I. What are proper assumptions for characterizing well performance?

--Tests performed and data from test (pressure vs time only)

II. . What analyses have been done that can characterize this performance?

--BP

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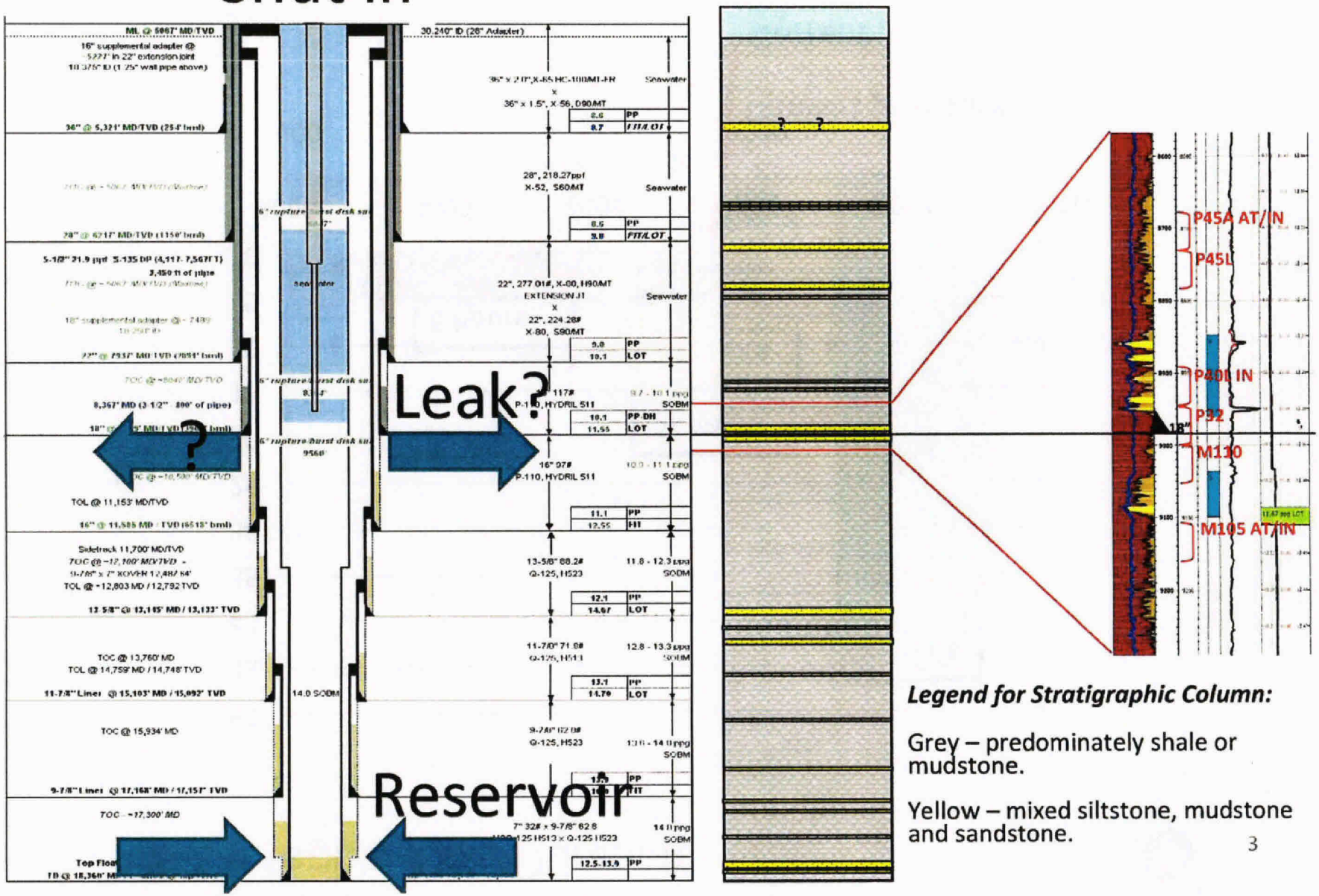
Reference Geometry -Below Mudline Shut In



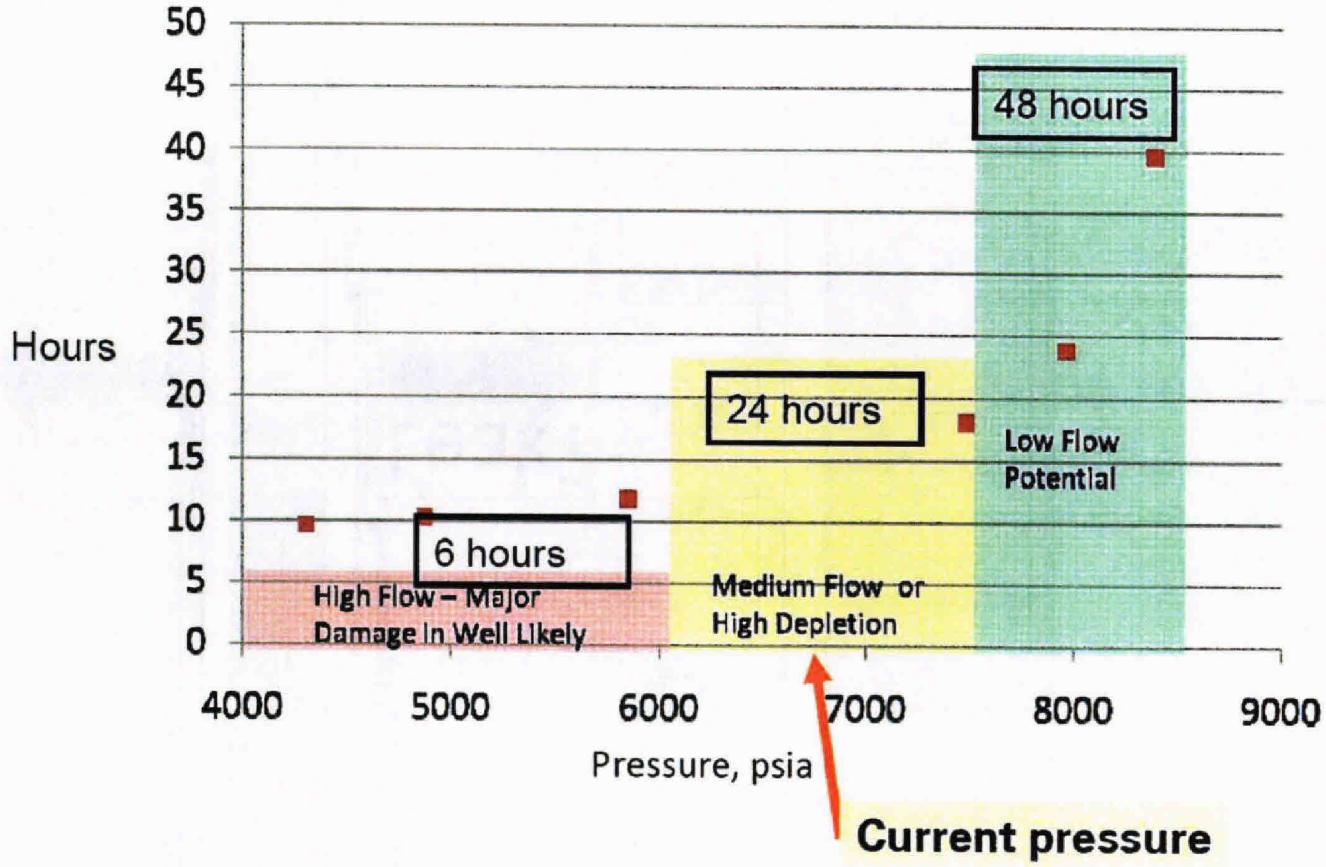
Legend for Stratigraphic Column:

Grey – predominately shale or mudstone.

Yellow – mixed siltstone, mudstone and sandstone.

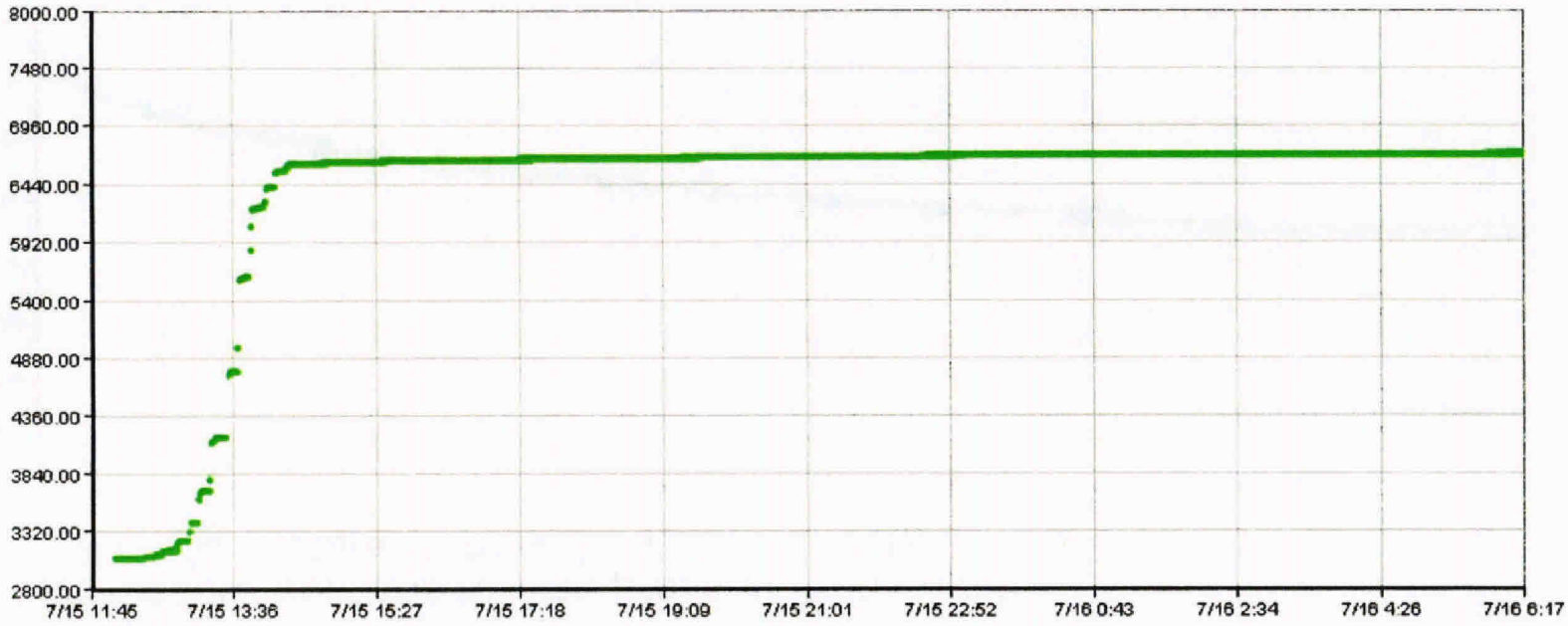
IGS075-018205

Well Integrity Test Duration



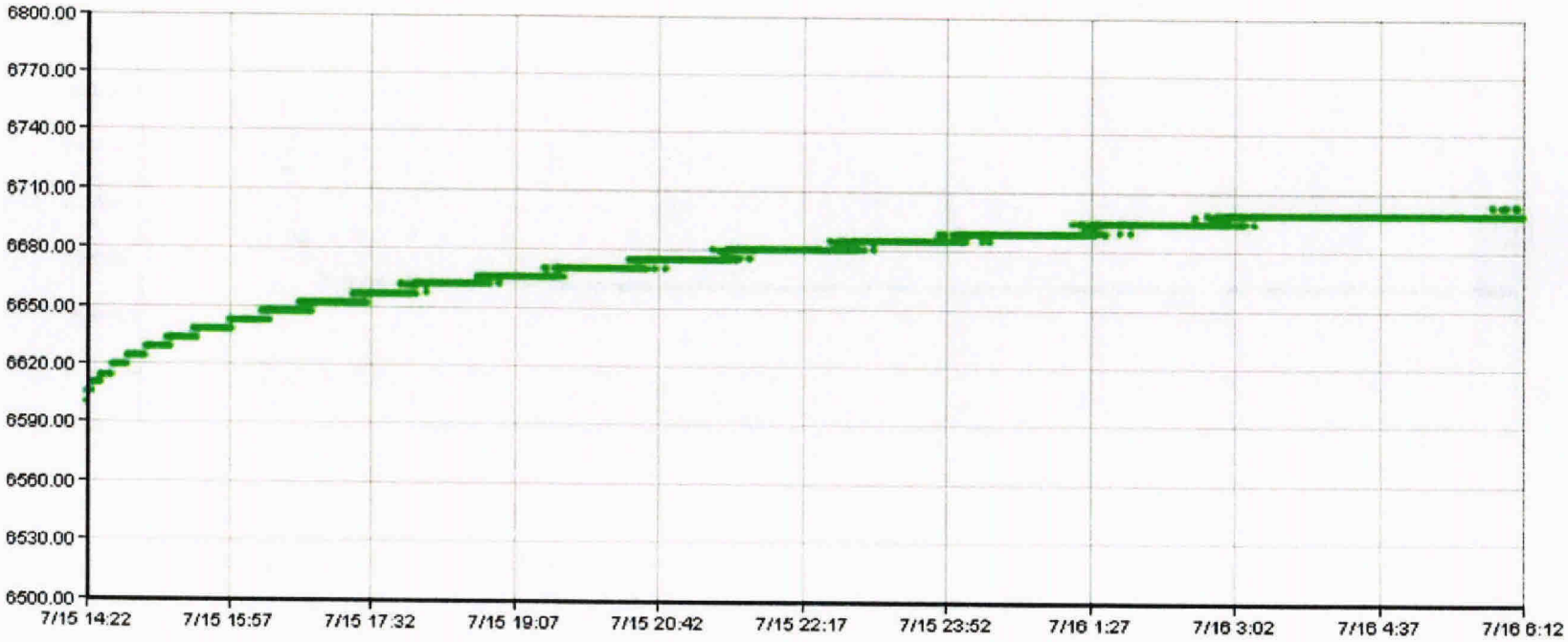
Data

Pressure from the Kill line pressure transmitter
(from 11:45hrs 15th July)



Data

Pressure from the Kill line pressure transmitter
(from full closure of choke @ 14:22hr 15th July)



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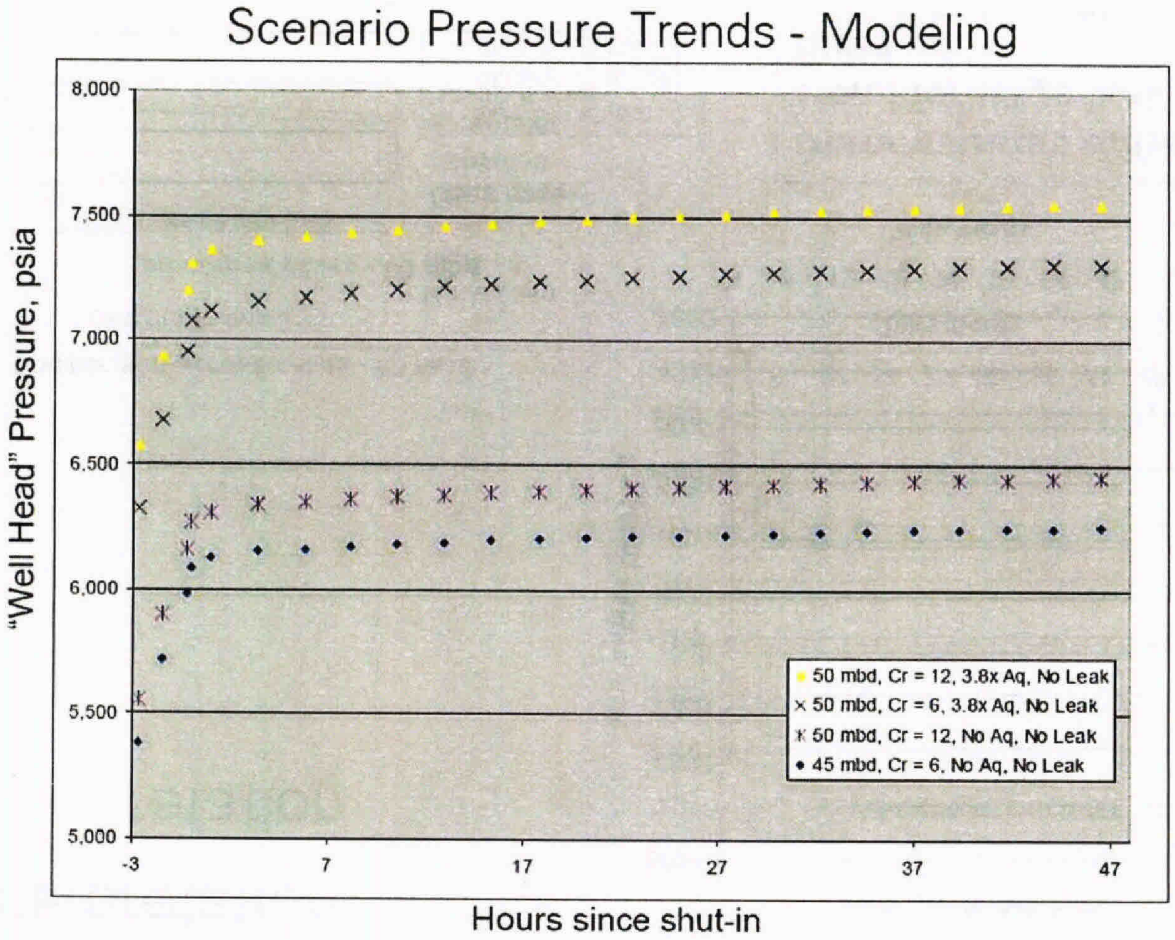
Depletion Analysis - BP

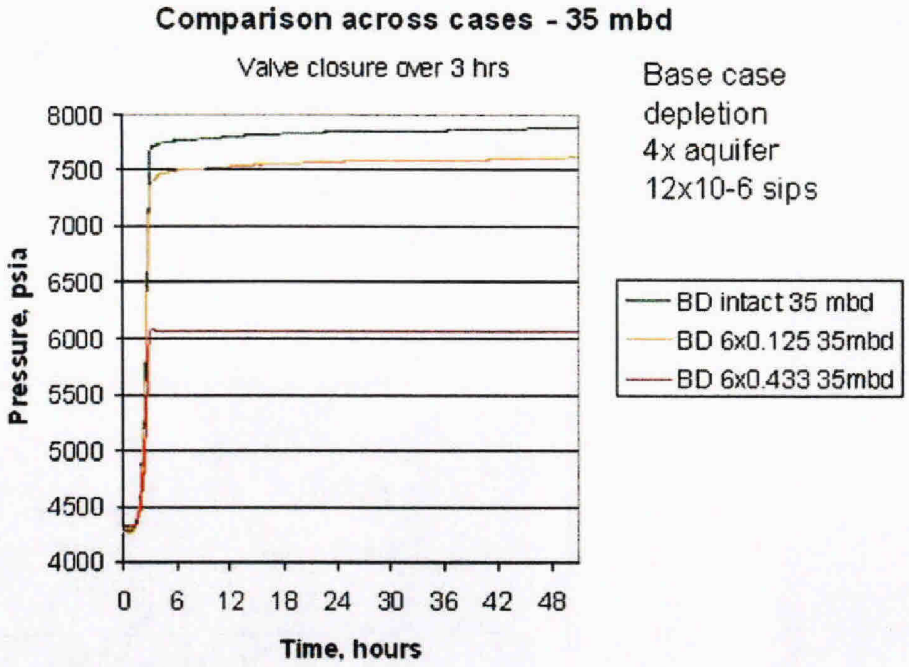
BP

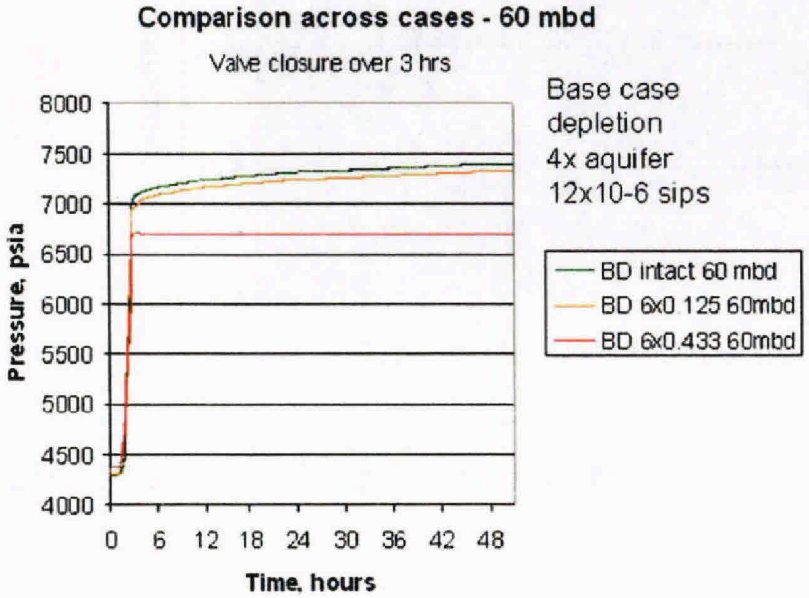
Interpretation

Demonstrates that observed pressures are in line with reasonable cases modeled



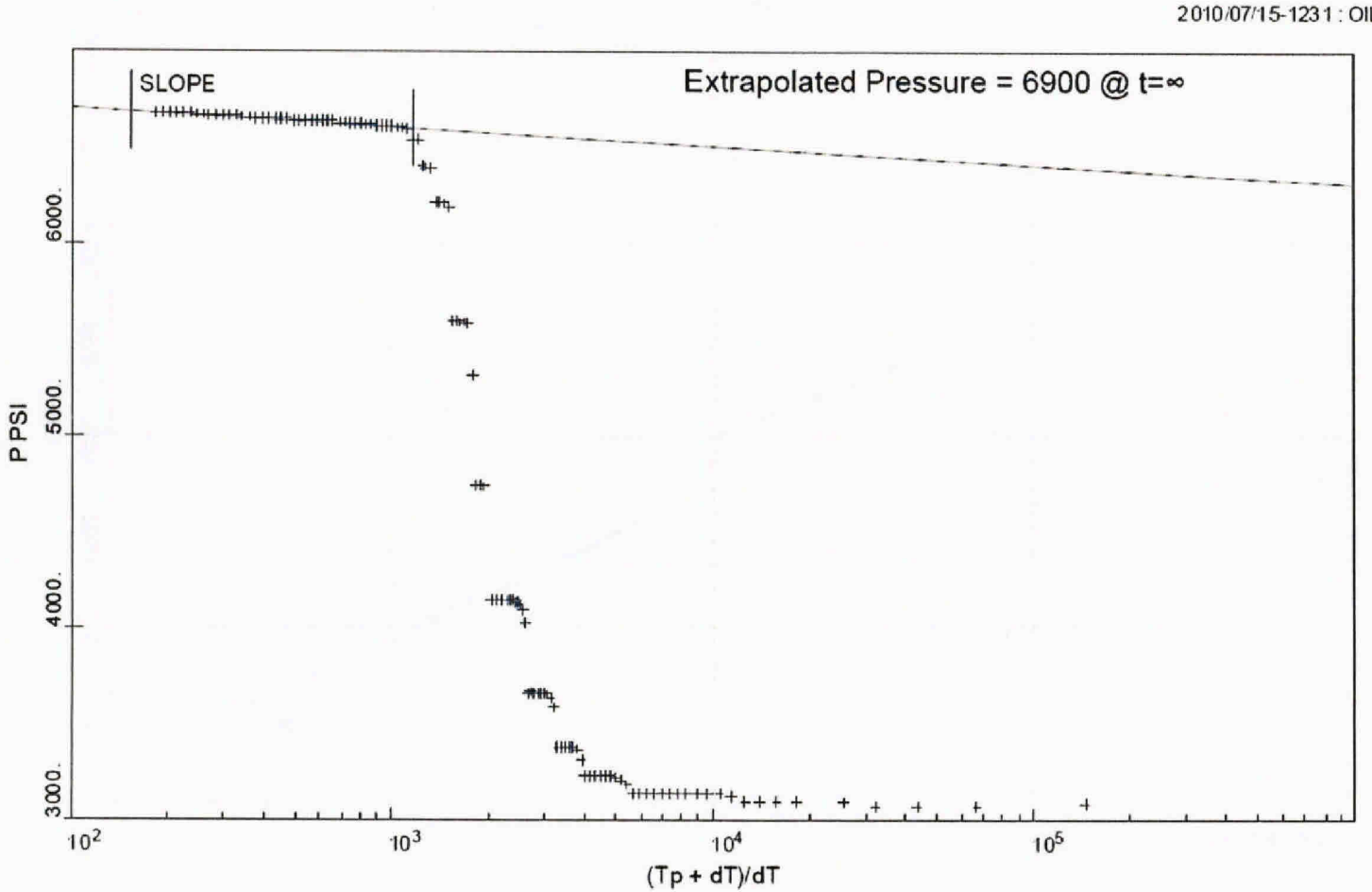
Interpretation





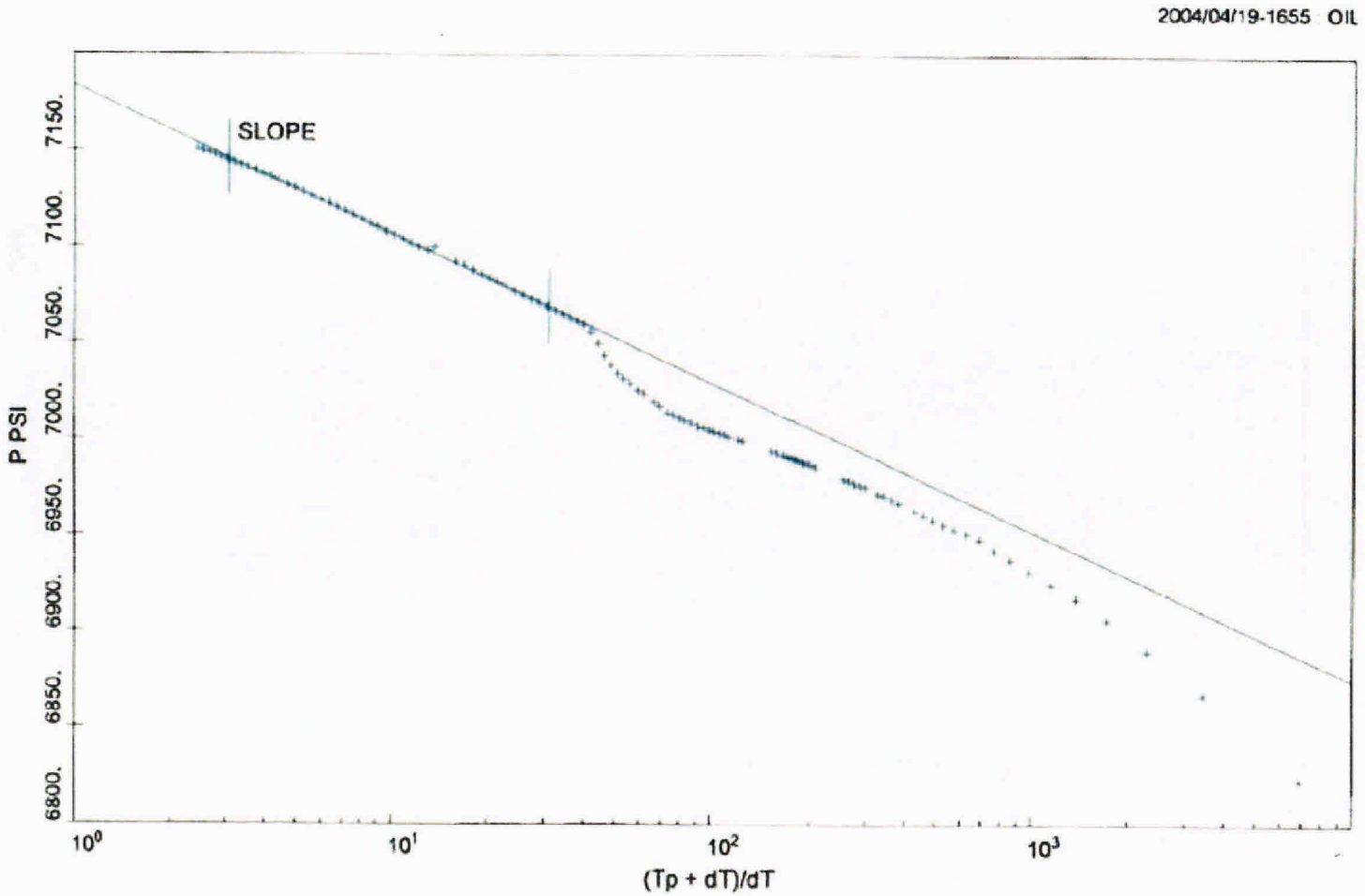
Demonstrates difference in trend for large leak vs. pressure build up.

Horner Plot – Including Data to 0:00 7/16



Macondo Macondo Test

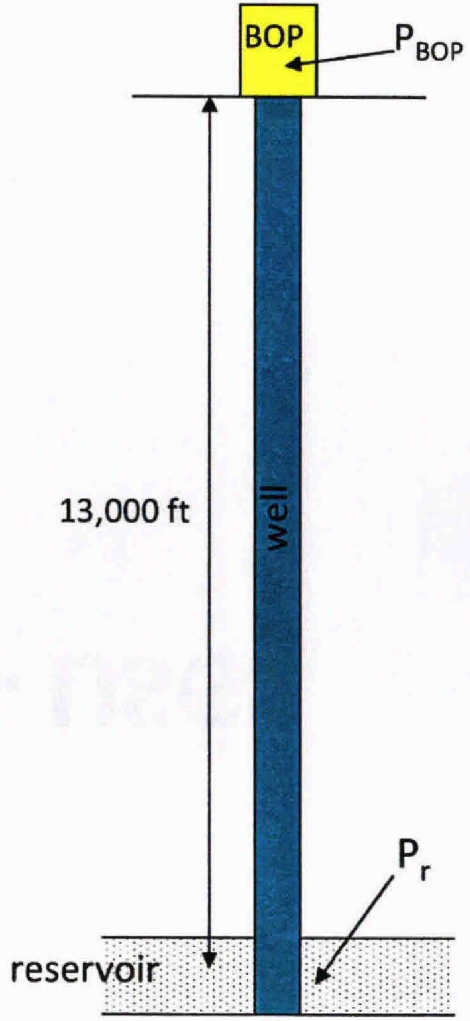
Horner Plot (Thunderhorse)



Depletion Analysis - USGS

Available Data

- Initial (pre-production) reservoir pressure:
  P_r = 11,850 psi
- Oil gradient = 0.25 psi/ft
- Initial pressure at BOP (static condictions):
  $P_{BOP} = P_r - (13{,}000 \text{ ft} \times 0.25 \text{ psi/ft}) = 8{,}600 \text{ psi}$
- Final shut-in pressure at BOP = 6,700 psi
- Reservoir depletion = 1,900 psi

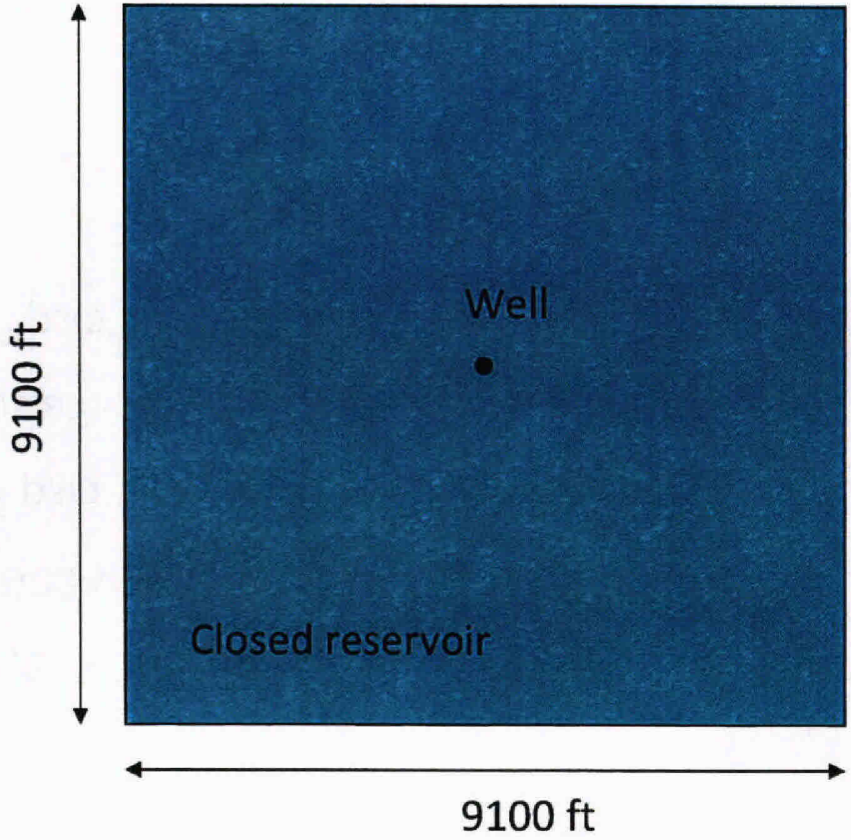


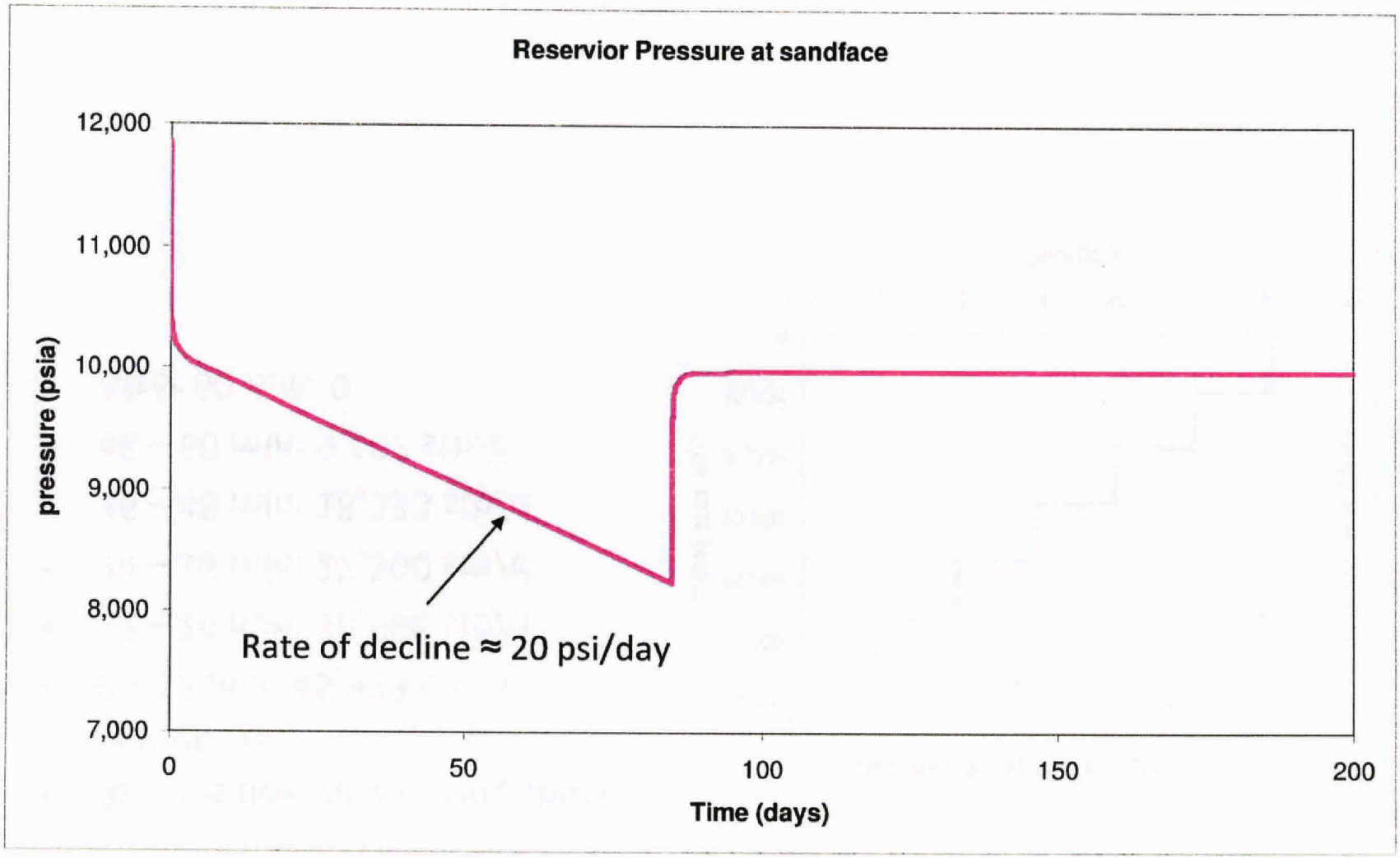
Depletion Calculation (without aquifer drive)

- Production rate = 55,000 stb/d
- Total production in 85 days = V_p = 4,675,000 stb
- Original Oil in Place = V_o = 110,000,000 stb
- Rock compressibility = $C_r = 12 \times 10^{-6}$ psia^{-1}
- Oil compressibility = $C_o = 12 \times 10^{-6}$ psia^{-1}
- Water compressiblity = $C_w = 3 \times 10^{-6}$ psia^{-1}
- Water saturation = $S_w = 0.1$
- Total Compressibility = $C_T = (1 - S_w)C_o + S_wC_w + C_r$
  $= 23 \times 10^{-6}$ psia^{-1}
- Pressure depletion = $V_p / V_o / C_T$ = 1,850 psi

Single-phase oil flow simulation

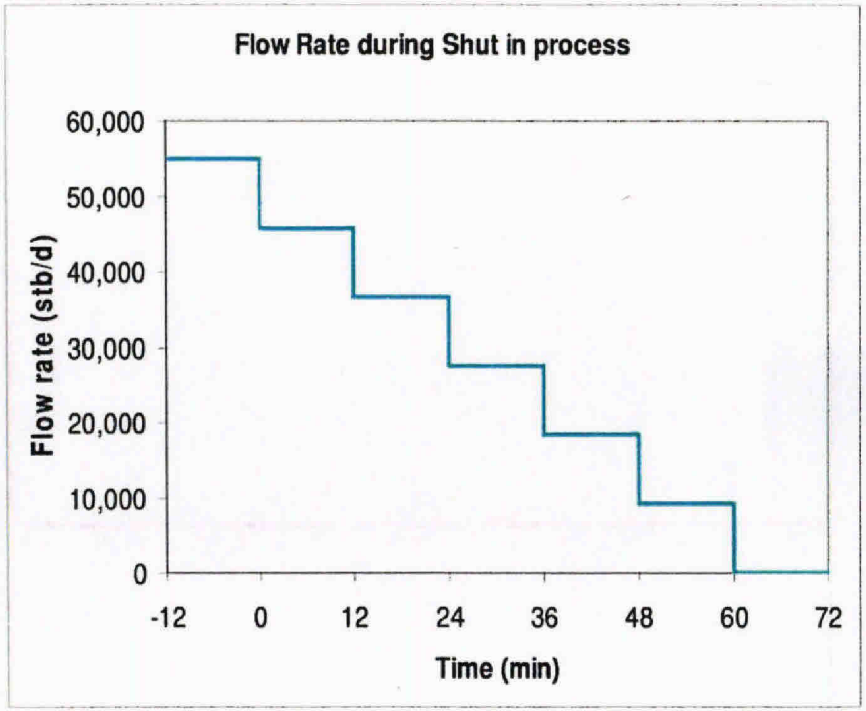
- No casing damage
- Reservoir thickness = 93 ft
- Permeability = 220 md
- Porosity = 20%
- Total Compressibility = 23×10^{-6} psi^{-1}
- Production rate = 55,000 stb/d for 95 days
- Oil viscosity = 0.21 cp
- Oil density = 0.568 gm/cc

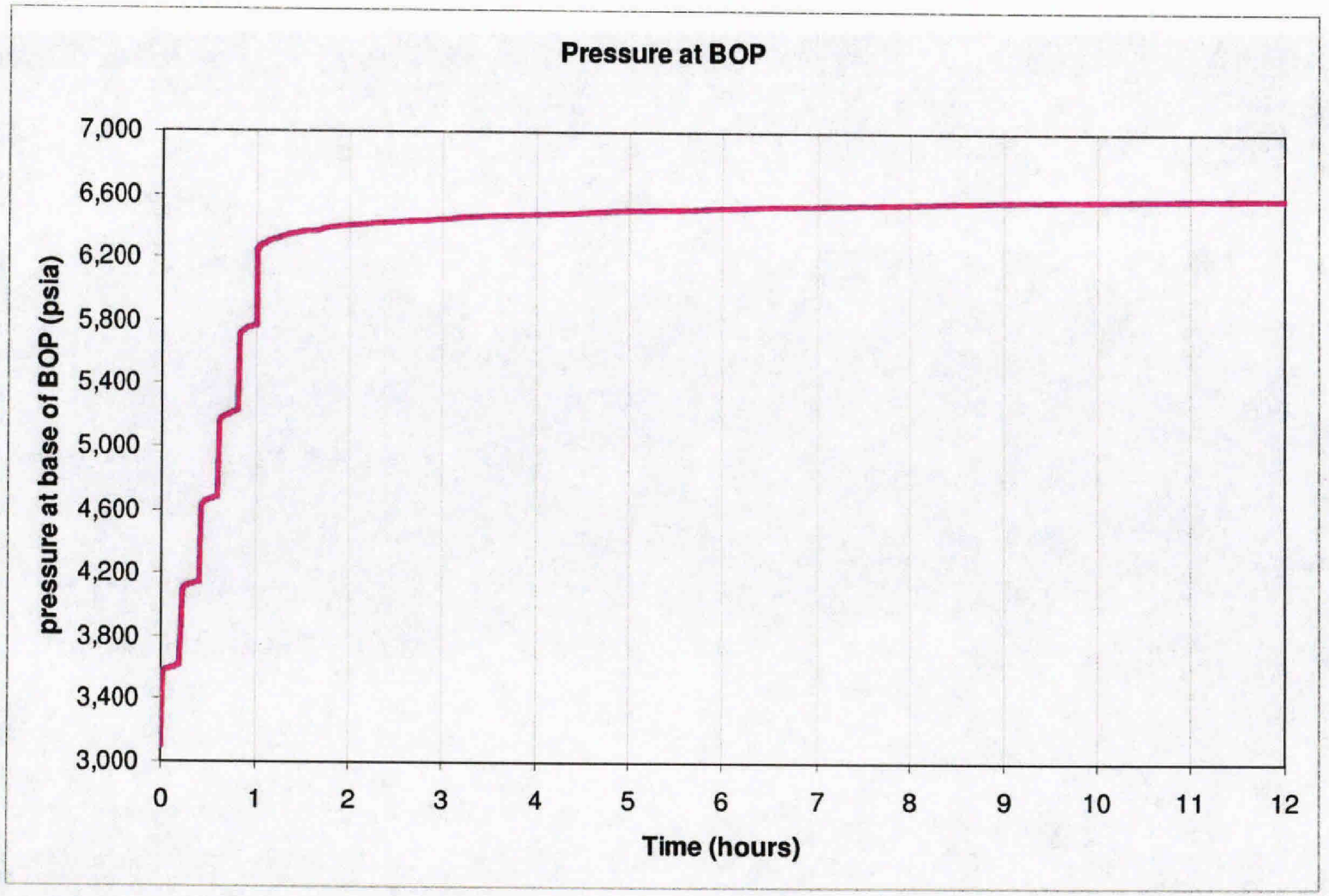


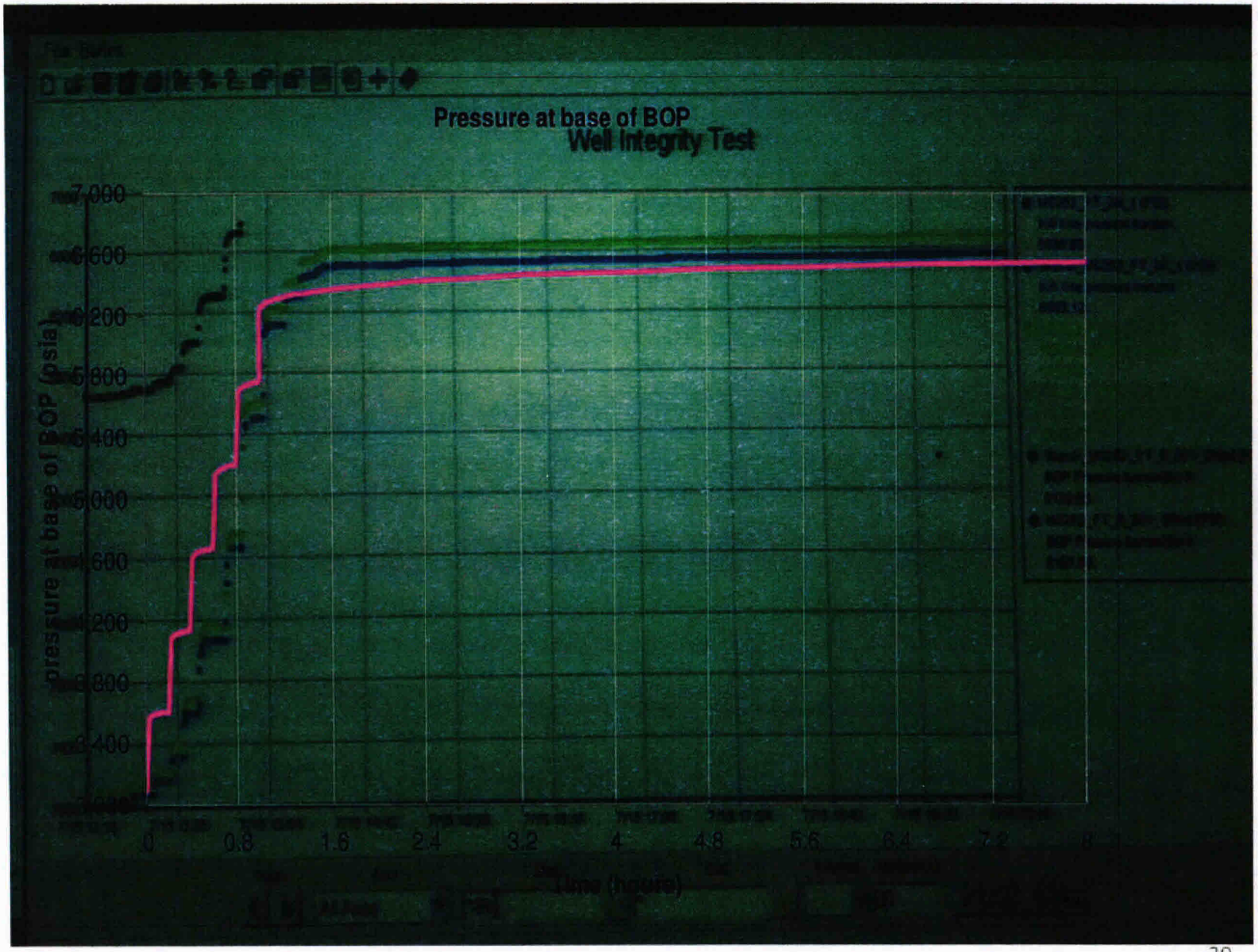


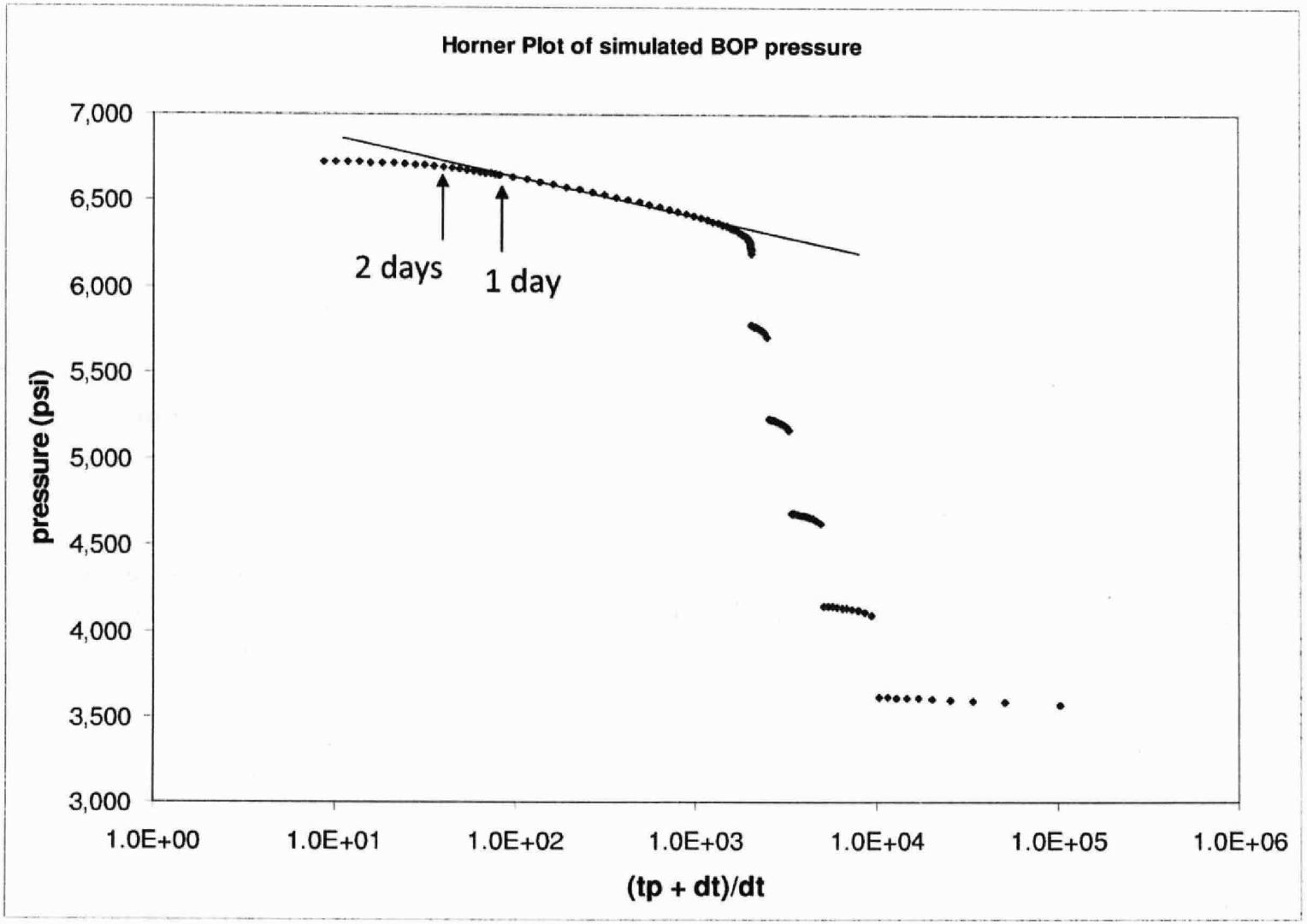
Simulation of Shut-in Process

- Assume flow rate during shut-in process:
- 0 – 12 min: 45,833 stb/d
- 12 – 24 min: 36,666 stb/d
- 24 – 36 min: 27,500 stb/d
- 36 – 48 min: 18,333 stb/d
- 48 – 60 min: 9,167 stb/d
- After 60 min: 0









USGS Conclusions

- Observed shut-in pressure data can be explained by a closed reservoir
  - No aquifer drive
  - 110 million stb of oil originally in place
  - flow rate of 55,000 stb/d for 85 days
  - reasonable values of reservoir properties
- Shut-in pressure data can be simulated by a conventional reservoir model with the above characteristics.
- However, during flow, BOP pressure should be dropping at about 20 psi/day. For example, during the final month before shut in, BOP pressure should have dropped by about 600 psi. This is not observed.
- Horner plot shot should break towards a flat line a few days after shut-in. This should be checked if shut in is extended. (However, temperature change has not been considered.)

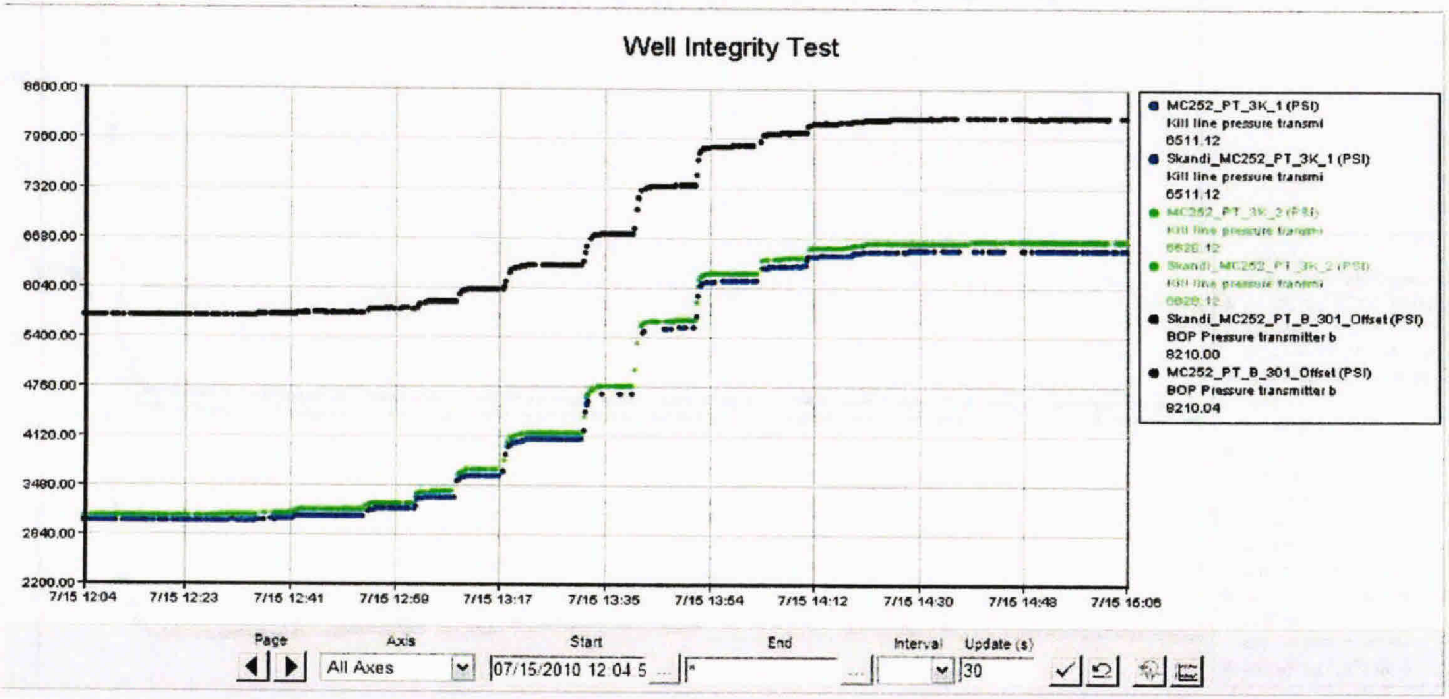
Flow Analysis - DOE

Flow Analyses: What we know

- Estimates from Flow Analyses provide mass flow estimates of 45K-65K bbl/day based on a number of different models (analysis is ongoing)
- Computational analysis of the test are inconclusive regarding the existence of or size of a leak.
- We concur with BP's assessment that the post-shut-in results are consistent with expectations of reservoir recovery (pressure increased after test and rate decreasing with time)

Consider results from Shut-in Test

- See Pressure-Time Results leading to fill shut-in
  - No reductions in Pchoke during each step-change



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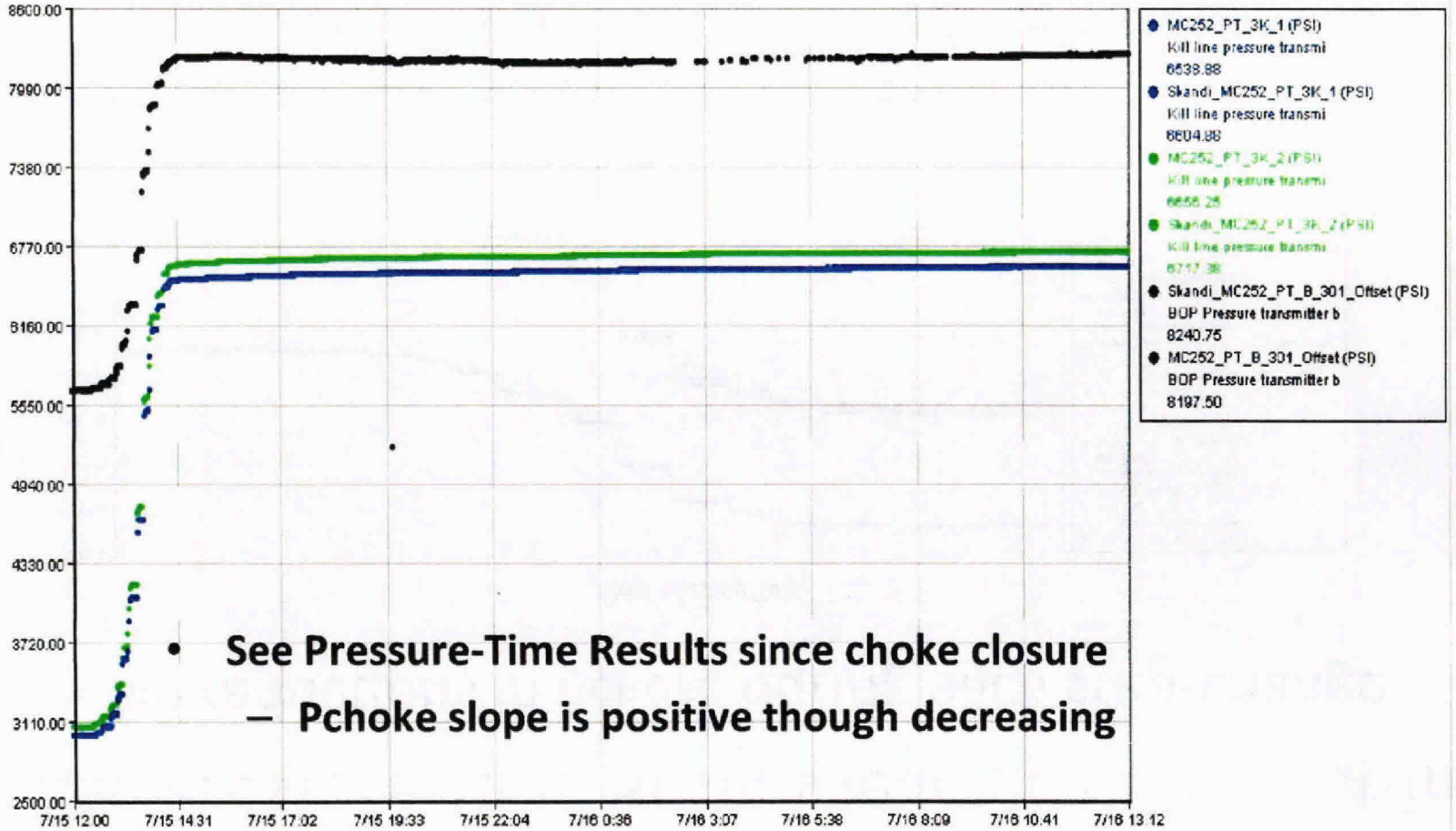


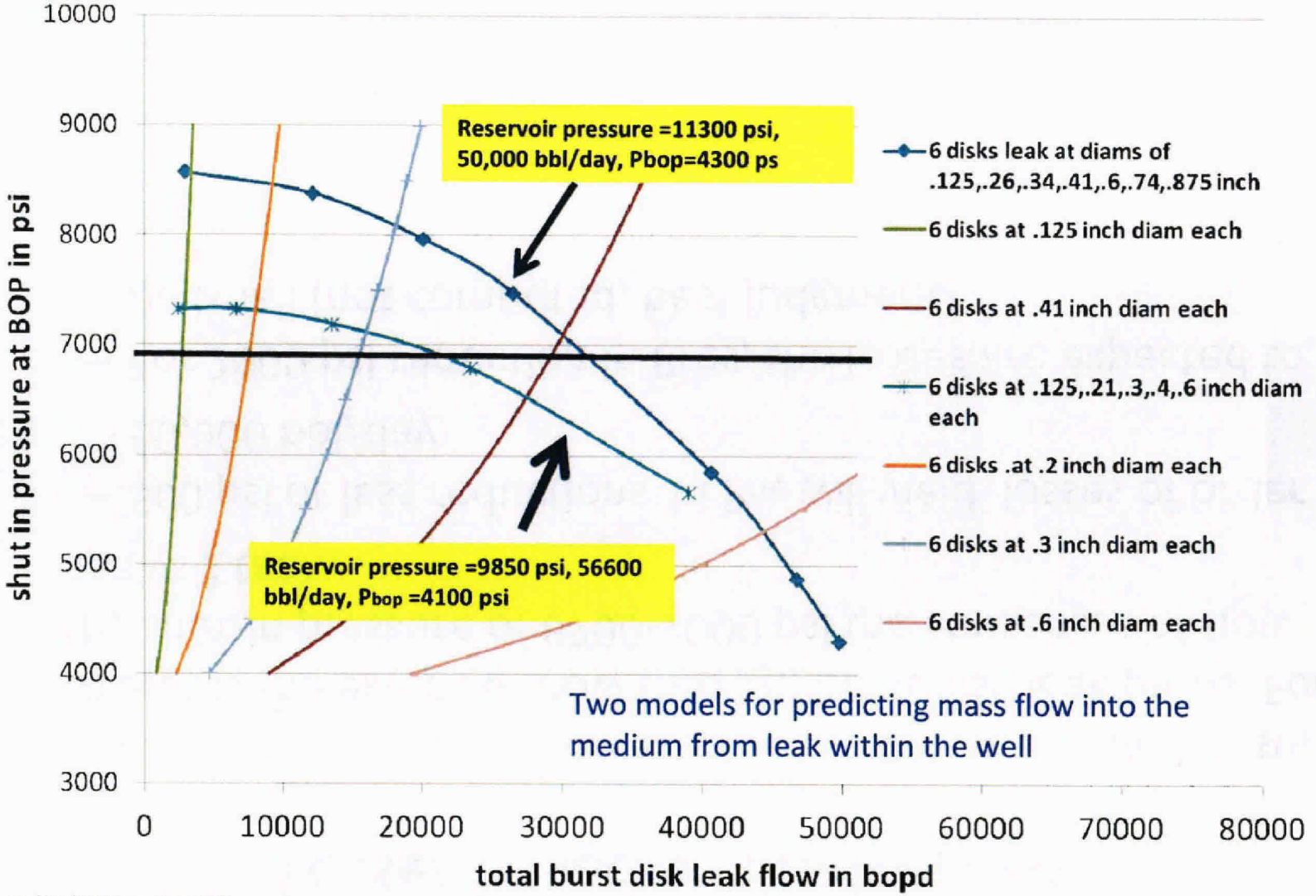
http://gomdwprocessnet.bpweb.bp.com/processnet/isapi/netportal/netportal.dll/html/wellintegritytest

7/16/2010

Flow Analysis Team Views on the Potential Losses based on Shut-in test

- Bottom Line: Must have an estimate of the Reservoir Pressure to assess the extent of flow through burst disk leak paths. For the shut-in pressure of 6700-7000 psi the consensus of flow analysis team
  - 500 psi or less reductions in P_{res} will yield losses of order 30,000 bbl/day
  - For 2000 psi reduction in Pres, the losses are expected to be small (not computed, best judgment)

Flow in Well Issues – Flow Rate Bounds



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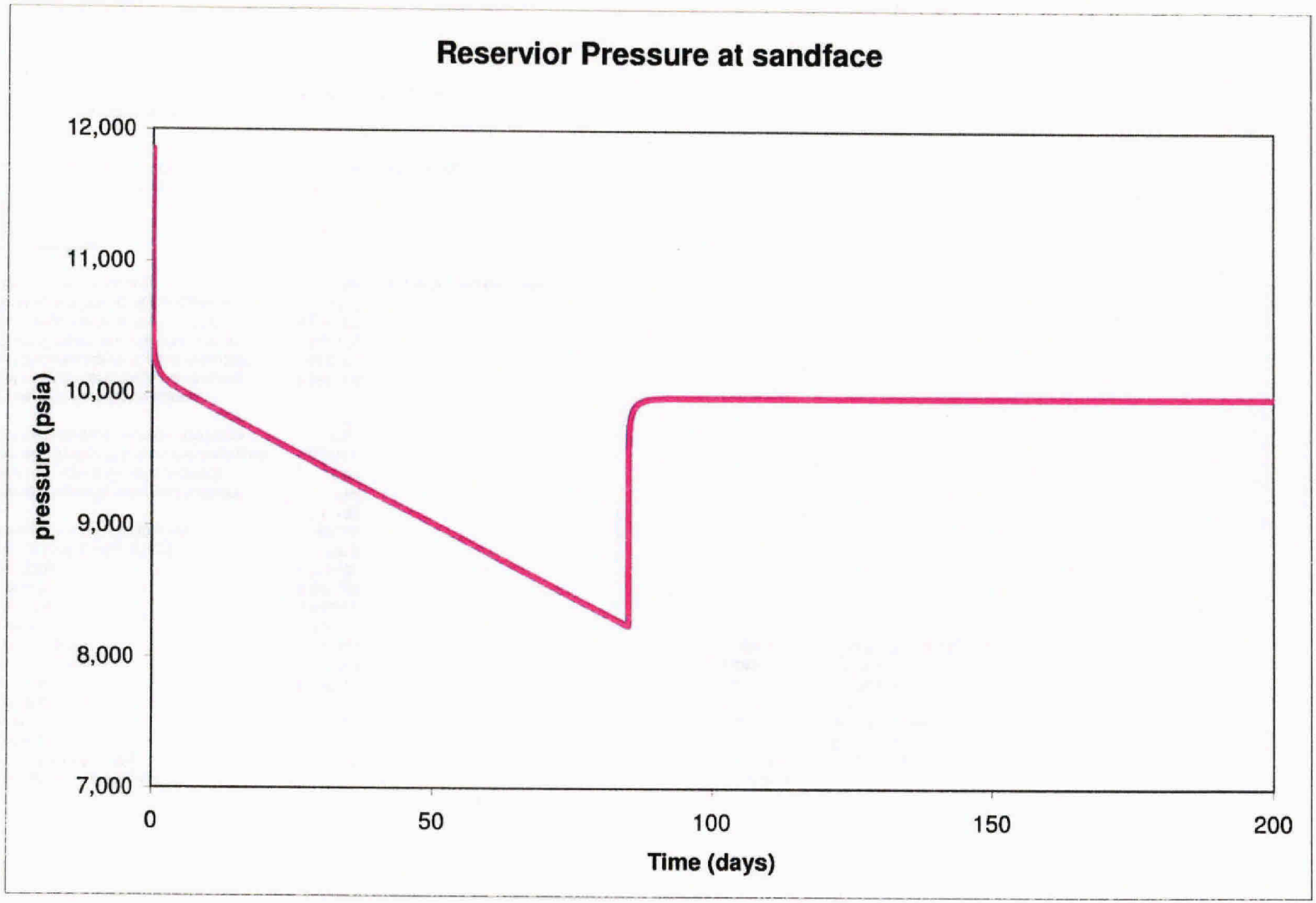
Questions

- 1) How likely is it that Macondo 252 is **not** connected to a water aquifer? In order to get the reservoir pressure to drop by 2,000 psi due to well-depletion, there can be virtually no connection to a water reservoir

  2) The rate of change of pressure and the absolute data are consistent with high depletion and no or very low leak or low depletion and high leak. How do we differentiate between these two scenarios? The large depletion scenario asymptotes to ~ 7,300 psi, not the ~ 6,800 psi we are seeing. This calculation is not consistent with BP calculations: the two teams are supposed to be comparing their assumptions.

  3) How do we confirm the assertion that if the well is not connected to an aquifer and has been depleted by 2000 psi, then the pressure at the reservoir must have dropped by 2000 psi? If so, then the pressure at the bottom of the BOP must have dropped a substantial fraction of this amount.


Reservior Pressure at sandface
12,000
11,000
10,000
9,000
8,000
7,000
pressure (psia)
0
50
100
150
200
Time (days)

Reservoir + Fluid Properties

depth to top (ft TVDSS)	18000	
thickness (ft)	93	
porosity	0.21	
permeability (md)	219	
permeability (m^2)	2.16E-13	
temperature deg F	243	
Oil Boi (rb/stb)	2.345	
cf (psia-1)	1.20E-05	
cw (psia-1)	3.00E-06	
co (psia-1)	1.20E-05	
OOIP (stb)	1.10E+08	
initial reservoir pressure (psi)	11850	
initial reservoir oil head (ft of oil)	48153	
Sw	0.100	
oil density (kg/m^3) reservoir conditions	568	
oil viscosity (cp) reservoir conditions	0.21	
water density (kg/m^3) reservoir conditions	1000.00	
water viscosity (cp) reservoir conditions	0.27	

Volume and Area Calculations

vol of oil under reservoir conditions (rb)	2.58E+08	
vol of oil under reservoir conditions (ft^3)	1.45E+09	
bulk vol of reservoir containing oil (ft^3)	7.66E+09	
area of reservoir containing oil (ft^2)	8.24E+07	
Side of square area containing oil (ft)	9078	
half of the side of square	4539	rounded to 4500 for model

Production Rate

(stb/d)	55000	
(rb/d)	128975	
ft^3/d under reservoir conditions	724195	
1/4 of production rate (f^3/d)	181049	used in model

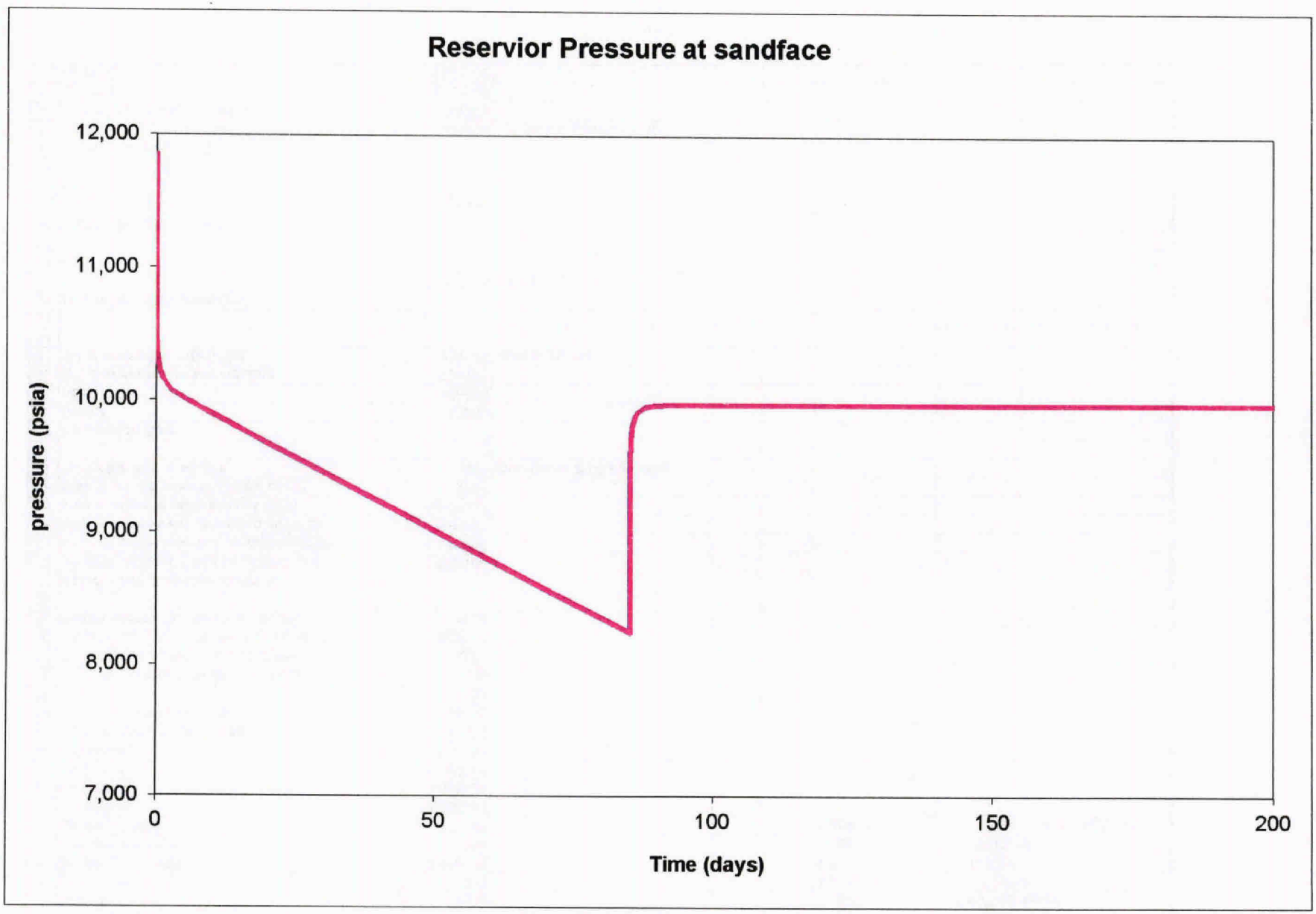
Hydraulic conductivity (oil)

(m/s)	5.73E-06	=rho*g*k/mu

Conversion

1 barrel =	5.615	ft^3
1 md =	9.87E-16	m^2
1 cp =	1.00E-03	kg/m/s
1 m =	3.281	ft
1 ft =	0.3048	m
1 day =	86400	s
1 psia =	6894	N/m^2 = kg/m/s^2

(ft/d)	1.62	
Hydraulic conductivity (water)		
(m/s)	7.85E-06	
(ft/d)	2.22	
Specific Storage (oil)		
total compressibility (psia-1)	2.31E-05	=(1-Sw)co + Sw*cw + cf
total compressibility (m*s^2/kg)	3.35E-09	
Ss (m-1)	3.53E-06	
Ss (ft-1)	1.07E-06	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pressure (psia)
0
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200
Time (days)

Chart1

1

	A	B	C	D	E	F	G	H
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4	porosity	0.21				1 cp =	1.00E-03	kg/m/s
5	permeability (md)	219				1 m =	3.281	ft
6	permeability (m^2)	2.16E-13				1 ft =	0.3048	m
7	temperature deg F	243				1 day =	86400	s
8	Oil Boi (rb/stb)	2.345				1 psia =	6894	N/m^2 = kg/m/s^2
9	cf (psia-1)	1.20E-05						
10	cw (psia-1)	3.00E-06						
11	co (psia-1)	1.20E-05						
12	OOIP (stb)	1.10E+08						
13	initial reservoir pressure (psi)	11850						
14	initial reservoir oil head (ft of oil)	48153						
15	Sw	0.100						
16	oil density (kg/m^3) reservoir conditions	568						
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21	**Volume and Area Calculations**							
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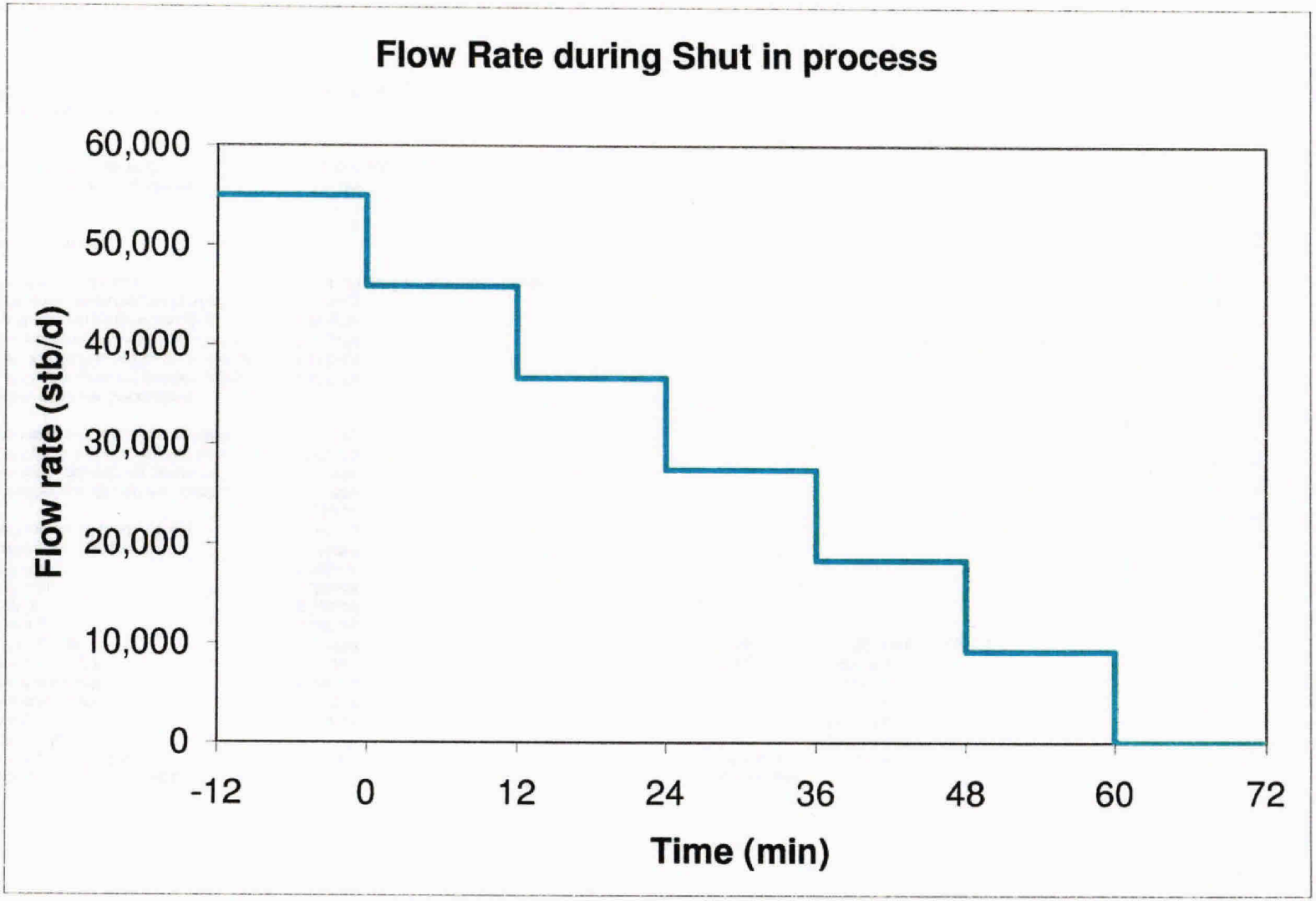
Flow Rate during Shut in process
Flow rate (stb/d)
60,000
50,000
40,000
30,000
20,000
10,000
0
-12
0
12
24
36
48
60
72
Time (min)

Reservoir + Fluid Properties

depth to top (ft TVDSS)	18000	
thickness (ft)	93	
porosity	0.21	
permeability (md)	219	
permeability (m^2)	2.16E-13	
temperature deg F	243	
Oil Boi (rb/stb)	2.345	
cf (psia-1)	1.20E-05	
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1 ft =	0.3048	m
1 day =	86400	s
1 psia =	6894	N/m^2 = kg/m/s^2

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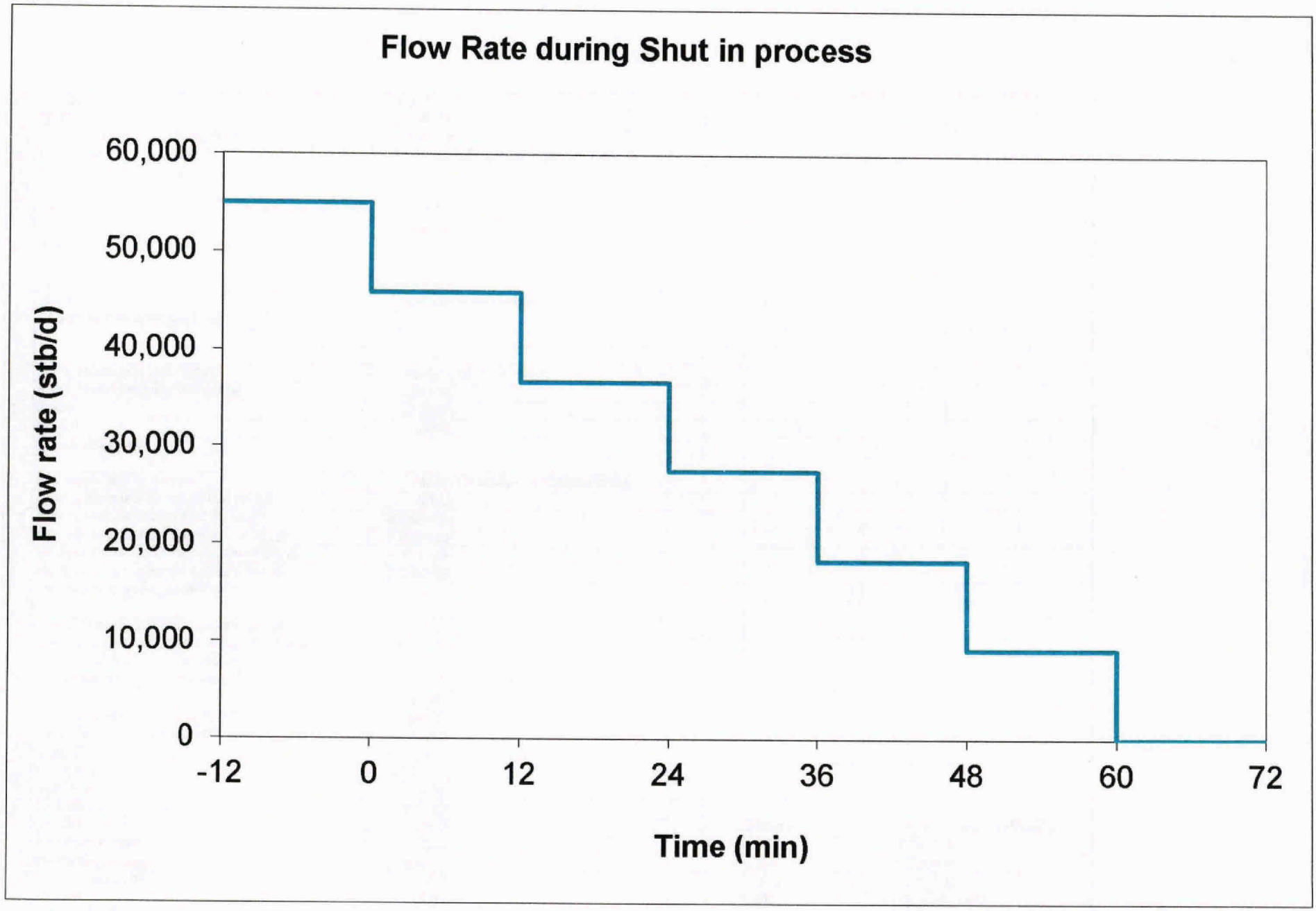

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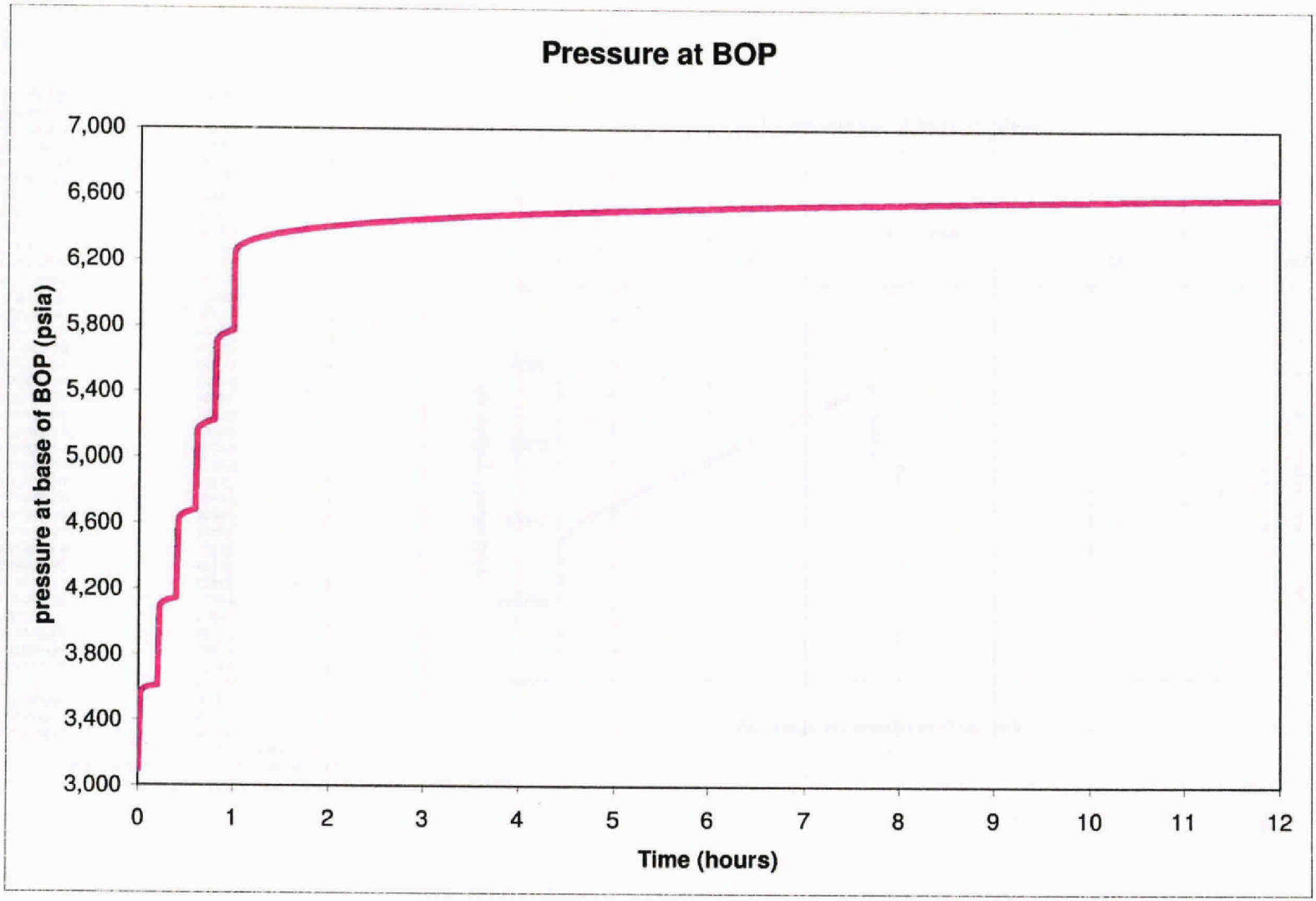
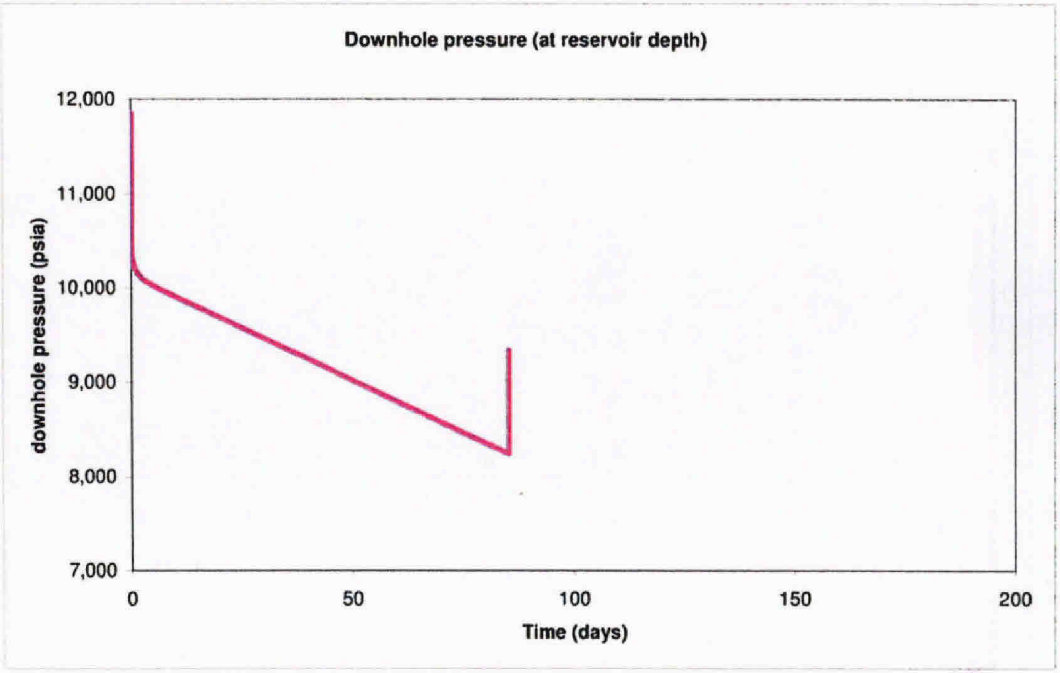
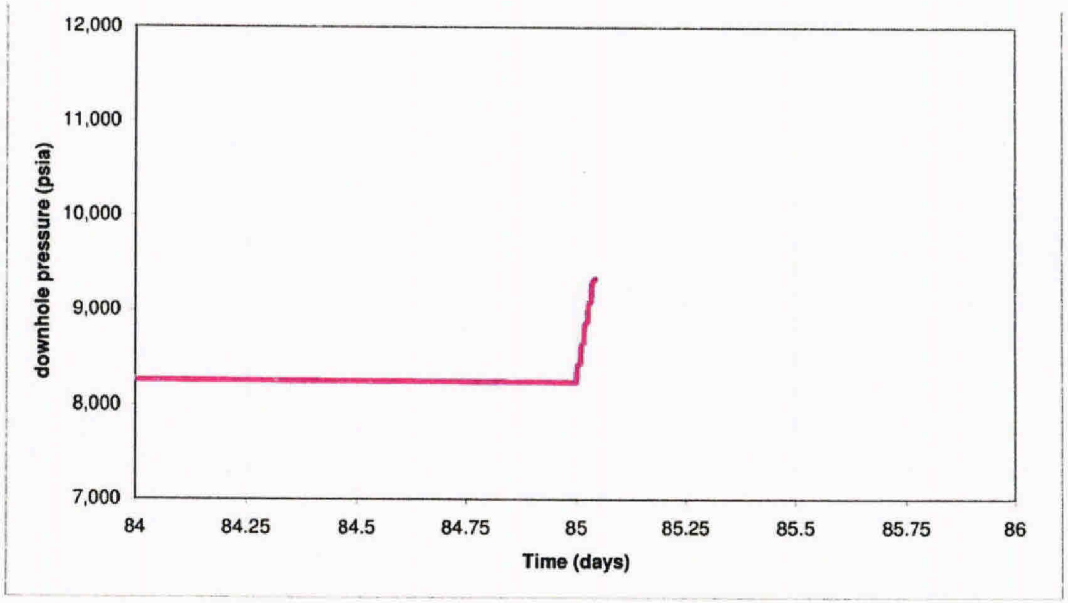
47	Ss (m-1)	3.53E-06						
48	Ss (ft-1)	1.07E-06						


Pressure at BOP
pressure at base of BOP (psia)
7,000
6,600
6,200
5,800
5,400
5,000
4,600
4,200
3,800
3,400
3,000
0
1
2
3
4
5
6
7
8
9
10
11
12
Time (hours)

	down hole pressure			
days	days	aq = 0x	aq = 4x	aq = 14x
	0	11850	11850	11850
	0.00186824	10821		
	0.00411014	10717		
	0.00680041	10660		
	0.01002873	10618		
	0.01390272	10585		
	0.01855151	10556		
	0.02413006	10530		
	0.03082432	10506		
	0.03885743	10483		
	0.04849716	10462		
	0.06006484	10442		
	0.07394605	10422		
	0.09060351	10403		
	0.11059245	10384		
	0.1345792	10365		
	0.16336329	10347		
	0.1979042	10329		
	0.23935328	10311		
	0.28909218	10293		
	0.34877887	10275		
	0.42040291	10258		
	0.50635177	10240		
	0.60949039	10223		
	0.73325676	10205		
	0.88177639	10188		
	1.05999994	10171		
	1.2738682	10153		
	1.53051019	10136		
	1.83848059	10119		
	2.20804501	10101		
	2.6515224	10083		
	3.18369508	10065		
	3.82230258	10046		
	4.58863163	10025		
	5.50822639	10002		
	6.61174011	9976		
	7.93595648	9946		
	9.52501678	9910		
	11.43188858	9868		



13.72013474		9817
16.46603012		9756
19.76110458		9683
23.7151947		9596
28.46010399		9491
34.15399551		9365
40.98666382		9214
49.18586731		9033
59.02490997		8815
70.83176422		8554
84.99998474	0	8241
85.00081635	0.02	8399
85.00164795	0.04	8415
85.00247955	0.06	8423
85.00331116	0.08	8429
85.00414276	0.10	8432
85.00497437	0.12	8436
85.00580597	0.14	8438
85.00663757	0.16	8441
85.00746918	0.18	8443
85.00830078	0.20	8444
85.00913239	0.22	8605
85.00996399	0.24	8622
85.01079559	0.26	8631
85.0116272	0.28	8638
85.0124588	0.30	8643
85.01329041	0.32	8647
85.01412201	0.34	8651
85.01495361	0.36	8654
85.01578522	0.38	8657
85.01661682	0.40	8659
85.01744843	0.42	8820
85.01828003	0.44	8838
85.01911163	0.46	8848
85.01994324	0.48	8856
85.02077484	0.50	8861
85.02160645	0.52	8866
85.02243805	0.54	8870
85.02326965	0.56	8874
85.02410126	0.58	8878
85.02493286	0.60	8881
85.02576447	0.62	9042



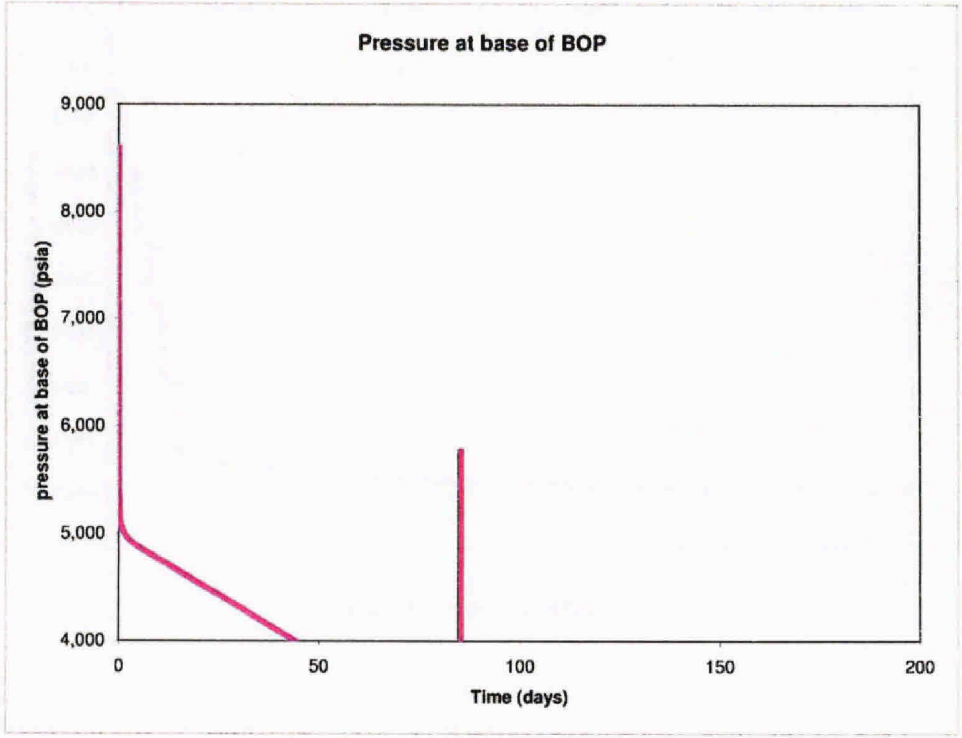
85.02659607	0.64	9061
85.02742767	0.66	9071
85.02825928	0.68	9079
85.02909088	0.70	9085
85.02992249	0.72	9091
85.03075409	0.74	9095
85.03158569	0.76	9100
85.0324173	0.78	9103
85.0332489	0.80	9107
85.03408051	0.82	9269
85.03491211	0.84	9288
85.03574371	0.86	9299
85.03657532	0.88	9307
85.03740692	0.90	9313
85.03823853	0.92	9319
85.03907013	0.94	9324
85.03990173	0.96	9329
85.04073334	0.98	9333
85.04156494	1.00	9337
85.04158783		9438
85.04161072		9455
85.04164124		9465
85.04167938		9472
85.04172516		9478
85.04177856		9483
85.04184723		9487
85.04192352		9492
85.04201508		9496
85.04212952		9500
85.04226685		9504
85.04242706		9508
85.04262543		9512
85.04286194		9516
85.04314423		9521
85.04347992		9525
85.04388428		9530
85.04437256		9535
85.04496002		9540
85.04566193		9545
85.04650116		9551
85.04751587		9557
85.04872894		9564

85.05018616	9571
85.05193329	9578
85.05403137	9586
85.05654907	9595
85.05957031	9604
85.06319427	9613
85.06754303	9623
85.07276154	9634
85.07902527	9645
85.08654022	9657
85.09555817	9669
85.10637665	9682
85.11936188	9695
85.1349411	9709
85.15363312	9723
85.17606354	9737
85.20298767	9751
85.23529053	9766
85.27405548	9781
85.3205719	9795
85.37639618	9810
85.44338226	9825
85.52376556	9839
85.620224	9854
85.73597717	9868
85.87487793	9881
86.04156494	9894
85.67682648	9864
85.6872406	9865
85.69765472	9867
85.70806885	9868
85.71848297	9869
85.72889709	9870
85.73931122	9871
85.74972534	9872
85.76013947	9874
85.77055359	9875
85.78096771	9876
85.79138184	9877
85.80179596	9878
85.81221008	9879
85.82262421	9880

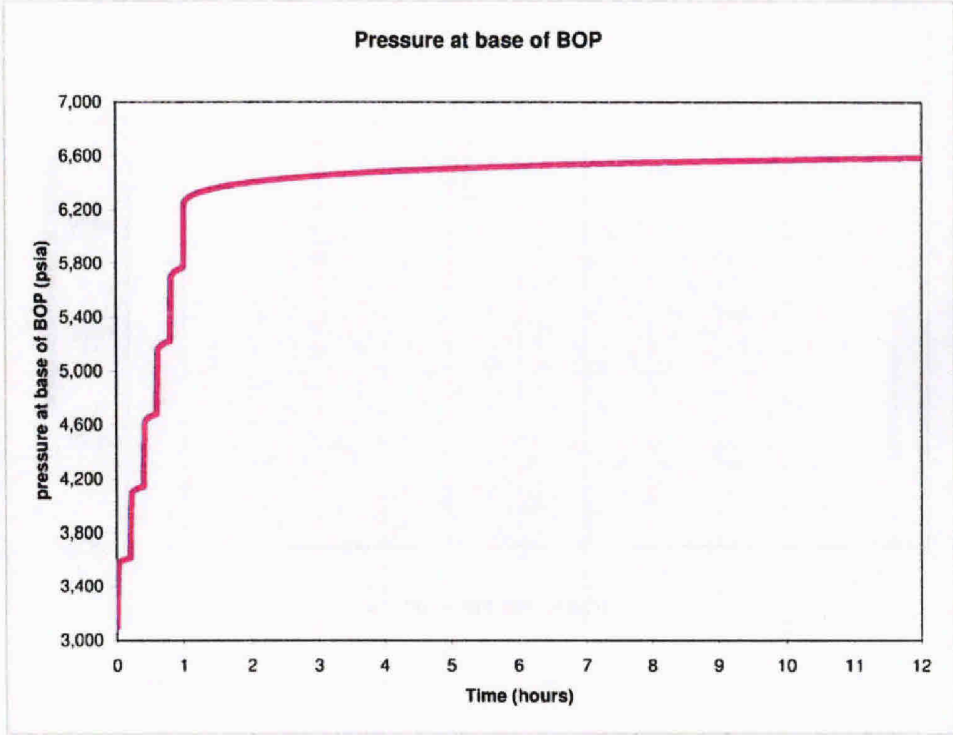
85.83303833	9881
85.84345245	9882
85.85386658	9883
85.8642807	9884
85.87469482	9885
85.88510895	9886
85.89552307	9887
85.90593719	9887
85.91635132	9888
85.92676544	9889
85.93717957	9890
85.94759369	9891
85.95800781	9892
85.96842194	9892
85.97883606	9893
85.98925018	9894
85.99966431	9895
86.01007843	9896
86.02049255	9896
86.03090668	9897
86.0413208	9898

days	days	pressure at base of BOP aq = 0x	aq = 4x	aq = 14x
	0	8600		6700
	0.00186824	5671		
	0.00411014	5567		
	0.00680041	5510		
	0.01002873	5468		
	0.01390272	5435		
	0.01855151	5406		
	0.02413006	5380		
	0.03082432	5356		
	0.03885743	5333		
	0.04849716	5312		
	0.06006484	5292		
	0.07394605	5272		
	0.09060351	5253		
	0.11059245	5234		
	0.1345792	5215		
	0.16336329	5197		
	0.1979042	5179		
	0.23935328	5161		
	0.28909218	5143		
	0.34877887	5125		
	0.42040291	5108		
	0.50635177	5090		
	0.60949039	5073		
	0.73325676	5055		
	0.88177639	5038		
	1.05999994	5021		
	1.2738682	5003		
	1.53051019	4986		
	1.83848059	4969		
	2.20804501	4951		
	2.6515224	4933		
	3.18369508	4915		
	3.82230258	4896		
	4.58863163	4875		
	5.50822639	4852		

rho_o = 568 dP = 3250 well loss = 1900

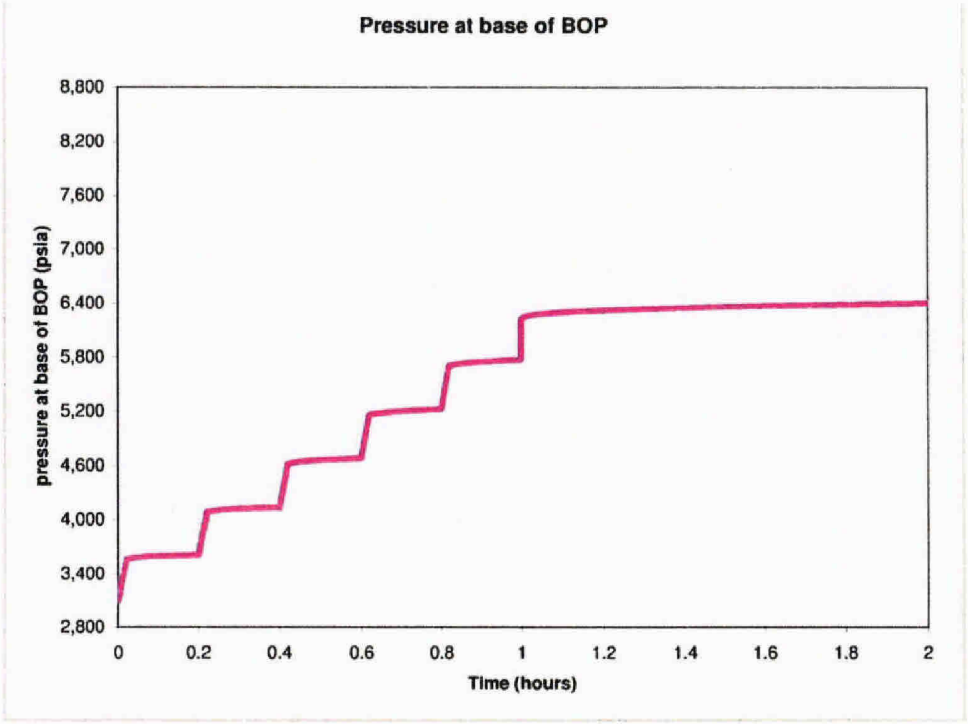


6.61174011		4826	
7.93595648		4796	
9.52501678		4760	
11.43188858		4718	
13.72013474		4667	
16.46603012		4606	
19.76110458		4533	
23.7151947		4446	
28.46010399		4341	
34.15399551		4215	
40.98666382		4064	
49.18586731		3883	
59.02490997		3665	
70.83176422		3404	
84.99998474	0	3091	
85.00081635	0.02	3566	0
85.00164795	0.04	3582	0
85.00247955	0.06	3590	0
85.00331116	0.08	3596	0
85.00414276	0.10	3599	0
85.00497437	0.12	3603	0
85.00580597	0.14	3605	0
85.00663757	0.16	3608	0
85.00746918	0.18	3610	0
85.00830078	0.20	3611	0
85.00913239	0.22	4088	0
85.00996399	0.24	4105	0
85.01079559	0.26	4114	0
85.0116272	0.28	4121	0
85.0124588	0.30	4126	0
85.01329041	0.32	4130	0
85.01412201	0.34	4134	0
85.01495361	0.36	4137	0
85.01578522	0.38	4140	0
85.01661682	0.40	4142	0
85.01744843	0.42	4620	0
85.01828003	0.44	4638	0
85.01911163	0.46	4648	0



Pressure at base of BOP

85.01994324	0.48	4656
85.02077484	0.50	4661
85.02160645	0.52	4666
85.02243805	0.54	4670
85.02326965	0.56	4674
85.02410126	0.58	4678
85.02493286	0.60	4681
85.02576447	0.62	5159
85.02659607	0.64	5178
85.02742767	0.66	5188
85.02825928	0.68	5196
85.02909088	0.70	5202
85.02992249	0.72	5208
85.03075409	0.74	5212
85.03158569	0.76	5217
85.0324173	0.78	5220
85.0332489	0.80	5224
85.03408051	0.82	5702
85.03491211	0.84	5721
85.03574371	0.86	5732
85.03657532	0.88	5740
85.03740692	0.90	5746
85.03823853	0.92	5752
85.03907013	0.94	5757
85.03990173	0.96	5762
85.04073334	0.98	5766
85.04156494	1.00	5770
85.04158783	1.00	6188
85.04161072	1.00	6205
85.04164124	1.00	6215
85.04167938	1.00	6222
85.04172516	1.00	6228
85.04177856	1.00	6233
85.04184723	1.00	6237
85.04192352	1.01	6242
85.04201508	1.01	6246
85.04212952	1.01	6250
85.04226685	1.01	6254



85.04242706	1.02	6258
85.04262543	1.02	6262
85.04286194	1.03	6266
85.04314423	1.04	6271
85.04347992	1.04	6275
85.04388428	1.05	6280
85.04437256	1.07	6285
85.04496002	1.08	6290
85.04566193	1.10	6295
85.04650116	1.12	6301
85.04751587	1.14	6307
85.04872894	1.17	6314
85.05018616	1.20	6321
85.05193329	1.25	6328
85.05403137	1.30	6336
85.05654907	1.36	6345
85.05957031	1.43	6354
85.06319427	1.52	6363
85.06754303	1.62	6373
85.07276154	1.75	6384
85.07902527	1.90	6395
85.08654022	2.08	6407
85.09555817	2.29	6419
85.10637665	2.55	6432
85.11936188	2.87	6445
85.1349411	3.24	6459
85.15363312	3.69	6473
85.17606354	4.23	6487
85.20298767	4.87	6501
85.23529053	5.65	6516
85.27405548	6.58	6531
85.3205719	7.69	6545
85.37639618	9.03	6560
85.44338226	10.64	6575
85.52376556	12.57	6589
85.620224	14.89	6604
85.73597717	17.66	6618
85.87487793	21.00	6631

86.04156494	25.00	6644
85.67682648	16.24	6614
85.6872406	16.49	6615
85.69765472	16.74	6617
85.70806885	16.99	6618
85.71848297	17.24	6619
85.72889709	17.49	6620
85.73931122	17.74	6621
85.74972534	17.99	6622
85.76013947	18.24	6624
85.77055359	18.49	6625
85.78096771	18.74	6626
85.79138184	18.99	6627
85.80179596	19.24	6628
85.81221008	19.49	6629
85.82262421	19.74	6630
85.83303833	19.99	6631
85.84345245	20.24	6632
85.85386658	20.49	6633
85.8642807	20.74	6634
85.87469482	20.99	6635
85.88510895	21.24	6636
85.89552307	21.49	6637
85.90593719	21.74	6637
85.91635132	21.99	6638
85.92676544	22.24	6639
85.93717957	22.49	6640
85.94759369	22.74	6641
85.95800781	22.99	6642
85.96842194	23.24	6642
85.97883606	23.49	6643
85.98925018	23.74	6644
85.99966431	23.99	6645
86.01007843	24.24	6646
86.02049255	24.49	6646
86.03090668	24.74	6647
86.0413208	24.99	6648

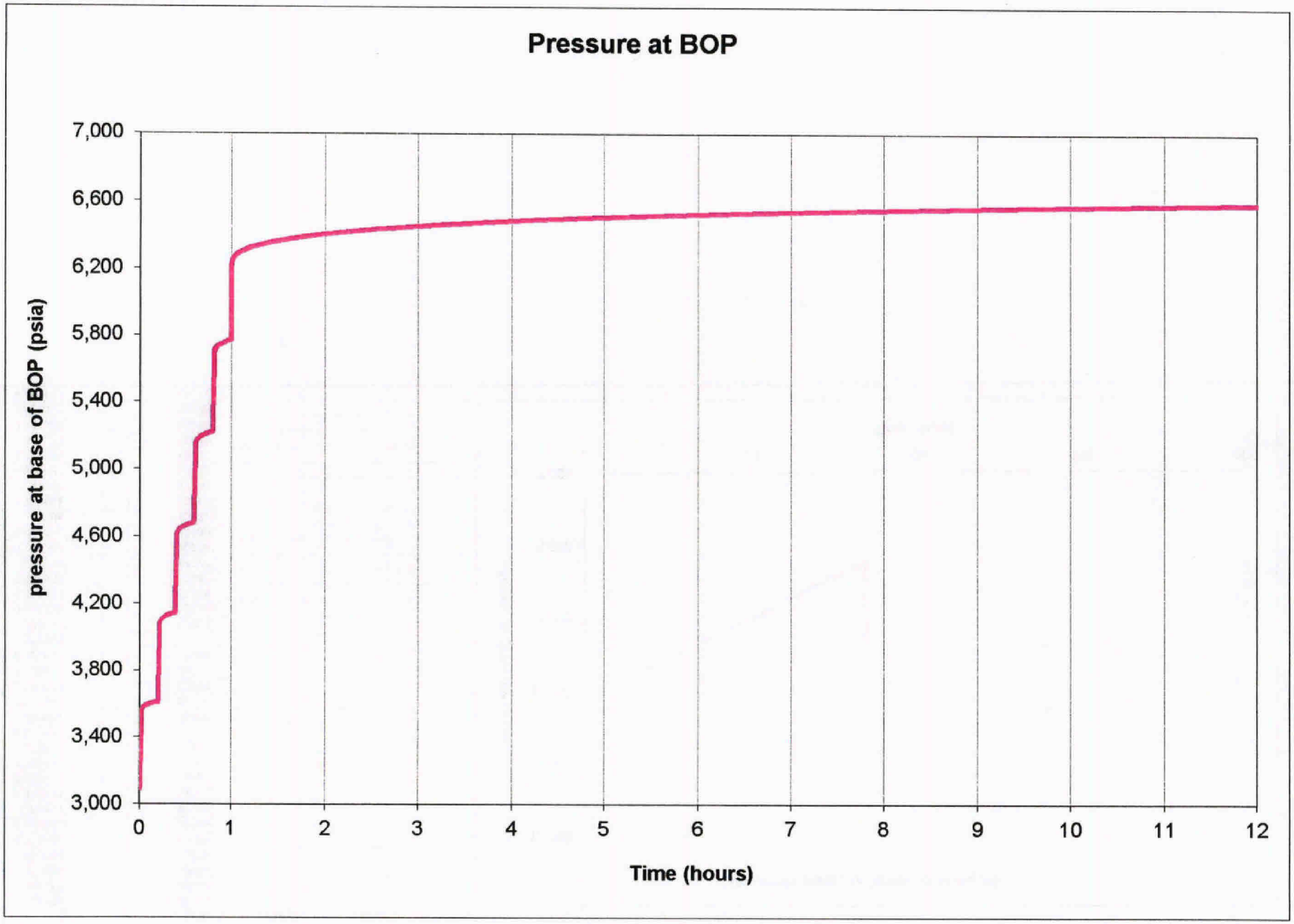
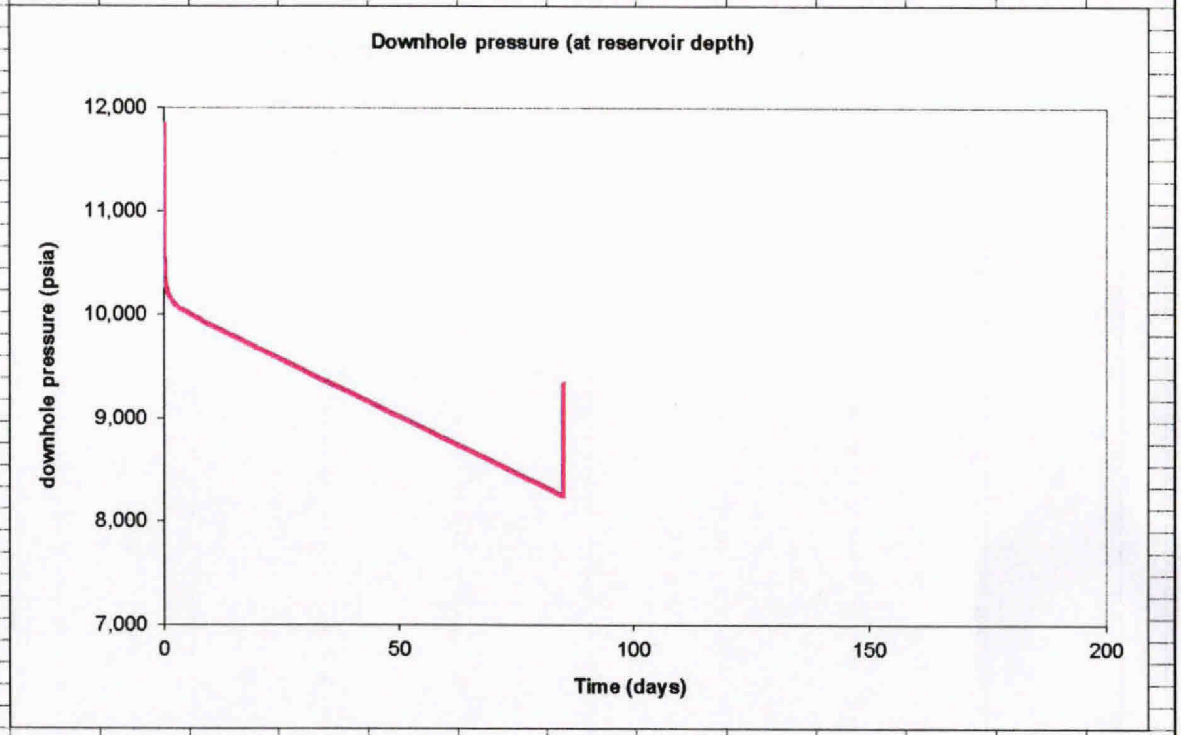
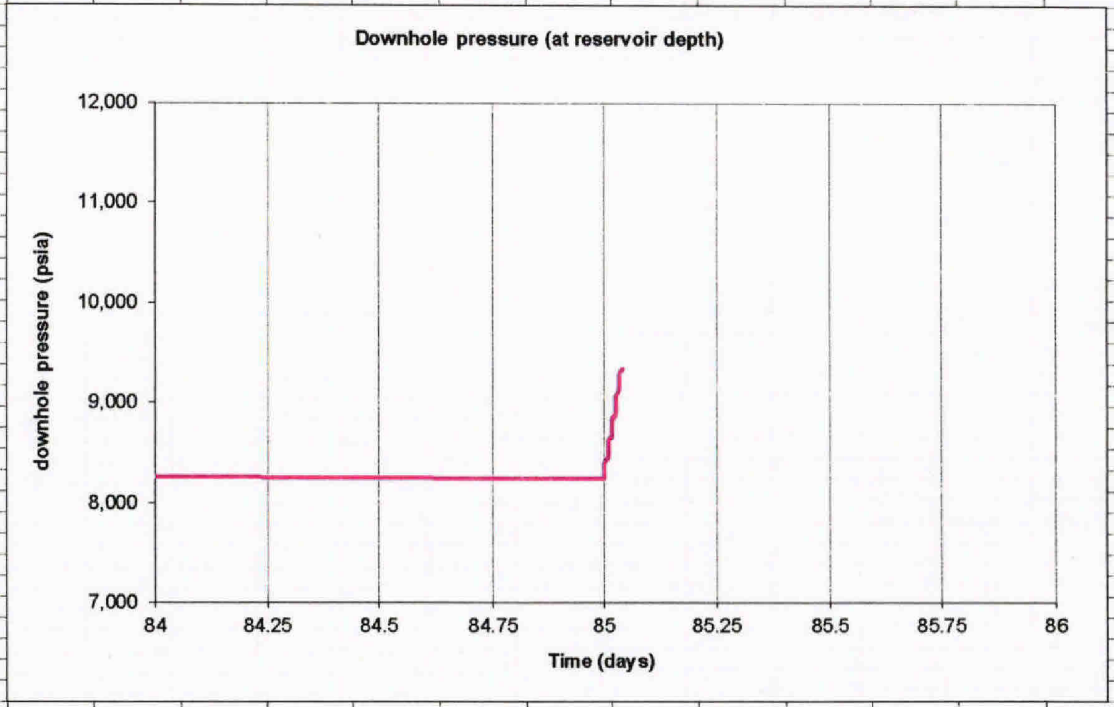

Pressure at BOP
pressure at base of BOP (psia)
7,000
6,600
6,200
5,800
5,400
5,000
4,600
4,200
3,800
3,400
3,000
0
1
2
3
4
5
6
7
8
9
10
11
12
Time (hours)

Chart1

	A	B	C	D	E	F
1			down hole pressure			
2	days	days	aq = 0x	aq = 4x	aq = 14x	
3	0		11850	11850	11850	
4	0.001868		10821			
5	0.00411		10717			
6	0.0068		10660			
7	0.010029		10618			
8	0.013903		10585			
9	0.018552		10556			
10	0.02413		10530			
11	0.030824		10506			
12	0.038857		10483			
13	0.048497		10462			
14	0.060065		10442			
15	0.073946		10422			
16	0.090604		10403			
17	0.110592		10384			
18	0.134579		10365			
19	0.163363		10347			
20	0.197904		10329			
21	0.239353		10311			
22	0.289092		10293			
23	0.348779		10275			
24	0.420403		10258			
25	0.506352		10240			
26	0.60949		10223			
27	0.733257		10205			
28	0.881776		10188			
29	1.06		10171			
30	1.273868		10153			
31	1.53051		10136			
32	1.838481		10119			
33	2.208045		10101			
34	2.651522		10083			
35	3.183695		10065			
36	3.822303		10046			
37	4.588632		10025			



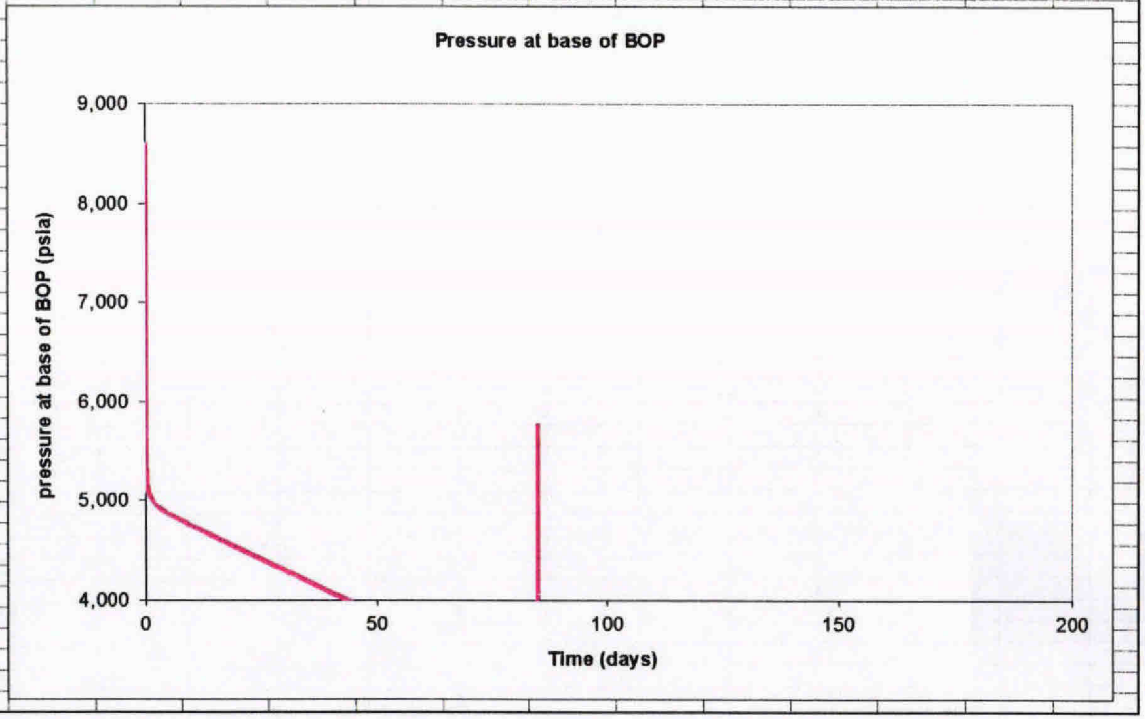
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1			down hole pressure																
2	days	days	aq = 0x	aq = 4x	aq = 14x														
38	5.508226		10002																
39	6.61174		9976																
40	7.935956		9946																
41	9.525017		9910																
42	11.43189		9868																
43	13.72013		9817																
44	16.46603		9756																
45	19.7611		9683																
46	23.71519		9596																
47	28.4601		9491																
48	34.154		9365																
49	40.98666		9214																
50	49.18587		9033																
51	59.02491		8815																
52	70.83176		8554																
53	84.99998	0	8241																
54	85.00082	0.02	8399																
55	85.00165	0.04	8415																
56	85.00248	0.06	8423																
57	85.00331	0.08	8429																
58	85.00414	0.10	8432																
59	85.00497	0.12	8436																
60	85.00581	0.14	8438																
61	85.00664	0.16	8441																
62	85.00747	0.18	8443																
63	85.0083	0.20	8444																
64	85.00913	0.22	8605																
65	85.00996	0.24	8622																
66	85.0108	0.26	8631																
67	85.01163	0.28	8638																
68	85.01246	0.30	8643																
69	85.01329	0.32	8647																
70	85.01412	0.34	8651																
71	85.01495	0.36	8654																
72	85.01579	0.38	8657																
73	85.01662	0.40	8659																
74	85.01745	0.42	8820																
75	85.01828	0.44	8838																
76	85.01911	0.46	8848																
77	85.01994	0.48	8856																
78	85.02077	0.50	8861																
79	85.02161	0.52	8866																
80	85.02244	0.54	8870																
81	85.02327	0.56	8874																
82	85.0241	0.58	8878																
83	85.02493	0.60	8881																
84	85.02576	0.62	9042																
85	85.0266	0.64	9061																
86	85.02743	0.66	9071																
87	85.02826	0.68	9079																
88	85.02909	0.70	9085																
89	85.02992	0.72	9091																
90	85.03075	0.74	9095																
91	85.03159	0.76	9100																



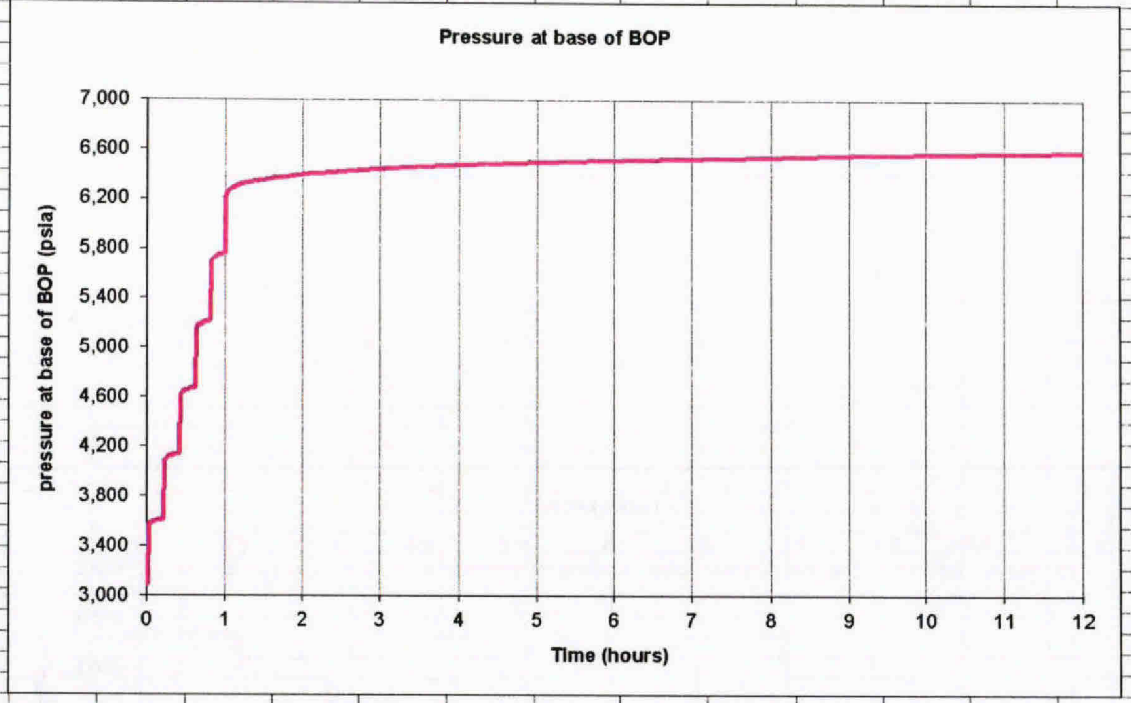
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1			down hole pressure																
2	days	days	aq = 0x	aq = 4x	aq = 14x														
92	85.03242	0.78	9103																
93	85.03325	0.80	9107																
94	85.03408	0.82	9269																
95	85.03491	0.84	9288																
96	85.03574	0.86	9299																
97	85.03658	0.88	9307																
98	85.03741	0.90	9313																
99	85.03824	0.92	9319																
100	85.03907	0.94	9324																
101	85.0399	0.96	9329																
102	85.04073	0.98	9333																
103	85.04156	1.00	9337																
104	85.04159		9438																
105	85.04161		9455																
106	85.04164		9465																
107	85.04168		9472																
108	85.04173		9478																
109	85.04178		9483																
110	85.04185		9487																
111	85.04192		9492																
112	85.04202		9496																
113	85.04213		9500																
114	85.04227		9504																
115	85.04243		9508																
116	85.04263		9512																
117	85.04286		9516																
118	85.04314		9521																
119	85.04348		9525																
120	85.04388		9530																
121	85.04437		9535																
122	85.04496		9540																
123	85.04566		9545																
124	85.0465		9551																
125	85.04752		9557																
126	85.04873		9564																
127	85.05019		9571																
128	85.05193		9578																
129	85.05403		9586																
130	85.05655		9595																
131	85.05957		9604																
132	85.06319		9613																
133	85.06754		9623																
134	85.07276		9634																
135	85.07903		9645																
136	85.08654		9657																
137	85.09556		9669																
138	85.10638		9682																
139	85.11936		9695																
140	85.13494		9709																
141	85.15363		9723																
142	85.17606		9737																
143	85.20299		9751																
144	85.23529		9766																
145	85.27406		9781																

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1			down hole pressure																
2	days	days	aq = 0x	aq = 4x	aq = 14x														
146	85.32057		9795																
147	85.3764		9810																
148	85.44338		9825																
149	85.52377		9839																
150	85.62022		9854																
151	85.73598		9868																
152	85.87488		9881																
153	86.04156		9894																
154	85.67683		9864																
155	85.68724		9865																
156	85.69765		9867																
157	85.70807		9868																
158	85.71848		9869																
159	85.7289		9870																
160	85.73931		9871																
161	85.74973		9872																
162	85.76014		9874																
163	85.77055		9875																
164	85.78097		9876																
165	85.79138		9877																
166	85.8018		9878																
167	85.81221		9879																
168	85.82262		9880																
169	85.83304		9881																
170	85.84345		9882																
171	85.85387		9883																
172	85.86428		9884																
173	85.87469		9885																
174	85.88511		9886																
175	85.89552		9887																
176	85.90594		9887																
177	85.91635		9888																
178	85.92677		9889																
179	85.93718		9890																
180	85.94759		9891																
181	85.95801		9892																
182	85.96842		9892																
183	85.97884		9893																
184	85.98925		9894																
185	85.99966		9895																
186	86.01008		9896																
187	86.02049		9896																
188	86.03091		9897																
189	86.04132		9898																

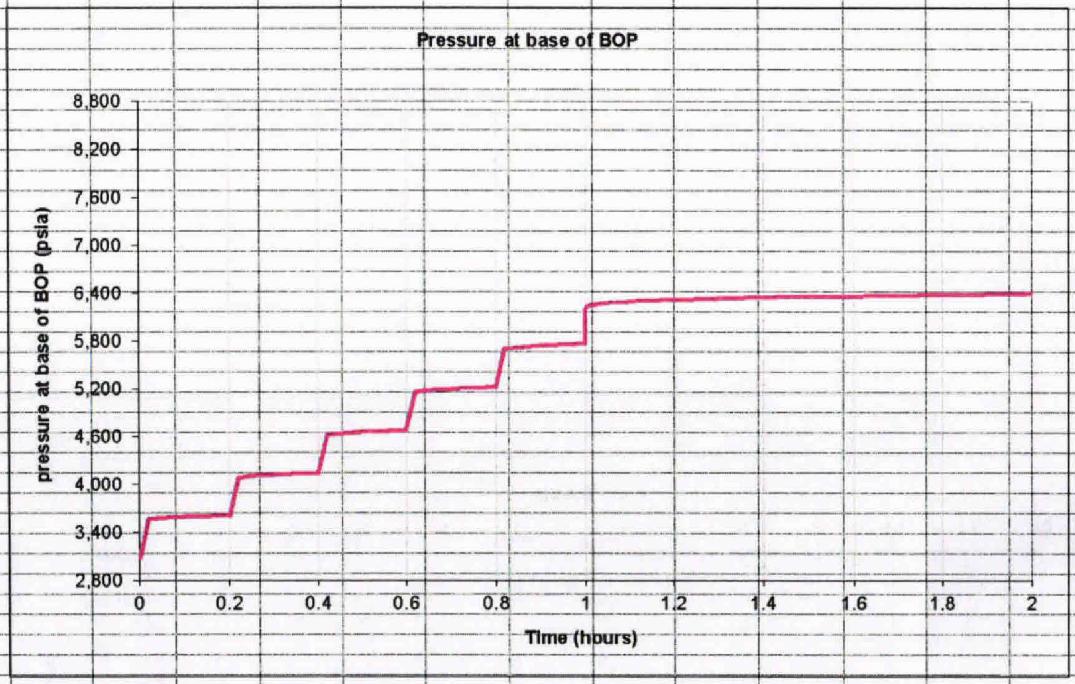
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1			pressure at base of BOP					rho_o =	568		dP =	3250		well loss =	1900				
2	days	days	aq = 0x	aq = 4x	aq = 14x														
3	0		8600		6700														
4	0.001868		5671																
5	0.00411		5567																
6	0.0068		5510																
7	0.010029		5468																
8	0.013903		5435																
9	0.018552		5406																
10	0.02413		5380																
11	0.030824		5356																
12	0.038857		5333																
13	0.048497		5312																
14	0.060065		5292																
15	0.073946		5272																
16	0.090604		5253																
17	0.110592		5234																
18	0.134579		5215																
19	0.163363		5197																
20	0.197904		5179																
21	0.239353		5161																
22	0.289092		5143																
23	0.348779		5125																
24	0.420403		5108																
25	0.506352		5090																
26	0.60949		5073																
27	0.733257		5055																
28	0.881776		5038																
29	1.06		5021																
30	1.273868		5003																
31	1.53051		4986																
32	1.838481		4969																
33	2.208045		4951																
34	2.651522		4933																
35	3.183695		4915																
36	3.822303		4896																
37	4.588632		4875																



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1			pressure at base of BOP																
2	days	days	aq = 0x	aq = 4x	aq = 14x			rho_o =	568		dP =	3250		well loss =	1900				
38	5.508226		4852																
39	6.61174		4826																
40	7.935956		4796																
41	9.525017		4760																
42	11.43189		4718																
43	13.72013		4667																
44	16.46603		4606																
45	19.7611		4533																
46	23.71519		4446																
47	28.4601		4341																
48	34.154		4215																
49	40.98666		4064																
50	49.18587		3883																
51	59.02491		3665																
52	70.83176		3404																
53	84.99998	0	3091																
54	85.00082	0.02	3566		0														
55	85.00165	0.04	3582		0														
56	85.00248	0.06	3590		0														
57	85.00331	0.08	3596		0														
58	85.00414	0.10	3599		0														
59	85.00497	0.12	3603		0														
60	85.00581	0.14	3605		0														
61	85.00664	0.16	3608		0														
62	85.00747	0.18	3610		0														
63	85.0083	0.20	3611		0														
64	85.00913	0.22	4088		0														
65	85.00996	0.24	4105		0														
66	85.0108	0.26	4114		0														
67	85.01163	0.28	4121		0														
68	85.01246	0.30	4126		0														
69	85.01329	0.32	4130		0														
70	85.01412	0.34	4134		0														
71	85.01495	0.36	4137		0														
72	85.01579	0.38	4140		0														
73	85.01662	0.40	4142		0														
74	85.01745	0.42	4620		0														



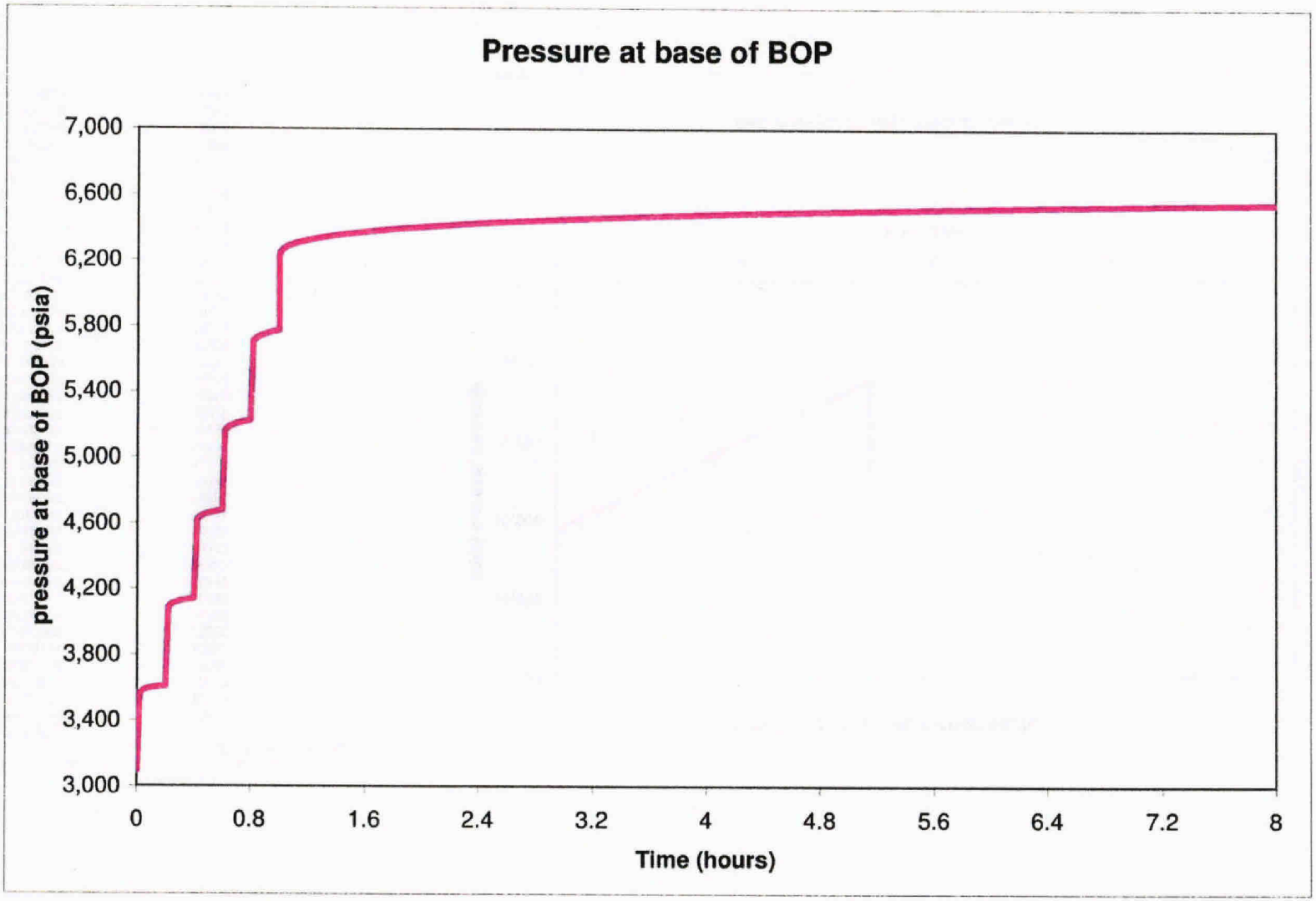
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1			pressure at base of BOP					rho_o =	568		dP =	3250		well loss =	1900				
2	days	days	aq = 0x	aq = 4x	aq = 14x														
75	85.01828	0.44	4638		0														
76	85.01911	0.46	4648		0														
77	85.01994	0.48	4656																
78	85.02077	0.50	4661																
79	85.02161	0.52	4666																
80	85.02244	0.54	4670																
81	85.02327	0.56	4674																
82	85.0241	0.58	4678																
83	85.02493	0.60	4681																
84	85.02576	0.62	5159																
85	85.0266	0.64	5178																
86	85.02743	0.66	5188																
87	85.02826	0.68	5196																
88	85.02909	0.70	5202																
89	85.02992	0.72	5208																
90	85.03075	0.74	5212																
91	85.03159	0.76	5217																
92	85.03242	0.78	5220																
93	85.03325	0.80	5224																
94	85.03408	0.82	5702																
95	85.03491	0.84	5721																
96	85.03574	0.86	5732																
97	85.03658	0.88	5740																
98	85.03741	0.90	5746																
99	85.03824	0.92	5752																
100	85.03907	0.94	5757																
101	85.0399	0.96	5762																
102	85.04073	0.98	5766																
103	85.04156	1.00	5770																
104	85.04159	1.00	6188																
105	85.04161	1.00	6205																
106	85.04164	1.00	6215																
107	85.04168	1.00	6222																
108	85.04173	1.00	6228																
109	85.04178	1.00	6233																
110	85.04185	1.00	6237																
111	85.04192	1.01	6242																
112	85.04202	1.01	6246																
113	85.04213	1.01	6250																
114	85.04227	1.01	6254																
115	85.04243	1.02	6258																
116	85.04263	1.02	6262																
117	85.04286	1.03	6266																
118	85.04314	1.04	6271																
119	85.04348	1.04	6275																
120	85.04388	1.05	6280																
121	85.04437	1.07	6285																
122	85.04496	1.08	6290																



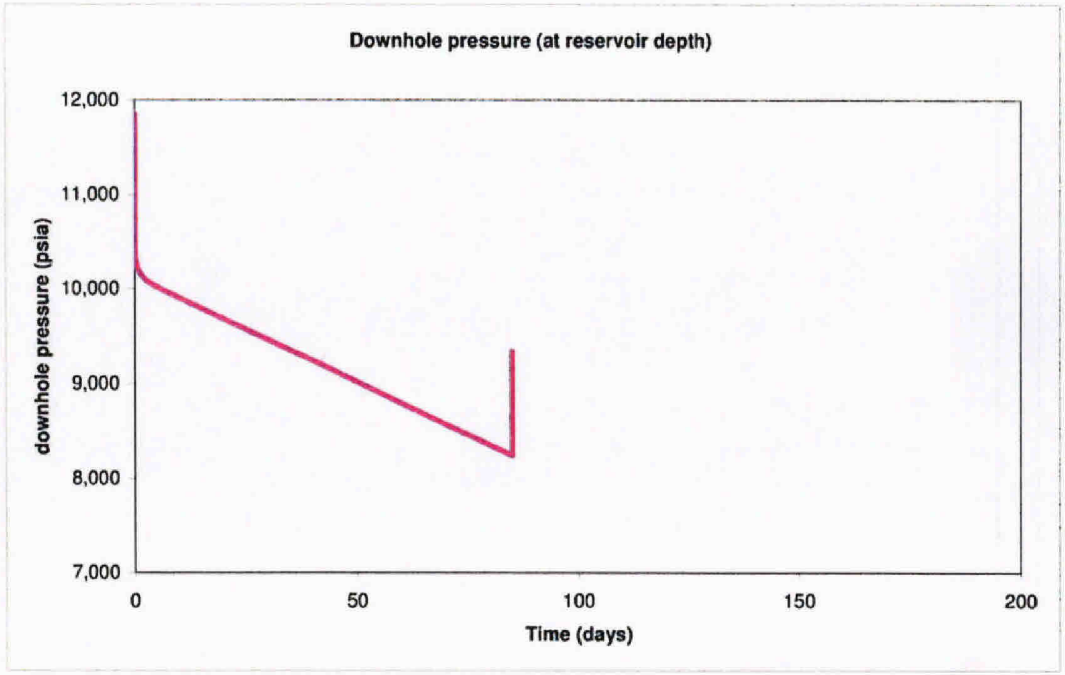
press' `base of BOP 8

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1			pressure at base of BOP					rho_o =	568		dP =	3250		well loss =	1900				
2	days	days	aq = 0x	aq = 4x	aq = 14x														
123	85.04566	1.10	6295																
124	85.0465	1.12	6301																
125	85.04752	1.14	6307																
126	85.04873	1.17	6314																
127	85.05019	1.20	6321																
128	85.05193	1.25	6328																
129	85.05403	1.30	6336																
130	85.05655	1.36	6345																
131	85.05957	1.43	6354																
132	85.06319	1.52	6363																
133	85.06754	1.62	6373																
134	85.07276	1.75	6384																
135	85.07903	1.90	6395																
136	85.08654	2.08	6407																
137	85.09556	2.29	6419																
138	85.10638	2.55	6432																
139	85.11936	2.87	6445																
140	85.13494	3.24	6459																
141	85.15363	3.69	6473																
142	85.17606	4.23	6487																
143	85.20299	4.87	6501																
144	85.23529	5.65	6516																
145	85.27406	6.58	6531																
146	85.32057	7.69	6545																
147	85.3764	9.03	6560																
148	85.44338	10.64	6575																
149	85.52377	12.57	6589																
150	85.62022	14.89	6604																
151	85.73598	17.66	6618																
152	85.87488	21.00	6631																
153	86.04156	25.00	6644																
154	85.67683	16.24	6614																
155	85.68724	16.49	6615																
156	85.69765	16.74	6617																
157	85.70807	16.99	6618																
158	85.71848	17.24	6619																

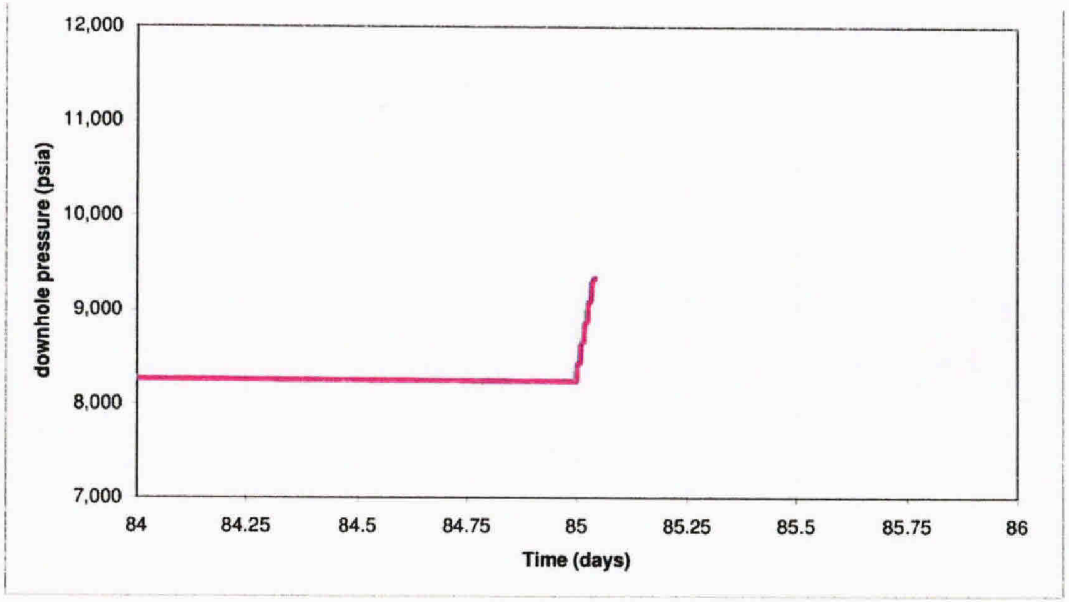
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1			pressure at base of BOP					rho_o =	568		dP =	3250		well loss =	1900				
2	days	days	aq = 0x	aq = 4x	aq = 14x														
159	85.7289	17.49	6620																
160	85.73931	17.74	6621																
161	85.74973	17.99	6622																
162	85.76014	18.24	6624																
163	85.77055	18.49	6625																
164	85.78097	18.74	6626																
165	85.79138	18.99	6627																
166	85.8018	19.24	6628																
167	85.81221	19.49	6629																
168	85.82262	19.74	6630																
169	85.83304	19.99	6631																
170	85.84345	20.24	6632																
171	85.85387	20.49	6633																
172	85.86428	20.74	6634																
173	85.87469	20.99	6635																
174	85.88511	21.24	6636																
175	85.89552	21.49	6637																
176	85.90594	21.74	6637																
177	85.91635	21.99	6638																
178	85.92677	22.24	6639																
179	85.93718	22.49	6640																
180	85.94759	22.74	6641																
181	85.95801	22.99	6642																
182	85.96842	23.24	6642																
183	85.97884	23.49	6643																
184	85.98925	23.74	6644																
185	85.99966	23.99	6645																
186	86.01008	24.24	6646																
187	86.02049	24.49	6646																
188	86.03091	24.74	6647																
189	86.04132	24.99	6648																


Pressure at base of BOP
pressure at base of BOP (psia)
7,000
6,600
6,200
5,800
5,400
5,000
4,600
4,200
3,800
3,400
3,000
0
0.8
1.6
2.4
3.2
4
4.8
5.6
6.4
7.2
8
Time (hours)

		down hole pressure		
days	days	aq = 0x	aq = 4x	aq = 14x
0		11850	11850	11850
0.00186824		10821		
0.00411014		10717		
0.00680041		10660		
0.01002873		10618		
0.01390272		10585		
0.01855151		10556		
0.02413006		10530		
0.03082432		10506		
0.03885743		10483		
0.04849716		10462		
0.06006484		10442		
0.07394605		10422		
0.09060351		10403		
0.11059245		10384		
0.1345792		10365		
0.16336329		10347		
0.1979042		10329		
0.23935328		10311		
0.28909218		10293		
0.34877887		10275		
0.42040291		10258		
0.50635177		10240		
0.60949039		10223		
0.73325676		10205		
0.88177639		10188		
1.05999994		10171		
1.2738682		10153		
1.53051019		10136		
1.83848059		10119		
2.20804501		10101		
2.6515224		10083		
3.18369508		10065		
3.82230258		10046		
4.58863163		10025		
5.50822639		10002		
6.61174011		9976		
7.93595648		9946		
9.52501678		9910		
11.43188858		9868		



13.72013474		9817
16.46603012		9756
19.76110458		9683
23.7151947		9596
28.46010399		9491
34.15399551		9365
40.98666382		9214
49.18586731		9033
59.02490997		8815
70.83176422		8554
84.99998474	0	8241
85.00081635	0.02	8399
85.00164795	0.04	8415
85.00247955	0.06	8423
85.00331116	0.08	8429
85.00414276	0.10	8432
85.00497437	0.12	8436
85.00580597	0.14	8438
85.00663757	0.16	8441
85.00746918	0.18	8443
85.00830078	0.20	8444
85.00913239	0.22	8605
85.00996399	0.24	8622
85.01079559	0.26	8631
85.0116272	0.28	8638
85.0124588	0.30	8643
85.01329041	0.32	8647
85.01412201	0.34	8651
85.01495361	0.36	8654
85.01578522	0.38	8657
85.01661682	0.40	8659
85.01744843	0.42	8820
85.01828003	0.44	8838
85.01911163	0.46	8848
85.01994324	0.48	8856
85.02077484	0.50	8861
85.02160645	0.52	8866
85.02243805	0.54	8870
85.02326965	0.56	8874
85.02410126	0.58	8878
85.02493286	0.60	8881
85.02576447	0.62	9042



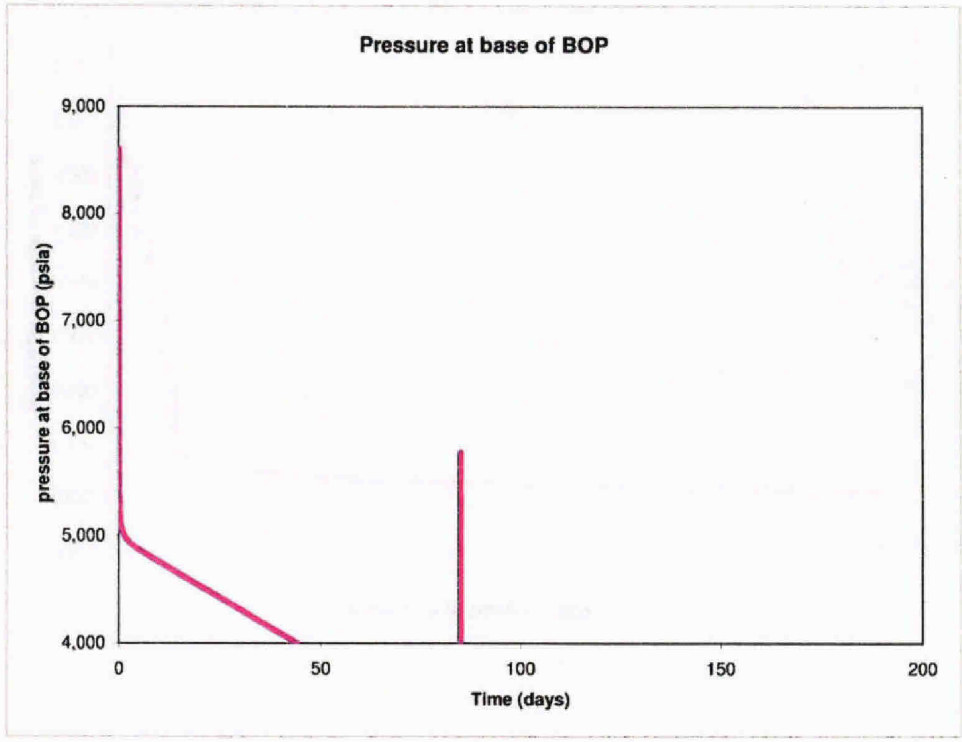
85.02659607	0.64	9061
85.02742767	0.66	9071
85.02825928	0.68	9079
85.02909088	0.70	9085
85.02992249	0.72	9091
85.03075409	0.74	9095
85.03158569	0.76	9100
85.0324173	0.78	9103
85.0332489	0.80	9107
85.03408051	0.82	9269
85.03491211	0.84	9288
85.03574371	0.86	9299
85.03657532	0.88	9307
85.03740692	0.90	9313
85.03823853	0.92	9319
85.03907013	0.94	9324
85.03990173	0.96	9329
85.04073334	0.98	9333
85.04156494	1.00	9337
85.04158783		9438
85.04161072		9455
85.04164124		9465
85.04167938		9472
85.04172516		9478
85.04177856		9483
85.04184723		9487
85.04192352		9492
85.04201508		9496
85.04212952		9500
85.04226685		9504
85.04242706		9508
85.04262543		9512
85.04286194		9516
85.04314423		9521
85.04347992		9525
85.04388428		9530
85.04437256		9535
85.04496002		9540
85.04566193		9545
85.04650116		9551
85.04751587		9557
85.04872894		9564

85.05018616	9571
85.05193329	9578
85.05403137	9586
85.05654907	9595
85.05957031	9604
85.06319427	9613
85.06754303	9623
85.07276154	9634
85.07902527	9645
85.08654022	9657
85.09555817	9669
85.10637665	9682
85.11936188	9695
85.1349411	9709
85.15363312	9723
85.17606354	9737
85.20298767	9751
85.23529053	9766
85.27405548	9781
85.3205719	9795
85.37639618	9810
85.44338226	9825
85.52376556	9839
85.620224	9854
85.73597717	9868
85.87487793	9881
86.04156494	9894
85.67682648	9864
85.6872406	9865
85.69765472	9867
85.70806885	9868
85.71848297	9869
85.72889709	9870
85.73931122	9871
85.74972534	9872
85.76013947	9874
85.77055359	9875
85.78096771	9876
85.79138184	9877
85.80179596	9878
85.81221008	9879
85.82262421	9880

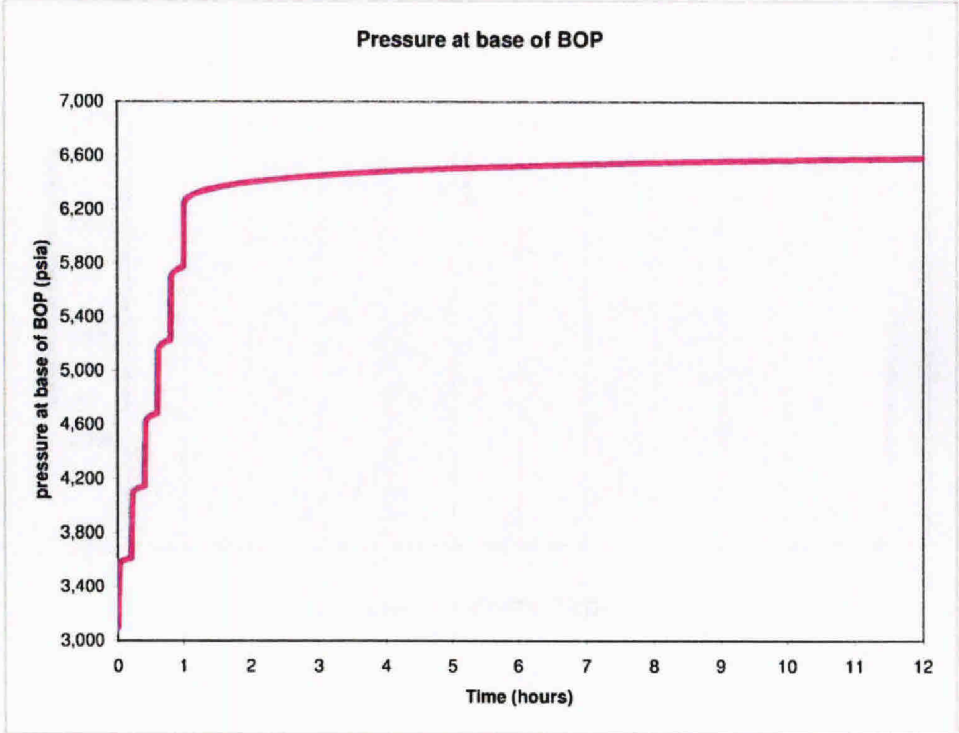
85.83303833	9881
85.84345245	9882
85.85386658	9883
85.8642807	9884
85.87469482	9885
85.88510895	9886
85.89552307	9887
85.90593719	9887
85.91635132	9888
85.92676544	9889
85.93717957	9890
85.94759369	9891
85.95800781	9892
85.96842194	9892
85.97883606	9893
85.98925018	9894
85.99966431	9895
86.01007843	9896
86.02049255	9896
86.03090668	9897
86.0413208	9898

days	days	pressure at base of BOP aq = 0x	aq = 4x	aq = 14x
	0		8600	6700
	0.00186824		5671	
	0.00411014		5567	
	0.00680041		5510	
	0.01002873		5468	
	0.01390272		5435	
	0.01855151		5406	
	0.02413006		5380	
	0.03082432		5356	
	0.03885743		5333	
	0.04849716		5312	
	0.06006484		5292	
	0.07394605		5272	
	0.09060351		5253	
	0.11059245		5234	
	0.1345792		5215	
	0.16336329		5197	
	0.1979042		5179	
	0.23935328		5161	
	0.28909218		5143	
	0.34877887		5125	
	0.42040291		5108	
	0.50635177		5090	
	0.60949039		5073	
	0.73325676		5055	
	0.88177639		5038	
	1.05999994		5021	
	1.2738682		5003	
	1.53051019		4986	
	1.83848059		4969	
	2.20804501		4951	
	2.6515224		4933	
	3.18369508		4915	
	3.82230258		4896	
	4.58863163		4875	
	5.50822639		4852	

rho_o = 568 dP = 3250 well loss = 1900

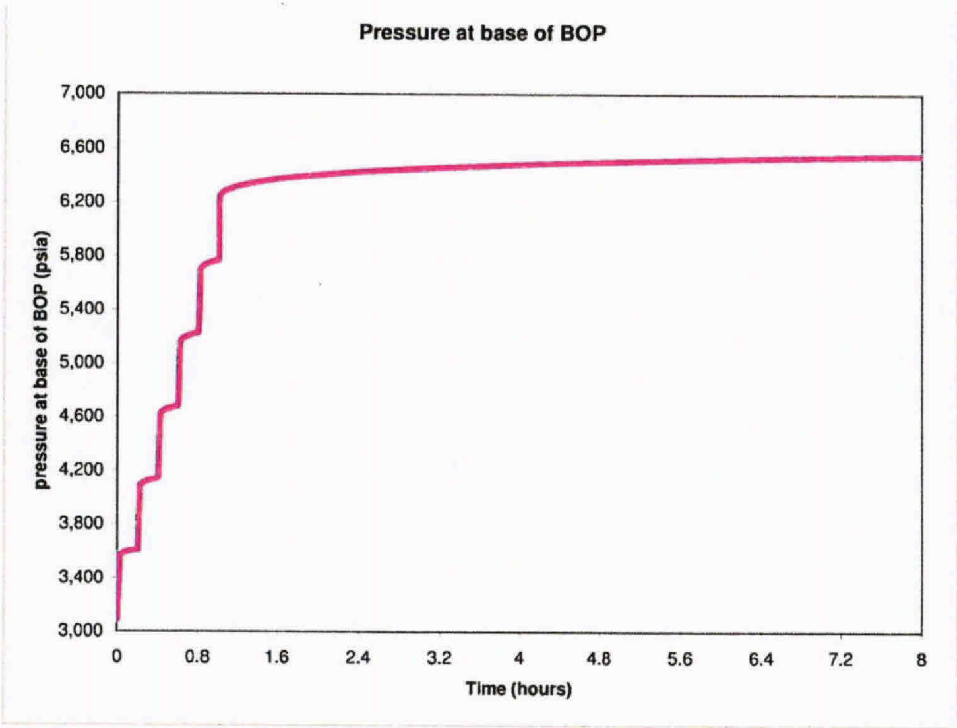


6.61174011		4826	
7.93595648		4796	
9.52501678		4760	
11.43188858		4718	
13.72013474		4667	
16.46603012		4606	
19.76110458		4533	
23.7151947		4446	
28.46010399		4341	
34.15399551		4215	
40.98666382		4064	
49.18586731		3883	
59.02490997		3665	
70.83176422		3404	
84.99998474	0	3091	
85.00081635	0.02	3566	0
85.00164795	0.04	3582	0
85.00247955	0.06	3590	0
85.00331116	0.08	3596	0
85.00414276	0.10	3599	0
85.00497437	0.12	3603	0
85.00580597	0.14	3605	0
85.00663757	0.16	3608	0
85.00746918	0.18	3610	0
85.00830078	0.20	3611	0
85.00913239	0.22	4088	0
85.00996399	0.24	4105	0
85.01079559	0.26	4114	0
85.0116272	0.28	4121	0
85.0124588	0.30	4126	0
85.01329041	0.32	4130	0
85.01412201	0.34	4134	0
85.01495361	0.36	4137	0
85.01578522	0.38	4140	0
85.01661682	0.40	4142	0
85.01744843	0.42	4620	0
85.01828003	0.44	4638	0
85.01911163	0.46	4648	0



Pressure at base of BOP

85.01994324	0.48	4656
85.02077484	0.50	4661
85.02160645	0.52	4666
85.02243805	0.54	4670
85.02326965	0.56	4674
85.02410126	0.58	4678
85.02493286	0.60	4681
85.02576447	0.62	5159
85.02659607	0.64	5178
85.02742767	0.66	5188
85.02825928	0.68	5196
85.02909088	0.70	5202
85.02992249	0.72	5208
85.03075409	0.74	5212
85.03158569	0.76	5217
85.0324173	0.78	5220
85.0332489	0.80	5224
85.03408051	0.82	5702
85.03491211	0.84	5721
85.03574371	0.86	5732
85.03657532	0.88	5740
85.03740692	0.90	5746
85.03823853	0.92	5752
85.03907013	0.94	5757
85.03990173	0.96	5762
85.04073334	0.98	5766
85.04156494	1.00	5770
85.04158783	1.00	6188
85.04161072	1.00	6205
85.04164124	1.00	6215
85.04167938	1.00	6222
85.04172516	1.00	6228
85.04177856	1.00	6233
85.04184723	1.00	6237
85.04192352	1.01	6242
85.04201508	1.01	6246
85.04212952	1.01	6250
85.04226685	1.01	6254



85.04242706	1.02	6258
85.04262543	1.02	6262
85.04286194	1.03	6266
85.04314423	1.04	6271
85.04347992	1.04	6275
85.04388428	1.05	6280
85.04437256	1.07	6285
85.04496002	1.08	6290
85.04566193	1.10	6295
85.04650116	1.12	6301
85.04751587	1.14	6307
85.04872894	1.17	6314
85.05018616	1.20	6321
85.05193329	1.25	6328
85.05403137	1.30	6336
85.05654907	1.36	6345
85.05957031	1.43	6354
85.06319427	1.52	6363
85.06754303	1.62	6373
85.07276154	1.75	6384
85.07902527	1.90	6395
85.08654022	2.08	6407
85.09555817	2.29	6419
85.10637665	2.55	6432
85.11936188	2.87	6445
85.1349411	3.24	6459
85.15363312	3.69	6473
85.17606354	4.23	6487
85.20298767	4.87	6501
85.23529053	5.65	6516
85.27405548	6.58	6531
85.3205719	7.69	6545
85.37639618	9.03	6560
85.44338226	10.64	6575
85.52376556	12.57	6589
85.620224	14.89	6604
85.73597717	17.66	6618
85.87487793	21.00	6631

86.04156494	25.00	6644
85.67682648	16.24	6614
85.6872406	16.49	6615
85.69765472	16.74	6617
85.70806885	16.99	6618
85.71848297	17.24	6619
85.72889709	17.49	6620
85.73931122	17.74	6621
85.74972534	17.99	6622
85.76013947	18.24	6624
85.77055359	18.49	6625
85.78096771	18.74	6626
85.79138184	18.99	6627
85.80179596	19.24	6628
85.81221008	19.49	6629
85.82262421	19.74	6630
85.83303833	19.99	6631
85.84345245	20.24	6632
85.85386658	20.49	6633
85.8642807	20.74	6634
85.87469482	20.99	6635
85.88510895	21.24	6636
85.89552307	21.49	6637
85.90593719	21.74	6637
85.91635132	21.99	6638
85.92676544	22.24	6639
85.93717957	22.49	6640
85.94759369	22.74	6641
85.95800781	22.99	6642
85.96842194	23.24	6642
85.97883606	23.49	6643
85.98925018	23.74	6644
85.99966431	23.99	6645
86.01007843	24.24	6646
86.02049255	24.49	6646
86.03090668	24.74	6647
86.0413208	24.99	6648

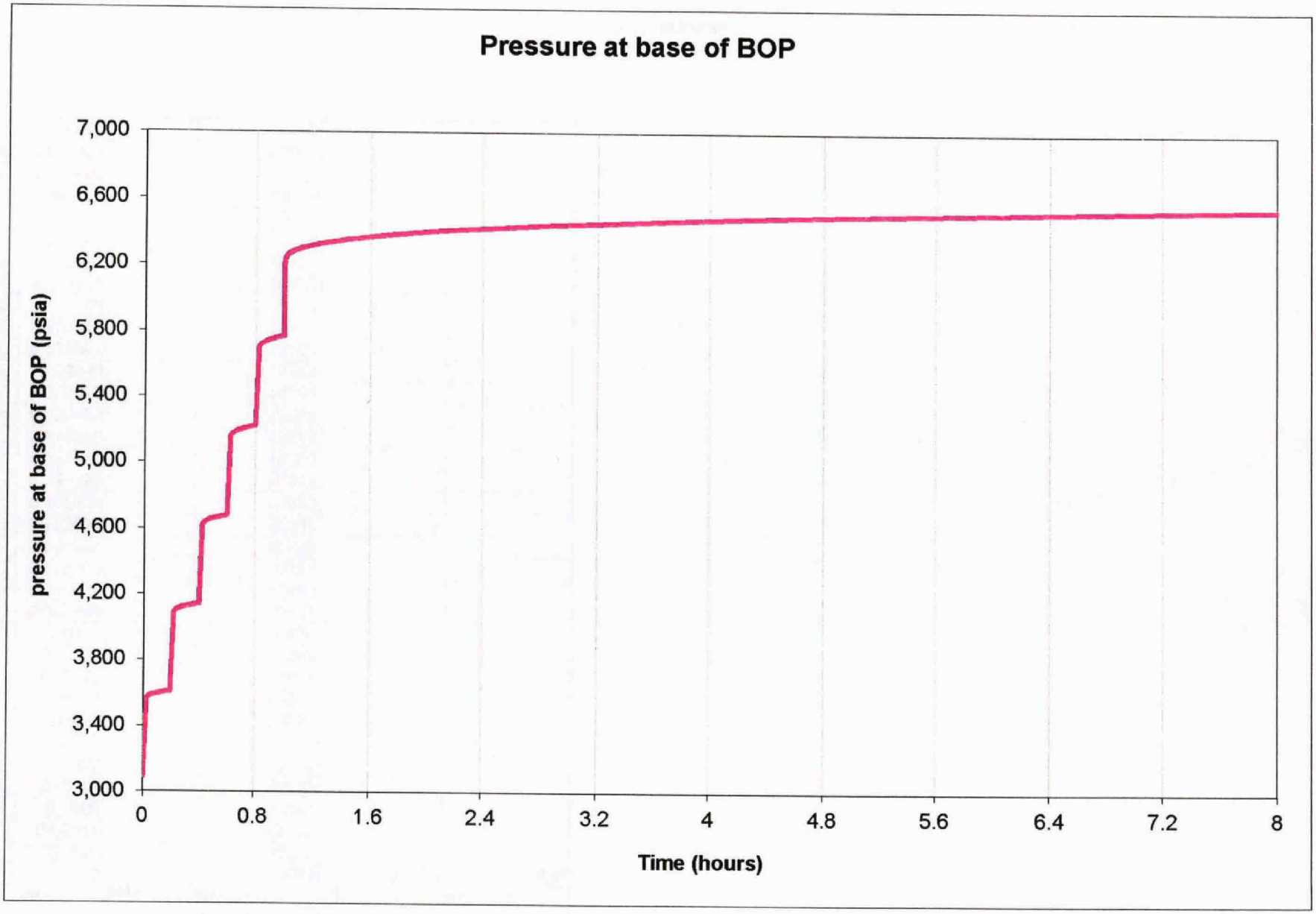

Pressure at base of BOP
pressure at base of BOP (psia)
7,000
6,600
6,200
5,800
5,400
5,000
4,600
4,200
3,800
3,400
3,000
0
0.8
1.6
2.4
3.2
4
4.8
5.6
6.4
7.2
8
Time (hours)

Chart2

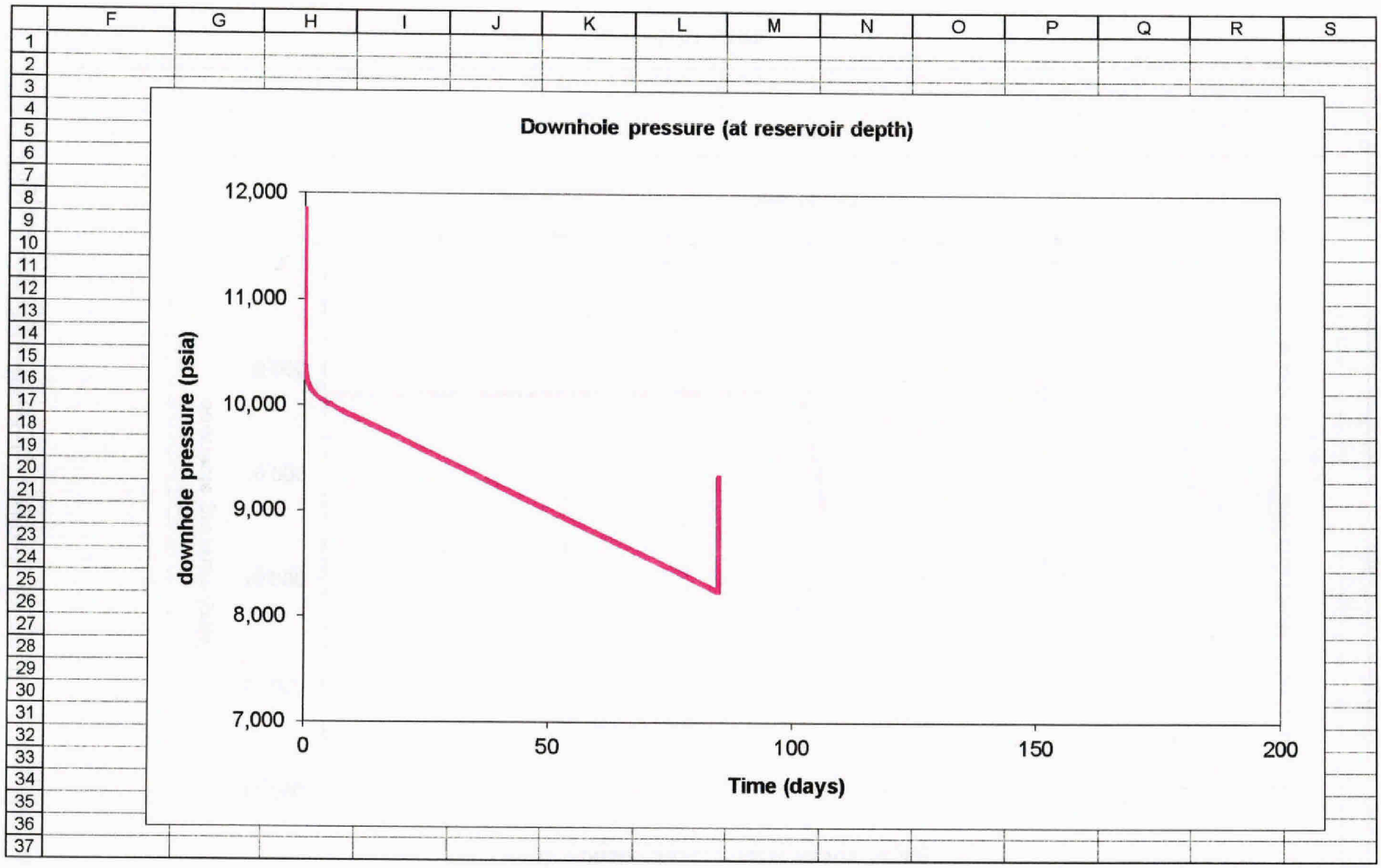
	A	B	C	D	E
1			down hole pressure		
2	days	days	aq = 0x	aq = 4x	aq = 14x
3	0		11850	11850	11850
4	0.001868		10821		
5	0.00411		10717		
6	0.0068		10660		
7	0.010029		10618		
8	0.013903		10585		
9	0.018552		10556		
10	0.02413		10530		
11	0.030824		10506		
12	0.038857		10483		
13	0.048497		10462		
14	0.060065		10442		
15	0.073946		10422		
16	0.090604		10403		
17	0.110592		10384		
18	0.134579		10365		
19	0.163363		10347		
20	0.197904		10329		
21	0.239353		10311		
22	0.289092		10293		
23	0.348779		10275		
24	0.420403		10258		
25	0.506352		10240		
26	0.60949		10223		
27	0.733257		10205		
28	0.881776		10188		
29	1.06		10171		
30	1.273868		10153		
31	1.53051		10136		
32	1.838481		10119		
33	2.208045		10101		
34	2.651522		10083		
35	3.183695		10065		
36	3.822303		10046		
37	4.588632		10025		

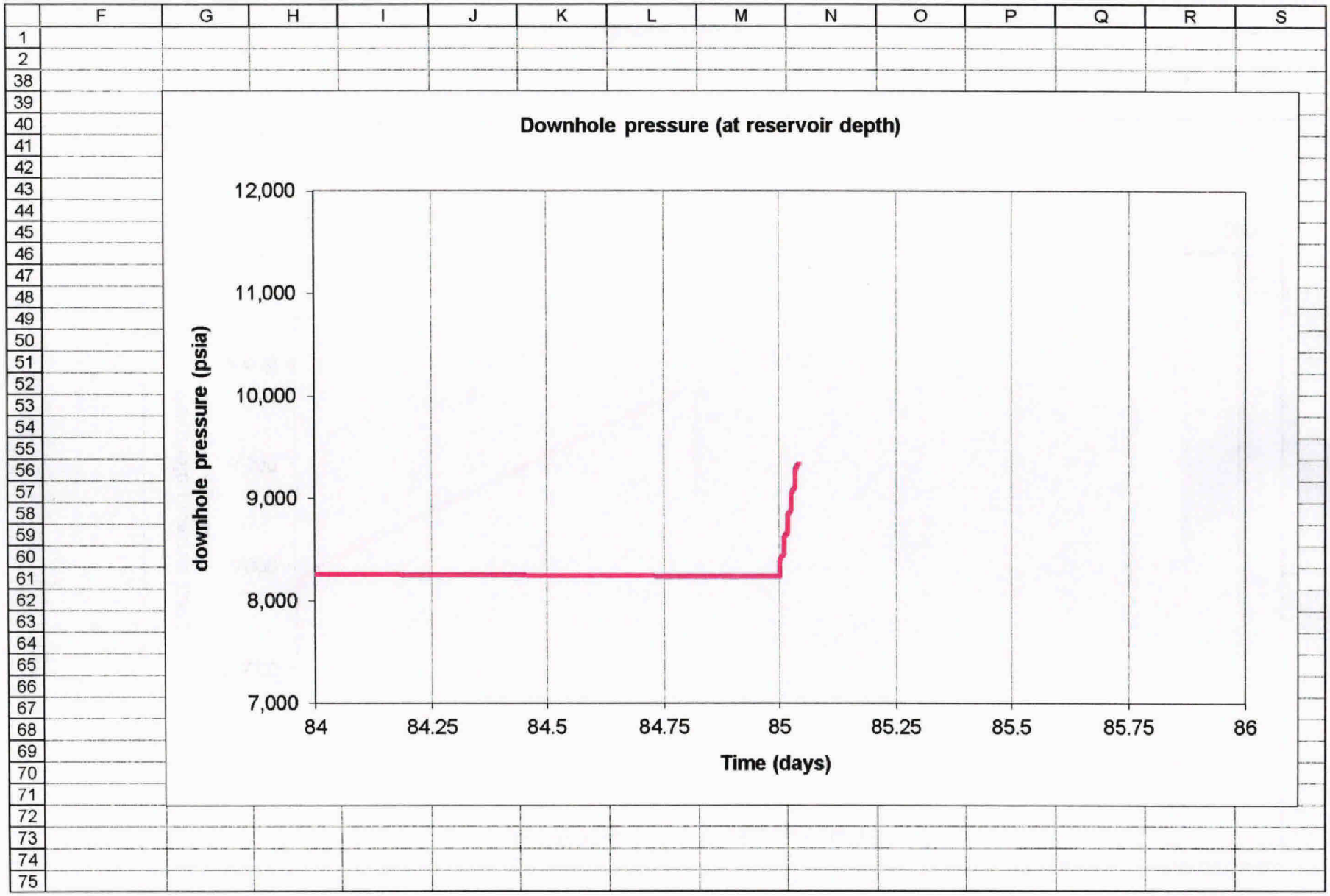
	A	B	C	D	E
1			down hole pressure		
2	days	days	aq = 0x	aq = 4x	aq = 14x
38	5.508226		10002		
39	6.61174		9976		
40	7.935956		9946		
41	9.525017		9910		
42	11.43189		9868		
43	13.72013		9817		
44	16.46603		9756		
45	19.7611		9683		
46	23.71519		9596		
47	28.4601		9491		
48	34.154		9365		
49	40.98666		9214		
50	49.18587		9033		
51	59.02491		8815		
52	70.83176		8554		
53	84.99998	0	8241		
54	85.00082	0.02	8399		
55	85.00165	0.04	8415		
56	85.00248	0.06	8423		
57	85.00331	0.08	8429		
58	85.00414	0.10	8432		
59	85.00497	0.12	8436		
60	85.00581	0.14	8438		
61	85.00664	0.16	8441		
62	85.00747	0.18	8443		
63	85.0083	0.20	8444		
64	85.00913	0.22	8605		
65	85.00996	0.24	8622		
66	85.0108	0.26	8631		
67	85.01163	0.28	8638		
68	85.01246	0.30	8643		
69	85.01329	0.32	8647		
70	85.01412	0.34	8651		
71	85.01495	0.36	8654		
72	85.01579	0.38	8657		
73	85.01662	0.40	8659		
74	85.01745	0.42	8820		
75	85.01828	0.44	8838		

	A	B	C	D	E
1			down hole pressure		
2	days	days	aq = 0x	aq = 4x	aq = 14x
76	85.01911	0.46	8848		
77	85.01994	0.48	8856		
78	85.02077	0.50	8861		
79	85.02161	0.52	8866		
80	85.02244	0.54	8870		
81	85.02327	0.56	8874		
82	85.0241	0.58	8878		
83	85.02493	0.60	8881		
84	85.02576	0.62	9042		
85	85.0266	0.64	9061		
86	85.02743	0.66	9071		
87	85.02826	0.68	9079		
88	85.02909	0.70	9085		
89	85.02992	0.72	9091		
90	85.03075	0.74	9095		
91	85.03159	0.76	9100		
92	85.03242	0.78	9103		
93	85.03325	0.80	9107		
94	85.03408	0.82	9269		
95	85.03491	0.84	9288		
96	85.03574	0.86	9299		
97	85.03658	0.88	9307		
98	85.03741	0.90	9313		
99	85.03824	0.92	9319		
100	85.03907	0.94	9324		
101	85.0399	0.96	9329		
102	85.04073	0.98	9333		
103	85.04156	1.00	9337		
104	85.04159		9438		
105	85.04161		9455		
106	85.04164		9465		
107	85.04168		9472		
108	85.04173		9478		
109	85.04178		9483		
110	85.04185		9487		
111	85.04192		9492		
112	85.04202		9496		
113	85.04213		9500		

	A	B	C	D	E
1			down hole pressure		
2	days	days	aq = 0x	aq = 4x	aq = 14x
114	85.04227		9504		
115	85.04243		9508		
116	85.04263		9512		
117	85.04286		9516		
118	85.04314		9521		
119	85.04348		9525		
120	85.04388		9530		
121	85.04437		9535		
122	85.04496		9540		
123	85.04566		9545		
124	85.0465		9551		
125	85.04752		9557		
126	85.04873		9564		
127	85.05019		9571		
128	85.05193		9578		
129	85.05403		9586		
130	85.05655		9595		
131	85.05957		9604		
132	85.06319		9613		
133	85.06754		9623		
134	85.07276		9634		
135	85.07903		9645		
136	85.08654		9657		
137	85.09556		9669		
138	85.10638		9682		
139	85.11936		9695		
140	85.13494		9709		
141	85.15363		9723		
142	85.17606		9737		
143	85.20299		9751		
144	85.23529		9766		
145	85.27406		9781		
146	85.32057		9795		
147	85.3764		9810		
148	85.44338		9825		
149	85.52377		9839		
150	85.62022		9854		
151	85.73598		9868		

	A	B	C	D	E
1			down hole pressure		
2	days	days	aq = 0x	aq = 4x	aq = 14x
152	85.87488		9881		
153	86.04156		9894		
154	85.67683		9864		
155	85.68724		9865		
156	85.69765		9867		
157	85.70807		9868		
158	85.71848		9869		
159	85.7289		9870		
160	85.73931		9871		
161	85.74973		9872		
162	85.76014		9874		
163	85.77055		9875		
164	85.78097		9876		
165	85.79138		9877		
166	85.8018		9878		
167	85.81221		9879		
168	85.82262		9880		
169	85.83304		9881		
170	85.84345		9882		
171	85.85387		9883		
172	85.86428		9884		
173	85.87469		9885		
174	85.88511		9886		
175	85.89552		9887		
176	85.90594		9887		
177	85.91635		9888		
178	85.92677		9889		
179	85.93718		9890		
180	85.94759		9891		
181	85.95801		9892		
182	85.96842		9892		
183	85.97884		9893		
184	85.98925		9894		
185	85.99966		9895		
186	86.01008		9896		
187	86.02049		9896		
188	86.03091		9897		
189	86.04132		9898		




Downhole pressure (at reservoir depth)
downhole pressure (psia)
12,000
11,000
10,000
9,000
8,000
7,000
84
84.25
84.5
84.75
85
85.25
85.5
85.75
86
Time (days)

	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1														
2														
76														
77														
78														
79														
80														
81														
82														
83														
84														
85														
86														
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102														
103														
104														
105														
106														
107														
108														
109														
110														
111														
112														
113														

	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1														
2														
114														
115														
116														
117														
118														
119														
120														
121														
122														
123														
124														
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144														
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147														
148														
149														
150														
151														

	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1														
2														
152														
153														
154														
155														
156														
157														
158														
159														
160														
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183														
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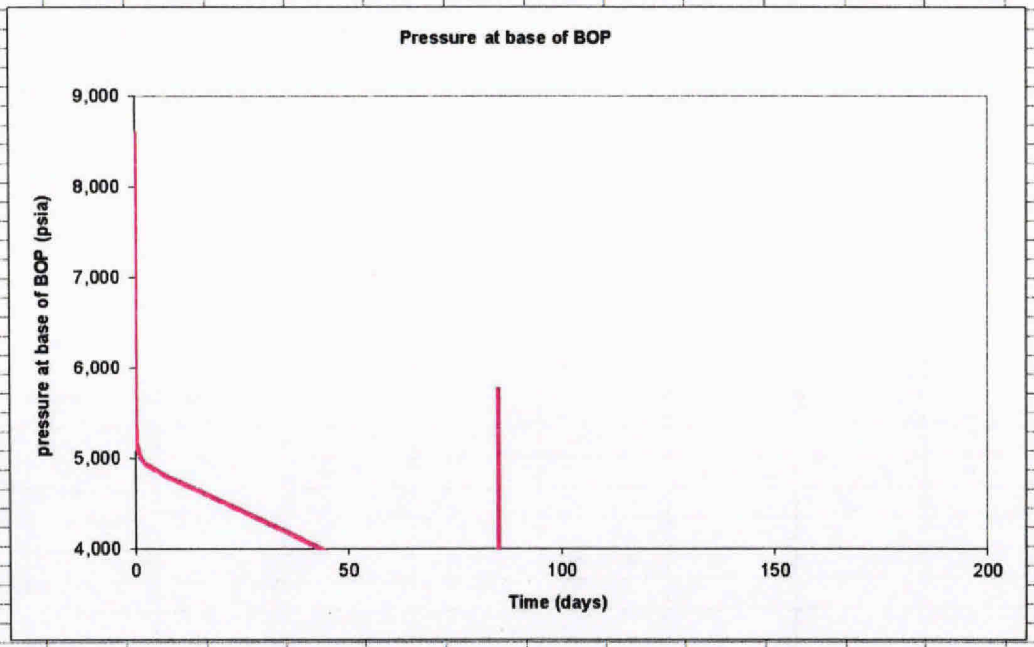
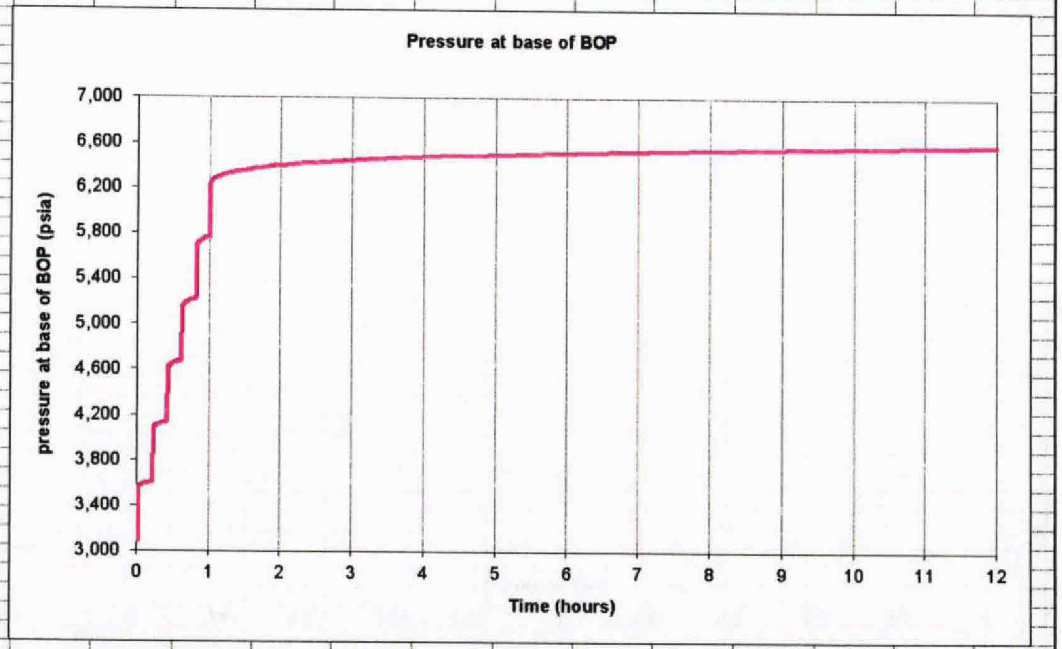
185														
186														
187														
188														
189														

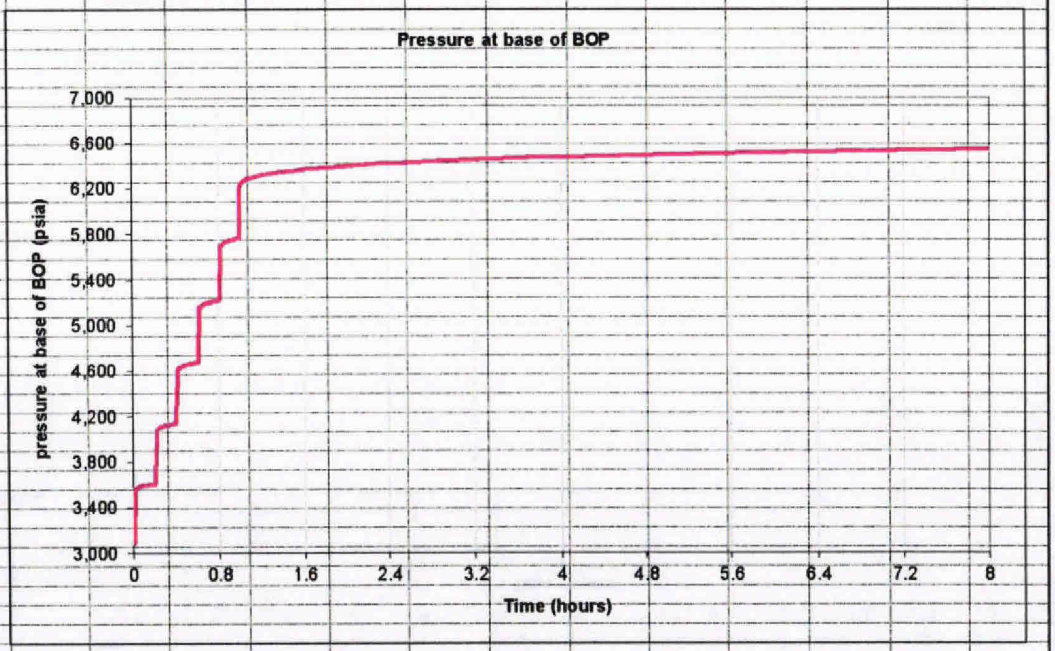
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1			pressure at base of BOP					rho_o =	568		dP =	3250		well loss =	1900				
2	days	days	aq = 0x	aq = 4x	aq = 14x														
3	0		8600		6700														
4	0.0018682		5671																
5	0.0041101		5567																
6	0.0068004		5510																
7	0.0100287		5468																
8	0.0139027		5435																
9	0.0185515		5406																
10	0.0241301		5380																
11	0.0308243		5356																
12	0.0388574		5333																
13	0.0484972		5312																
14	0.0600648		5292																
15	0.0739461		5272																
16	0.0906035		5253																
17	0.1105925		5234																
18	0.1345792		5215																
19	0.1633633		5197																
20	0.1979042		5179																
21	0.2393533		5161																
22	0.2890922		5143																
23	0.3487789		5125																
24	0.4204029		5108																
25	0.5063518		5090																
26	0.6094904		5073																
27	0.7332568		5055																
28	0.8817764		5038																
29	1.0599999		5021																
30	1.2738682		5003																
31	1.5305102		4986																
32	1.8384806		4969																
33	2.208045		4951																
34	2.6515224		4933																
35	3.1836951		4915																
36	3.8223026		4896																
37	4.5886316		4875																



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1			pressure at base of BOP																
2	days	days	aq = 0x	aq = 4x	aq = 14x			rho_o =	568		dP =	3250		well loss =	1900				
38	5.5082264		4852																
39	6.6117401		4826																
40	7.9359565		4796																
41	9.5250168		4760																
42	11.431889		4718																
43	13.720135		4667																
44	16.46603		4606																
45	19.761105		4533																
46	23.715195		4446																
47	28.460104		4341																
48	34.153996		4215																
49	40.986664		4064																
50	49.185867		3883																
51	59.02491		3665																
52	70.831764		3404																
53	84.999985	0	3091																
54	85.000816	0.02	3566		0														
55	85.001648	0.04	3582		0														
56	85.00248	0.06	3590		0														
57	85.003311	0.08	3596		0														
58	85.004143	0.10	3599		0														
59	85.004974	0.12	3603		0														
60	85.005806	0.14	3605		0														
61	85.006638	0.16	3608		0														
62	85.007469	0.18	3610		0														
63	85.008301	0.20	3611		0														
64	85.009132	0.22	4088		0														
65	85.009964	0.24	4105		0														
66	85.010796	0.26	4114		0														
67	85.011627	0.28	4121		0														
68	85.012459	0.30	4126		0														
69	85.01329	0.32	4130		0														
70	85.014122	0.34	4134		0														
71	85.014954	0.36	4137		0														
72	85.015785	0.38	4140		0														
73	85.016617	0.40	4142		0														
74	85.017448	0.42	4620		0														



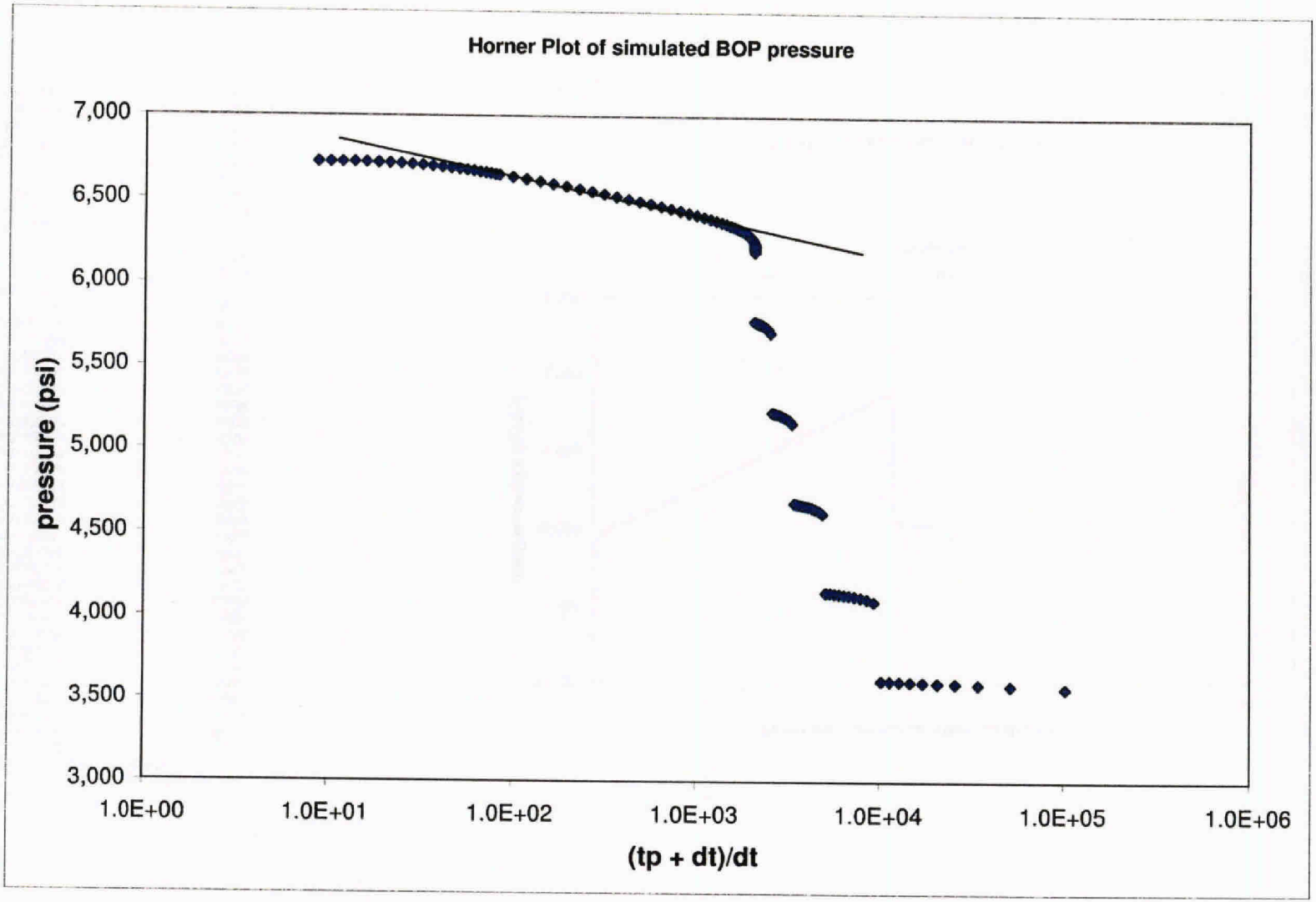
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1			pressure at base of BOP					rho_o =	568		dP =	3250		well loss =	1900				
2	days	days	aq = 0x	aq = 4x	aq = 14x														
75	85.01828	0.44	4638		0														
76	85.019112	0.46	4648		0														
77	85.019943	0.48	4656																
78	85.020775	0.50	4661																
79	85.021606	0.52	4666																
80	85.022438	0.54	4670																
81	85.02327	0.56	4674																
82	85.024101	0.58	4678																
83	85.024933	0.60	4681																
84	85.025764	0.62	5159																
85	85.026596	0.64	5178																
86	85.027428	0.66	5188																
87	85.028259	0.68	5196																
88	85.029091	0.70	5202																
89	85.029922	0.72	5208																
90	85.030754	0.74	5212																
91	85.031586	0.76	5217																
92	85.032417	0.78	5220																
93	85.033249	0.80	5224																
94	85.034081	0.82	5702																
95	85.034912	0.84	5721																
96	85.035744	0.86	5732																
97	85.036575	0.88	5740																
98	85.037407	0.90	5746																
99	85.038239	0.92	5752																
100	85.03907	0.94	5757																
101	85.039902	0.96	5762																
102	85.040733	0.98	5766																
103	85.041565	1.00	5770																
104	85.041588	1.00	6188																
105	85.041611	1.00	6205																
106	85.041641	1.00	6215																
107	85.041679	1.00	6222																
108	85.041725	1.00	6228																
109	85.041779	1.00	6233																
110	85.041847	1.00	6237																
111	85.041924	1.01	6242																
112	85.042015	1.01	6246																
113	85.04213	1.01	6250																
114	85.042267	1.01	6254																
115	85.042427	1.02	6258																
116	85.042625	1.02	6262																
117	85.042862	1.03	6266																
118	85.043144	1.04	6271																
119	85.04348	1.04	6275																
120	85.043884	1.05	6280																
121	85.044373	1.07	6285																
122	85.04496	1.08	6290																



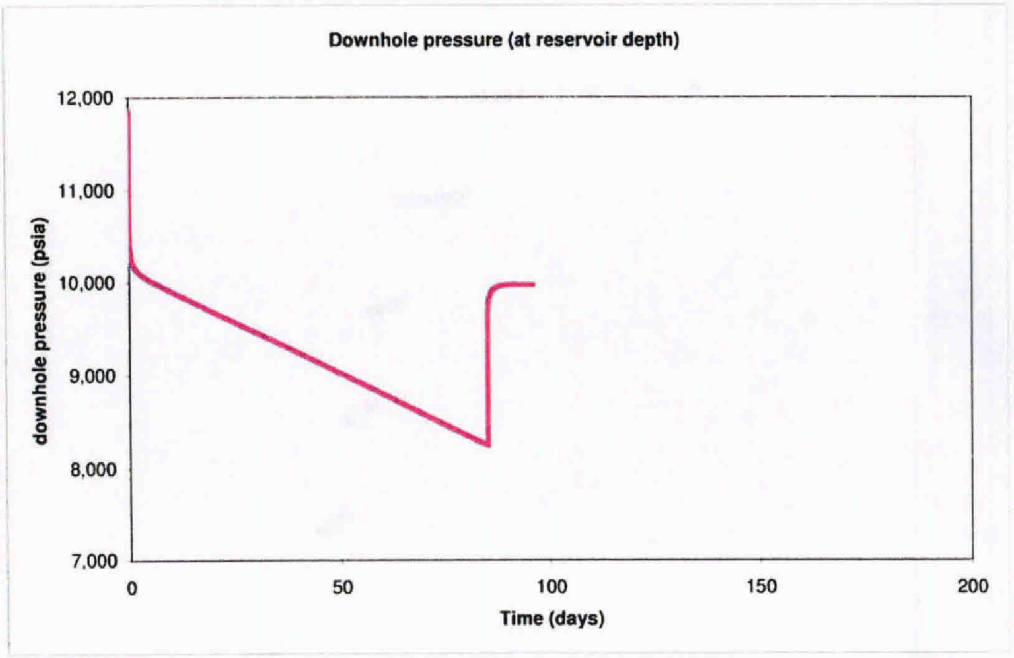
pres t base of BOP

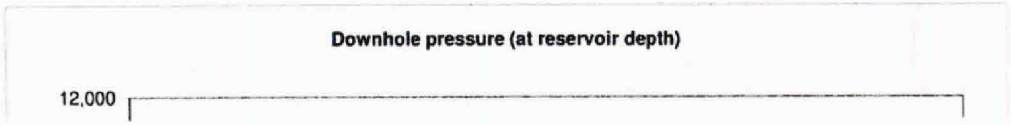
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1			pressure at base of BOP																
2	days	days	aq = 0x	aq = 4x	aq = 14x			rho_o =	568		dP =	3250		well loss =	1900				
123	85.045662	1.10	6295																
124	85.046501	1.12	6301																
125	85.047516	1.14	6307																
126	85.048729	1.17	6314																
127	85.050186	1.20	6321																
128	85.051933	1.25	6328																
129	85.054031	1.30	6336																
130	85.056549	1.36	6345																
131	85.05957	1.43	6354																
132	85.063194	1.52	6363																
133	85.067543	1.62	6373																
134	85.072762	1.75	6384																
135	85.079025	1.90	6395																
136	85.08654	2.08	6407																
137	85.095558	2.29	6419																
138	85.106377	2.55	6432																
139	85.119362	2.87	6445																
140	85.134941	3.24	6459																
141	85.153633	3.69	6473																
142	85.176064	4.23	6487																
143	85.202988	4.87	6501																
144	85.235291	5.65	6516																
145	85.274055	6.58	6531																
146	85.320572	7.69	6545																
147	85.376396	9.03	6560																
148	85.443382	10.64	6575																
149	85.523766	12.57	6589																
150	85.620224	14.89	6604																
151	85.735977	17.66	6618																
152	85.874878	21.00	6631																
153	86.041565	25.00	6644																

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1			pressure at base of BOP					rho_o =	568		dP =	3250		well loss =	1900				
2	days	days	aq = 0x	aq = 4x	aq = 14x														
154	85.676826	16.24	6614																
155	85.687241	16.49	6615																
156	85.697655	16.74	6617																
157	85.708069	16.99	6618																
158	85.718483	17.24	6619																
159	85.728897	17.49	6620																
160	85.739311	17.74	6621																
161	85.749725	17.99	6622																
162	85.760139	18.24	6624																
163	85.770554	18.49	6625																
164	85.780968	18.74	6626																
165	85.791382	18.99	6627																
166	85.801796	19.24	6628																
167	85.81221	19.49	6629																
168	85.822624	19.74	6630																
169	85.833038	19.99	6631																
170	85.843452	20.24	6632																
171	85.853867	20.49	6633																
172	85.864281	20.74	6634																
173	85.874695	20.99	6635																
174	85.885109	21.24	6636																
175	85.895523	21.49	6637																
176	85.905937	21.74	6637																
177	85.916351	21.99	6638																
178	85.926765	22.24	6639																
179	85.93718	22.49	6640																
180	85.947594	22.74	6641																
181	85.958008	22.99	6642																
182	85.968422	23.24	6642																
183	85.978836	23.49	6643																
184	85.98925	23.74	6644																
185	85.999664	23.99	6645																
186	86.010078	24.24	6646																
187	86.020493	24.49	6646																
188	86.030907	24.74	6647																
189	86.041321	24.99	6648																

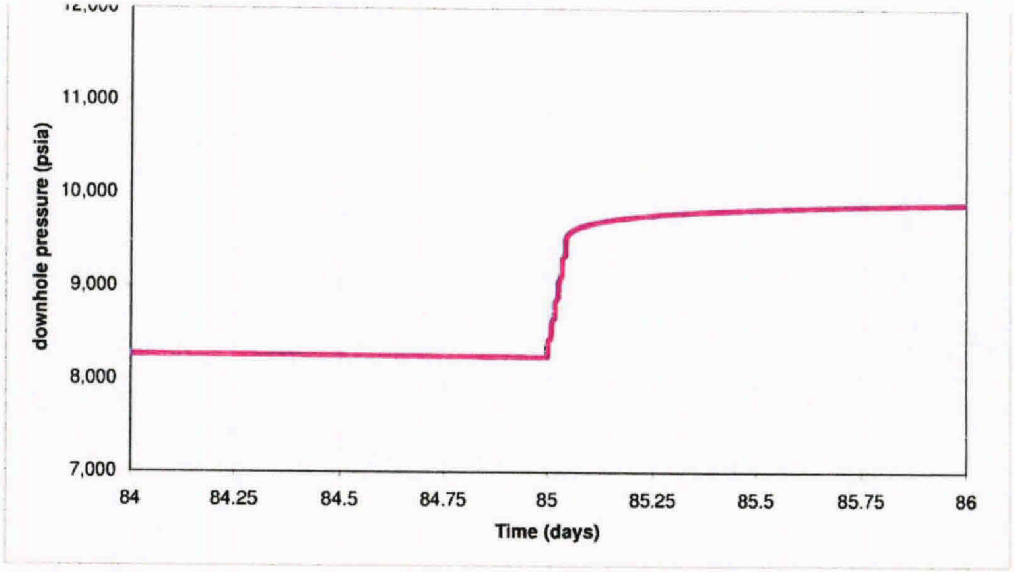

Horner Plot of simulated BOP pressure
7,000
6,500
6,000
5,500
5,000
4,500
4,000
3,500
3,000
pressure (psi)
1.0E+00
1.0E+01
1.0E+02
1.0E+03
1.0E+04
1.0E+05
1.0E+06
(tp + dt)/dt

days	days	down hole pressure aq = 0x
	0	11850
	0.00186824	10821
	0.00411014	10717
	0.00680041	10660
	0.01002873	10618
	0.01390272	10585
	0.01855151	10556
	0.02413006	10530
	0.03082432	10506
	0.03885743	10483
	0.04849716	10462
	0.06006484	10442
	0.07394605	10422
	0.09060351	10403
	0.11059245	10384
	0.1345792	10365
	0.16336329	10347
	0.1979042	10329
	0.23935328	10311
	0.28909218	10293
	0.34877887	10275
	0.42040291	10258
	0.50635177	10240
	0.60949039	10223
	0.73325676	10205
	0.88177639	10188
	1.05999994	10171
	1.2738682	10153
	1.53051019	10136
	1.83848059	10119
	2.20804501	10101
	2.6515224	10083
	3.18369508	10065
	3.82230258	10046
	4.58863163	10025
	5.50822639	10002
	6.61174011	9976
	7.93595648	9946
	9.52501678	9910
	11.43188858	9868
	13.72013474	9817





16.46603012		9756
19.76110458		9683
23.7151947		9596
28.46010399		9491
34.15399551		9365
40.98666382		9214
49.18586731		9033
59.02490997		8815
70.83176422		8554 dP (psia) dT (day)
84.99998474	0	8241 815 35.81411743
85.00081635	0.000832	8399
85.00164795	0.001663	8415
85.00247955	0.002495	8423
85.00331116	0.003326	8429
85.00414276	0.004158	8432
85.00497437	0.004990	8436
85.00580597	0.005821	8438
85.00663757	0.006653	8441
85.00746918	0.007484	8443
85.00830078	0.008316	8444
85.00913239	0.009148	8605
85.00996399	0.009979	8622
85.01079559	0.010811	8631
85.0116272	0.011642	8638
85.0124588	0.012474	8643
85.01329041	0.013306	8647
85.01412201	0.014137	8651
85.01495361	0.014969	8654
85.01578522	0.015800	8657
85.01661682	0.016632	8659
85.01744843	0.017464	8820
85.01828003	0.018295	8838
85.01911163	0.019127	8848
85.01994324	0.019959	8856
85.02077484	0.020790	8861
85.02160645	0.021622	8866
85.02243805	0.022453	8870
85.02326965	0.023285	8874
85.02410126	0.024117	8878
85.02493286	0.024948	8881
85.02576447	0.025780	9042
85.02659607	0.026611	9061
85.02742767	0.027443	9071



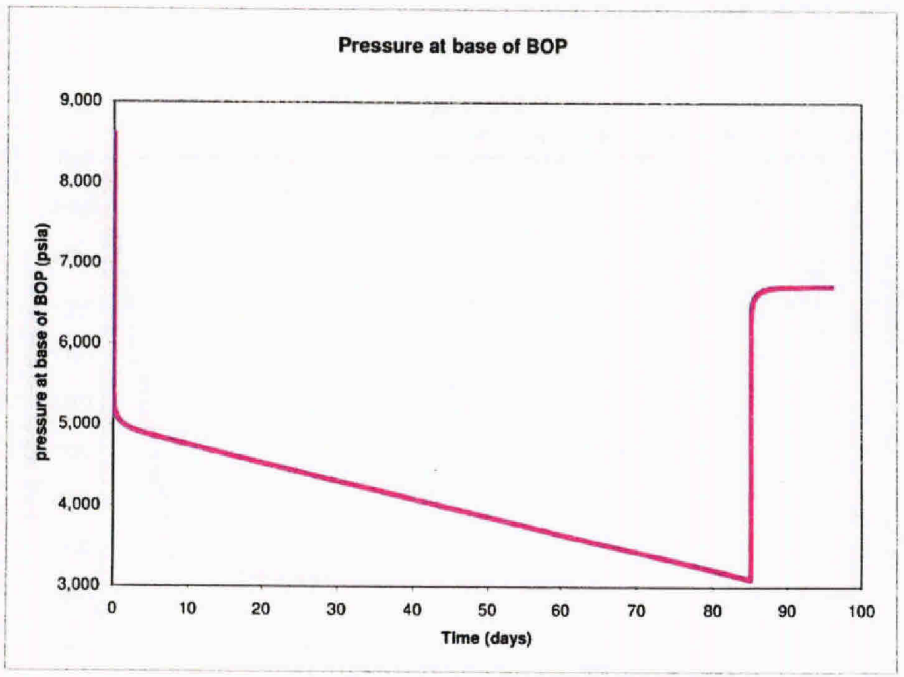
85.02825928	0.028275	9079
85.02909088	0.029106	9085
85.02992249	0.029938	9091
85.03075409	0.030769	9095
85.03158569	0.031601	9100
85.0324173	0.032433	9103
85.0332489	0.033264	9107
85.03408051	0.034096	9269
85.03491211	0.034927	9288
85.03574371	0.035759	9299
85.03657532	0.036591	9307
85.03740692	0.037422	9313
85.03823853	0.038254	9319
85.03907013	0.039085	9324
85.03990173	0.039917	9329
85.04073334	0.040749	9333
85.04156494	0.041580	9337
85.04158783	0.041603	9438
85.04161072	0.041626	9455
85.04164124	0.041657	9465
85.04167938	0.041695	9472
85.04172516	0.041740	9478
85.04177856	0.041794	9483
85.04184723	0.041862	9487
85.04192352	0.041939	9492
85.04201508	0.042030	9496
85.04212952	0.042145	9500
85.04226685	0.042282	9504
85.04242706	0.042442	9508
85.04262543	0.042641	9512
85.04286194	0.042877	9516
85.04314423	0.043159	9521
85.04347992	0.043495	9525
85.04388428	0.043900	9530
85.04437256	0.044388	9535
85.04496002	0.044975	9540
85.04566193	0.045677	9545
85.04650116	0.046516	9551
85.04751587	0.047531	9557
85.04872894	0.048744	9564
85.05018616	0.050201	9571
85.05193329	0.051949	9578
85.05403137	0.054047	9586

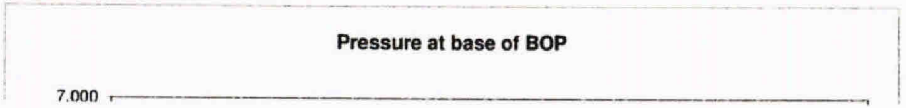
85.05654907	0.056564	9595
85.05957031	0.059586	9604
85.06319427	0.063210	9613
85.06754303	0.067558	9623
85.07276154	0.072777	9634
85.07902527	0.079041	9645
85.08654022	0.086555	9657
85.09555817	0.095573	9669
85.10637665	0.106392	9682
85.11936188	0.119377	9695
85.1349411	0.134956	9709
85.15363312	0.153648	9723
85.17606354	0.176079	9737
85.20298767	0.203003	9751
85.23529053	0.235306	9766
85.27405548	0.274071	9781
85.3205719	0.320587	9795
85.37639618	0.376411	9810
85.44338226	0.443398	9825
85.52376556	0.523781	9839
85.620224	0.620239	9854
85.73597717	0.735992	9868
85.87487793	0.874893	9881
86.04156494	1.041580	9894
86.09513092	1.095146	9898
86.15940857	1.159424	9903
86.23654175	1.236557	9907
86.32910156	1.329117	9912
86.44017792	1.440193	9918
86.57346344	1.573479	9923
86.73340607	1.733421	9929
86.92533875	1.925354	9935
87.15566254	2.155678	9941
87.43204498	2.432060	9946
87.76371002		9951
88.16170502		9956
88.63929749		9960
89.21240997		9963
89.90014648		9966
90.72542572		9968
91.71576691		9969
92.9041748		9970
94.33026123		9970

96.04156494 9970

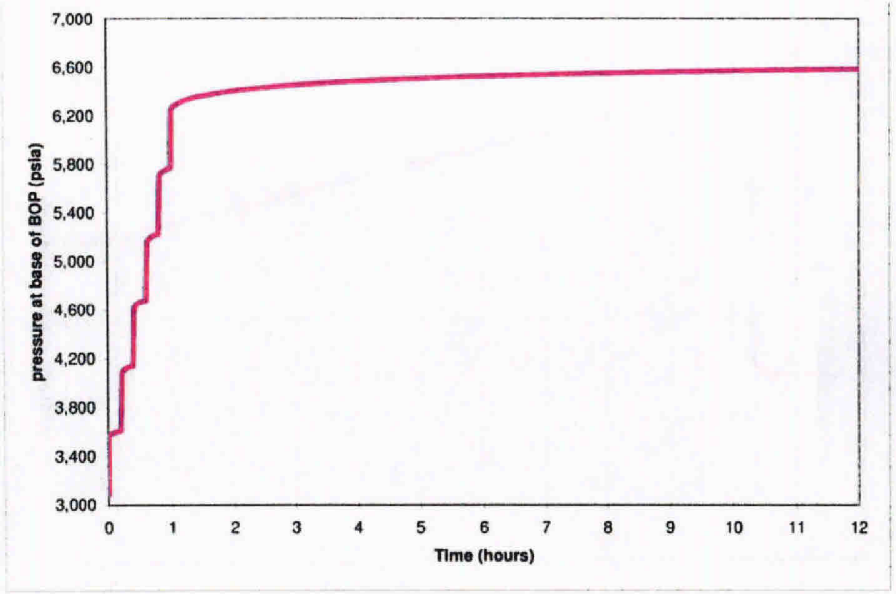
days	days	pressure at base of BOP aq = 0x	aq = 4x	aq = 14x
	0		8600	-5150
	0.00186824		5671	
	0.00411014		5567	
	0.00680041		5510	
	0.01002873		5468	
	0.01390272		5435	
	0.01855151		5406	
	0.02413006		5380	
	0.03082432		5356	
	0.03885743		5333	
	0.04849716		5312	
	0.06006484		5292	
	0.07394605		5272	
	0.09060351		5253	
	0.11059245		5234	
	0.1345792		5215	
	0.16336329		5197	
	0.1979042		5179	
	0.23935328		5161	
	0.28909218		5143	
	0.34877887		5125	
	0.42040291		5108	
	0.50635177		5090	
	0.60949039		5073	
	0.73325676		5055	
	0.88177639		5038	
	1.05999994		5021	
	1.2738682		5003	
	1.53051019		4986	
	1.83848059		4969	
	2.20804501		4951	
	2.6515224		4933	
	3.18369508		4915	
	3.82230258		4896	
	4.58863163		4875	
	5.50822639		4852	
	6.61174011		4826	
	7.93595648		4796	
	9.52501678		4760	
	11.43188858		4718	

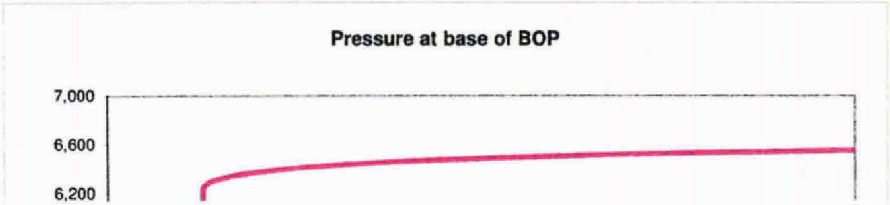
rho_o = 568 dP = 3250 well loss = 1900



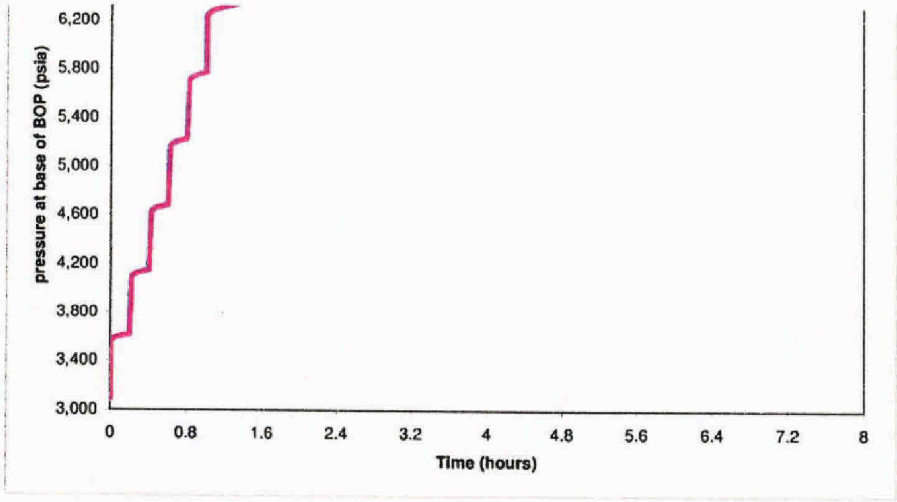


13.72013474		4667	
16.46603012		4606	
19.76110458		4533	
23.7151947		4446	
28.46010399		4341	
34.15399551		4215	
40.98666382		4064	
49.18586731		3883	
59.02490997		3665	
70.83176422	shutin hr	3404	
84.99998474	0	3091	7/15/2010 12:30
85.00081635	0.00083	3566	7/15/2010 12:31
85.00164795	0.040	3582	7/15/2010 12:32
85.00247955	0.060	3590	7/15/2010 12:33
85.00331116	0.080	3596	7/15/2010 12:34
85.00414276	0.100	3599	7/15/2010 12:35
85.00497437	0.120	3603	7/15/2010 12:37
85.00580597	0.140	3605	7/15/2010 12:38
85.00663757	0.160	3608	7/15/2010 12:39
85.00746918	0.180	3610	7/15/2010 12:40
85.00830078	0.200	3611	7/15/2010 12:41
85.00913239	0.220	4088	7/15/2010 12:43
85.00996399	0.240	4105	7/15/2010 12:44
85.01079559	0.259	4114	7/15/2010 12:45
85.0116272	0.279	4121	7/15/2010 12:46
85.0124588	0.299	4126	7/15/2010 12:47
85.01329041	0.319	4130	7/15/2010 12:49
85.01412201	0.339	4134	7/15/2010 12:50
85.01495361	0.359	4137	7/15/2010 12:51
85.01578522	0.379	4140	7/15/2010 12:52
85.01661682	0.399	4142	7/15/2010 12:53
85.01744843	0.419	4620	7/15/2010 12:55
85.01828003	0.439	4638	7/15/2010 12:56
85.01911163	0.459	4648	7/15/2010 12:57
85.01994324	0.479	4656	7/15/2010 12:58
85.02077484	0.499	4661	7/15/2010 12:59
85.02160645	0.519	4666	7/15/2010 13:01
85.02243805	0.539	4670	7/15/2010 13:02
85.02326965	0.559	4674	7/15/2010 13:03
85.02410126	0.579	4678	7/15/2010 13:04
85.02493286	0.599	4681	7/15/2010 13:05
85.02576447	0.619	5159	7/15/2010 13:07





85.02659607	0.639	5178		7/15/2010 13:08
85.02742767	0.659	5188		7/15/2010 13:09
85.02825928	0.679	5196		7/15/2010 13:10
85.02909088	0.699	5202		7/15/2010 13:11
85.02992249	0.719	5208		7/15/2010 13:13
85.03075409	0.738	5212		7/15/2010 13:14
85.03158569	0.758	5217		7/15/2010 13:15
85.0324173	0.778	5220		7/15/2010 13:16
85.0332489	0.798	5224		7/15/2010 13:17
85.03408051	0.818	5702		7/15/2010 13:19
85.03491211	0.838	5721		7/15/2010 13:20
85.03574371	0.858	5732		7/15/2010 13:21
85.03657532	0.878	5740		7/15/2010 13:22
85.03740692	0.898	5746		7/15/2010 13:23
85.03823853	0.918	5752		7/15/2010 13:25
85.03907013	0.938	5757		7/15/2010 13:26
85.03990173	0.958	5762		7/15/2010 13:27
85.04073334	0.978	5766		7/15/2010 13:28
85.04156494	0.998	5770	rate (psi/hr)	7/15/2010 13:29
85.04158783	0.998	6188	760279	7/15/2010 13:29
85.04161072	0.999	6205	30945	7/15/2010 13:29
85.04164124	1.000	6215	13652	7/15/2010 13:29
85.04167938	1.001	6222	7647	7/15/2010 13:30
85.04172516	1.002	6228	5461	7/15/2010 13:30
85.04177856	1.003	6233	3901	7/15/2010 13:30
85.04184723	1.005	6237	2427	7/15/2010 13:30
85.04192352	1.007	6242	2731	7/15/2010 13:30
85.04201508	1.009	6246	1820	7/15/2010 13:30
85.04212952	1.011	6250	1456	7/15/2010 13:30
85.04226685	1.015	6254	1214	7/15/2010 13:30
85.04242706	1.019	6258	1040	7/15/2010 13:31
85.04262543	1.023	6262	840	7/15/2010 13:31
85.04286194	1.029	6266	705	7/15/2010 13:31
85.04314423	1.036	6271	738	7/15/2010 13:32
85.04347992	1.044	6275	496	7/15/2010 13:32
85.04388428	1.054	6280	515	7/15/2010 13:33
85.04437256	1.065	6285	427	7/15/2010 13:33
85.04496002	1.079	6290	355	7/15/2010 13:34
85.04566193	1.096	6295	297	7/15/2010 13:35
85.04650116	1.116	6301	298	7/15/2010 13:36
85.04751587	1.141	6307	246	7/15/2010 13:38
85.04872894	1.170	6314	240	7/15/2010 13:40



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85.05654907	1.358	6345	149	7/15/2010 13:51
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85.06319427	1.517	6363	103	7/15/2010 14:01
85.06754303	1.621	6373	96	7/15/2010 14:07
85.07276154	1.747	6384	88	7/15/2010 14:14
85.07902527	1.897	6395	73	7/15/2010 14:23
85.08654022	2.077	6407	67	7/15/2010 14:34
85.09555817	2.294	6419	55	7/15/2010 14:47
85.10637665	2.553	6432	50	7/15/2010 15:03
85.11936188	2.865	6445	42	7/15/2010 15:21
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85.15363312	3.688	6473	31	7/15/2010 16:11
85.17606354	4.226	6487	26	7/15/2010 16:43
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85.23529053	5.647	6516	19	7/15/2010 18:08
85.27405548	6.578	6531	16	7/15/2010 19:04
85.3205719	7.694	6545	13	7/15/2010 20:11
85.37639618	9.034	6560	11	7/15/2010 21:32
85.44338226	10.642	6575	9	7/15/2010 23:08
85.52376556	12.571	6589	7	7/16/2010 1:04
85.620224	14.886	6604	6	7/16/2010 3:23
85.73597717	17.664	6618	5	7/16/2010 6:09
85.87487793	20.997	6631	4	7/16/2010 9:29
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86.15940857	27.826	6653		
86.23654175	29.677	6657		
86.32910156	31.899	6662		
86.44017792	34.565	6668		
86.57346344	37.763	6673		
86.73340607	41.602	6679		
86.92533875	46.208	6685		
87.15566254	51.736	6691		
87.43204498	58.369	6696		
87.76371002	66.329	6701		
88.16170502	75.881	6706		
88.63929749	87.344	6710		
89.21240997	101.098	6713		
89.90014648	117.604	6716		

90.72542572	137.411	6718
91.71576691	161.179	6719
92.9041748	189.701	6720
94.33026123	223.927	6720
96.04156494	264.998	6720

Tp-dT	dT	Tp-dT/dT	psi		
84.99998474			3091	7/15/2010 12:30	40374.5208333333
85.00081635	0.00083161	102212.3548	3565.666667	7/15/2010 12:31	40374.5216649433
85.00164795	0.00166321	51106.98466	3581.666667	7/15/2010 12:32	0.0008316100
85.00247955	0.00249481	34071.72472	3589.666667	7/15/2010 12:33	
85.00331116	0.00332642	25553.99233	3595.666667	7/15/2010 12:34	
85.00414276	0.00415802	20443.41844	3598.666667	7/15/2010 12:35	
85.00497437	0.00498963	17036.32822	3602.666667	7/15/2010 12:37	
85.00580597	0.00582123	14602.72244	3604.666667	7/15/2010 12:38	
85.00663757	0.00665283	12777.51537	3607.666667	7/15/2010 12:39	
85.00746918	0.00748444	11357.89307	3609.666667	7/15/2010 12:40	
85.00830078	0.00831604	10222.20922	3610.666667	7/15/2010 12:41	
85.00913239	0.00914765	9293.002289	4088.333333	7/15/2010 12:43	
85.00996399	0.00997925	8518.672645	4105.333333	7/15/2010 12:44	
85.01079559	0.01081085	7863.470087	4114.333333	7/15/2010 12:45	
85.0116272	0.01164246	7301.861222	4121.333333	7/15/2010 12:46	
85.0124588	0.01247406	6815.139481	4126.333333	7/15/2010 12:47	
85.01329041	0.01330567	6389.252883	4130.333333	7/15/2010 12:49	
85.01412201	0.01413727	6013.475162	4134.333333	7/15/2010 12:50	
85.01495361	0.01496887	5679.450327	4137.333333	7/15/2010 12:51	
85.01578522	0.01580048	5380.582439	4140.333333	7/15/2010 12:52	
85.01661682	0.01663208	5111.604611	4142.333333	7/15/2010 12:53	
85.01744843	0.01746369	4868.240815	4620	7/15/2010 12:55	
85.01828003	0.01829529	4647.003684	4638	7/15/2010 12:56	
85.01911163	0.01912689	4445.004474	4648	7/15/2010 12:57	
85.01994324	0.0199585	4259.836322	4656	7/15/2010 12:58	
85.02077484	0.0207901	4089.483689	4661	7/15/2010 12:59	
85.02160645	0.02162171	3932.233225	4666	7/15/2010 13:01	
85.02243805	0.02245331	3786.632708	4670	7/15/2010 13:02	
85.02326965	0.02328491	3651.432179	4674	7/15/2010 13:03	
85.02410126	0.02411652	3525.55432	4678	7/15/2010 13:04	
85.02493286	0.02494812	3408.069741	4681	7/15/2010 13:05	
85.02576447	0.02577973	3298.163498	5158.666667	7/15/2010 13:07	
85.02659607	0.02661133	3195.127642	5177.666667	7/15/2010 13:08	
85.02742767	0.02744293	3098.336354	5187.666667	7/15/2010 13:09	
85.02825928	0.02827454	3007.237581	5195.666667	7/15/2010 13:10	
85.02909088	0.02910614	2921.345492	5201.666667	7/15/2010 13:11	
85.02992249	0.02993775	2840.224215	5207.666667	7/15/2010 13:13	
85.03075409	0.03076935	2763.488799	5211.666667	7/15/2010 13:14	
85.03158569	0.03160095	2690.792071	5216.666667	7/15/2010 13:15	
85.0324173	0.03243256	2621.822554	5219.666667	7/15/2010 13:16	
85.0332489	0.03326416	2556.302306	5223.666667	7/15/2010 13:17	
85.03408051	0.03409577	2493.97742	5702.333333	7/15/2010 13:19	
85.03491211	0.03492737	2434.621104	5721.333333	7/15/2010 13:20	
85.03574371	0.03575897	2378.025533	5732.333333	7/15/2010 13:21	
85.03657532	0.03659058	2324.001842	5740.333333	7/15/2010 13:22	
85.03740692	0.03742218	2272.379827	5746.333333	7/15/2010 13:23	
85.03823853	0.03825379	2223.001656	5752.333333	7/15/2010 13:25	
85.03907013	0.03908539	2175.725255	5757.333333	7/15/2010 13:26	
85.03990173	0.03991699	2130.418695	5762.333333	7/15/2010 13:27	
85.04073334	0.0407486	2086.960861	5766.333333	7/15/2010 13:28	
85.04156494	0.0415802	2045.241844	5770.333333	7/15/2010 13:29	
85.04158783	0.04160309	2044.117104	6188	7/15/2010 13:29	
85.04161072	0.04162598	2042.9936	6205	7/15/2010 13:29	
85.04164124	0.0416565	2041.497515	6215	7/15/2010 13:29	
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85.04172516	0.04174042	2037.395052	6228	7/15/2010 13:30	
85.04177856	0.04179382	2034.793148	6233	7/15/2010 13:30	
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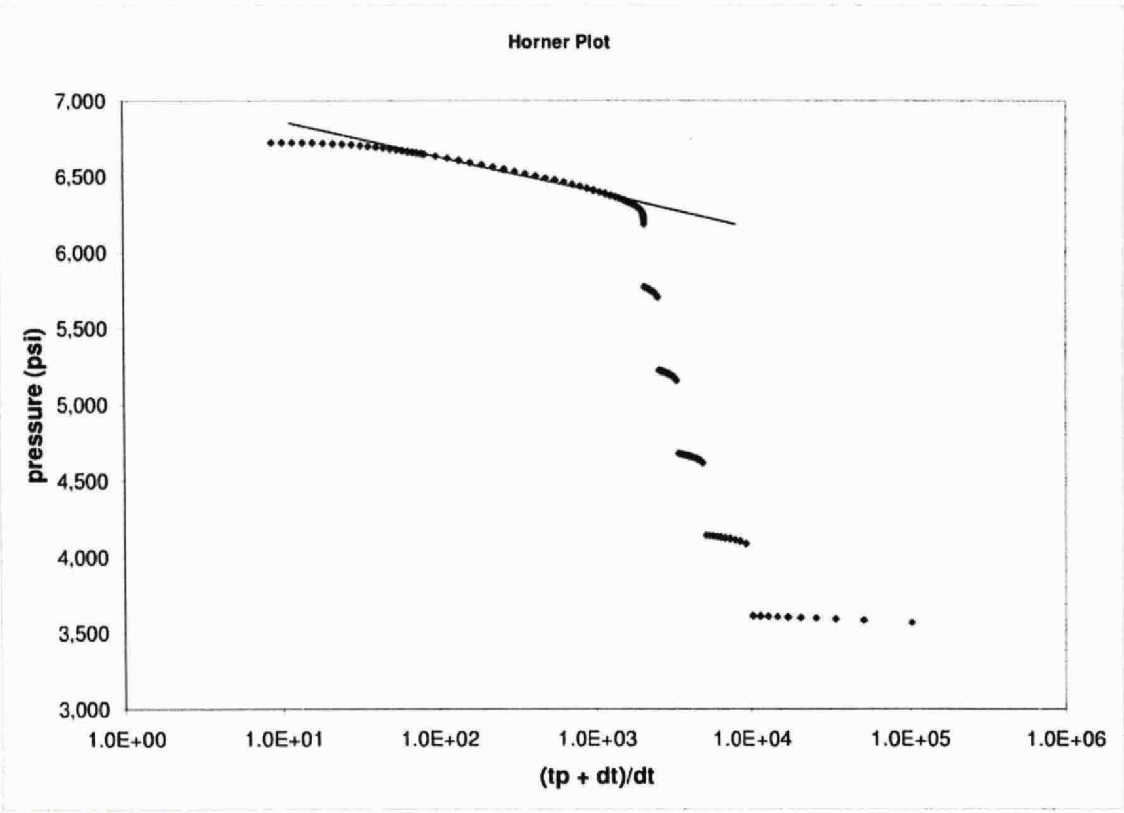

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85.04388428	0.04389954	1937.23862	6280		7/15/2010 13:33
85.04437256	0.04438782	1915.939385	6285		7/15/2010 13:33
85.04496002	0.04497528	1890.92675	6290		7/15/2010 13:34
85.04566193	0.04567719	1861.884716	6295		7/15/2010 13:35
85.04650116	0.04651642	1828.311404	6301		7/15/2010 13:36
85.04751587	0.04753113	1789.301367	6307		7/15/2010 13:38
85.04872894	0.0487442	1744.706898	6314		7/15/2010 13:40
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85.05654907	0.05656433	1503.713543	6345		7/15/2010 13:51
85.05957031	0.05958557	1427.519621	6354		7/15/2010 13:55
85.06319427	0.06320953	1345.733693	6363		7/15/2010 14:01
85.06754303	0.06755829	1259.172531	6373		7/15/2010 14:07
85.07276154	0.0727768	1168.954413	6384		7/15/2010 14:14
85.07902527	0.07904053	1076.397454	6395		7/15/2010 14:23
85.08654022	0.08655548	983.0289223	6407		7/15/2010 14:34
85.09555817	0.09557343	890.3683604	6419		7/15/2010 14:47
85.10637665	0.10639191	799.932783	6432		7/15/2010 15:03
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85.27405548	0.27407074	311.1388523	6531		7/15/2010 19:04
85.3205719	0.32058716	266.1384564	6545		7/15/2010 20:11
85.37639618	0.37641144	226.8166881	6560		7/15/2010 21:32
85.44338226	0.44339752	192.701534	6575		7/15/2010 23:08
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85.620224	0.62023926	138.0438639	6604		7/16/2010 3:23
85.73597717	0.73599243	116.4902976	6618		7/16/2010 6:09
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86.57346344	1.5734787	55.02042286	6673	0.13328552	7/17/2010 2:15
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87.15566254	2.1556778	40.43074644	6691	0.23032379	7/17/2010 16:14
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87.76371002	2.76372528	31.75558391	6701	0.33166504	7/18/2010 6:49
88.16170502	3.16172028	27.88409385	6706	0.397995	7/18/2010 16:22
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91.71578691	6.71578217	13.8567513	6719	0.99034119	7/22/2010 5:40
92.9041748	7.90419006	11.75378807	6720		7/23/2010 10:12
94.33026123	9.33027649	10.11012496	6720		7/24/2010 20:25
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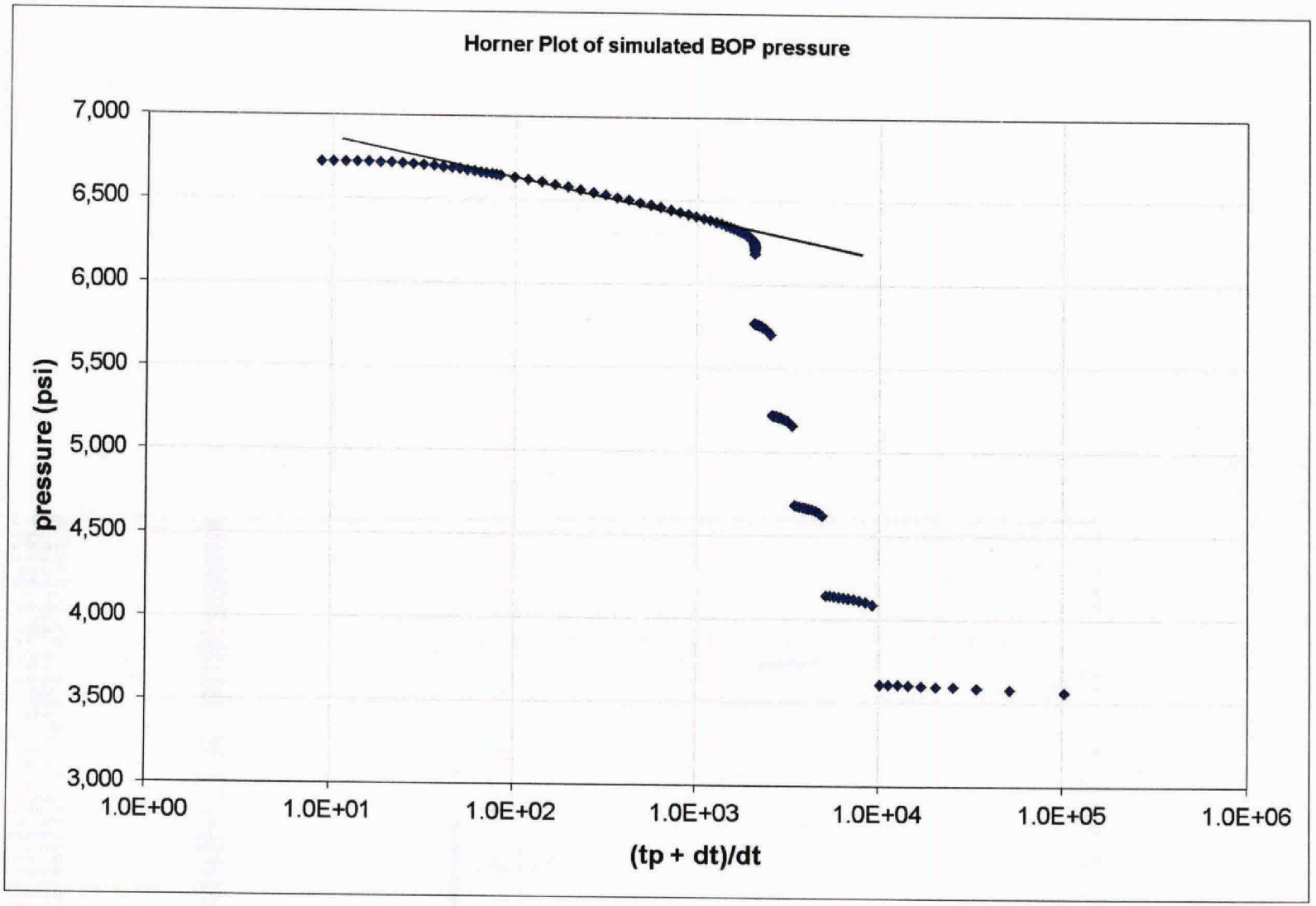
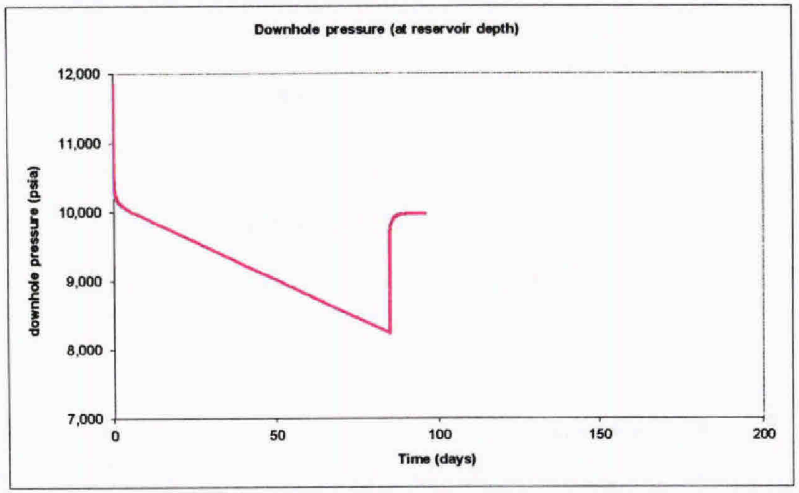
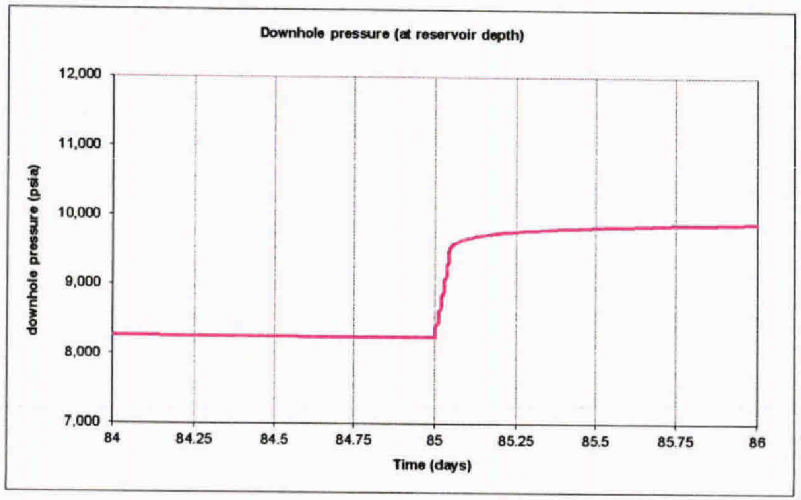

Horner Plot of simulated BOP pressure
7,000
6,500
6,000
5,500
5,000
4,500
4,000
3,500
3,000
pressure (psi)
1.0E+00
1.0E+01
1.0E+02
1.0E+03
1.0E+04
1.0E+05
1.0E+06
(tp + dt)/dt

Chart1

	A	B	C
1			down hole pressure
2	days	days	aq = 0x
3		0	11850
4		0.00186824	10821
5		0.00411014	10717
6		0.00680041	10660
7		0.01002873	10618
8		0.01390272	10585
9		0.01855151	10556
10		0.02413006	10530
11		0.03082432	10506
12		0.03885743	10483
13		0.04849716	10462
14		0.06006484	10442
15		0.07394605	10422
16		0.09060351	10403
17		0.11059245	10384
18		0.1345792	10365
19		0.16336329	10347
20		0.1979042	10329
21		0.23935328	10311
22		0.28909218	10293
23		0.34877887	10275
24		0.42040291	10258
25		0.50635177	10240
26		0.60949039	10223
27		0.73325676	10205
28		0.88177639	10188
29		1.05999994	10171
30		1.2738682	10153
31		1.53051019	10136
32		1.83848059	10119
33		2.20804501	10101
34		2.6515224	10083
35		3.18369508	10065
36		3.82230258	10046
37		4.58863163	10025
38		5.50822639	10002
39		6.61174011	9976
40		7.93595648	9946
41		9.52501678	9910
42		11.43188858	9868
43		13.72013474	9817
44		16.46603012	9756
45		19.76110458	9683

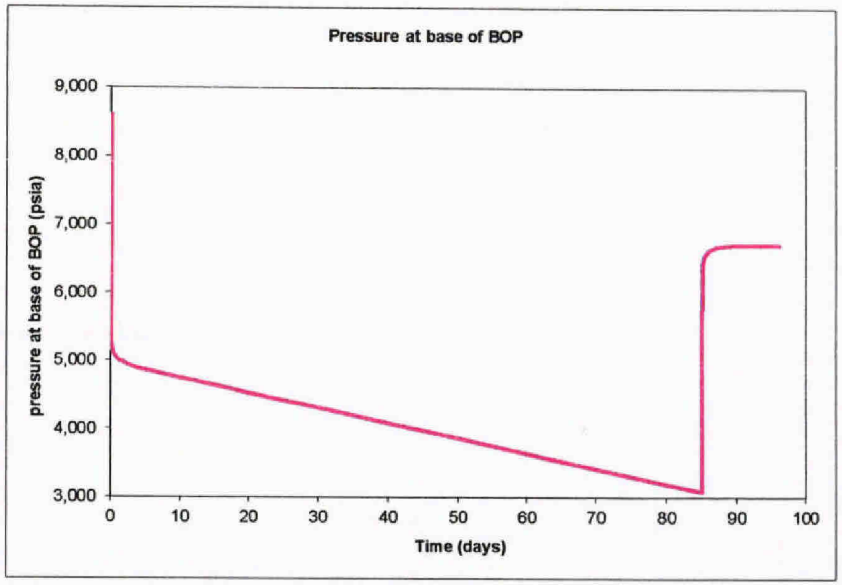


	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
46	23.7151947		9596																
47	28.46010399		9491																
48	34.15399551		9365																
49	40.98666382		9214																
50	49.18586731		9033																
51	59.02490997		8815																
52	70.83176422		8554	dP (psia)	dT (day)														
53	84.99998474	0	8241	815	35.81411743														
54	85.00081635	0.000832	8399																
55	85.00164795	0.001663	8415																
56	85.00247955	0.002495	8423																
57	85.00331116	0.003326	8429																
58	85.00414276	0.004158	8432																
59	85.00497437	0.004990	8436																
60	85.00580597	0.005821	8438																
61	85.00663757	0.006653	8441																
62	85.00746918	0.007484	8443																
63	85.00830078	0.008316	8444																
64	85.00913239	0.009148	8605																
65	85.00996399	0.009979	8622																
66	85.01079559	0.010811	8631																
67	85.0116272	0.011642	8638																
68	85.0124588	0.012474	8643																
69	85.01329041	0.013306	8647																
70	85.01412201	0.014137	8651																
71	85.01495361	0.014969	8654																
72	85.01578522	0.015800	8657																
73	85.01661682	0.016632	8659																
74	85.01744843	0.017464	8820																
75	85.01828003	0.018295	8838																
76	85.01911163	0.019127	8848																
77	85.01994324	0.019959	8856																
78	85.02077484	0.020790	8861																
79	85.02160645	0.021622	8866																
80	85.02243805	0.022453	8870																
81	85.02326965	0.023285	8874																
82	85.02410126	0.024117	8878																
83	85.02493286	0.024948	8881																
84	85.02576447	0.025780	9042																
85	85.02659607	0.026611	9061																
86	85.02742767	0.027443	9071																
87	85.02825928	0.028275	9079																
88	85.02909088	0.029106	9085																
89	85.02992249	0.029938	9091																
90	85.03075409	0.030769	9095																
91	85.03158569	0.031601	9100																
92	85.0324173	0.032433	9103																
93	85.0332489	0.033264	9107																
94	85.03408051	0.034096	9259																
95	85.03491211	0.034927	9288																
96	85.03574371	0.035759	9299																
97	85.03657532	0.036591	9307																
98	85.03740692	0.037422	9313																
99	85.03823853	0.038254	9319																
100	85.03907013	0.039085	9324																
101	85.03990173	0.039917	9329																
102	85.04073334	0.040749	9333																
103	85.04156494	0.041580	9337																
104	85.04158783	0.041603	9438																
105	85.04161072	0.041626	9455																
106	85.04164124	0.041657	9465																
107	85.04167938	0.041695	9472																
108	85.04172516	0.041740	9478																
109	85.04177856	0.041794	9483																
110	85.04184723	0.041862	9487																

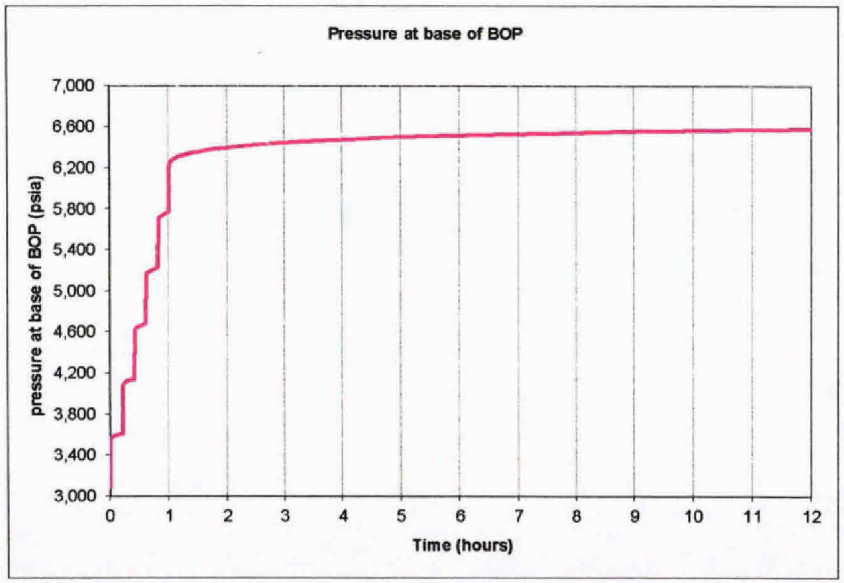


	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
111	85.04192352	0.041939	9492																
112	85.04201508	0.042030	9496																
113	85.04212952	0.042145	9500																
114	85.04226685	0.042282	9504																
115	85.04242706	0.042442	9508																
116	85.04262543	0.042641	9512																
117	85.04286194	0.042877	9516																
118	85.04314423	0.043159	9521																
119	85.04347992	0.043495	9525																
120	85.04388428	0.043900	9530																
121	85.04437256	0.044388	9535																
122	85.04496002	0.044975	9540																
123	85.04566193	0.045677	9545																
124	85.04650116	0.046516	9551																
125	85.04751587	0.047531	9557																
126	85.04872894	0.048744	9564																
127	85.05018616	0.050201	9571																
128	85.05193329	0.051949	9578																
129	85.05403137	0.054047	9586																
130	85.05654907	0.056564	9595																
131	85.05957031	0.059586	9604																
132	85.06319427	0.063210	9613																
133	85.06754303	0.067558	9623																
134	85.07276154	0.072777	9634																
135	85.07902527	0.079041	9645																
136	85.08654022	0.086555	9657																
137	85.09555817	0.095573	9669																
138	85.10637665	0.106392	9682																
139	85.11936188	0.119377	9695																
140	85.1349411	0.134956	9709																
141	85.15363312	0.153648	9723																
142	85.17606354	0.176079	9737																
143	85.20298767	0.203003	9751																
144	85.23529053	0.235306	9766																
145	85.27405548	0.274071	9781																
146	85.3205719	0.320587	9795																
147	85.37639618	0.376411	9810																
148	85.44338226	0.443398	9825																
149	85.52376556	0.523781	9839																
150	85.620224	0.620239	9854																
151	85.73597717	0.735992	9868																
152	85.87487793	0.874893	9881																
153	86.04156494	1.041580	9894																
154	86.09513092	1.095146	9898																
155	86.15940857	1.159424	9903																
156	86.23654175	1.236557	9907																
157	86.32910156	1.329117	9912																
158	86.44017792	1.440193	9918																
159	86.57346344	1.573479	9923																
160	86.73340607	1.733421	9929																
161	86.92533875	1.925354	9935																
162	87.15566254	2.155678	9941																
163	87.43204498	2.432060	9946																
164	87.76371002		9951																
165	88.16170502		9956																
166	88.63929749		9960																
167	89.21240997		9963																
168	89.90014648		9966																
169	90.72542572		9968																
170	91.71576691		9969																
171	92.9041748		9970																
172	94.33026123		9970																
173	96.04156494		9970																

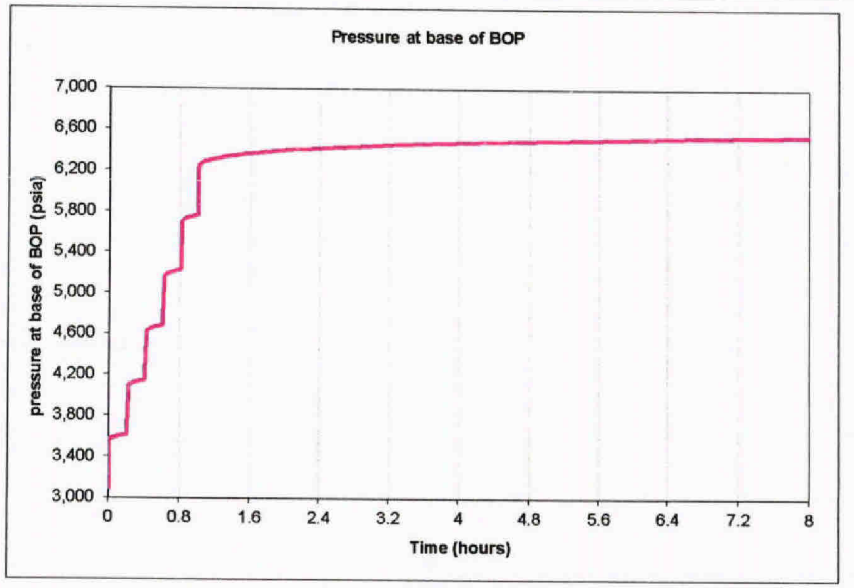
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1			pressure at base of BOP					rho_o =	568		dP =	3250		well loss =	1900				
2	days	days	aq = 0x	aq = 4x	aq = 14x														
3		0	8600		-5150														
4		0.00186824	5671																
5		0.00411014	5567																
6		0.00680041	5510																
7		0.01002873	5468																
8		0.01390272	5435																
9		0.01855151	5406																
10		0.02413006	5380																
11		0.03082432	5356																
12		0.03885743	5333																
13		0.04849716	5312																
14		0.06006484	5292																
15		0.07394605	5272																
16		0.09060351	5253																
17		0.11059245	5234																
18		0.1345792	5215																
19		0.16336329	5197																
20		0.1979042	5179																
21		0.23935328	5161																
22		0.28909218	5143																
23		0.34877887	5125																
24		0.42040291	5108																
25		0.50635177	5090																
26		0.60949039	5073																
27		0.73325676	5055																
28		0.88177639	5038																
29		1.05999994	5021																
30		1.2738682	5003																
31		1.53051019	4986																
32		1.83848059	4969																
33		2.20604501	4951																
34		2.6515224	4933																
35		3.18369508	4915																
36		3.82230258	4896																
37		4.58863163	4875																



	A	B	C	D	E	F
38	5.50822639		4852			
39	6.61174011		4826			
40	7.93595648		4796			
41	9.52501678		4760			
42	11.43188858		4718			
43	13.72013474		4667			
44	16.46603012		4606			
45	19.76110458		4533			
46	23.7151947		4446			
47	28.46010399		4341			
48	34.15399551		4215			
49	40.98666382		4064			
50	49.18586731		3883			
51	59.02490997		3665			
52	70.83176422	shutin hr	3404			
53	84.99998474	0	3091		7/15/2010 12:30	
54	85.00081635	0.00083	3566		7/15/2010 12:31	
55	85.00164795	0.040	3582		7/15/2010 12:32	
56	85.00247955	0.060	3590		7/15/2010 12:33	
57	85.00331116	0.080	3596		7/15/2010 12:34	
58	85.00414276	0.100	3599		7/15/2010 12:35	
59	85.00497437	0.120	3603		7/15/2010 12:37	
60	85.00580597	0.140	3605		7/15/2010 12:38	
61	85.00663757	0.160	3608		7/15/2010 12:39	
62	85.00746918	0.180	3610		7/15/2010 12:40	
63	85.00830078	0.200	3611		7/15/2010 12:41	
64	85.00913239	0.220	4088		7/15/2010 12:43	
65	85.00996399	0.240	4105		7/15/2010 12:44	
66	85.01079559	0.259	4114		7/15/2010 12:45	
67	85.0116272	0.279	4121		7/15/2010 12:46	
68	85.0124588	0.299	4126		7/15/2010 12:47	
69	85.01329041	0.319	4130		7/15/2010 12:49	
70	85.01412201	0.339	4134		7/15/2010 12:50	
71	85.01495361	0.359	4137		7/15/2010 12:51	
72	85.01578522	0.379	4140		7/15/2010 12:52	
73	85.01661682	0.399	4142		7/15/2010 12:53	
74	85.01744843	0.419	4620		7/15/2010 12:55	



	A	B	C	D	E
75	85.01828003	0.439	4638		7/15/2010 12:56
76	85.01911163	0.459	4648		7/15/2010 12:57
77	85.01994324	0.479	4656		7/15/2010 12:58
78	85.02077484	0.499	4661		7/15/2010 12:59
79	85.02160645	0.519	4666		7/15/2010 13:01
80	85.02243805	0.539	4670		7/15/2010 13:02
81	85.02326965	0.559	4674		7/15/2010 13:03
82	85.02410126	0.579	4678		7/15/2010 13:04
83	85.02493286	0.599	4681		7/15/2010 13:05
84	85.02576447	0.619	5159		7/15/2010 13:07
85	85.02659607	0.639	5178		7/15/2010 13:08
86	85.02742767	0.659	5188		7/15/2010 13:09
87	85.02825928	0.679	5196		7/15/2010 13:10
88	85.02909088	0.699	5202		7/15/2010 13:11
89	85.02992249	0.719	5208		7/15/2010 13:13
90	85.03075409	0.738	5212		7/15/2010 13:14
91	85.03158569	0.758	5217		7/15/2010 13:15
92	85.0324173	0.778	5220		7/15/2010 13:16
93	85.0332489	0.798	5224		7/15/2010 13:17
94	85.03408051	0.818	5702		7/15/2010 13:19
95	85.03491211	0.838	5721		7/15/2010 13:20
96	85.03574371	0.858	5732		7/15/2010 13:21
97	85.03657532	0.878	5740		7/15/2010 13:22
98	85.03740692	0.898	5746		7/15/2010 13:23
99	85.03823853	0.918	5752		7/15/2010 13:25
100	85.03907013	0.938	5757		7/15/2010 13:26
101	85.03990173	0.958	5762		7/15/2010 13:27
102	85.04073334	0.978	5766		7/15/2010 13:28
103	85.04156494	0.998	5770	rate (psi/hr)	7/15/2010 13:29
104	85.04158783	0.998	6188	760279	7/15/2010 13:29
105	85.04161072	0.999	6205	30945	7/15/2010 13:29
106	85.04164124	1.000	6215	13652	7/15/2010 13:29
107	85.04167938	1.001	6222	7647	7/15/2010 13:30
108	85.04172516	1.002	6228	5461	7/15/2010 13:30
109	85.04177856	1.003	6233	3901	7/15/2010 13:30
110	85.04184723	1.005	6237	2427	7/15/2010 13:30
111	85.04192352	1.007	6242	2731	7/15/2010 13:30

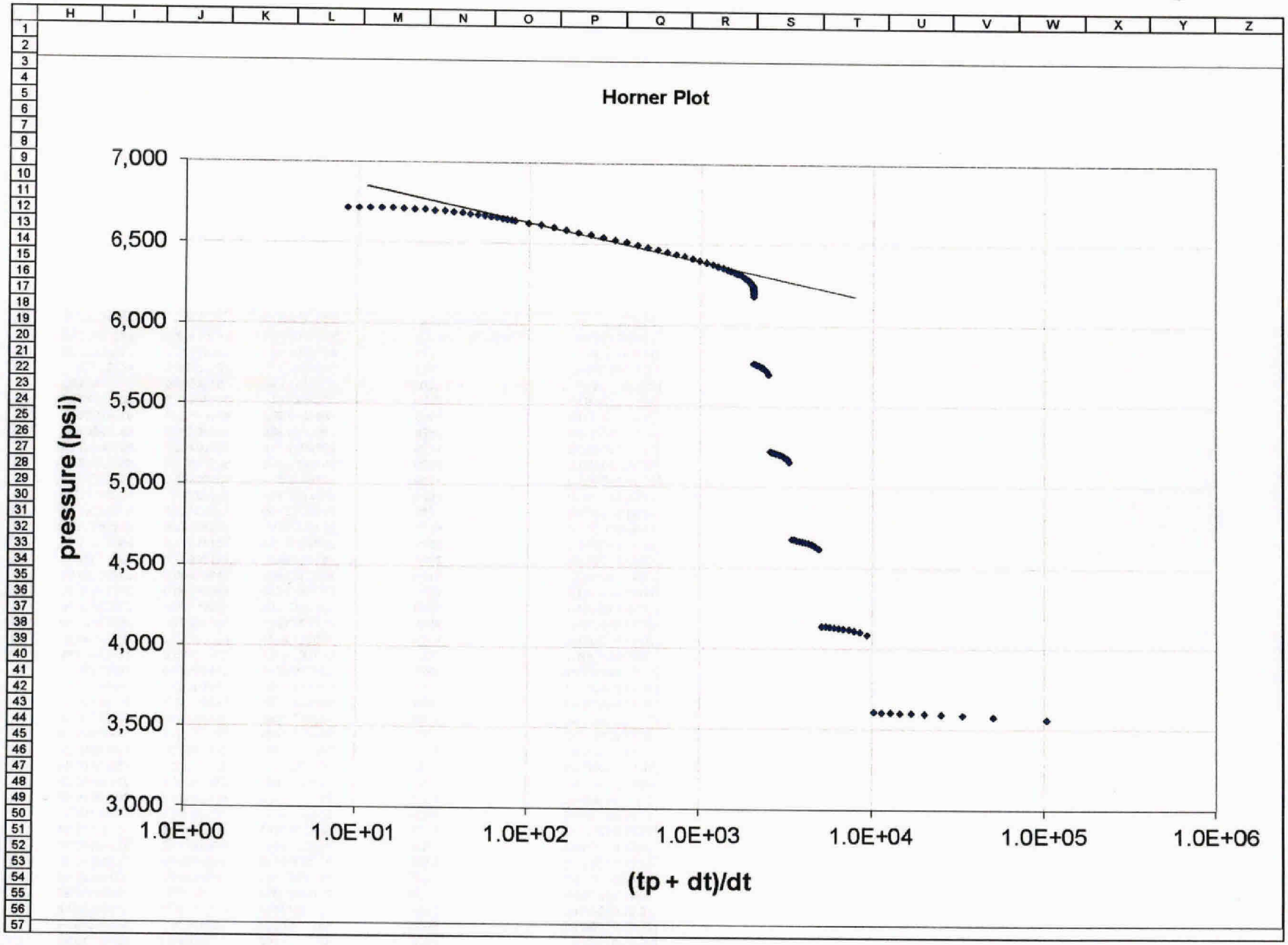


	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
112	85.04201508	1.009	6246	1820	7/15/2010 13:30														
113	85.04212952	1.011	6250	1456	7/15/2010 13:30														
114	85.04226685	1.015	6254	1214	7/15/2010 13:30														
115	85.04242706	1.019	6258	1040	7/15/2010 13:31														
116	85.04262543	1.023	6262	840	7/15/2010 13:31														
117	85.04286194	1.029	6266	705	7/15/2010 13:31														
118	85.04314423	1.036	6271	738	7/15/2010 13:32														
119	85.04347992	1.044	6275	496	7/15/2010 13:32														
120	85.04388428	1.054	6280	515	7/15/2010 13:33														
121	85.04437256	1.065	6285	427	7/15/2010 13:33														
122	85.04496002	1.079	6290	355	7/15/2010 13:34														
123	85.04566193	1.096	6295	297	7/15/2010 13:35														
124	85.04650116	1.116	6301	298	7/15/2010 13:36														
125	85.04751587	1.141	6307	246	7/15/2010 13:38														
126	85.04872894	1.170	6314	240	7/15/2010 13:40														
127	85.05018816	1.205	6321	200	7/15/2010 13:42														
128	85.05193329	1.247	6328	167	7/15/2010 13:44														
129	85.05403137	1.297	6336	159	7/15/2010 13:47														
130	85.05654907	1.358	6345	149	7/15/2010 13:51														
131	85.05957031	1.430	6354	124	7/15/2010 13:55														
132	85.06319427	1.517	6363	103	7/15/2010 14:01														
133	85.06754303	1.621	6373	96	7/15/2010 14:07														
134	85.07276154	1.747	6384	88	7/15/2010 14:14														
135	85.07902527	1.897	6395	73	7/15/2010 14:23														
136	85.08654022	2.077	6407	67	7/15/2010 14:34														
137	85.09555817	2.294	6419	55	7/15/2010 14:47														
138	85.10637665	2.553	6432	50	7/15/2010 15:03														
139	85.11936188	2.865	6445	42	7/15/2010 15:21														
140	85.1349411	3.239	6459	37	7/15/2010 15:44														
141	85.15363312	3.688	6473	31	7/15/2010 16:11														
142	85.17606354	4.226	6487	26	7/15/2010 16:43														
143	85.20298767	4.872	6501	22	7/15/2010 17:22														
144	85.23529053	5.647	6516	19	7/15/2010 18:08														
145	85.27405548	6.578	6531	16	7/15/2010 19:04														
146	85.3205719	7.694	6545	13	7/15/2010 20:11														
147	85.37639618	9.034	6560	11	7/15/2010 21:32														
148	85.44338226	10.642	6575	9	7/15/2010 23:08														
149	85.52376556	12.571	6589	7	7/16/2010 1:04														
150	85.620224	14.886	6604	6	7/16/2010 3:23														
151	85.73597717	17.664	6618	5	7/16/2010 6:09														
152	85.87487793	20.997	6631	4	7/16/2010 9:29														
153	86.04156494	24.998	6644	3	7/16/2010 13:29														

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
154	86.09513092	26.284	6648																
155	86.15940857	27.826	6653																
156	86.23654175	29.677	6657																
157	86.32910156	31.899	6662																
158	86.44017792	34.565	6668																
159	86.57346344	37.763	6673																
160	86.73340607	41.602	6679																
161	86.92533875	46.208	6685																
162	87.15566254	51.736	6691																
163	87.43204498	58.369	6696																
164	87.76371002	66.329	6701																
165	88.16170502	75.881	6706																
166	88.63929749	87.344	6710																
167	89.21240997	101.098	6713																
168	89.90014648	117.604	6716																
169	90.72542572	137.411	6718																
170	91.71576691	161.179	6719																
171	92.9041748	189.701	6720																
172	94.33026123	223.927	6720																
173	96.04156494	264.998	6720																

pressure at base of BOP

	A	B	C	D	E	F	G
1	Tp+dT	dT	(Tp+dT)/dT	psi			
2	84.99998474			3091		7/15/2010 12:30	40374.5208333333
3	85.00081635	0.00083161	102212.3548	3565.666667		7/15/2010 12:31	40374.5216649433
4	85.00164795	0.00166321	51106.98466	3581.666667		7/15/2010 12:32	0.0008316100
5	85.00247955	0.00249481	34071.72472	3589.666667		7/15/2010 12:33	
6	85.00331116	0.00332642	25553.99233	3595.666667		7/15/2010 12:34	
7	85.00414276	0.00415802	20443.41844	3598.666667		7/15/2010 12:35	
8	85.00497437	0.00498963	17036.32822	3602.666667		7/15/2010 12:37	
9	85.00580597	0.00582123	14602.72244	3604.666667		7/15/2010 12:38	
10	85.00663757	0.00665283	12777.51537	3607.666667		7/15/2010 12:39	
11	85.00746918	0.00748444	11357.89307	3609.666667		7/15/2010 12:40	
12	85.00830078	0.00831604	10222.20922	3610.666667		7/15/2010 12:41	
13	85.00913239	0.00914765	9293.002289	4088.333333		7/15/2010 12:43	
14	85.00996399	0.00997925	8518.672645	4105.333333		7/15/2010 12:44	
15	85.01079559	0.01081085	7863.470087	4114.333333		7/15/2010 12:45	
16	85.0116272	0.01164246	7301.861222	4121.333333		7/15/2010 12:46	
17	85.0124588	0.01247406	6815.139481	4126.333333		7/15/2010 12:47	
18	85.01329041	0.01330567	6389.252883	4130.333333		7/15/2010 12:49	
19	85.01412201	0.01413727	6013.475162	4134.333333		7/15/2010 12:50	
20	85.01495361	0.01496887	5679.450327	4137.333333		7/15/2010 12:51	
21	85.01578522	0.01580048	5380.582439	4140.333333		7/15/2010 12:52	
22	85.01661682	0.01663208	5111.604611	4142.333333		7/15/2010 12:53	
23	85.01744843	0.01746369	4868.240815	4620		7/15/2010 12:55	
24	85.01828003	0.01829529	4647.003684	4638		7/15/2010 12:56	
25	85.01911163	0.01912689	4445.004474	4648		7/15/2010 12:57	
26	85.01994324	0.0199585	4259.836322	4656		7/15/2010 12:58	
27	85.02077484	0.0207901	4089.483689	4661		7/15/2010 12:59	
28	85.02160645	0.02162171	3932.233225	4666		7/15/2010 13:01	
29	85.02243805	0.02245331	3786.632708	4670		7/15/2010 13:02	
30	85.02326965	0.02328491	3651.432179	4674		7/15/2010 13:03	
31	85.02410126	0.02411652	3525.55432	4678		7/15/2010 13:04	
32	85.02493286	0.02494812	3408.069741	4681		7/15/2010 13:05	
33	85.02576447	0.02577973	3298.163498	5158.666667		7/15/2010 13:07	
34	85.02659607	0.02661133	3195.127642	5177.666667		7/15/2010 13:08	
35	85.02742767	0.02744293	3098.336354	5187.666667		7/15/2010 13:09	
36	85.02825928	0.02827454	3007.237581	5195.666667		7/15/2010 13:10	
37	85.02909088	0.02910614	2921.345492	5201.666667		7/15/2010 13:11	
38	85.02992249	0.02993775	2840.224215	5207.666667		7/15/2010 13:13	
39	85.03075409	0.03076935	2763.488799	5211.666667		7/15/2010 13:14	
40	85.03158569	0.03160095	2690.792071	5216.666667		7/15/2010 13:15	
41	85.0324173	0.03243256	2621.822554	5219.666667		7/15/2010 13:16	
42	85.0332489	0.03326416	2556.302306	5223.666667		7/15/2010 13:17	
43	85.03408051	0.03409577	2493.97742	5702.333333		7/15/2010 13:19	
44	85.03491211	0.03492737	2434.621104	5721.333333		7/15/2010 13:20	
45	85.03574371	0.03575897	2378.025533	5732.333333		7/15/2010 13:21	
46	85.03657532	0.03659058	2324.001842	5740.333333		7/15/2010 13:22	
47	85.03740692	0.03742218	2272.379827	5746.333333		7/15/2010 13:23	
48	85.03823853	0.03825379	2223.001656	5752.333333		7/15/2010 13:25	
49	85.03907013	0.03908539	2175.725255	5757.333333		7/15/2010 13:26	
50	85.03990173	0.03991699	2130.418695	5762.333333		7/15/2010 13:27	
51	85.04073334	0.0407486	2086.960861	5766.333333		7/15/2010 13:28	
52	85.04156494	0.0415802	2045.241844	5770.333333		7/15/2010 13:29	
53	85.04158783	0.04160309	2044.117104	6188		7/15/2010 13:29	
54	85.04161072	0.04162598	2042.9936	6205		7/15/2010 13:29	
55	85.04164124	0.0416565	2041.497515	6215		7/15/2010 13:29	
56	85.04167938	0.04169464	2039.630978	6222		7/15/2010 13:30	
57	85.04172516	0.04174042	2037.395052	6228		7/15/2010 13:30	


Horner Plot
7,000
6,500
6,000
5,500
5,000
4,500
4,000
3,500
3,000
pressure (psi)
1.0E+00
1.0E+01
1.0E+02
1.0E+03
1.0E+04
1.0E+05
1.0E+06
(tp + dt)/dt

	A	B	C	D	E	F
58	85.04177856	0.04179382	2034.793148	6233		7/15/2010 13:30
59	85.04184723	0.04186249	2031.456973	6237		7/15/2010 13:30
60	85.04192352	0.04193878	2027.763409	6242		7/15/2010 13:30
61	85.04201508	0.04203034	2023.348255	6246		7/15/2010 13:30
62	85.04212952	0.04214478	2017.856767	6250		7/15/2010 13:30
63	85.04226685	0.04228211	2011.306126	6254		7/15/2010 13:30
64	85.04242706	0.04244232	2003.717682	6258		7/15/2010 13:31
65	85.04262543	0.04264069	1994.400781	6262		7/15/2010 13:31
66	85.04286194	0.0428772	1983.405212	6266		7/15/2010 13:31
67	85.04314423	0.04315949	1970.439044	6271		7/15/2010 13:32
68	85.04347992	0.04349518	1955.239176	6275		7/15/2010 13:32
69	85.04388428	0.04389954	1937.23862	6280		7/15/2010 13:33
70	85.04437256	0.04438782	1915.939385	6285		7/15/2010 13:33
71	85.04496002	0.04497528	1890.92675	6290		7/15/2010 13:34
72	85.04566193	0.04567719	1861.884716	6295		7/15/2010 13:35
73	85.04650116	0.04651642	1828.311404	6301		7/15/2010 13:36
74	85.04751587	0.04753113	1789.301367	6307		7/15/2010 13:38
75	85.04872894	0.0487442	1744.796898	6314		7/15/2010 13:40
76	85.05018616	0.05020142	1694.178893	6321		7/15/2010 13:42
77	85.05193329	0.05194855	1637.234019	6328		7/15/2010 13:44
78	85.05403137	0.05404663	1573.715722	6336		7/15/2010 13:47
79	85.05654907	0.05656433	1503.713543	6345		7/15/2010 13:51
80	85.05957031	0.05958557	1427.519621	6354		7/15/2010 13:55
81	85.06319427	0.06320953	1345.733693	6363		7/15/2010 14:01
82	85.06754303	0.06755829	1259.172531	6373		7/15/2010 14:07
83	85.07276154	0.0727768	1168.954413	6384		7/15/2010 14:14
84	85.07902527	0.07904053	1076.397454	6395		7/15/2010 14:23
85	85.08654022	0.08655548	983.0289223	6407		7/15/2010 14:34
86	85.09555817	0.09557343	890.3683604	6419		7/15/2010 14:47
87	85.10637665	0.10639191	799.932783	6432		7/15/2010 15:03
88	85.11936188	0.11937714	713.0289927	6445		7/15/2010 15:21
89	85.1349411	0.13495636	630.833116	6459		7/15/2010 15:44
90	85.15363312	0.15364838	554.2110702	6473		7/15/2010 16:11
91	85.17606354	0.1760788	483.7383236	6487		7/15/2010 16:43
92	85.20298767	0.20300293	419.7130932	6501		7/15/2010 17:22
93	85.23529053	0.23530579	362.2320153	6516		7/15/2010 18:08
94	85.27405548	0.27407074	311.1388523	6531		7/15/2010 19:04
95	85.3205719	0.32058716	266.1384564	6545		7/15/2010 20:11
96	85.37639618	0.37641144	226.8166881	6560		7/15/2010 21:32
97	85.44338226	0.44339752	192.701534	6575		7/15/2010 23:08
98	85.52376556	0.52378082	163.2815909	6589		7/16/2010 1:04
99	85.620224	0.62023926	138.0438639	6604		7/16/2010 3:23
100	85.73597717	0.73599243	116.4902976	6618		7/16/2010 6:09
101	85.87487793	0.87489319	98.15469924	6631	0.13890076	7/16/2010 9:29
102	86.04156494	1.0415802	82.60675936	6644	0.16668701	7/16/2010 13:29

	A	B	C	D	E	F
103	86.09513092	1.09514618	78.61519539	6648	0.05356598	7/16/2010 14:47
104	86.15940857	1.15942383	74.31226299	6653	0.06427765	7/16/2010 16:19
105	86.23654175	1.23655701	69.73923649	6657	0.07713318	7/16/2010 18:10
106	86.32910156	1.32911682	64.95223013	6662	0.09255981	7/16/2010 20:23
107	86.44017792	1.44019318	60.0198495	6668	0.11107636	7/16/2010 23:03
108	86.57346344	1.5734787	55.02042286	6673	0.13328552	7/17/2010 2:15
109	86.73340607	1.73342133	50.03596331	6679	0.15994263	7/17/2010 6:06
110	86.92533875	1.92535401	45.14771741	6685	0.19193268	7/17/2010 10:42
111	87.15566254	2.1556778	40.43074644	6691	0.23032379	7/17/2010 16:14
112	87.43204498	2.43206024	35.94978592	6696	0.27638244	7/17/2010 22:52
113	87.76371002	2.76372528	31.75558391	6701	0.33166504	7/18/2010 6:49
114	88.16170502	3.16172028	27.88409385	6706	0.397995	7/18/2010 16:22
115	88.63929749	3.63931275	24.3560539	6710	0.47759247	7/19/2010 3:50
116	89.21240997	4.21242523	21.17839608	6713	0.57311248	7/19/2010 17:35
117	89.90014648	4.90016174	18.34636309	6716	0.68773651	7/20/2010 10:06
118	90.72542572	5.72544098	15.84601536	6718	0.82527924	7/21/2010 5:54
119	91.71576691	6.71578217	13.6567513	6719	0.99034119	7/22/2010 5:40
120	92.9041748	7.90419006	11.75378807	6720		7/23/2010 10:12
121	94.33026123	9.33027649	10.11012496	6720		7/24/2010 20:25
122	96.04156494	11.0415802	8.698172109	6720		7/26/2010 13:29