



engineering and constructing a better tomorrow

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

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

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)

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

CALCULATION OF K

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

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

Elapsed time (min)	Log y	y (ft)	WL (ft BTOC)
0	#NUM!	0	12.37
0.011	#NUM!	0	12.37
0.022	-1.14	0.072	12.44
0.033	-0.84	0.144	12.51
0.044	-0.55	0.282	12.65
0.055	-0.24	0.581	12.95
0.066	0.27	1.858	14.23
0.077	0.18	1.522	13.89
0.088	0.20	1.568	13.94
0.099	0.32	2.071	14.44
0.11	0.06	1.159	13.53
0.121	-0.25	0.561	12.93
0.132	0.19	1.536	13.91
0.143	0.32	2.083	14.45
0.154	0.41	2.592	14.96
0.165	0.43	2.71	15.08
0.176	0.40	2.52	14.89
0.187	0.38	2.387	14.76
0.198	0.35	2.258	14.63
0.209	0.33	2.152	14.52
0.22	0.31	2.054	14.42
0.231	0.29	1.959	14.33
0.2427	0.27	1.87	14.24
0.2552	0.25	1.783	14.15
0.2683	0.23	1.703	14.07
0.2823	0.21	1.628	14.00
0.2972	0.21	1.625	14.00
0.3128	0.19	1.565	13.94
0.3295	0.17	1.478	13.85
0.3472	0.13	1.363	13.73
0.3658	0.12	1.315	13.69
0.3857	0.09	1.24	13.61
0.4067	0.07	1.168	13.54
0.4288	0.04	1.096	13.47
0.4523	0.01	1.03	13.40
0.4772	-0.02	0.966	13.34
0.5035	-0.03	0.938	13.31
0.5315	-0.07	0.843	13.21
0.5612	-0.10	0.791	13.16
0.5925	-0.13	0.736	13.11
0.6257	-0.16	0.69	13.06
0.6608	-0.19	0.647	13.02
0.6982	-0.22	0.604	12.97
0.7377	-0.25	0.567	12.94
0.7795	-0.27	0.535	12.91
0.8238	-0.30	0.501	12.87
0.8708	-0.32	0.475	12.85
0.9207	-0.34	0.452	12.82
0.9733	-0.37	0.426	12.80
1.0292	-0.39	0.408	12.78
1.0883	-0.41	0.391	12.76
1.151	-0.43	0.374	12.74
1.2173	-0.44	0.36	12.73
1.2877	-0.46	0.345	12.72
1.3622	-0.48	0.334	12.70
1.4412	-0.49	0.325	12.70
1.5248	-0.50	0.316	12.69
1.6133	-0.52	0.305	12.68
1.7072	-0.52	0.299	12.67
1.8065	-0.53	0.293	12.66
1.9118	-0.54	0.288	12.66
2.0233	-0.55	0.282	12.65
2.1415	-0.55	0.279	12.65
2.2667	-0.56	0.276	12.65
2.3992	-0.57	0.27	12.64
2.5397	-0.57	0.268	12.64
2.6885	-0.58	0.265	12.64
2.846	-0.58	0.262	12.63
3.0127	-0.58	0.262	12.63
3.1793	-0.59	0.259	12.63
3.346	-0.59	0.256	12.63
3.5127	-0.60	0.253	12.62
3.6793	-0.60	0.25	12.62
3.846	-0.60	0.25	12.62
4.0127	-0.61	0.247	12.62
4.1793	-0.61	0.247	12.62
4.346	-0.61	0.247	12.62
4.5127	-0.62	0.242	12.61
4.6793	-0.62	0.239	12.61
4.846	-0.62	0.242	12.61

Test initialization

Test completion

90% recovery

Calculation of ln(Re/rw)

Where: $Lw < H$;

$$\ln(Re/rw) = \left[\left(1.1 / \ln(Lw/rw) \right) + A + B \ln((H-Lw)/rw) \right] / (Le/rw)^{-1} = 2.86$$

Where: $Lw = H$;

$$\ln(Re/rw) = \left[\left(1.1 / \ln(Lw/rw) \right) + C / (Le/rw) \right]^{-1} = 3.33$$

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

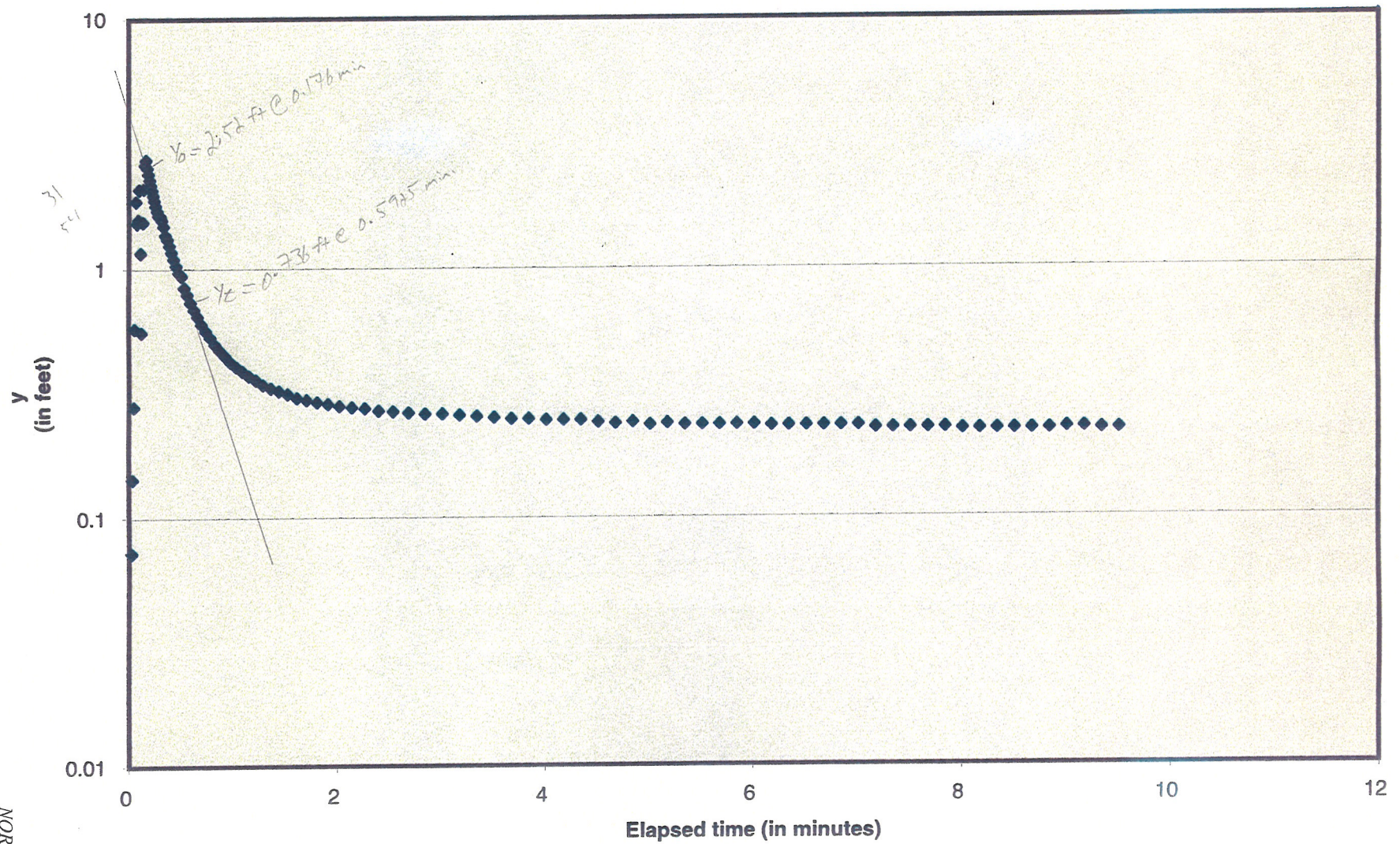
28.57	2.47	0.34	2.04
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Coefficients Table

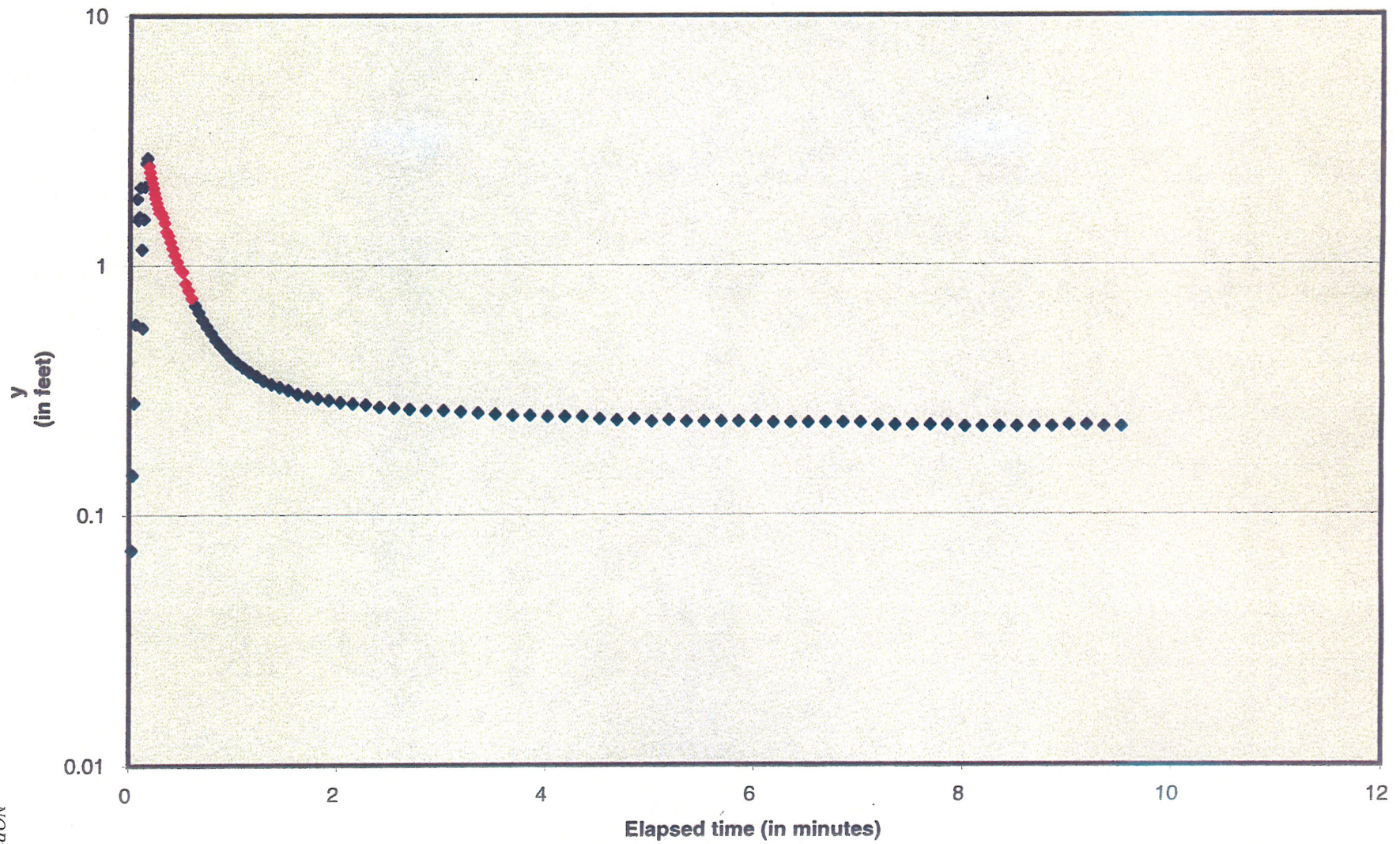
Le/rw	A	Le/rw	B	Le/rw	C
4	1.75	4	0.25	4	0.75
5	1.76	5	0.25	5	0.85
6	1.77	6	0.25	6	0.90
7	1.80	7	0.25	7	1.00
8	1.83	8	0.25	8	1.10
9	1.90	9	0.25	9	1.20
10	1.95	10	0.25	10	1.30
15	2.10	15	0.27	15	1.50
20	2.23	20	0.29	20	1.75
25	2.40	25	0.31	25	1.90
30	2.50	30	0.35	30	2.10
40	2.75	40	0.45	40	2.45
50	3.00	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

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

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
Withdrawal (circle one): pressure

Test Method: (Rising Head) or
Falling Head
(circle)

Diameter of Screen: 2 in.

Diameter of Casing: 2 in.

Total Well 54.5 ft below reference point
Depth: Reference Point: Permanent mark on top of casing

Length of 10 ft

Depth interval of screened 45-51.5 ft
portion:

Depth to Groundwater: 12.37 ft below reference point

Groundwater Measurements Collected Prior
to Slug Test

Comments/Remarks

Depth to Groundwater Date

12.43 11-9-06

12.37 12.40 11-13-06

12.37 11-13-06

Used Transducer SN D00513

Hermit 3000

Set Transducer 30' below
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 =
Key 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

NORTH ANNA COL
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1/23/07
MACTEC E&C

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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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: 12/12/06 by JEP with permission
Checked/date: 12/12/06

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

$K = [(rc^2 \ln(Re/rw))/2Le] * (1/t) \ln(yo/yt)$	
yo =	2.02 (ft) from plot
yt =	1.09 (ft) from plot
t =	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

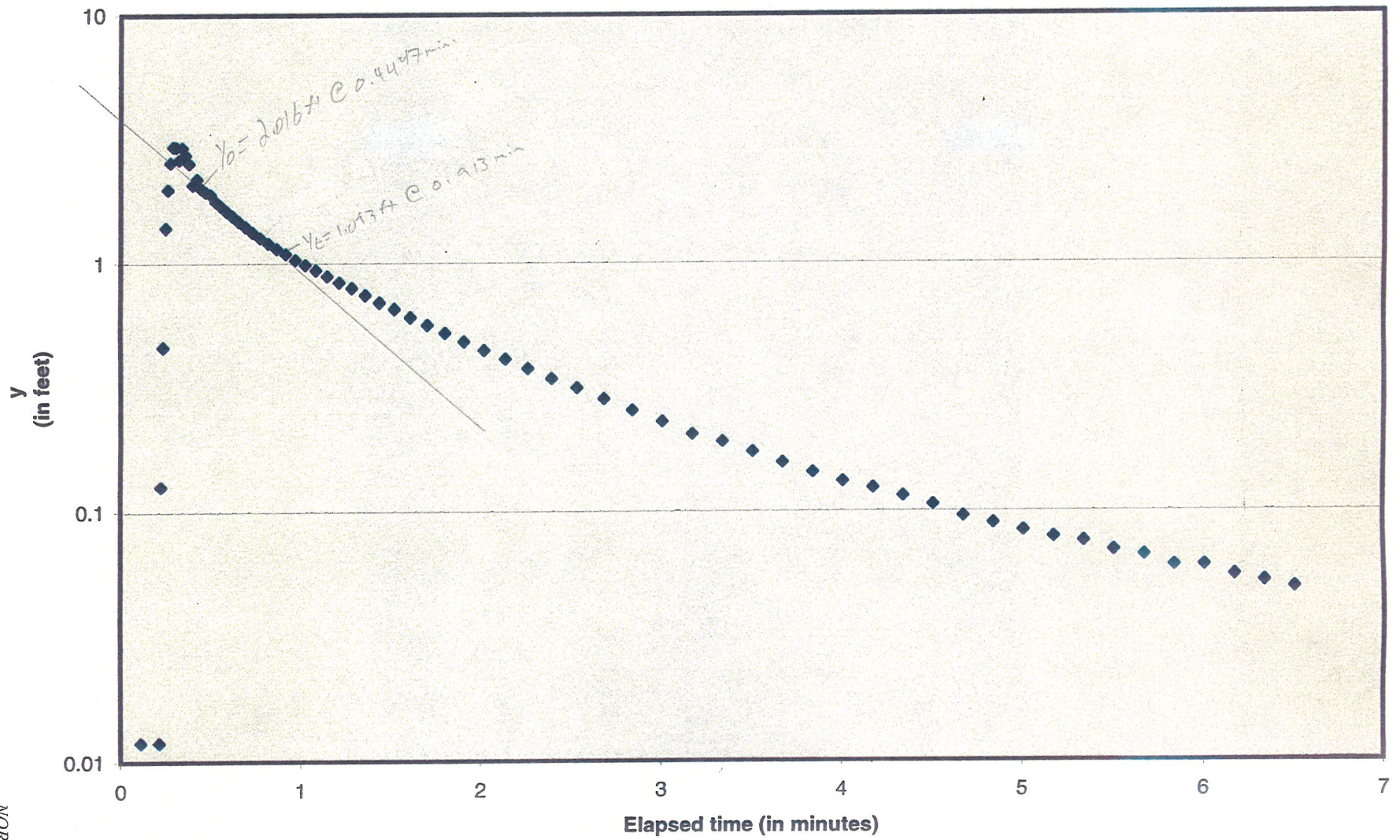
Le/rw	A	B	C
28.57	2.47	0.34	2.04

Coefficients Table

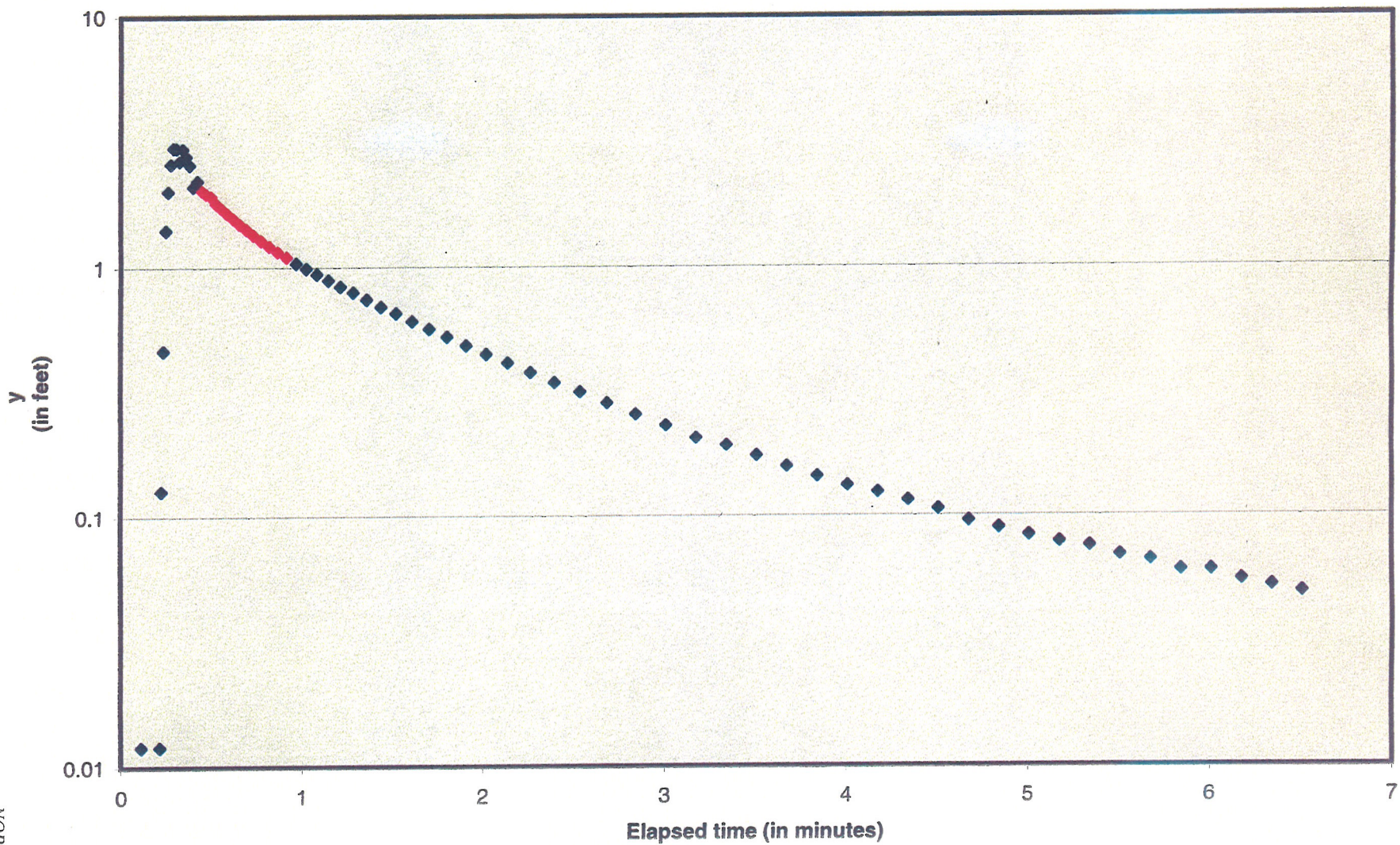
Le/rw	A	Le/rw	B	Le/rw	C
4	1.75	4	0.25	4	0.75
5	1.76	5	0.25	5	0.85
6	1.77	6	0.25	6	0.90
7	1.80	7	0.25	7	1.00
8	1.83	8	0.25	8	1.10
9	1.90	9	0.25	9	1.20
10	1.95	10	0.25	10	1.30
15	2.10	15	0.27	15	1.50
20	2.23	20	0.29	20	1.75
25	2.40	25	0.31	25	1.90
30	2.50	30	0.35	30	2.10
40	2.75	40	0.45	40	2.45
50	3.00	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

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

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



OW-946 (slug-in) 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: 11-14-06	Time: 1545	Observation Well No.: 0W946 IN	
Weather Conditions: Sunny Approx 68°F			
Method of Slug: water (mechanical) or		Test Method: Rising Head or	
Withdrawal (circle one): pressure		(circle) Falling Head	
Diameter of Screen: 2 in.		Diameter of Casing: 2 in.	
Total Well Depth: 43.4 ft below reference point		Reference Point: Permanent mark on top of casing	
Length of Screened Section: 10 ft		Depth interval of screened portion: 30.4-40.4 ft	
Depth to Groundwater: 26.53 ft below reference point			

Groundwater Measurements Collected Prior to Slug Test

Comments/Remarks

Depth to Groundwater	Date
26.39 (pre-development)	11-14-06
26.53 (post-development)	11-14-06

USED Transducer
SN D00513 Hermit 3000
Set Transducer 35'
below TOC
Transducer read 26.46'
8.537
11-14-06
vs, 26.53' static
offset = 2.959
= 99% Recovery

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

ial 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
eferenced 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

NORTH ANNA COL
DATA REPORT REV 0
1/23/07
MACTEC E&C

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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