECTION: 16-31S-35W
API NO. 1518921185

DATE	
88 MAY 07	CASING_OD 8-5/8" TOP_CSG 0 SHOE_DEPTH 1766
	CMT LEAD W/600 SX CLASS 'C' 65:35:6 LITE; 6% GEL; 3% CACL;
	CMT YIELD 1.99; WTR REQ. 10.97; SLURRY WT 12.4; TAILED W/180 SX
	CMT CLASS 'C'; 2% CACL; YIELD 1.33; WTR REQ. 6.32; SLURRY 14.8
	CMT
	CMT
	CMT
88 MAY 15	CASING_OD 5-1/2" TOP_CSG 0 SHOE_DEPTH 6250
	CMT LEAD: CMT W/ 356 SX 'H' POZ 50-50 + 2% GEL, 1/26 YIELD,
	CMT 5.75 WTR, 14.2 SLURRY WT; TAIL: CMT W/ 484 'H' POZ 50-50,
	CMT 2% GEL, 2% CACL, 1.26 YIELD, 5.75 WTR, 14.2 SLURRY WT; FULL
	CMT CIRC, NO CMT RTNS TO SURF, FLOATS HELD
	CMT
	CMT