



OCD-ARTESIA

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

FEB 07 2008

FORM APPROVED
OMB NO. 1004-0137
Expires March 31, 2007
OCD-ARTESIA

1a Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other										5. Lease Serial No. LC-069157			
b Type of Completion: ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr., Other _____										6. If Indian, Allottee or Tribe Name			
2. Name of Operator Marshall & Winston, Inc.										7. Unit or CA Agreement Name and No.			
3. Address P. O. Box 50880 Midland, TX 79710-0880					3a. Phone No. (include area code) 432-684-6373					8. Lease Name and Well No. Dublin 23 Federal #3			
4. Location of Well (Report location clearly and in accordance with Federal requirements)* At surface 2180' FNL & 1980' FEL, Unit G At top prod. interval reported below Same At total depth Same										9. AFI Well No. 30-015-35729			
14. Date Spudded 09/11/07										15. Date T.D. Reached 09/21/07		10. Field and Pool, or Exploratory Herradura Bend; Delaware, Ea	
16. Date Completed 12/05/07 ☐ D & A ☒ Ready to Prod.										11. Sec., T., R., M, on Block and Survey or Area Sec. 23, T22S, R28E			
18. Total Depth: MD 4550' TVD										19. Plug Back T.D.: MD 4474' TVD		12. County or Parish Eddy	
20. Depth Bridge Plug Set: MD N/A										13. State NM			
21. Type Electric & Other Mechanical Logs Run (Submit copy of each) DLLT/MGRD, DSN/SDL, GR/CCL, CB/VDL										17. Elevations (DF, RKB, RT, GL)* 3184' GL			
22. Was well cored? ☒ No ☐ Yes (Submit analysis) Was DST run? ☐ No ☒ Yes (Submit report) Directional Survey? ☐ No ☒ Yes (Submit copy)													
23. Casing and Liner Record (Report all strings set in well)													
Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cement Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled				
12 1/4"	8 5/8"	32	Surf.	460	--	350 "C"	100	Circ.	0				
7 7/8"	5 1/2"	15.5	Surf.	4515	3193'	925 "C"	317	Circ.	0				
24. Tubing Record													
Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)					
2 3/8"	4201'												
25. Producing Intervals													
Formation		Top	Bottom	Perforated Interval		Size	No. Holes	Perf. Status					
A) Delaware		4232'	4244'	4232-4244'		.35"	24	Producing					
B)													
C)													
D)													
26. Perforation Record													
27. Acid, Fracture, Treatment, Cement Squeeze, etc.													
Depth Interval		Amount and Type of Material											
4232-4244'		Acidz w/ 1000 gal, Frac w/ 17,000 gal + 40,000# 16/30 sand.											
28. Production - Interval A													
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method				
12/5/07	12/14/07	24	→	45	35	111	39.5	.685	Rod Pump				
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status					
--	SI	25#	→	45	35	111	778	Producing					
28a. Production - Interval B													
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method				
			→										
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status					
			→										

(See instructions and spaces for additional data on page 2)

ACCEPTED FOR RECORD
FEB 5 2008
JERRY FANT
PETROLEUM GEOLOGIST



COMPANY : MARSHALL & WINSTON INC.
LEASE : DUBLIN "23" FEDERAL
WELL NO. : # 3
FIELD : HERRADURA BEND (E DEL)
COUNTY/STATE : EDDY / N.M.

TEST DATE : 09/17/07
D.S.T. NO. : 1
TEST TKT. NO. : 24612
INVOICE NO. : 22411
ORDER NO. :

FORMATION : DELAWARE
INTERVAL (ft) : 2807 TO 2870
TOTAL DEPTH (ft) : 2870
ELEVATION (ft) : 3184
HOLE SIZE (in) : 7.875
DRILL PIPE ID (in) : 3.82
DRILL COLLAR ID(in) : 2.25
DRILL COLLAR feet : 540
ANCHOR LENGTH (ft): 63
TOOL LENGTH (ft) : 72
TOOL O.D. (in) : 5
PACKER SIZE (in) : 7.00

RECORDER DATA
AK-1KUSTER / STELLAR

TOP RECORDER: IN
RECORDER NO. : 22027
CAPACITY (psi): 10000
DEPTH (ft) : 2820
CLOCK NO. : 22027
DURATION (hrs): 99

BOTTOM RECORDER: OUT
RECORDER NO. : 13815
CAPACITY (psi): 8275
DEPTH (ft) : 2867
CLOCK NO. : 17908
DURATION (hrs): 24

MUD PROPERTIES

MUD TYPE : CUT BRINE
MUD WT. (#/gal) : 10.0
WATER LOSS (cc) :
FILTER CAKE (in) :
VISCOSITY (sec) : 29
CHLORIDE PPM : 185000
RESISTIVITY(ohm-m): .032

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
STELLAR ELECTRONICS(2)
SUCCESSFUL : YES
PACKER FAILURE : NO
TOOL PLUG : NO

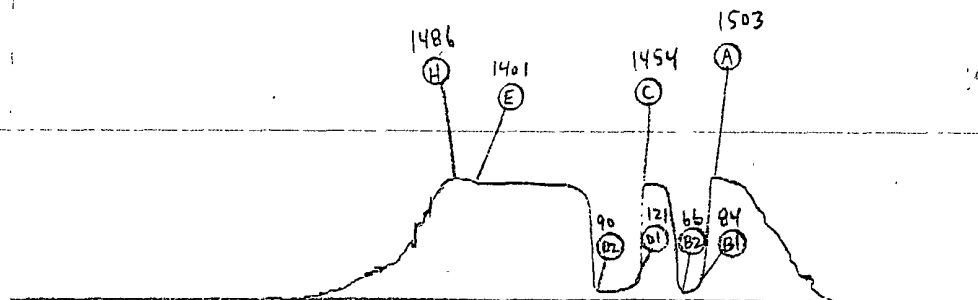
DECIDED NOT TO TEST : NO

FAIL TO REACH BOTTOM : NO

TIME INTERVAL DATA (min)

TOOL OPENED : 2:50 AM
INITIAL FLOW : 31
SECOND FLOW : 60
THIRD FLOW :
TOTAL TEST TIME: 336
INITIAL SHUT-IN: 60
SECOND SHUT-IN : 185
THIRD SHUT IN :

TEST TOOL OPERATOR: TOMMY WILLIAMS



RECOVERY DATA

PIPE RECOVERY
200 FT. OF FAINT GAS IN COLLARS
60 FT. OF DRLG. WATER
182,000 MG/L CHLORIDES - .0325 OHMS @ 85 DEGREES
B.H. TEMP. (deg F) : 85
SAMPLE CHAMBER
75 LBS. OF PRESSURE
0.05 CU. FT. OF GAS
2000 CC'S OF DRLG. WATER
182,000 MG/L CHLORIDES
.0325 OHMS @ 85 DEGREES

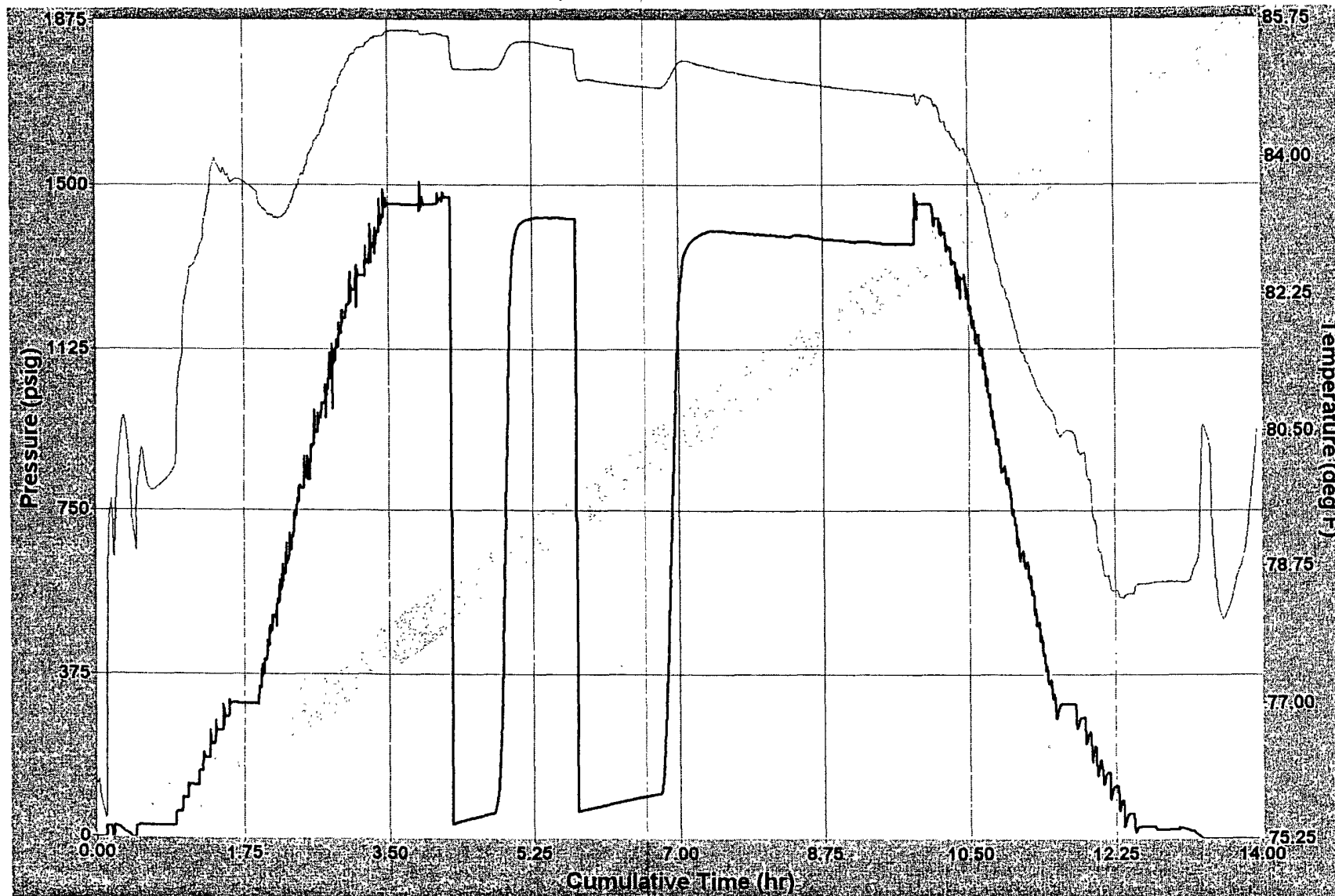
TEST REMARKS

TOOL OPENED WITH VERY WEAK BLOW (TOP OF WATER) & REMAINED THROUGHOUT THE 30 MIN. FIRST FLOW. REOPENED TOOL WITH VERY WEAK BLOW (TOP OF WATER) WHICH BUILT TO (1/2" IN WATER) & REMAINED THROUGHOUT THE 60 MIN. FINAL FLOW.

Company Name MARSHALL & WINSTON INC.
Well Name DUBLIN "23" FEDERAL #3
Type of Test DST #1 (2807-2870 FT.; DELAWARE)
Date(s) of Test 9-17-07



RIG TESTERS, INC. RECORDER# 22027



INCREMENTAL PRESSURE DATA

RECORDER NO : 22027

RECORDER CAPACITY : 10000 psi

RECORDER DEPTH : 2820 ft

ELAPSED TIME ---MIN---	TOTAL FLOW TIME, T ---MIN---	INCREMENTAL SHUT-IN TIME, DT ---MIN---	(T+DT)/DT (HORNOR) -----	PRESSURE ---PSIG---	DELTA P ---PSIG---
FIRST FLOW					
.0	.0			44.70	.00
2.0	2.0			47.75	3.05
4.0	4.0			50.18	5.48
6.0	6.0			52.20	7.50
8.0	8.0			53.97	9.27
10.0	10.0			55.69	10.99
12.0	12.0			57.40	12.70
14.0	14.0			59.15	14.45
16.0	16.0			60.78	16.08
18.0	18.0			62.10	17.40
20.0	20.0			63.55	18.85
22.0	22.0			65.08	20.38
24.0	24.0			66.50	21.80
26.0	26.0			68.07	23.37
28.0	28.0			69.68	24.98
30.0	30.0			71.20	26.50
30.8	30.8			72.00	27.30

FIRST SHUT-IN					
30.8	30.8	.00	.000	72.00	.00
31.3	30.8	.50	62.560	77.55	5.55
31.8	30.8	1.00	31.780	83.29	11.29
32.3	30.8	1.50	21.520	91.20	19.20
32.8	30.8	2.00	16.390	101.16	29.16
33.3	30.8	2.50	13.312	113.55	41.55
33.8	30.8	3.00	11.260	127.80	55.80
34.3	30.8	3.50	9.794	148.50	76.50
34.8	30.8	4.00	8.695	172.38	100.38
35.3	30.8	4.50	7.840	206.80	134.80
35.8	30.8	5.00	7.156	252.23	180.23
36.8	30.8	6.00	6.130	364.60	292.60
37.8	30.8	7.00	5.397	505.50	433.50
38.8	30.8	8.00	4.848	663.41	591.41
39.8	30.8	9.00	4.420	828.00	756.00
40.8	30.8	10.00	4.078	980.12	908.12
42.8	30.8	12.00	3.565	1228.10	1156.10
44.8	30.8	14.00	3.199	1342.22	1270.22
46.8	30.8	16.00	2.924	1389.14	1317.14
48.8	30.8	18.00	2.710	1412.20	1340.20
50.8	30.8	20.00	2.539	1423.27	1351.27
53.8	30.8	23.00	2.338	1431.14	1359.14
56.8	30.8	26.00	2.184	1434.52	1362.52
59.8	30.8	29.00	2.061	1436.82	1364.82
62.8	30.8	32.00	1.962	1438.80	1366.80
65.8	30.8	35.00	1.879	1438.70	1366.70

INCREMENTAL PRESSURE DATA

RECORDER NO : 22027

RECORDER CAPACITY : 10000 psi

RECORDER DEPTH : 2820 ft

ELAPSED TIME ---MIN---	TOTAL FLOW TIME, T ---MIN---	INCREMENTAL SHUT-IN TIME, DT ---MIN---	(T+DT)/DT (HORNER) -----	PRESSURE ---PSIG---	DELTA P ---PSIG---
FIRST SHUT-IN					
68.8	30.8	38.00	1.810	1438.48	1366.48
71.8	30.8	41.00	1.751	1437.90	1365.90
74.8	30.8	44.00	1.700	1438.50	1366.50
77.8	30.8	47.00	1.655	1438.28	1366.28
80.8	30.8	50.00	1.616	1437.89	1365.89
83.8	30.8	53.00	1.581	1436.48	1364.48
86.8	30.8	56.00	1.550	1435.60	1363.60
89.8	30.8	59.00	1.522	1436.03	1364.03
90.5	30.8	59.76	1.515	1436.40	1364.40
SECOND FLOW					
91.0	31.3			75.30	.00
94.0	34.3			78.10	2.80
97.0	37.3			80.30	5.00
100.0	40.3			82.50	7.20
103.0	43.3			84.60	9.30
106.0	46.3			86.80	11.50
109.0	49.3			89.10	13.80
112.0	52.3			91.40	16.10
115.0	55.3			93.40	18.10
118.0	58.3			95.40	20.10
121.0	61.3			97.50	22.20
124.0	64.3			99.70	24.40
127.0	67.3			101.80	26.50
130.0	70.3			103.90	28.60
133.0	73.3			106.00	30.70
136.0	76.3			108.10	32.80
139.0	79.3			109.80	34.50
142.0	82.3			111.90	36.60
145.0	85.3			113.90	38.60
148.0	88.3			115.80	40.50
151.3	91.5			118.00	42.70
SECOND SHUT-IN					
151.3	91.5	.00	.000	118.00	.00
152.3	91.5	1.00	92.500	141.63	23.63
153.3	91.5	2.00	46.750	184.47	66.47
154.3	91.5	3.00	31.500	242.30	124.30
155.3	91.5	4.00	23.875	315.43	197.43
156.3	91.5	5.00	19.300	406.27	288.27

INCREMENTAL PRESSURE DATA

RECORDER NO : 22027

RECORDER CAPACITY : 10000 psi

RECORDER DEPTH : 2820 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 SHUT-IN					
157.3	91.5	6.00	16.250	500.10	382.10
158.3	91.5	7.00	14.071	599.44	481.44
159.3	91.5	8.00	12.438	708.02	590.02
160.3	91.5	9.00	11.167	814.80	696.80
161.3	91.5	10.00	10.150	921.62	803.62
163.3	91.5	12.00	8.625	1122.20	1004.20
165.3	91.5	14.00	7.536	1255.54	1137.54
167.3	91.5	16.00	6.719	1320.93	1202.93
169.3	91.5	18.00	6.083	1354.10	1236.10
171.3	91.5	20.00	5.575	1370.48	1252.48
174.3	91.5	23.00	4.978	1383.76	1265.76
177.3	91.5	26.00	4.519	1392.65	1274.65
180.3	91.5	29.00	4.155	1398.15	1280.15
183.3	91.5	32.00	3.859	1403.23	1285.23
186.3	91.5	35.00	3.614	1406.92	1288.92
189.3	91.5	38.00	3.408	1408.30	1290.30
196.3	91.5	45.00	3.033	1408.80	1290.80
201.3	91.5	50.00	2.830	1407.09	1289.09
206.3	91.5	55.00	2.664	1404.70	1286.70
211.3	91.5	60.00	2.525	1403.60	1285.60
216.3	91.5	65.00	2.408	1402.60	1284.60
221.3	91.5	70.00	2.307	1400.82	1282.82
226.3	91.5	75.00	2.220	1400.40	1282.40
231.3	91.5	80.00	2.144	1399.41	1281.41
236.3	91.5	85.00	2.076	1398.22	1280.22
241.3	91.5	90.00	2.017	1396.50	1278.50
246.3	91.5	95.00	1.963	1394.79	1276.79
251.3	91.5	100.00	1.915	1398.30	1280.30
256.3	91.5	105.00	1.871	1397.50	1279.50
261.3	91.5	110.00	1.832	1395.39	1277.39
266.3	91.5	115.00	1.796	1391.91	1273.91
271.3	91.5	120.00	1.763	1389.10	1271.10
276.3	91.5	125.00	1.732	1388.30	1270.30
281.3	91.5	130.00	1.704	1386.50	1268.50
286.3	91.5	135.00	1.678	1386.20	1268.20
291.3	91.5	140.00	1.654	1383.90	1265.90
296.3	91.5	145.00	1.631	1384.40	1266.40
301.3	91.5	150.00	1.610	1383.60	1265.60
306.3	91.5	155.00	1.590	1382.20	1264.20
311.3	91.5	160.00	1.572	1380.22	1262.22



RIG
TESTERS, INC.

DUBLIN "23" FEDERAL # 3
D.S.T. NO. : 1

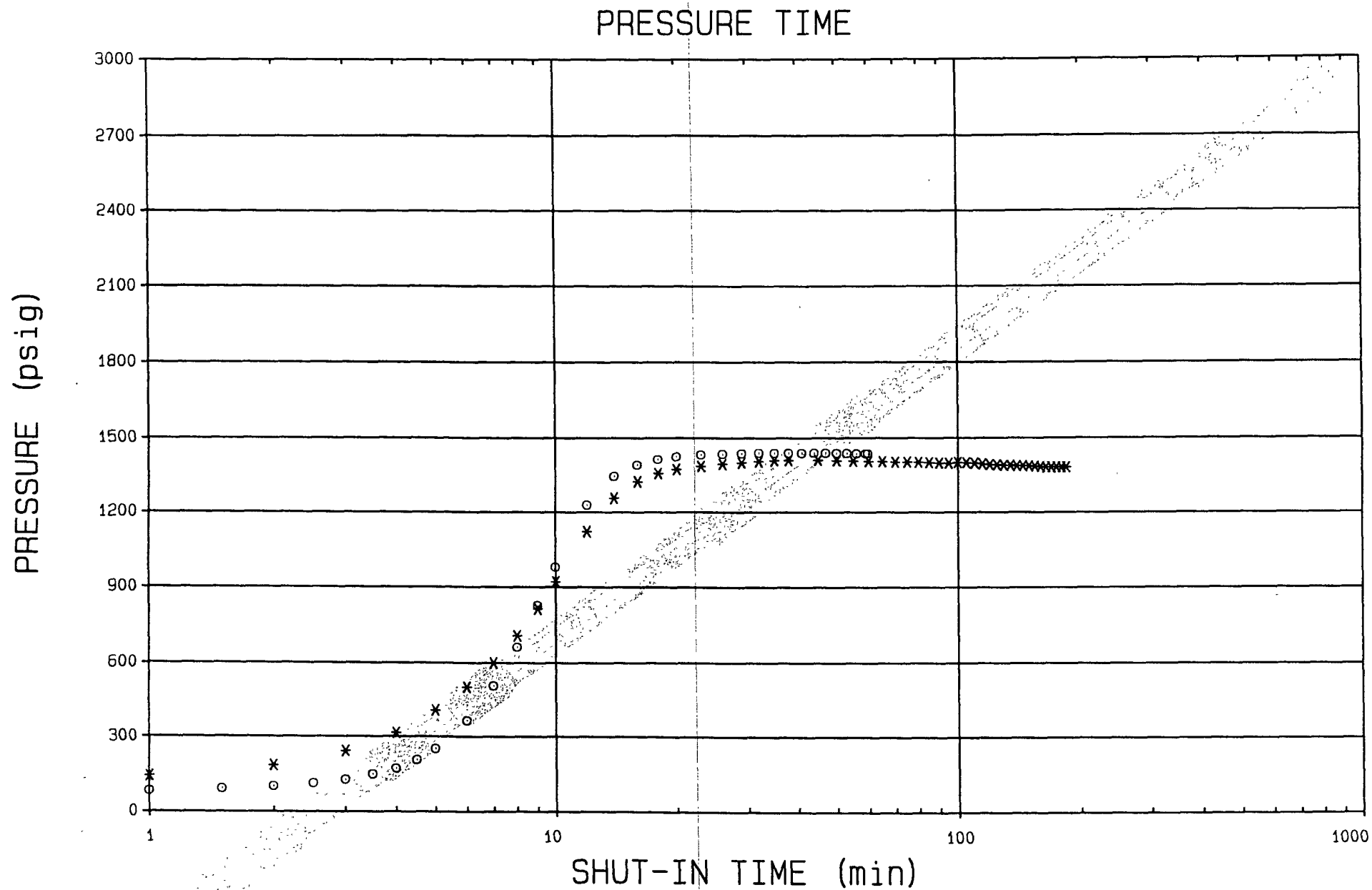
RECORDER NO : 22027

RECORDER CAPACITY : 10000 psi

RECORDED DEPTH : 2820 ft

ELAPSED TIME	TOTAL FLOW TIME, T	INCREMENTAL SHUT-IN TIME, DT	(T+DT)/DT (HORNER)	PRESSURE	DELTA P
---MIN---	---MIN---	---MIN---	-----	---PSIG---	---PSIG---
		SECOND SHUT-IN			
316.3	91.5	165.00	1.555	1378.60	1260.60
321.3	91.5	170.00	1.538	1378.19	1260.19
326.3	91.5	175.00	1.523	1379.10	1261.10
331.3	91.5	180.00	1.508	1378.30	1260.30
336.0	91.5	184.74	1.495	1379.10	1261.10

THE INCREMENTAL DATA, PLOTS AND ANALYSIS ARE FROM THE ELECTRONIC RECORDER
PLEASE REFER TO DERIVATIVE DIAGNOSTICS ANALYSIS FOR FURTHER INFORMATION.
PRESSURE ASCII FILES ARE AVAILABLE E-MAIL OR DISKETTE UPON REQUEST



MARSHALL & WINSTON INC.
DUBLIN "23" FEDERAL # 3

Well Test Report

RigTesters, Inc.
ABILENE - MIDLAND - GRAHAM

MARSHALL & WINSTON INC. DUBLIN "23" FEDERAL #3

Well identification

Well ID	DUBLIN"23"FED #3	Well location	S.E. CARLSBAD
County/District	EDDY	State, Country	NEW MEXICO
Company	M& WINSTON INC.	Division	MIDLAND

Fluid properties

Prod/Inj fluid	OIL	GOR	500:1
Water cut	0%	Condensate yield	UNKNOWN
API gravity	40.0	Gas spec. grav.	0.7
Viscosity	1.6521 cp	Pseudo-critical T	382.97 deg R
Pseudo-critical P	664.37 psia	H2S mole fraction	UNKNOWN
CO2 mole fraction	UNKNOWN	N2 mole fraction	UNKNOWN
Compressibility(t)	16.012 e-6/psi	Formation vol factor	1.2054 RB/STB

Reservoir properties

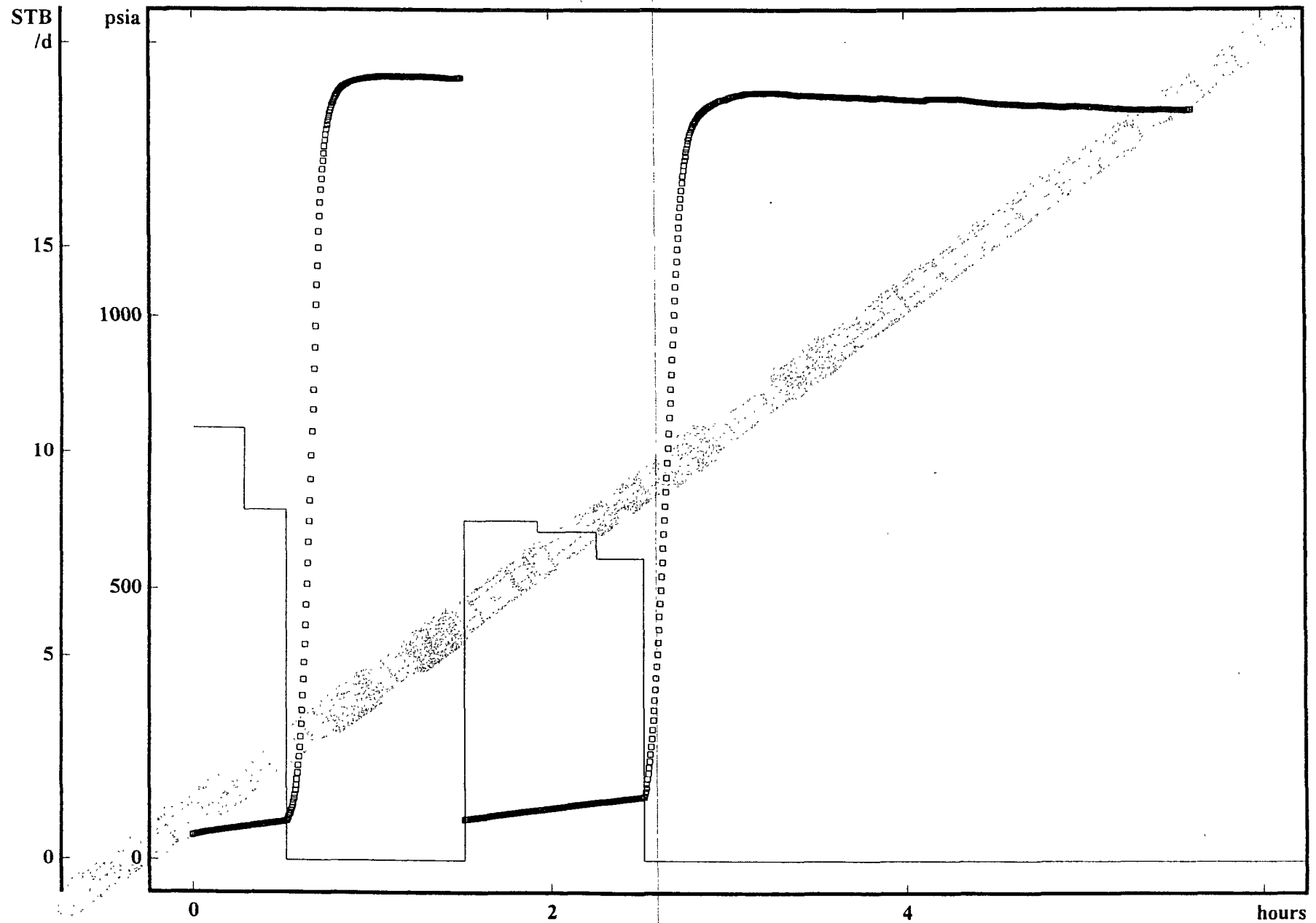
Porosity	0.14 frac	Formation thickness	26 ft
Wellbore radius	0.32813 ft	Prod-observer distance	N/A
Water-Oil Contact	UNKNOWN	Gas-Oil Contact	N/A
Gas-Water Contact	N/A	Rock compressibility	
Reservoir temperature	85 deg F	Pressure for properties	1439 psia

Comments

THE DERIVATIVES INDICATE A HETEROGENEOUS RESERVOIR WITH LOW PERMEABILITY AND HIGH SKIN. NEITHER SHUT-IN PERIOD HAD OBTAINED TRUE RADIAL FLOW DUE TO THE CROSSFLOW EFFECT FROM MULTIPLE POROSITIES AND THE RELIABILITY OF CALCULATIONS (EXTRAPOLATIONS, PERMEABILITY AND SKIN) MAY BE SUBJECT TO QUESTION. THE FIXED PARAMETERS USED WERE AN EST. 14% POROSITY, 26 FT. OF NET PAY REPORTED AND AN AVERAGE (TIME WEIGHTED) PRODUCTION OF 8 BBLs. OF FLUID FOR THE FINAL FLOW PERIOD. THE RATES WERE BASED ON DENSITY OF FLUID RECOVERED VS. FLOWING PRESSURES. THE TOTAL RADIUS OF INVESTIGATION CALCULATED TO APPROX. 30 FT. FROM WELLBORE.

MARSHALL & WINSTON INC. DUBLIN "23" FEDERAL #3

Pressure and flow rate vs time during test sequence

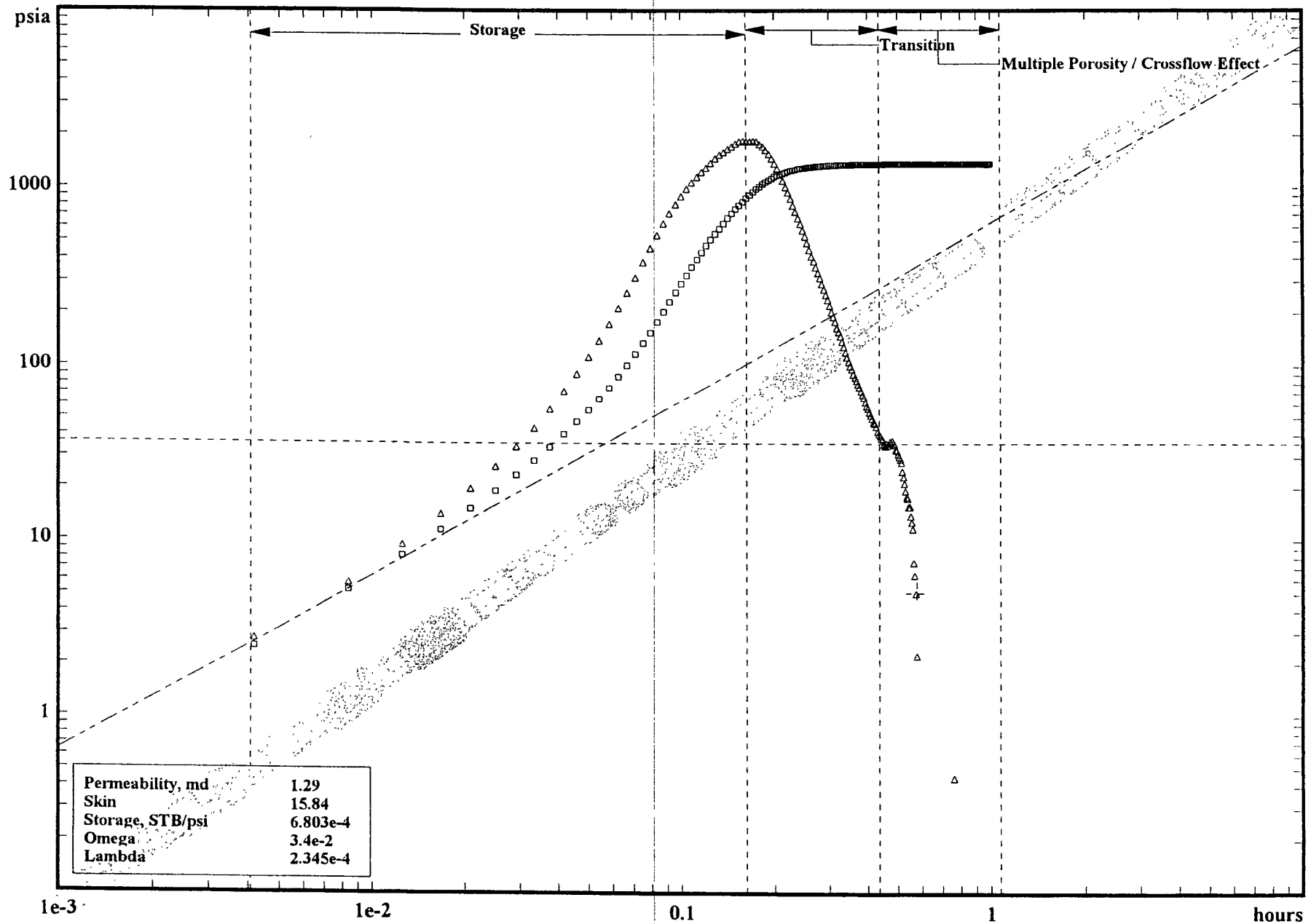


DST #1 2807 - 2870 FT.; DELAWARE SAND



MARSHALL & WINSTON INC. DUBLIN "23" FEDERAL #3

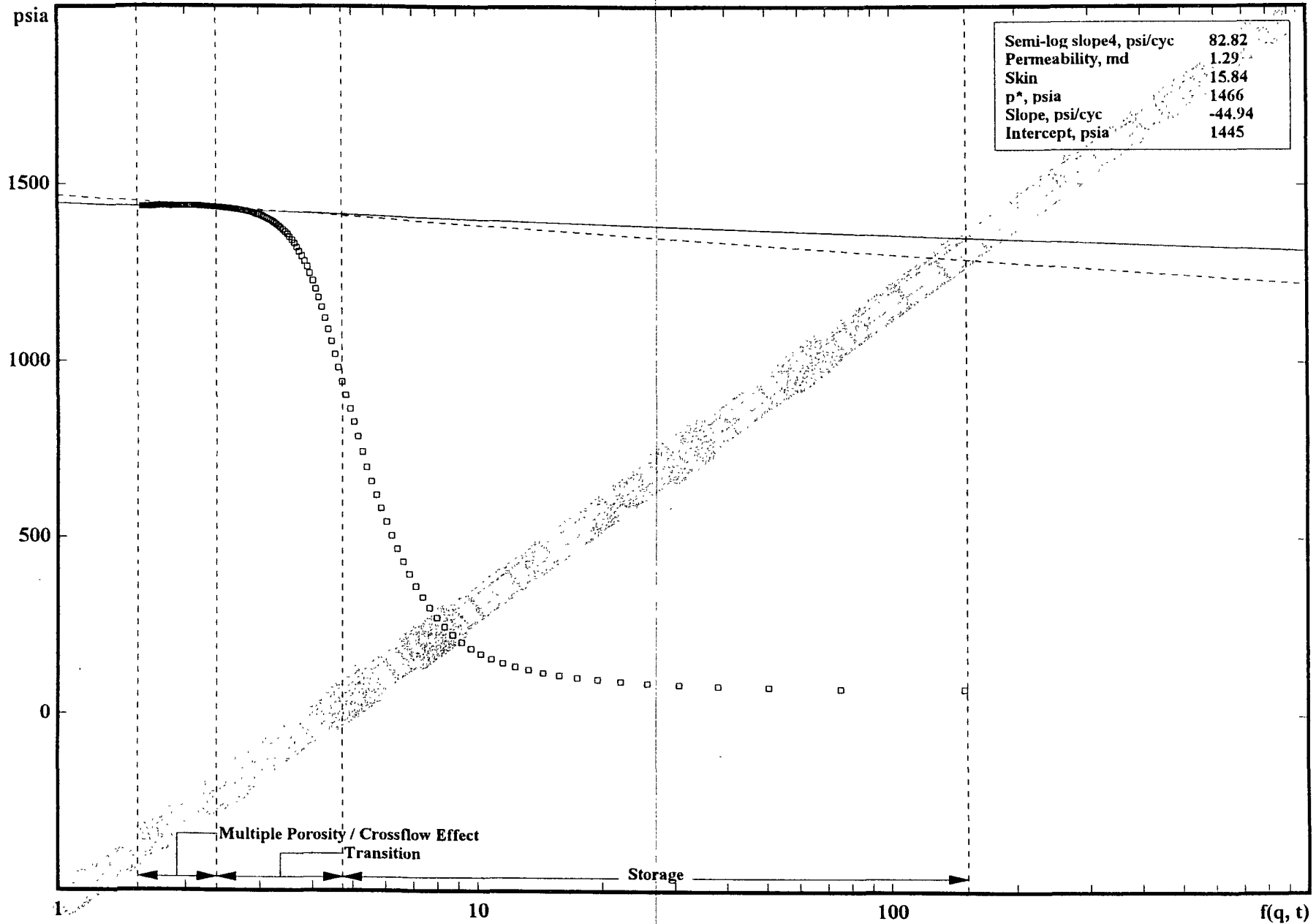
Diagnostic plot (pressure & time)



INITIAL SHUT-IN PERIOD DST#1

MARSHALL & WINSTON INC. DUBLIN "23" FEDERAL #3

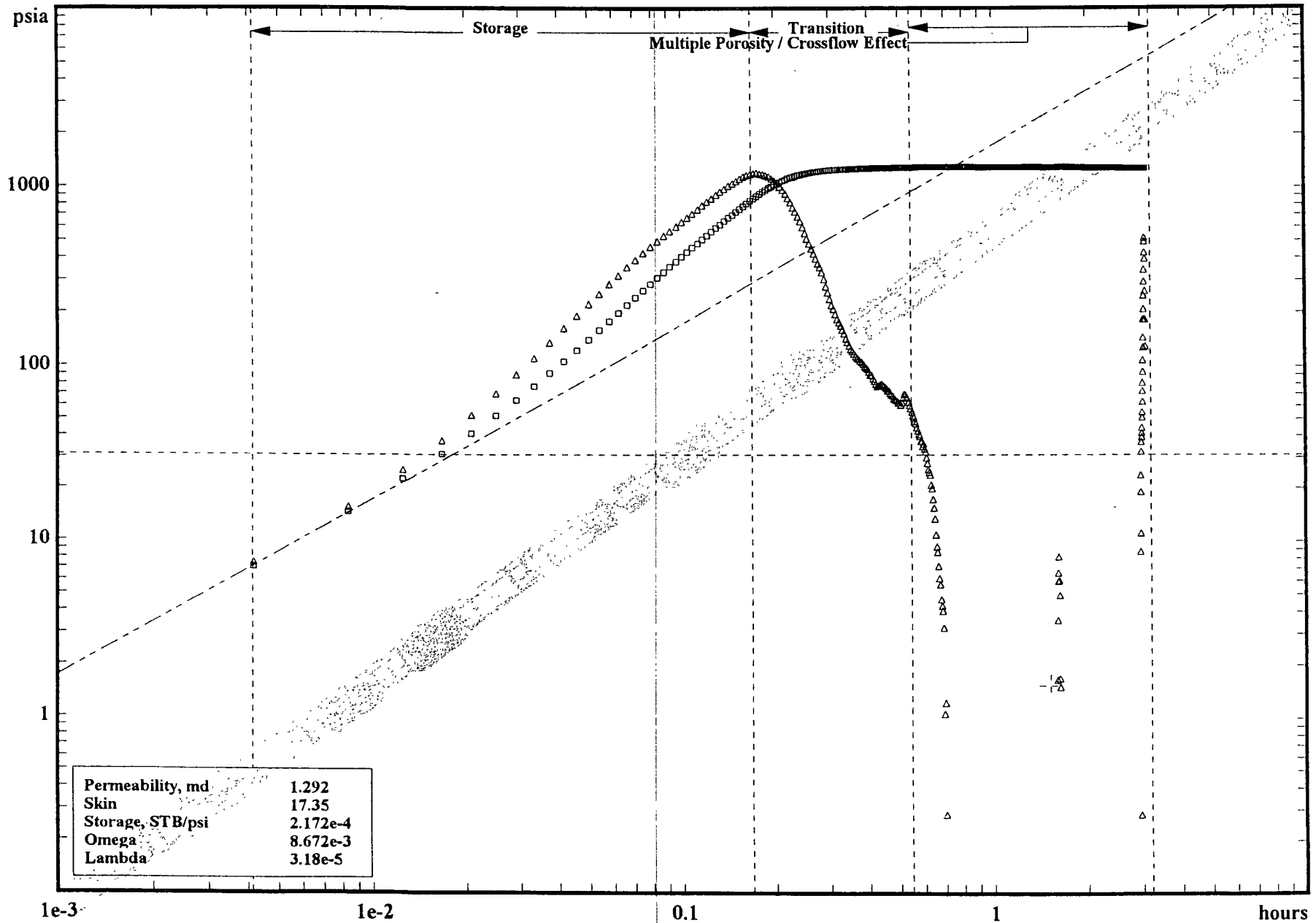
Variable rate Horner plot (pressure & time)



INITIAL SHUT-IN PERIOD DST#1

MARSHALL & WINSTON INC. DUBLIN "23" FEDERAL #3

Diagnostic plot (pressure & time)

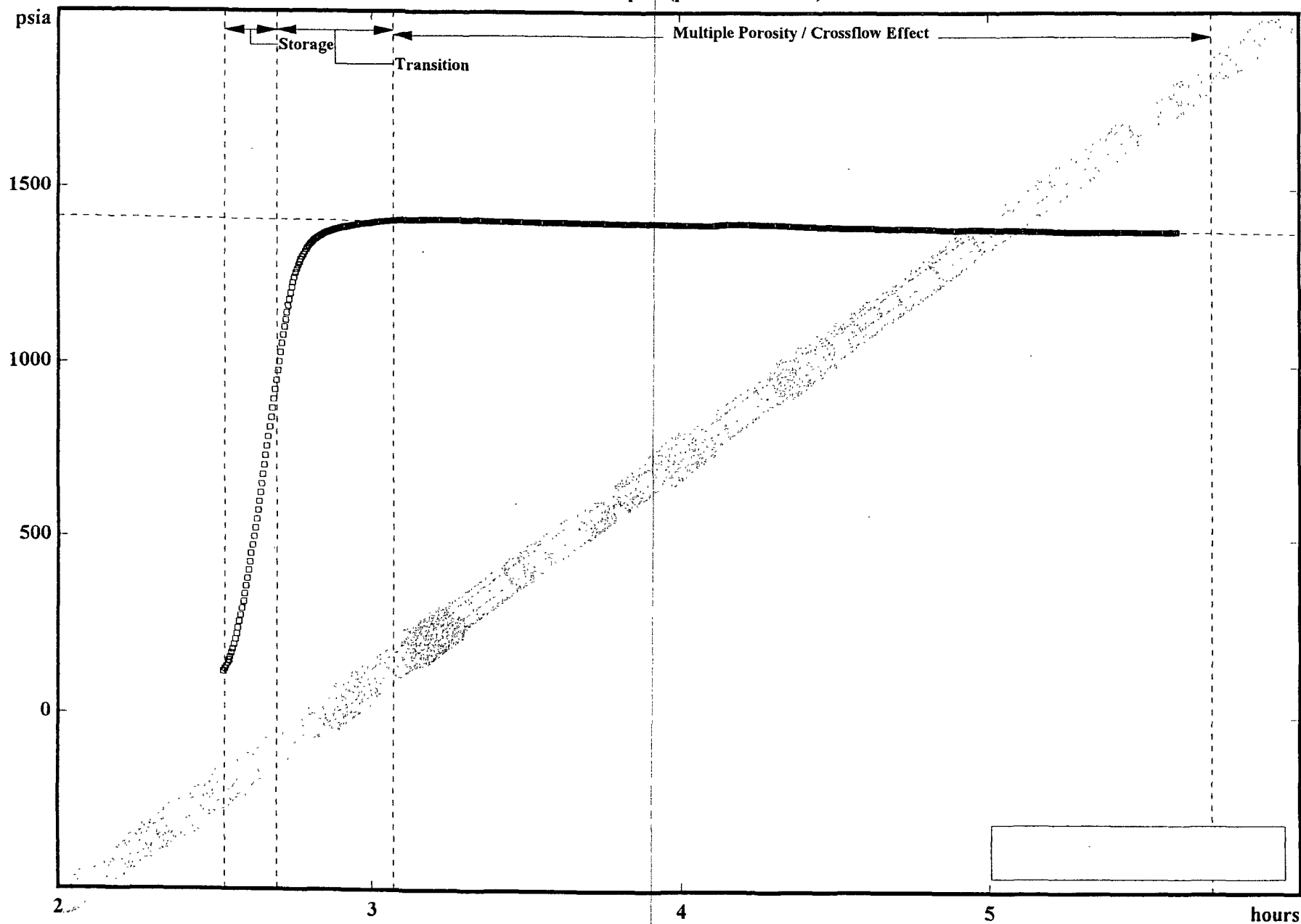


FINAL SHUT-IN PERIOD DST#1



MARSHALL & WINSTON INC. DUBLIN "23" FEDERAL #3

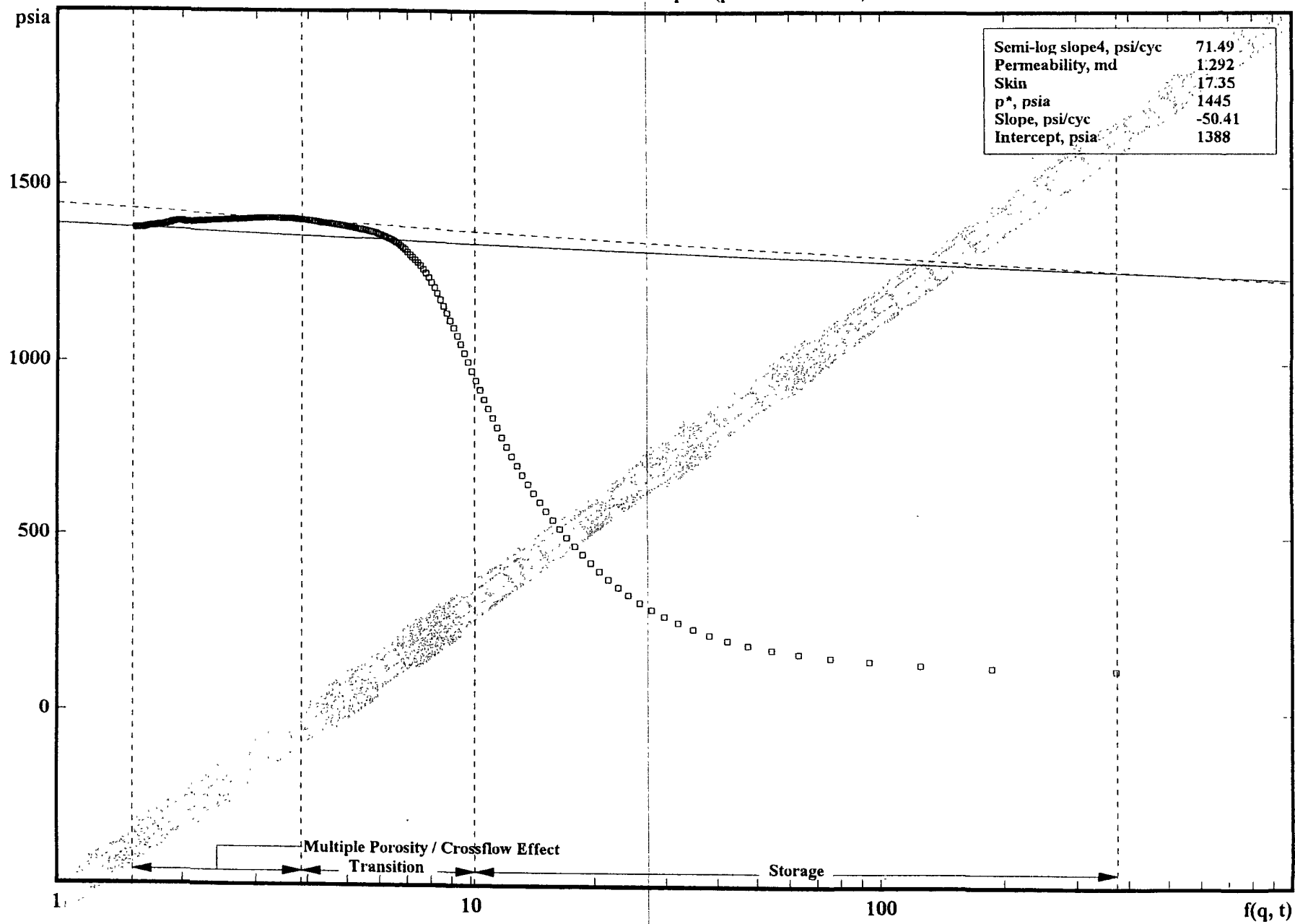
Cartesian plot (pressure & time)



FINAL SHUT-IN PERIOD DST#1

MARSHALL & WINSTON INC. DUBLIN "23" FEDERAL #3

Variable rate Horner plot (pressure & time)



FINAL SHUT-IN PERIOD DST#1



WELL NAME AND NUMBER **Dublin 23 Federal # 3**

LOCATION **Section 23, T 22S, R 28E, 2180FNL, 1980 FEL, Eddy County**

OPERATOR **Marshall & Winston, Inc.**

DRILLING CONTRACTOR **United Drilling, Inc.**

The undersigned hereby certifies that he is an authorized representative of the drilling contractor who drilled the above described well and had conducted deviation test and obtained the following results:

Degrees @ Depth	Degrees @ Depth	Degrees @ Depth
1/4 @ 253'		
3/4 @ 464'		
3/4 @ 963'		
3/4 @ 1466'		
2 @ 1969'		
1 3/4 @ 2195'		
2 @ 2509'		
2 1/3 @ 2698'		
1 @ 2918'		
1/4 @ 3422'		
3/4 @ 3925'		
3/4 @ 4430'		
3/4 @ 4524'		

Drilling Contractor- **UNITED DRILLING, INC.**

By:

Luisa Garcia
(Luisa Garcia)

Title:

Assistant Office Manger

Subscribed and sworn to before me this 25 day of September 2007

James A. Chaves
Notary Public
Chaves NM
County State

My Commission Expires:

10-8-08