



engineering and constructing a better tomorrow

Well: OW-945
Test Date: 11/13/2006
Test Type: Recovery (slug out)
Test Name: OW-945-out

Conducted by: Grimes and Charles-Smith
Entered/date: 12/11/06
Checked/date: JCP by gmm with permission 12/12/06

WELL DATA

Table with well data: SWL = 12.37 (ft BTOC), WD = 56.50 (ft BTOC), WD = 54.50 (ft BGS), DTSP = 37.33 (ft BGS), rc = 0.08 (ft), n = 0.30, rw = 0.35 (ft), rc (adjusted) = 0.08 (ft), Le = 10 (ft), Lw = 41.13 (ft), Le/rw = 28.57, H = 49.13 (ft)

CALCULATION OF K

Equations for K calculation: K = [(rc^2 ln(Re/rw))/2Le]\*(1/t)ln(yo/yt), yo = 2.52 (ft) from plot, yt = 0.74 (ft) from plot, t = 0.42 (minutes) from plot, ln(Re/rw) = 2.86, K = 3.8E+00 (ft/day), K = 1.4E-03 (cm/sec)

TEST DATA

Large table with columns: Elapsed time (min), Log y, y (ft), WL (ft BTOC). Contains test data points from 0 to 4.846 minutes.

H is depth from SWL to top of bedrock as listed on boring logs

Calculation of ln(Re/rw)

Where: Lw < H; ln(Re/rw) = [(1.1/(ln(Lw/rw)))+(A+Bln((H-Lw)/rw))/(Le/rw)]^-1 = 2.86
Where: Lw = H; ln(Re/rw) = [(1.1/(ln(Lw/rw)))+(C/(Le/rw))]^-1 = 3.33

Test initialization

Calculation of Coefficients

Value range for Le/rw from Table of Coefficients

Table with columns: Le/rw, A, B, C. Values for Le/rw 25, 30.

Interpolated values of A, B and C for Le/rw

Table with columns: Le/rw, A, B, C. Interpolated values for Le/rw 28.57.

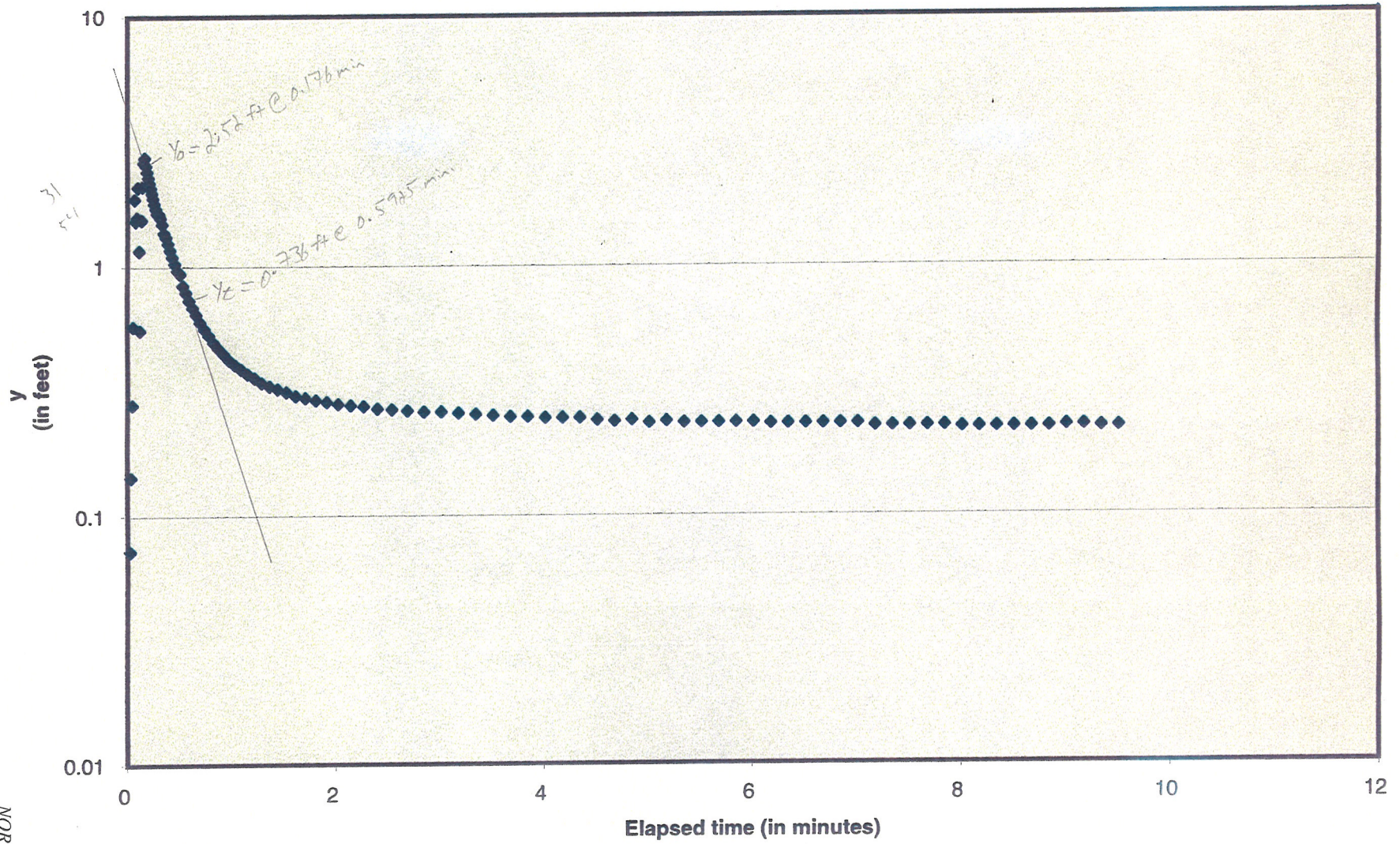
Test completion

Coefficients Table

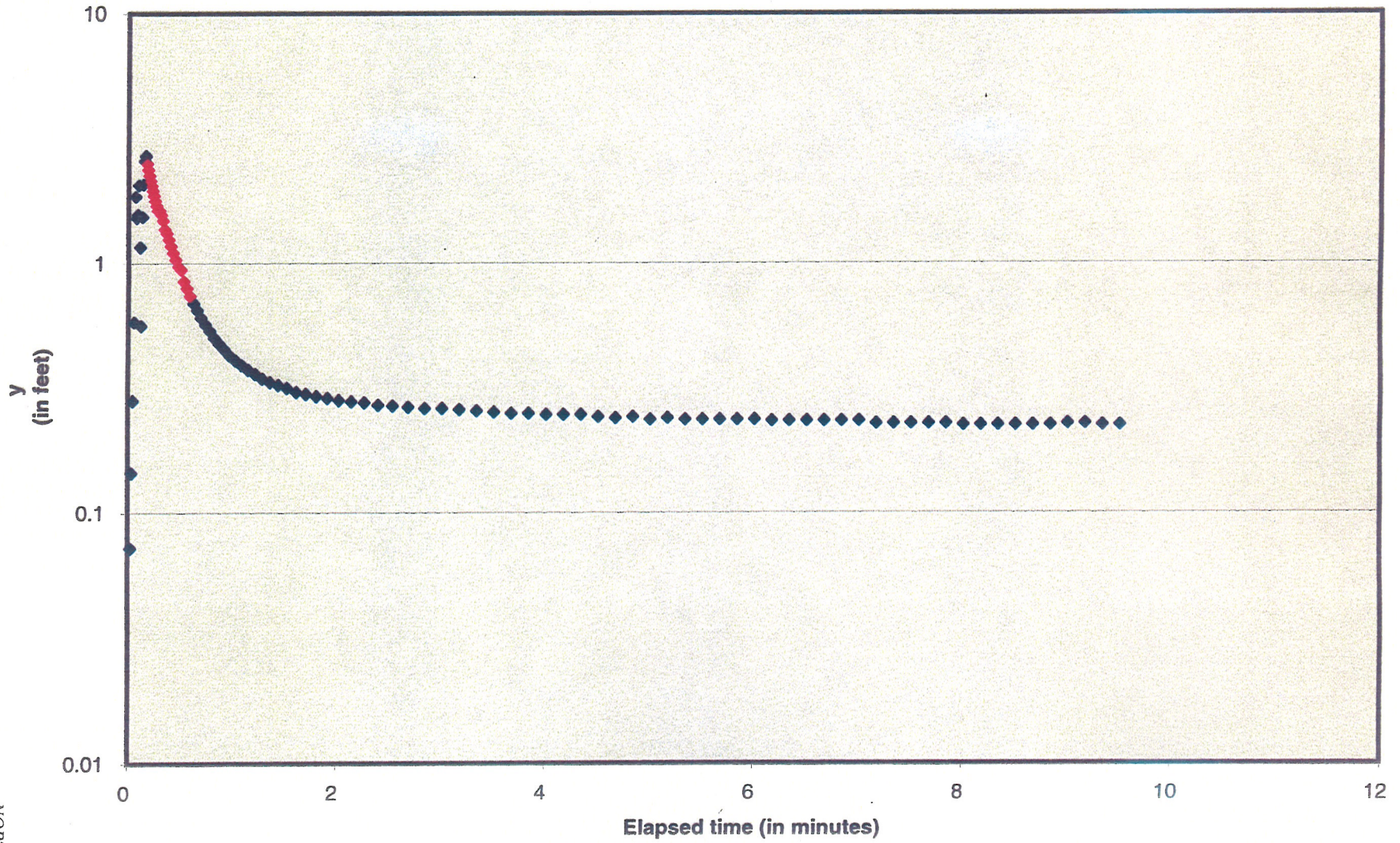
Large table with columns: Le/rw, A, B, C. Lists coefficients for Le/rw values from 4 to 1500.

90% recovery

# OW-945 (slug-out) Recovery vs. Time



### OW-945 (slug-out) Recovery vs. Time





MACTEC Engineering and Consulting  
 3301 Atlantic Avenue  
 Raleigh, North Carolina

Slug Test Data Sheet

MACTEC Job Name: North Anna COL MACTEC Job Number: 6468-06-1472  
 Date: 11-13-06 Time: 1328 Observation Well No.: OW945out  
 Weather Conditions: Cloudy Approx 52°F  
 Method of Slug: water, mechanical, or Test Method: Rising Head or  
 Withdrawal (circle one): pressure Falling Head  
 (circle)  
 Diameter of Screen: 2 in. Diameter of Casing: 2 in.  
 Total Well 34.5 ft below reference point Reference Point: Permanent mark on top  
 Depth: of casing  
 Length of 10 ft Depth interval of screened 41.5-51.5 ft  
 Screened Section: portion:  
 Depth to Groundwater: 12.37 ft below reference point

Groundwater Measurements Collected Prior to Slug Test		Comments/Remarks
Depth to Groundwater	Date	
		Used Transducer SN D00513
12.43	11-9-06	Hermit 3000
12.37 12.40	11-13-06	Set Transducer 30' below
12.37	11-13-06	TOC
		Transducer read 17.632
		vs. 17.63
		Final data = 0.224 = 91% (Hermit)
		90% = 0.271 recovery
		NOTE: Transducer slightly
		raised due to tangling
		during removal of slug.

OW945 IN =  
 Re-g 11-13-06

In-Situ Inc. Hermit 3000

Report generated: 12/11/06 17:39:14  
Report from file: P:\6468\2006 Projects\1472 North Anna COL\Slug Test Data\Raw data logger fil  
DataMgr Version 3.71

Serial number: 00045369  
Software Version 7.08  
Unit name: HERMIT 3000

Test name: OW945out PAGE 1 OF 3

Test defined on: 11/13/06 14:26:20  
Test started on: 11/13/06 14:38:49  
Test stopped on: 11/13/06 14:48:24  
Test extracted on: 11/13/06 18:01:41

Data gathered using Logarithmic testing  
Maximum time between data points: 0.1667 Minutes.  
Number of data samples: 108

TOTAL DATA SAMPLES 108

Channel number [1]

Measurement type: Pressure  
Channel name: D00513  
Linearity: 0.0212000  
Scale: 19.9368000  
Offset: 0.1304000  
Warmup: 50  
Specific gravity: 1.000  
Mode: TOC  
User-defined reference: 0.000 Feet H2O  
Referenced on: test start  
Pressure head at reference: 17.631 Feet H2O

Channel number [0]

Measurement type: Barometric Pressure  
Channel name: Barometric  
Linearity: 0.0000000  
Scale: 0.0000000  
Offset: 0.0000000  
Warmup: 50

Date	Time	ET (min)	Chan[1] Feet H2O	Chan[0] Inches Hg
11/13/06	14:38:49	0.0000	0.000	29.736
11/13/06	14:38:49	0.0110	0.000	29.736
11/13/06	14:38:50	0.0220	0.072	29.734
11/13/06	14:38:50	0.0330	0.144	29.736
11/13/06	14:38:51	0.0440	0.282	29.734
11/13/06	14:38:52	0.0550	0.581	29.734
11/13/06	14:38:52	0.0660	1.858	29.736
11/13/06	14:38:53	0.0770	1.522	29.736
11/13/06	14:38:54	0.0880	1.568	29.738
11/13/06	14:38:54	0.0990	2.071	29.736
11/13/06	14:38:55	0.1100	1.159	29.734
11/13/06	14:38:56	0.1210	0.561	29.738
11/13/06	14:38:56	0.1320	1.536	29.736
11/13/06	14:38:57	0.1430	2.083	29.734
11/13/06	14:38:58	0.1540	2.592	29.736
11/13/06	14:38:58	0.1650	2.710	29.732
11/13/06	14:38:59	0.1760	2.520	29.736
11/13/06	14:39:00	0.1870	2.387	29.734
11/13/06	14:39:00	0.1980	2.258	29.736
11/13/06	14:39:01	0.2090	2.152	29.734
11/13/06	14:39:02	0.2200	2.054	29.734

11/13/06	14:39:02	0.2310	1.959	29.738
11/13/06	14:39:03	0.2427	1.870	29.732
11/13/06	14:39:04	0.2552	1.783	29.734
11/13/06	14:39:05	0.2683	1.703	29.738
11/13/06	14:39:05	0.2823	1.628	29.738
11/13/06	14:39:06	0.2972	1.625	29.736
11/13/06	14:39:07	0.3128	1.565	29.736
11/13/06	14:39:08	0.3295	1.478	29.736
11/13/06	14:39:09	0.3472	1.363	29.738
11/13/06	14:39:10	0.3658	1.315	29.734
11/13/06	14:39:12	0.3857	1.240	29.734
11/13/06	14:39:13	0.4067	1.168	29.734
11/13/06	14:39:14	0.4288	1.096	29.734
11/13/06	14:39:16	0.4523	1.030	29.732
11/13/06	14:39:17	0.4772	0.966	29.734
11/13/06	14:39:19	0.5035	0.938	29.734
11/13/06	14:39:20	0.5315	0.843	29.734
11/13/06	14:39:22	0.5612	0.791	29.736
11/13/06	14:39:24	0.5925	0.736	29.734
11/13/06	14:39:26	0.6257	0.690	29.736
11/13/06	14:39:28	0.6608	0.647	29.734
11/13/06	14:39:30	0.6982	0.604	29.736
11/13/06	14:39:33	0.7377	0.567	29.736
11/13/06	14:39:35	0.7795	0.535	29.734
11/13/06	14:39:38	0.8238	0.501	29.734
11/13/06	14:39:41	0.8708	0.475	29.738
11/13/06	14:39:44	0.9207	0.452	29.736
11/13/06	14:39:47	0.9733	0.426	29.738
11/13/06	14:39:50	1.0292	0.408	29.736
11/13/06	14:39:54	1.0883	0.391	29.736
11/13/06	14:39:58	1.1510	0.374	29.736
11/13/06	14:40:02	1.2173	0.360	29.738
11/13/06	14:40:06	1.2877	0.345	29.736
11/13/06	14:40:10	1.3622	0.334	29.740
11/13/06	14:40:15	1.4412	0.325	29.738
11/13/06	14:40:20	1.5248	0.316	29.736
11/13/06	14:40:25	1.6133	0.305	29.736
11/13/06	14:40:31	1.7072	0.299	29.738
11/13/06	14:40:37	1.8065	0.293	29.736
11/13/06	14:40:43	1.9118	0.288	29.734
11/13/06	14:40:50	2.0233	0.282	29.738
11/13/06	14:40:57	2.1415	0.279	29.736
11/13/06	14:41:05	2.2667	0.276	29.738
11/13/06	14:41:12	2.3992	0.270	29.740
11/13/06	14:41:21	2.5397	0.268	29.738
11/13/06	14:41:30	2.6885	0.265	29.738
11/13/06	14:41:39	2.8460	0.262	29.740
11/13/06	14:41:49	3.0127	0.262	29.742
11/13/06	14:41:59	3.1793	0.259	29.742
11/13/06	14:42:09	3.3460	0.256	29.738
11/13/06	14:42:19	3.5127	0.253	29.736
11/13/06	14:42:29	3.6793	0.250	29.738
11/13/06	14:42:39	3.8460	0.250	29.738
11/13/06	14:42:49	4.0127	0.247	29.740
11/13/06	14:42:59	4.1793	0.247	29.740
11/13/06	14:43:09	4.3460	0.247	29.740
11/13/06	14:43:19	4.5127	0.242	29.738
11/13/06	14:43:29	4.6793	0.239	29.736
11/13/06	14:43:39	4.8460	0.242	29.738
11/13/06	14:43:49	5.0127	0.236	29.736
11/13/06	14:43:59	5.1793	0.239	29.738
11/13/06	14:44:09	5.3460	0.236	29.742
11/13/06	14:44:19	5.5127	0.236	29.736
11/13/06	14:44:29	5.6793	0.236	29.740
11/13/06	14:44:39	5.8460	0.236	29.738
11/13/06	14:44:49	6.0127	0.236	29.736
11/13/06	14:44:59	6.1793	0.233	29.740
11/13/06	14:45:09	6.3460	0.233	29.738
11/13/06	14:45:19	6.5127	0.233	29.736
11/13/06	14:45:29	6.6793	0.233	29.738

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11/13/06	14:45:39	6.8460	0.233	29.734
11/13/06	14:45:49	7.0127	0.233	29.738
11/13/06	14:45:59	7.1793	0.227	29.695
11/13/06	14:46:09	7.3460	0.227	29.691
11/13/06	14:46:19	7.5127	0.227	29.687
11/13/06	14:46:29	7.6793	0.227	29.687
11/13/06	14:46:39	7.8460	0.227	29.689
11/13/06	14:46:49	8.0127	0.224	29.687
11/13/06	14:46:59	8.1793	0.224	29.687
11/13/06	14:47:09	8.3460	0.224	29.713
11/13/06	14:47:19	8.5127	0.224	29.719
11/13/06	14:47:29	8.6793	0.224	29.724
11/13/06	14:47:39	8.8460	0.224	29.724
11/13/06	14:47:49	9.0127	0.227	29.722
11/13/06	14:47:59	9.1793	0.227	29.726
11/13/06	14:48:09	9.3460	0.224	29.728
11/13/06	14:48:19	9.5127	0.224	29.732

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engineering and constructing a better tomorrow

North Anna COL Project  
Hydraulic Conductivity (K) Calculation Worksheet  
MACTEC Job Number: 6468-06-1472

Well: **OW-946**  
Test Date: **11/14/2006**  
Test Type: **Recovery (slug in)**  
Test Name: **OW-946-in**

Conducted by: **Charles Smith**  
Entered/date: **12/30/11**  
Checked/date: **JEP** by **GAM** with permission  
**12/12/06**  
*[Signature]*

WELL DATA

SWL =	26.53	(ft BTOC)
WD =	45.90	(ft BTOC)
WD =	43.40	(ft BGS)
DTSP =	25.20	(ft BGS)
rc =	0.08	(ft)
n =	0.30	
rw =	0.35	(ft)
rc (adjusted) =	0.20	(ft)
Le =	10	(ft)
Lw =	13.87	(ft)
Le/rw =	28.57	
H =	17.77	(ft)

H is depth from SWL to top of bedrock as listed on boring logs

CALCULATION OF K

$$K = \frac{(rc^2 \ln(Re/rw))/2Le}{(1/l) \ln(yo/yt)}$$

yo =	2.02	(ft) from plot
yt =	1.09	(ft) from plot
l =	0.47	(minutes) from plot
ln(Re/rw) =	2.38	
K =	9.2E+00	(ft/day)
K =	3.2E-03	(cm/sec)

TEST DATA

Elapsed time (min)	Log y	y (ft)	WL (ft BTOC)
0	#NUM!	0	26.53
0.0112	-2.52	0.003	26.53
0.0223	#NUM!	0	26.53
0.0335	-2.22	0.006	26.52
0.0447	-2.22	0.006	26.52
0.0558	-2.22	0.006	26.52
0.067	-2.22	0.006	26.52
0.0782	-2.22	0.006	26.52
0.0893	-2.22	0.006	26.52
0.1005	-2.05	0.009	26.52
0.1117	-1.92	0.012	26.52
0.1228	-2.22	0.006	26.52
0.134	-2.22	0.006	26.52
0.1452	-2.22	0.006	26.52
0.1563	-2.05	0.009	26.52
0.1675	-2.05	0.009	26.52
0.1787	-2.05	0.009	26.52
0.1898	-2.05	0.009	26.52
0.201	-2.22	0.006	26.52
0.2122	-1.92	0.012	26.52
0.2233	-0.90	0.127	26.40
0.235	-0.33	0.469	26.06
0.2475	0.15	1.397	25.13
0.2607	0.30	1.998	24.53
0.2747	0.41	2.576	23.95
0.2895	0.48	2.991	23.54
0.3052	0.47	2.982	23.55
0.3218	0.42	2.645	23.89
0.3395	0.47	2.959	23.57
0.3582	0.44	2.769	23.76
0.378	0.41	2.556	23.97
0.399	0.32	2.088	24.44
0.4212	0.34	2.205	24.33
0.4447	0.30	2.016	24.51
0.4695	0.29	1.95	24.58
0.4958	0.28	1.909	24.62
0.5238	0.25	1.786	24.74
0.5535	0.23	1.711	24.82
0.5848	0.21	1.633	24.90
0.618	0.19	1.558	24.97
0.6532	0.17	1.481	25.05
0.6905	0.15	1.412	25.12
0.73	0.13	1.34	25.19
0.7718	0.10	1.271	25.26
0.8162	0.08	1.208	25.32
0.8632	0.06	1.147	25.38
0.913	0.04	1.093	25.44
0.9657	0.01	1.035	25.50
1.0215	-0.01	0.986	25.54
1.0807	-0.03	0.937	25.59
1.1433	-0.05	0.886	25.64
1.2097	-0.08	0.837	25.69
1.28	-0.10	0.794	25.74
1.3545	-0.13	0.745	25.79
1.4335	-0.16	0.696	25.83
1.5172	-0.18	0.656	25.87
1.6057	-0.21	0.61	25.92
1.6995	-0.24	0.569	25.96
1.7988	-0.28	0.529	26.00
1.9042	-0.31	0.489	26.04
2.0157	-0.35	0.451	26.08
2.1338	-0.39	0.417	26.11
2.259	-0.42	0.382	26.15
2.3915	-0.46	0.348	26.18
2.532	-0.50	0.319	26.21
2.6808	-0.54	0.288	26.24
2.8383	-0.59	0.259	26.27
3.005	-0.63	0.233	26.30
3.1717	-0.68	0.207	26.32
3.3383	-0.71	0.193	26.34
3.505	-0.76	0.175	26.36
3.6717	-0.80	0.158	26.37
3.8383	-0.84	0.144	26.39
4.005	-0.88	0.132	26.40
4.1717	-0.91	0.124	26.41
4.3383	-0.94	0.115	26.42
4.505	-0.97	0.106	26.42
4.6717	-1.02	0.095	26.44
4.8383	-1.05	0.089	26.44
5.005	-1.08	0.083	26.45

Calculation of ln(Re/rw)

Where: Lw < H;  
 $\ln(Re/rw) = \{[1.1/\ln(Lw/rw)] + [A + B \ln((H-Lw)/rw)] / (Le/rw)\}^{-1} = 2.38$

Where: Lw = H;  
 $\ln(Re/rw) = \{[1.1/\ln(Lw/rw)] + [C / (Le/rw)]\}^{-1} = 2.70$

Calculation of Coefficients  
Value range for Le/rw from Table of Coefficients

Le/rw	A	B	C
25	2.4	0.31	1.9
30	2.5	0.35	2.1

Interpolated values of A, B and C for Le/rw

28.57	2.47	0.34	2.04
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Coefficients Table

Le/rw	A	Le/rw	B	Le/rw	C
4	1.75	4	0.25	4	0.75
5	1.76	5	0.25	5	0.85
6	1.77	6	0.25	6	0.90
7	1.80	7	0.25	7	1.00
8	1.83	8	0.25	8	1.10
9	1.90	9	0.25	9	1.20
10	1.95	10	0.25	10	1.30
15	2.10	15	0.27	15	1.50
20	2.23	20	0.29	20	1.75
25	2.40	25	0.31	25	1.90
30	2.50	30	0.35	30	2.10
40	2.75	40	0.45	40	2.45
50	3.00	50	0.50	50	2.70
60	3.45	60	0.52	60	3.00
70	3.70	70	0.60	70	3.40
80	3.90	80	0.65	80	3.60
90	4.20	90	0.70	90	3.85
100	4.50	100	0.75	100	4.20
150	5.45	150	0.98	150	5.70
200	6.10	200	1.20	200	7.00
250	6.70	250	1.30	250	8.00
300	7.10	300	1.50	300	8.80
400	7.75	400	1.90	400	9.90
500	8.20	500	2.20	500	10.60
600	8.50	600	2.33	600	11.10
700	8.70	700	2.50	700	11.50
800	8.90	800	2.70	800	11.80
900	9.00	900	2.75	900	12.00
1000	9.20	1000	2.83	1000	12.40
1500	9.50	1500	3.18	1500	12.90

Test initialization

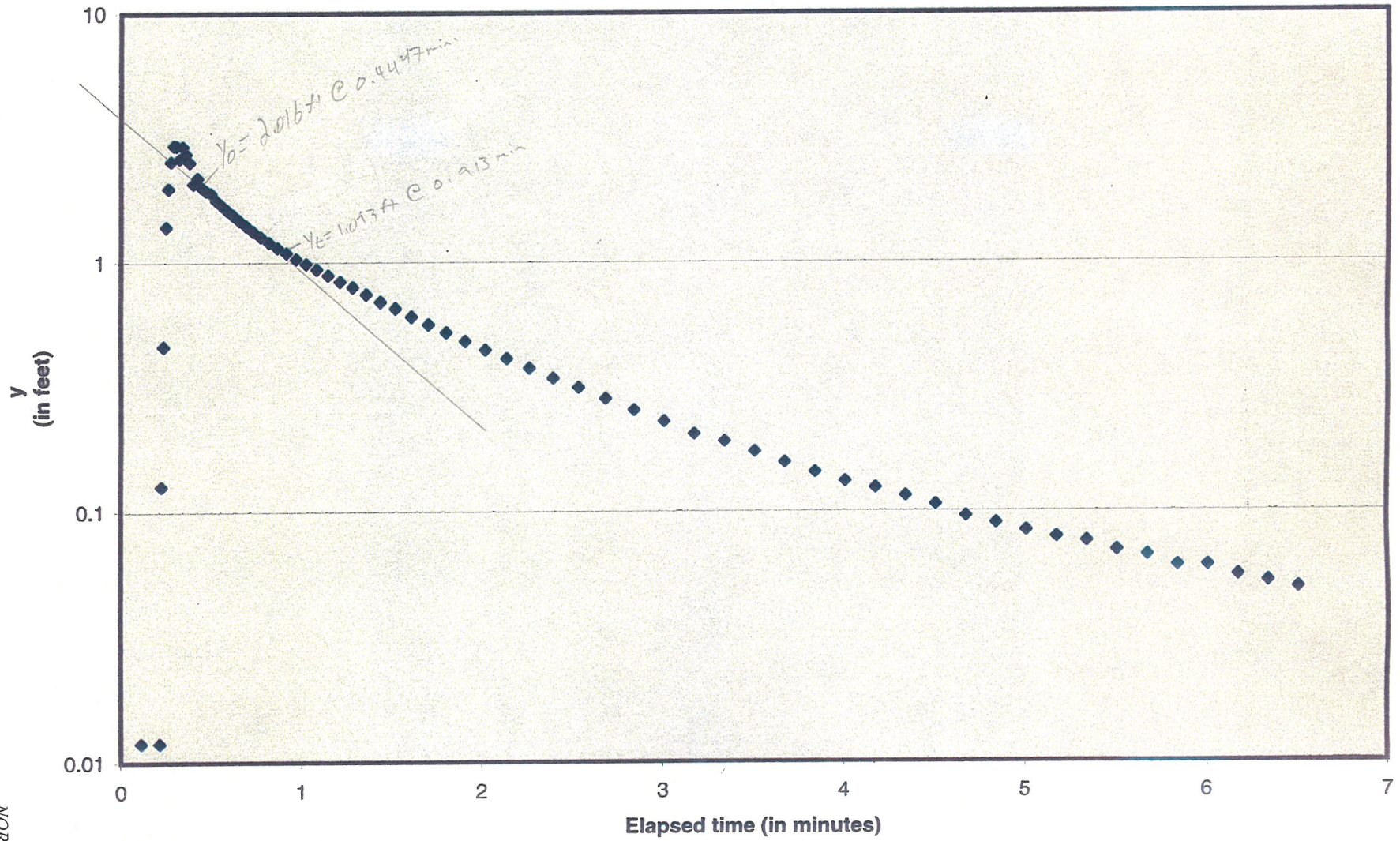
Test completion

90% recovery

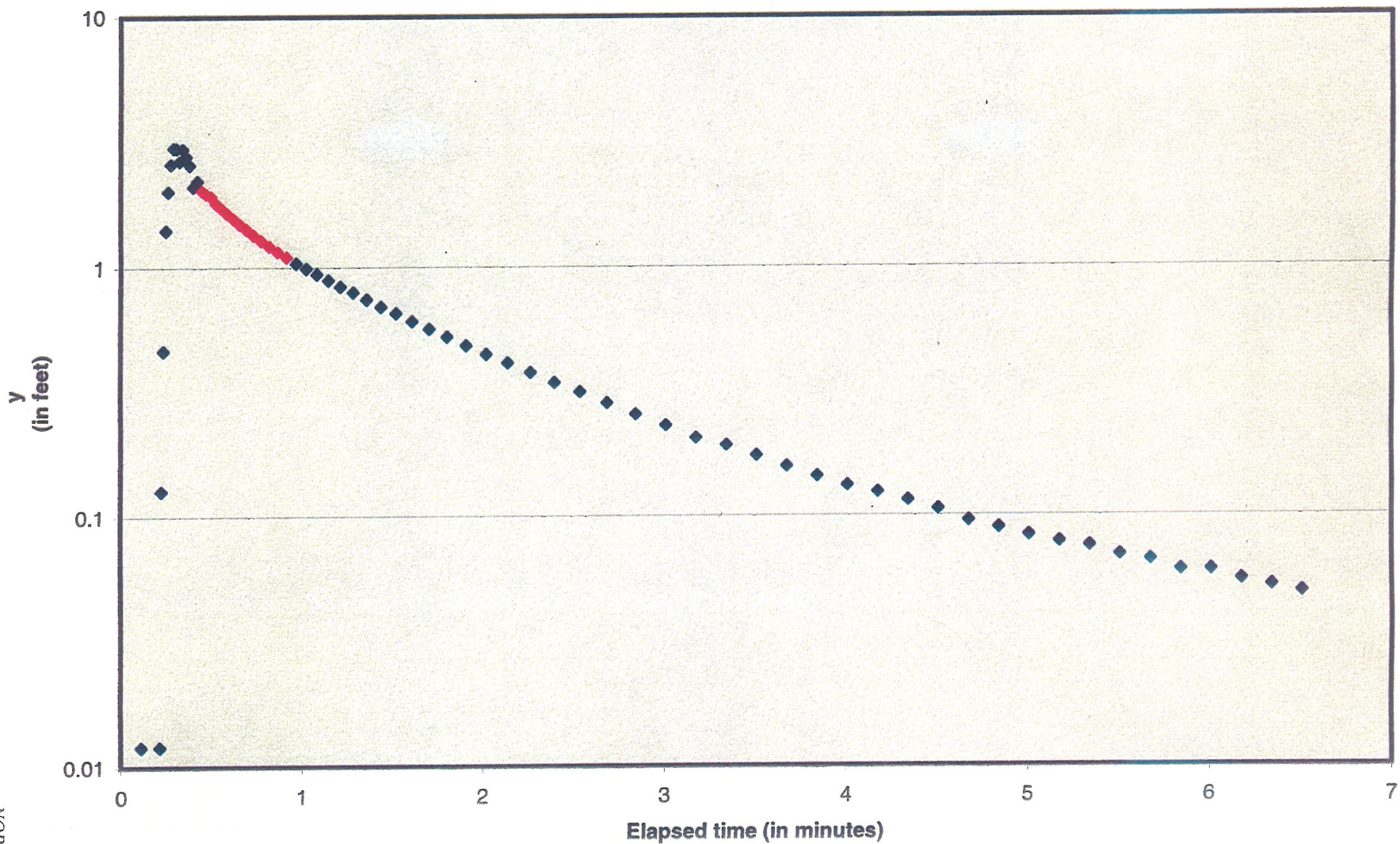
Reference: Bouwer(1989), Bouwer and Rice(1976)



# OW-946 (slug-in) Recovery vs. Time



### OW-946 (slug-in) Recovery vs. Time





In-Situ Inc. Hermit 3000

Report generated: 12/11/06 17:40:46  
Report from file: P:\6468\2006 Projects\1472 North Anna COL\Slug Test Data\Raw data logger fil  
DataMgr Version 3.71

Serial number: 00045369  
Firmware Version 7.08  
Unit name: HERMIT 3000

Test name: OW946IN PAGE 1 OF 2

Test defined on: 11/14/06 16:38:23  
Test started on: 11/14/06 16:41:26  
Test stopped on: 11/14/06 16:48:01  
Test extracted on: 11/14/06 17:59:51

Data gathered using Logarithmic testing  
Maximum time between data points: 0.1667 Minutes.  
Number of data samples: 89

TOTAL DATA SAMPLES 89

Channel number [1]

Measurement type: Pressure  
Channel name: D00513  
Linearity: 0.0212000  
Scale: 19.9368000  
Offset: 0.1304000  
Warmup: 50  
Specific gravity: 1.000  
Mode: TOC  
User-defined reference: 0.000 Feet H2O  
Referenced on: test start  
Pressure head at reference: 8.546 Feet H2O

Channel number [0]

Measurement type: Barometric Pressure  
Channel name: Barometric  
Linearity: 0.0000000  
Scale: 0.0000000  
Offset: 0.0000000  
Warmup: 50

Date	Time	ET (min)	Chan[1] Feet H2O	Chan[0] Inches Hg
11/14/06	16:41:26	0.0000	0.000	29.555
11/14/06	16:41:26	0.0112	-0.003	29.555
11/14/06	16:41:27	0.0223	0.000	29.555
11/14/06	16:41:28	0.0335	-0.006	29.555
11/14/06	16:41:28	0.0447	-0.006	29.555
11/14/06	16:41:29	0.0558	-0.006	29.553
11/14/06	16:41:30	0.0670	-0.006	29.557
11/14/06	16:41:30	0.0782	-0.006	29.555
11/14/06	16:41:31	0.0893	-0.006	29.557
11/14/06	16:41:32	0.1005	-0.009	29.553
11/14/06	16:41:32	0.1117	-0.012	29.555
11/14/06	16:41:33	0.1228	-0.006	29.553
11/14/06	16:41:34	0.1340	-0.006	29.557
11/14/06	16:41:34	0.1452	-0.006	29.555
11/14/06	16:41:35	0.1563	-0.009	29.553
11/14/06	16:41:36	0.1675	-0.009	29.553
11/14/06	16:41:36	0.1787	-0.009	29.551
11/14/06	16:41:37	0.1898	-0.009	29.551
11/14/06	16:41:38	0.2010	-0.006	29.553
11/14/06	16:41:38	0.2122	-0.012	29.555
11/14/06	16:41:39	0.2233	-0.127	29.557

11/14/06	16:41:40	0.2350	-0.469	29.553
11/14/06	16:41:40	0.2475	-1.397	29.555
11/14/06	16:41:41	0.2607	-1.998	29.557
11/14/06	16:41:42	0.2747	-2.576	29.553
11/14/06	16:41:43	0.2895	-2.991	29.555
11/14/06	16:41:44	0.3052	-2.982	29.551
11/14/06	16:41:45	0.3218	-2.645	29.555
11/14/06	16:41:46	0.3395	-2.959	29.555
11/14/06	16:41:47	0.3582	-2.769	29.553
11/14/06	16:41:48	0.3780	-2.556	29.553
11/14/06	16:41:49	0.3990	-2.088	29.553
11/14/06	16:41:51	0.4212	-2.205	29.557
11/14/06	16:41:52	0.4447	-2.016	29.553
11/14/06	16:41:54	0.4695	-1.950	29.551
11/14/06	16:41:55	0.4958	-1.909	29.557
11/14/06	16:41:57	0.5238	-1.786	29.553
11/14/06	16:41:59	0.5535	-1.711	29.555
11/14/06	16:42:01	0.5848	-1.633	29.557
11/14/06	16:42:03	0.6180	-1.558	29.557
11/14/06	16:42:05	0.6532	-1.481	29.557
11/14/06	16:42:07	0.6905	-1.412	29.557
11/14/06	16:42:09	0.7300	-1.340	29.553
11/14/06	16:42:12	0.7718	-1.271	29.557
11/14/06	16:42:14	0.8162	-1.208	29.557
11/14/06	16:42:17	0.8632	-1.147	29.553
11/14/06	16:42:20	0.9130	-1.093	29.555
11/14/06	16:42:23	0.9657	-1.035	29.551
11/14/06	16:42:27	1.0215	-0.986	29.553
11/14/06	16:42:30	1.0807	-0.937	29.553
11/14/06	16:42:34	1.1433	-0.886	29.555
11/14/06	16:42:38	1.2097	-0.837	29.553
11/14/06	16:42:42	1.2800	-0.794	29.553
11/14/06	16:42:47	1.3545	-0.745	29.551
11/14/06	16:42:52	1.4335	-0.696	29.555
11/14/06	16:42:57	1.5172	-0.656	29.555
11/14/06	16:43:02	1.6057	-0.610	29.555
11/14/06	16:43:07	1.6995	-0.569	29.555
11/14/06	16:43:13	1.7988	-0.529	29.557
11/14/06	16:43:20	1.9042	-0.489	29.553
11/14/06	16:43:26	2.0157	-0.451	29.553
11/14/06	16:43:34	2.1338	-0.417	29.553
11/14/06	16:43:41	2.2590	-0.382	29.555
11/14/06	16:43:49	2.3915	-0.348	29.555
11/14/06	16:43:57	2.5320	-0.319	29.555
11/14/06	16:44:06	2.6808	-0.288	29.553
11/14/06	16:44:16	2.8383	-0.259	29.553
11/14/06	16:44:26	3.0050	-0.233	29.557
11/14/06	16:44:36	3.1717	-0.207	29.555
11/14/06	16:44:46	3.3383	-0.193	29.555
11/14/06	16:44:56	3.5050	-0.175	29.557
11/14/06	16:45:06	3.6717	-0.158	29.557
11/14/06	16:45:16	3.8383	-0.144	29.553
11/14/06	16:45:26	4.0050	-0.132	29.555
11/14/06	16:45:36	4.1717	-0.124	29.553
11/14/06	16:45:46	4.3383	-0.115	29.557
11/14/06	16:45:56	4.5050	-0.106	29.557
11/14/06	16:46:06	4.6717	-0.095	29.557
11/14/06	16:46:16	4.8383	-0.089	29.557
11/14/06	16:46:26	5.0050	-0.083	29.553
11/14/06	16:46:36	5.1717	-0.078	29.561
11/14/06	16:46:46	5.3383	-0.075	29.559
11/14/06	16:46:56	5.5050	-0.069	29.557
11/14/06	16:47:06	5.6717	-0.066	29.559
11/14/06	16:47:16	5.8383	-0.060	29.559
11/14/06	16:47:26	6.0050	-0.060	29.553
11/14/06	16:47:36	6.1717	-0.055	29.557
11/14/06	16:47:46	6.3383	-0.052	29.557
11/14/06	16:47:56	6.5050	-0.049	29.557

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