



GE  
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Pittsfield, MA 01201  
USA

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SDMS DocID 000232737

June 7, 2005

Mr. James DiLorenzo  
U.S. Environmental Protection Agency  
EPA—New England  
One Congress Street, Suite 1100  
Boston, Massachusetts 02114-2023

Re: GE—Pittsfield/Housatonic River Site  
Groundwater Management Area 1 (GECD310)  
Results of DNAPL Recovery Testing and Proposed Modifications to Newell Street Area  
II DNAPL Recovery Systems

Dear Mr. DiLorenzo:

In a March 16, 2005 correspondence to EPA, GE proposed to abandon several monitoring wells and perform DNAPL recovery testing in the Newell Street Area II Removal Action Area (RAA). These tasks were proposed in consideration of the impending soil-related remediation activities at the site, which will include soil removal, backfilling, placement of an engineered barrier and restoration. The goals of the well abandonment program and the DNAPL recovery testing are to reduce the number of penetrations through the proposed engineered barriers and to increase the efficiency of DNAPL recovery and storage operations at this RAA. EPA provided conditional approval of GE's Groundwater and DNAPL proposal via e-mail on April 15, 2005, followed by a formal approval letter dated May 2, 2005.

GE conducted DNAPL recovery testing at Newell Street Area II between April 25 and May 5, 2005. Prior to performing the tests, automated DNAPL recovery operations in the two collection systems (Systems 1 and 2) at the RAA were stopped on April 21, 2005, and the DNAPL pumps were removed from the recovery wells. As proposed, GE performed DNAPL recovery testing on individual System 1 recovery wells (NS-15, NS-30, NS-32), System 2 recovery wells (N2SC-11, N2SC-3I, N2SC-14), and one monitoring well (N2SC-8). DNAPL recovery testing was performed in accordance with approved procedures established in GE's Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP, Appendix R). Generally speaking, DNAPL testing was performed on each individual well over at least a three day time period. During that time, DNAPL was manually removed, initially on an approximate hourly basis. Depending upon the DNAPL recovery rates in each well, the time intervals of the manual removal were adjusted during the test. On the week days that an individual well was not being tested, DNAPL was monitored and removed (if present) at least once per day. On May 9, 2005, the DNAPL pumps were returned to the wells and the two DNAPL recovery systems were re-activated. The results of the DNAPL recovery testing are presented in the attached series of tables/graphs and are summarized below.

### System 1

DNAPL collection System 1 is composed of three 2-inch diameter recovery wells, NS-15, NS-30 and NS-32. Recovery testing was performed from 4/26/05-4/29/05, 5/3/05-5/5/05, and 5/2/05-5/4/05, at wells NS-15, NS-30 and NS-32, respectively. During the tests, there was virtually no DNAPL recovery from wells NS-30 and NS-32, and DNAPL was generally not present. For the entire recovery test and the pre- and post-test daily monitoring period, total DNAPL removal was 0.17 liters and 0.38 liters from NS-30 and NS-32, respectively.

DNAPL recovery in well NS-15 was greater than that observed in the other System 1 wells. During the four day recovery test, a total of 1.2 liters of DNAPL were removed. The majority of this amount (0.73 liters) was removed in the first day of testing. Recovery rates during the test ranged from 0.22 liters per hour (day one, first hour) to zero (day four). Over the entire nine day period, which included the actual recovery test and the pre- and post-test daily monitoring, total DNAPL recovery from NS-15 was 1.94 liters. After the first day of the primary recovery testing period (4/26), DNAPL thickness never exceeded 0.2 ft. with one exception: on a Monday (5/2), following two days of no removal, a DNAPL thickness of 0.28 ft. was observed.

### System 2

DNAPL collection System 2 is composed of two 2-inch diameter recovery wells (N2SC-1I, N2SC-3I) and one 4-inch diameter recovery well (N2SC-14). DNAPL recovery testing was performed between 4/26/05-4/28/05, 5/3/05-5/5/05, and 5/2/05-5/4/05, in wells N2SC-1I, N2SC-3I and N2SC-14, respectively. Results of this testing clearly indicate that DNAPL recovery was greatest at well N2SC-14. During the three primary removal days of the test, a total of about 27.9 liters of DNAPL were recovered from this well alone. Hourly DNAPL recovery rates in this well ranged from about 0.3 liters per hour to 4.2 liters per hour, although the rates generally decreased in a given day of testing.

The next highest producing well within System 2 was well N2SC-1I. During the three primary days of testing, approximately 13.1 liters of DNAPL were removed. DNAPL recovery rates ranged from about 0.15 liters per hour to 1.85 liters per hour. Daily DNAPL recovery and recharge rates were actually greatest on the third day of the test.

Recovery well N2SC-3I was the least productive of the System 2 wells. During the three primary days of recovery testing, a combined total of less than 5 liters of DNAPL were removed. DNAPL recovery rates ranged from less than 0.1 liters per hour to approximately 0.17 liters per hour. Although recovery rates were not as great as in the other System 2 wells, DNAPL did recharge nightly and the initial accumulations measured in the morning generally exceeded one foot.

### Monitoring Well N2SC-8

Monitoring well N2SC-8, which is 2-inches in diameter, was proposed for recovery testing based on previous monitoring results that consistently detected about 2 ft. of DNAPL. During pre-test monitoring, 1.86 ft. of DNAPL was measured in this well on 4/25/05. However, the DNAPL thickness decreased significantly after the two day pre-test period, and only 0.14 ft. of DNAPL was present at the start of the primary recovery test (4/27/05). During the three days of recovery testing, only 0.15 liter of DNAPL was removed. DNAPL recharge to the well was virtually non-existent during the primary recovery tests, as all DNAPL thickness measurements conducted after removing any overnight DNAPL accumulations were zero for the remainder of each testing day. Overnight recharge was also extremely slow and daily thickness measurements were generally 0.1 ft. or less.

### Recommendations

Based on the results of the recently completed DNAPL recovery testing, it is apparent that DNAPL accumulation and recovery in the System 1 wells is very limited. As discussed in the prior section, DNAPL recharge to wells NS-30 and NS-32 was negligible and measurable amounts of DNAPL were frequently not detected during the nine day period (recovery test and pre/post-test monitoring). Well NS-15 did consistently detect small quantities of DNAPL but measured accumulations were typically less than 0.2 ft. and recharge rates were about 0.2 liters per hour or less. Both of these parameters are significantly below established thresholds in the FSP/QAPP for assessment of the need for an automated recovery system (average accumulation of 0.5-1.0 ft. or recharge rates of 0.5 liters per hour). As such, it is proposed that automated recovery operations be discontinued in the System 1 wells and that a regular monitoring and manual DNAPL removal program be instituted. Monitoring is proposed to be performed on a weekly basis in well NS-15, and monthly in wells NS-30 and NS-32. If DNAPL accumulations of 0.5 ft. or greater are detected, they will be manually removed and properly disposed of by GE. The DNAPL monitoring and recovery results will be assessed in the semi-annual NAPL monitoring reports for GMA 1, with recommendations (if necessary) for schedule or operational notifications.

DNAPL recovery rates in the System 2 wells, particularly N2SC-14 and N2SC-11, were significantly greater than the System 1 wells. In both of these wells, DNAPL recovery parameters (thickness and recharge) typically exceeded the FSP/QAPP thresholds. DNAPL recovery in N2SC-03I was less than the other System 2 wells and hourly recovery parameters were typically below those established in the FSP/QAPP. Despite this, it was observed that DNAPL did recharge overnight in N2SC-03I, and morning thickness measurements exceeding 3 ft. were noted on several occasions. In consideration of these test results, GE proposes to continue automated recovery operations at the three System 2 locations. However, because existing wells N2SC-11 and N2SC-03I are 2-inches in diameter, GE proposes that they each be abandoned and replaced by new 6-inch diameter recovery wells. The new wells will be drilled adjacent to the existing locations to equivalent depths. Construction will consist of 6-inch diameter schedule 40 PVC, with a 10 ft. screen (10 slot size, no. 0 silica sand pack) that extends 1 ft. into the top of till. These larger diameter wells will accommodate a conductivity probe that can detect the presence of DNAPL and automatically start and stop removal pumps. Since

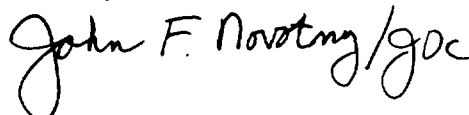
N2SC-14 is 4-inches in diameter, already contains a conductivity probe, and recovers more DNAPL than any of the existing wells, no changes are proposed at this location.

With regard to existing monitoring well N2SC-08, it is apparent from the recently completed testing that this well does not contain enough DNAPL to warrant installation of an automated recovery system. Although the initial DNAPL thickness in this well was nearly 2 ft., DNAPL accumulations rapidly decreased after the first two consecutive daily removal events. During the primary recovery test, measurable amounts of DNAPL were only present during the initial monitoring round conducted each day. Following removal of those overnight accumulations, no DNAPL returned to the well during the remainder of each testing day. Based on these results, GE proposes that current monthly monitoring/removal activities at this location continue.

GE is currently preparing a plan for the modification of the DNAPL storage facilities and collection systems (piping configuration, storage trailer location and design) at the Newell Street Area II RAA, which will be implemented as part of the restoration activities, following soil removal. GE plans to remove the existing DNAPL storage shed associated with recovery System 1 and consolidate all DNAPL storage into a single facility, i.e., the existing System 2 trailer. GE will finalize plans for the storage facility and the collection systems after it receives approval of this proposal.

Please feel free to contact me at (413) 448-5905 if you have any questions on this proposal. Given the scheduled soil removal activities for this RAA, your timely review of this submittal would be appreciated.

Sincerely,



John F. Novotny, P.E.

Manager—Facilities and Brownfields Program

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M. McHugh, Rich, May  
J. Porter, Mintz, Levin  
I. Murarka, Ish, Inc.  
D. Mauro, META  
K. Hylton, KHES, LLC  
Public Information Repositories  
GE Internal Repositories

*\*cover letter only*

## DNAPL RECOVERY TEST FIELD LOG

WELL ID NS-15

SITE GE Pittsfield, MA

LOCATION GMA 1 - Newell Street Area II

DATE	MEASUREMENT/ PUMP START TIME	PUMP STOP TIME	RECOVERY TIME (Minutes)	PUMPING TIME (Minutes)	DEPTH TO DNAPL (Feet BMP)	DEPTH OF WELL (Feet BMP)	DNAPL THICKNESS (Feet)	DNAPL REMOVAL (Liters)	DNAPL REMOVAL (Gallons)
4/25/05	10:30	10:33	---	3	38.90	39.28	0.38	0.300	0.079
4/26/05	9:30	9:33	1377	3	39.09	39.30	0.21	0.129	0.034
4/26/05	10:30	10:33	57	3	39.01	39.35	0.34	0.209	0.055
4/26/05	11:30	11:33	57	3	39.20	39.40	0.20	0.123	0.032
4/26/05	12:30	12:33	57	3	39.35	39.50	0.15	0.092	0.024
4/26/05	13:30	13:33	57	3	39.43	39.55	0.12	0.074	0.020
4/26/05	14:30	14:33	57	3	39.10	39.30	0.20	0.061	0.016
4/26/05	15:30	15:33	57	3	39.29	39.34	0.05	0.037	0.010
4/27/05	10:10	10:13	877	3	39.20	39.32	0.12	0.074	0.020
4/27/05	12:10	12:13	117	3	39.24	39.34	0.10	0.061	0.016
4/27/05	14:35	14:38	142	3	39.21	39.34	0.13	0.080	0.021
4/28/05	10:58	11:04	1220	6	39.25	39.36	0.11	0.067	0.018
4/28/05	12:58	13:01	114	3	39.38	39.41	0.03	0.018	0.005
4/28/05	14:58	15:03	117	5	39.30	39.43	0.13	0.080	0.021
4/29/05	9:43	9:45	1080	2	39.24	39.42	0.18	0.080	0.021
4/29/05	12:39	---	176	---	---	39.42	0.00	0.000	0.000
5/2/05	14:30	14:40	4781	10	39.15	39.43	0.28	0.173	0.046
5/3/05	14:21	14:26	1421	5	39.29	39.43	0.14	0.086	0.023

**DNAPL RECOVERY TEST FIELD LOG**

WELL ID NS-15

SITE GE Pittsfield, MA

LOCATION GMA 1 - Newell Street Area II

DATE	MEASUREMENT/ PUMP START TIME	PUMP STOP TIME	RECOVERY TIME (Minutes)	PUMPING TIME (Minutes)	DEPTH TO DNAPL (Feet BMP)	DEPTH OF WELL (Feet BMP)	DNAPL THICKNESS (Feet)	DNAPL REMOVAL (Liters)	DNAPL REMOVAL (Gallons)
5/4/05	7:29	7:39	1023	10	39.34	39.43	0.09	0.056	0.015
5/5/05	9:15	9:20	1536	5	39.34	39.43	0.09	0.056	0.015

**NOTES/OBSERVATIONS:**

Recovery time refers to the elapsed time from the end of pumping (during the prior measurement interval) until the next measurements are collected.

Depth to water on 5/2/05: 11.42'

Depth to water on 5/3/05: 11.36' - Water/diluted DNAPL present at base of well, below DNAPL layer.

Depth to water on 5/4/05: 11.44'

Depth to water on 5/5/05: 11.09'

## DNAPL RECOVERY TEST FIELD LOG

WELL ID NS-30

SITE GE Pittsfield, MA

LOCATION GMA 1 - Newell Street Area II

DATE	MEASUREMENT/ PUMP START TIME	PUMP STOP TIME	RECOVERY TIME (Minutes)	PUMPING TIME (Minutes)	DEPTH TO DNAPL (Feet BMP)	DEPTH OF WELL (Feet BMP)	DNAPL THICKNESS (Feet)	DNAPL REMOVAL (Liters)	DNAPL REMOVAL (Gallons)
4/25/05	14:32	14:35	---	3	38.36	38.46	0.10	0.100	0.026
4/26/05	12:55	---	1340	---	---	38.46	0.00	0.000	0.000
4/27/05	13:10	---	2795	---	---	38.47	0.00	0.000	0.000
4/28/05	13:18	13:21	4243	3.00	38.41	38.47	0.06	0.037	0.010
4/29/05	13:25	---	1444	---	---	38.47	0.00	0.000	0.000
5/2/05	11:15	11:17	5634	2	38.45	38.48	0.03	0.019	0.005
5/3/05	8:06	8:11	1249	3	38.47	38.48	0.01	0.006	0.002
5/3/05	10:16	---	125	---	---	38.48	0.00	0.000	0.000
5/3/05	12:16	---	245	---	---	38.48	0.00	0.000	0.000
5/3/05	14:16	---	365	---	---	38.48	0.00	0.000	0.000
5/3/05	16:16	---	485	---	---	38.48	0.00	0.000	0.000
5/4/05	7:13	---	1382	---	---	38.48	0.00	0.000	0.000
5/4/05	11:13	---	1622	---	---	38.48	0.00	0.000	0.000
5/4/05	15:13	---	1862	---	---	38.48	0.00	0.000	0.000
5/5/05	7:20	7:30	2829	10	38.47	38.48	0.01	0.006	0.002
5/5/05	15:30	---	480	---	---	38.48	0.00	0.000	0.000

**NOTES/OBSERVATIONS:**

Recovery time refers to the elapsed time from the end of pumping (during the prior measurement interval) until the next measurements are collected.

Depth to water on 5/2/05: 12.91'

Initial depth to water on 5/3/05: 12.86'

Initial depth to water on 5/4/05: 13.08'

Initial depth to water on 5/5/05: 12.56'



## DNAPL RECOVERY TEST FIELD LOG

WELL ID NS-32

SITE GE Pittsfield, MA

LOCATION GMA 1 - Newell Street Area II

DATE	MEASUREMENT/ PUMP START TIME	PUMP STOP TIME	RECOVERY TIME (Minutes)	PUMPING TIME (Minutes)	DEPTH TO DNAPL (Feet BMP)	DEPTH OF WELL (Feet BMP)	DNAPL THICKNESS (Feet)	DNAPL REMOVAL (Liters)	DNAPL REMOVAL (Gallons)
4/25/05	13:15	13:20	---	5	40.57	41.12	0.55	0.350	0.092
4/26/05	10:00	---	1240	---	---	41.14	0.00	0.000	0.000
4/27/05	13:25	13:28	2885	3	41.12	41.14	0.02	0.012	0.003
4/28/05	13:10	13:13	1422	3	41.09	41.10	0.01	0.006	0.002
4/29/05	13:15	---	1442	---	---	41.10	0.00	0.000	0.000
5/2/05	12:21	12:23	5708	2	41.02	41.04	0.02	0.010	0.003
5/2/05	13:21	---	58	---	---	41.04	0.00	0.000	0.000
5/2/05	14:21	---	118	---	---	41.04	0.00	0.000	0.000
5/2/05	15:30	---	187	---	---	41.04	0.00	0.000	0.000
5/2/05	16:30	---	247	---	---	41.04	0.00	0.000	0.000
5/3/05	9:00	---	1237	---	---	41.04	0.00	0.000	0.000
5/3/05	10:00	---	1297	---	---	41.04	0.00	0.000	0.000
5/3/05	12:00	---	1417	---	---	41.04	0.00	0.000	0.000
5/3/05	14:00	---	1537	---	---	41.04	0.00	0.000	0.000
5/3/05	16:00	---	1657	---	---	41.04	0.00	0.000	0.000
5/4/05	8:30	---	2647	---	---	41.04	0.00	0.000	0.000
5/4/05	12:30	---	2887	---	---	41.04	0.00	0.000	0.000
5/4/05	16:30	---	3127	---	---	41.04	0.00	0.000	0.000
5/5/05	7:06	---	4003	---	---	41.16	0.00	0.000	0.000

**NOTES/OBSERVATIONS:**

Recovery time refers to the elapsed time from the end of pumping (during the prior measurement interval) until the next measurements are collected

Initial depth to water on 5/2/05: 13.04'

Initial depth to water on 5/3/05: 13.01'

Initial depth to water on 5/4/05: 12.89'

**DNAPL RECOVERY TEST FIELD LOG**

WELL ID     N2SC-011    

SITE     GE Pittsfield, MA    

LOCATION     GMA 1 - Newell Street Area II    

DATE	MEASUREMENT/ PUMP START TIME	PUMP STOP TIME	RECOVERY TIME (Minutes)	PUMPING TIME (Minutes)	DEPTH TO DNAPL (Feet BMP)	DEPTH OF WELL (Feet BMP)	DNAPL THICKNESS (Feet)	DNAPL REMOVAL (Liters)	DNAPL REMOVAL (Gallons)
4/25/05	14:45	15:02	---	17	38.42	41.60	3.18	2.500	0.661
4/26/05	9:25	9:35	1103	10	38.52	41.60	3.08	1.900	0.502
4/26/05	10:25	10:32	50	7	40.74	41.60	0.86	0.530	0.140
4/26/05	11:20	11:27	48	7	41.08	41.60	0.52	0.320	0.085
4/26/05	12:26	12:31	59	5	41.10	41.60	0.50	0.310	0.082
4/26/05	13:25	13:31	56	6	41.24	41.60	0.36	0.220	0.058
4/26/05	14:30	14:40	59	10	41.21	41.60	0.39	0.240	0.063
4/26/05	15:35	15:43	55	8	41.32	41.60	0.28	0.172	0.045
4/27/05	9:32	9:44	1069	12	39.68	41.66	1.98	1.900	0.502
4/27/05	10:30	10:40	46	10	39.15	41.60	2.45	0.530	0.140
4/27/05	11:30	11:36	50	6	39.80	41.60	1.80	0.320	0.085
4/27/05	12:35	12:48	59	13	39.85	41.60	1.75	0.310	0.082
4/27/05	13:35	13:47	47	12	40.05	41.60	1.55	0.220	0.058
4/27/05	14:35	14:48	48	13	40.18	41.60	1.42	0.240	0.063
4/27/05	15:35	15:46	47	11	40.45	41.60	1.15	0.172	0.045
4/28/05	9:35	9:48	1069	13	38.75	41.60	2.85	1.750	0.462
4/28/05	10:35	10:49	47	14	39.24	41.60	2.36	1.450	0.383
4/28/05	11:38	11:51	49	13	39.85	41.60	1.75	1.079	0.285
4/28/05	12:40	12:50	49	10	40.40	41.60	1.20	0.740	0.196
4/28/05	13:40	13:48	50	8	41.02	41.60	0.58	0.357	0.094
4/28/05	14:40	14:45	52	5	41.30	41.60	0.30	0.185	0.049
4/28/05	15:40	15:45	55	5	41.38	41.60	0.22	0.135	0.036

## DNAPL RECOVERY TEST FIELD LOG

WELL ID     N2SC-011    

SITE     GE Pittsfield, MA    

LOCATION     GMA 1 - Newell Street Area II    

DATE	MEASUREMENT/ PUMP START TIME	PUMP STOP TIME	RECOVERY TIME (Minutes)	PUMPING TIME (Minutes)	DEPTH TO DNAPL (Feet BMP)	DEPTH OF WELL (Feet BMP)	DNAPL THICKNESS (Feet)	DNAPL REMOVAL (Liters)	DNAPL REMOVAL (Gallons)
4/29/05	8:48	9:03	1023	15	38.80	41.60	2.80	1.730	0.457
4/29/05	9:48	9:53	45	5	41.14	41.60	0.46	0.284	0.075
4/29/05	11:48	12:06	115	18	41.02	41.60	0.58	0.358	0.095
5/2/05	14:58	15:35	4492	37	38.40	41.59	3.19	1.970	0.520
5/3/05	8:50	9:10	1035	20	38.60	41.58	2.98	1.840	0.486
5/3/05	15:10	15:30	360	20	39.50	41.58	2.08	1.290	0.341
5/4/05	8:10	8:40	1000	30	38.84	41.58	2.74	1.690	0.446
5/4/05	12:40	12:45	240	15	40.30	41.58	1.28	0.760	0.201
5/4/05	16:45	16:52	240	7	40.69	41.58	0.89	0.550	0.145
5/5/05	7:16	7:52	864	36	38.92	41.60	2.68	1.660	0.439
5/5/05	15:52	16:02	480	10	39.55	41.60	2.05	1.270	0.336

**NOTES/OBSERVATIONS:**

Recovery time refers to the elapsed time from the end of pumping (during the prior measurement interval) until the next measurements are collected.

Depth to water on 5/2/05: 12.20'

Initial depth to water on 5/3/05: 12.15'

Initial depth to water on 5/4/05: 12.22'

Initial depth to water on 5/5/05: 11.88'

## DNAPL RECOVERY TEST FIELD LOG

WELL ID     N2SC-031    

SITE     GE Pittsfield, MA    

LOCATION     GMA 1 - Newell Street Area II    

DATE	MEASUREMENT/ PUMP START TIME	PUMP STOP TIME	RECOVERY TIME (Minutes)	PUMPING TIME (Minutes)	DEPTH TO DNAPL (Feet BMP)	DEPTH OF WELL (Feet BMP)	DNAPL THICKNESS (Feet)	DNAPL REMOVAL (Liters)	DNAPL REMOVAL (Gallons)
4/25/05	13:45	14:22	---	37	37.60	40.67	3.07	2.550	0.674
4/26/05	10:45	11:03	1223	18	38.30	40.67	2.37	1.460	0.386
4/27/05	16:00	16:11	1737	11	38.75	40.69	1.94	1.196	0.316
4/28/05	13:55	14:08	1304	13	38.10	40.69	2.59	1.597	0.422
4/29/05	10:47	11:10	1239	23	37.58	40.69	3.11	1.920	0.507
5/2/05	10:30	10:50	4280	20	37.65	40.69	3.04	1.880	0.497
5/3/05	7:50	8:15	1260	25	38.08	40.68	2.60	1.610	0.425
5/3/05	10:15	10:30	120	15	40.12	40.68	0.56	0.346	0.091
5/3/05	11:30	11:35	60	5	40.55	40.68	0.13	0.080	0.021
5/3/05	12:35	12:40	60	5	40.60	40.68	0.08	0.049	0.013
5/3/05	13:40	13:45	60	5	40.60	40.68	0.08	0.049	0.013
5/3/05	14:45	14:50	60	5	40.61	40.68	0.07	0.043	0.011
5/3/05	15:50	15:55	60	5	40.61	40.68	0.07	0.043	0.011
5/3/05	16:55	17:00	60	5	40.62	40.68	0.06	0.037	0.010
5/4/05	8:15	8:32	915	17	39.44	40.70	1.26	1.260	0.333
5/4/05	10:32	10:42	120	10	40.53	40.70	0.17	0.105	0.028
5/4/05	12:40	12:48	118	8	40.56	40.70	0.14	0.086	0.023
5/4/05	14:48	14:53	120	5	40.57	40.70	0.13	0.080	0.021
5/4/05	16:53	17:03	120	10	40.55	40.70	0.15	0.093	0.025

**DNAPL RECOVERY TEST FIELD LOG**

WELL ID     N2SC-03I    

SITE     GE Pittsfield, MA    

LOCATION     GMA 1 - Newell Street Area II    

DATE	MEASUREMENT/ PUMP START TIME	PUMP STOP TIME	RECOVERY TIME (Minutes)	PUMPING TIME (Minutes)	DEPTH TO DNAPL (Feet BMP)	DEPTH OF WELL (Feet BMP)	DNAPL THICKNESS (Feet)	DNAPL REMOVAL (Liters)	DNAPL REMOVAL (Gallons)
5/5/05	7:50	8:12	887	22	39.52	40.70	1.18	0.729	0.193
5/5/05	12:12	12:20	240	8	40.42	40.70	0.28	0.173	0.046
5/5/05	16:20	16:30	240	10	40.41	40.70	0.29	0.179	0.047

**NOTES/OBSERVATIONS:**

Recovery time refers to the elapsed time from the end of pumping (during the prior measurement interval) until the next measurements are collected.

Depth to water on 5/2/05: 12.07'

Initial depth to water on 5/3/05: 12.10'

Initial depth to water on 5/4/05: 12.17'

Initial depth to water on 5/5/05: 11.87'

## DNAPL RECOVERY TEST FIELD LOG

WELL ID     N2SC-14    

SITE     GE Pittsfield, MA    

LOCATION     GMA 1 - Newell Street Area II    

DATE	MEASUREMENT/ PUMP START TIME	PUMP STOP TIME	RECOVERY TIME (Minutes)	PUMPING TIME (Minutes)	DEPTH TO DNAPL (Feet BMP)	DEPTH OF WELL (Feet BMP)	DNAPL THICKNESS (Feet)	DNAPL REMOVAL (Liters)	DNAPL REMOVAL (Gallons)
4/25/05	11:10	11:45	---	35	38.52	40.26	1.74	4.500	1.189
4/26/05	9:52	10:05	1327	13	38.61	40.26	1.65	4.570	1.207
4/27/05	13:56	14:11	1671	15	38.50	40.26	1.76	4.350	1.149
4/28/05	15:15	15:27	1504	12	38.64	40.30	1.66	4.102	1.084
4/29/05	11:25	11:33	1198	8	38.63	40.28	1.65	4.075	1.077
5/2/05	11:31	11:53	4318	22	38.58	40.28	1.70	4.200	1.110
5/2/05	12:40	13:10	47	30	38.94	40.28	1.34	3.310	0.875
5/2/05	14:00	14:20	50	20	39.72	40.28	0.56	1.380	0.365
5/2/05	15:20	15:30	60	10	40.16	40.28	0.12	0.297	0.078
5/2/05	16:20	16:30	50	10	40.13	40.28	0.15	0.371	0.098
5/3/05	9:20	9:58	1130	38	38.58	40.28	1.70	4.200	1.110
5/3/05	11:58	12:20	60	22	38.82	40.28	1.46	3.610	0.954
5/3/05	13:58	14:20	98	22	39.77	40.28	0.51	1.260	0.333
5/3/05	16:20	16:30	120	10	39.96	40.28	0.32	0.791	0.209
5/4/05	7:23	7:58	893	35	38.67	40.28	1.61	3.980	1.052
5/4/05	10:58	11:18	180	20	39.41	40.28	0.87	2.150	0.568
5/4/05	14:18	14:38	180	20	39.72	40.28	0.56	1.380	0.365
5/4/05	17:00	17:10	162	10	39.90	40.28	0.38	0.939	0.248

**DNAPL RECOVERY TEST FIELD LOG**

WELL ID     N2SC-14    

SITE     GE Pittsfield, MA    

LOCATION     GMA 1 - Newell Street Area II    

DATE	MEASUREMENT/ PUMP START TIME	PUMP STOP TIME	RECOVERY TIME (Minutes)	PUMPING TIME (Minutes)	DEPTH TO DNAPL (Feet BMP)	DEPTH OF WELL (Feet BMP)	DNAPL THICKNESS (Feet)	DNAPL REMOVAL (Liters)	DNAPL REMOVAL (Gallons)
5/5/05	8:00	8:50	890	50	38.66	40.28	1.62	4.000	1.057
5/5/05	12:50	13:15	240	25	39.85	40.28	0.43	1.060	0.280
5/5/05	16:50	17:00	215	10	39.83	40.28	0.45	1.110	0.293

**NOTES/OBSERVATIONS:**

Recovery time refers to the elapsed time from the end of pumping (during the prior measurement interval) until the next measurements are collected.

Initial depth to water on 5/2/05: 13.50'

Initial depth to water on 5/3/05: 13.41'

Initial depth to water on 5/4/05: 13.55'

Initial depth to water on 5/5/05: 13.19'

### DNAPL RECOVERY TEST FIELD LOG

WELL ID           N2SC-08          

SITE           GE Pittsfield, MA          

LOCATION           GMA 1 - Newell Street Area II          

DATE	MEASUREMENT/ PUMP START TIME	PUMP STOP TIME	RECOVERY TIME (Minutes)	PUMPING TIME (Minutes)	DEPTH TO DNAPL (Feet BMP)	DEPTH OF WELL (Feet BMP)	DNAPL THICKNESS (Feet)	DNAPL REMOVAL (Liters)	DNAPL REMOVAL (Gallons)
4/25/05	15:15	15:35	—	20	40.72	42.58	1.86	1.450	0.383
4/26/05	13:40	13:50	1325	10	41.87	42.60	0.73	0.450	0.119
4/27/05	9:50	9:59	1200	9	42.43	42.57	0.14	0.080	0.021
4/27/05	10:45	---	46	---	---	42.59	0.00	0.000	0.000
4/27/05	11:45	---	106	---	---	42.58	0.00	0.000	0.000
4/27/05	12:45	---	166	---	---	42.58	0.00	0.000	0.000
4/27/05	13:52	---	233	---	---	42.58	0.00	0.000	0.000
4/27/05	14:45	---	286	---	---	42.58	0.00	0.000	0.000
4/27/05	15:45	---	346	---	---	42.58	0.00	0.000	0.000
4/28/05	9:25	9:30	1406	5	42.5	42.58	0.08	0.049	0.013
4/28/05	10:25	---	55	---	---	42.58	0.00	0.000	0.000
4/28/05	11:25	---	115	---	---	42.58	0.00	0.000	0.000
4/28/05	12:29	---	179	---	---	42.58	0.00	0.000	0.000
4/28/05	13:25	---	235	---	---	42.58	0.00	0.000	0.000
4/28/05	14:25	---	295	---	---	42.58	0.00	0.000	0.000
4/28/05	15:25	---	345	---	---	42.58	0.00	0.000	0.000
4/29/05	8:29	8:33	1369	---	42.55	42.58	0.03	0.018	0.005
4/29/05	9:29	---	60	---	---	42.58	0.00	0.000	0.000
4/29/05	10:30	---	121	---	---	42.58	0.00	0.000	0.000
4/29/05	11:30	---	181	---	---	42.58	0.00	0.000	0.000
4/29/05	12:30	---	241	---	---	42.58	0.00	0.000	0.000
4/29/05	13:30	---	301	---	---	42.58	0.00	0.000	0.000
5/2/05	12:33	12:35	4564	2	42.40	42.59	0.19	0.117	0.031



**DNAPL RECOVERY TEST FIELD LOG**

WELL ID       N2SC-08      

SITE       GE Pittsfield, MA      

LOCATION       GMA 1 - Newell Street Area II      

DATE	MEASUREMENT/ PUMP START TIME	PUMP STOP TIME	RECOVERY TIME (Minutes)	PUMPING TIME (Minutes)	DEPTH TO DNAPL (Feet BMP)	DEPTH OF WELL (Feet BMP)	DNAPL THICKNESS (Feet)	DNAPL REMOVAL (Liters)	DNAPL REMOVAL (Gallons)
5/3/05	8:43	8:47	1208	4	42.37	42.59	0.22	0.136	0.036
5/4/05	7:43	7:50	1376	7	42.58	42.59	0.01	0.006	0.002
5/5/05	8:10	---	1460	---	---	42.59	0.00	0.000	0.000

**NOTES/OBSERVATIONS:**

Recovery time refers to the elapsed time from the end of pumping (during the prior measurement interval) until the next measurements are collected.

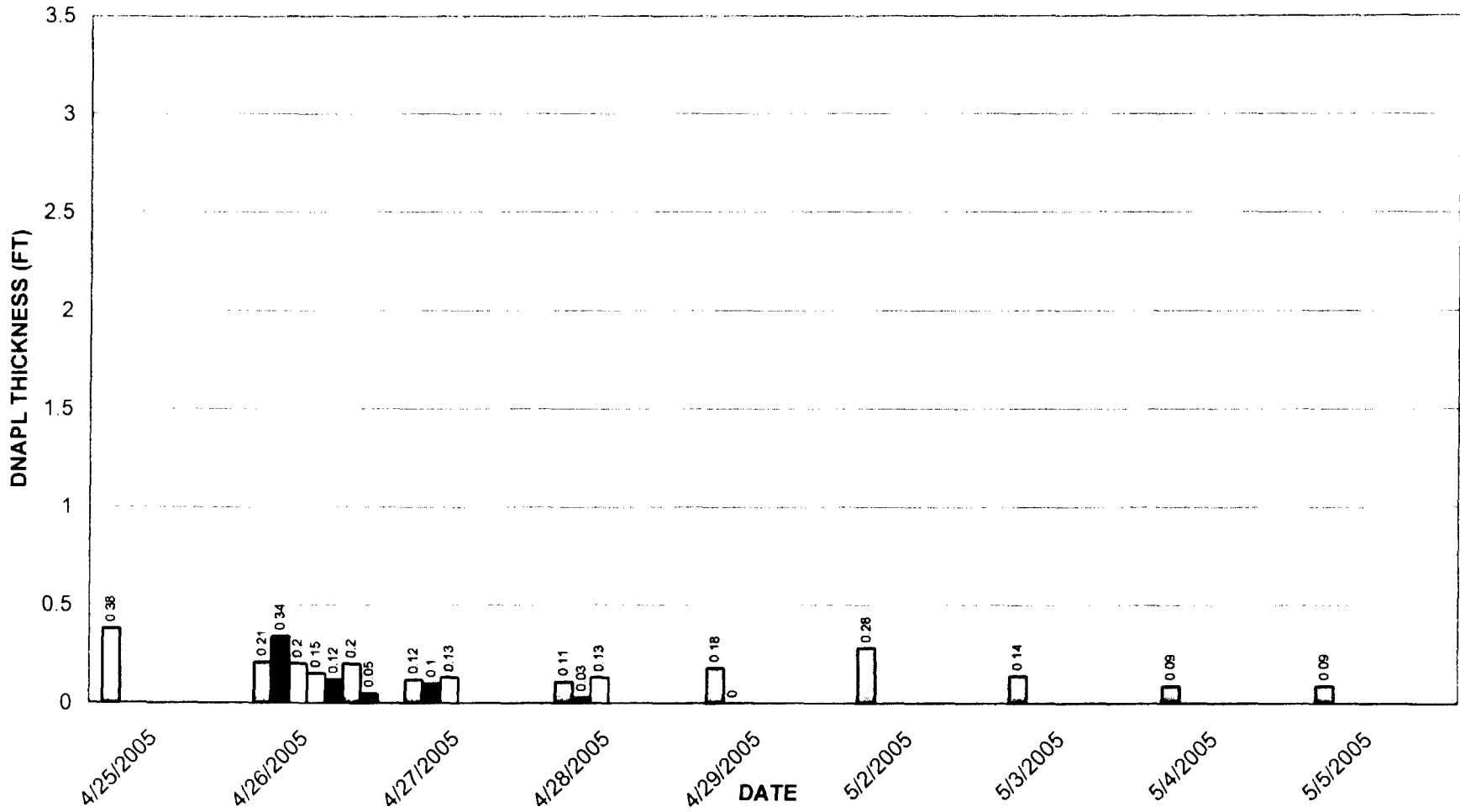
Depth to water on 5/2/05: 11.54'

Depth to water on 5/3/05: 11.50'

Depth to water on 5/4/05: 11.61'

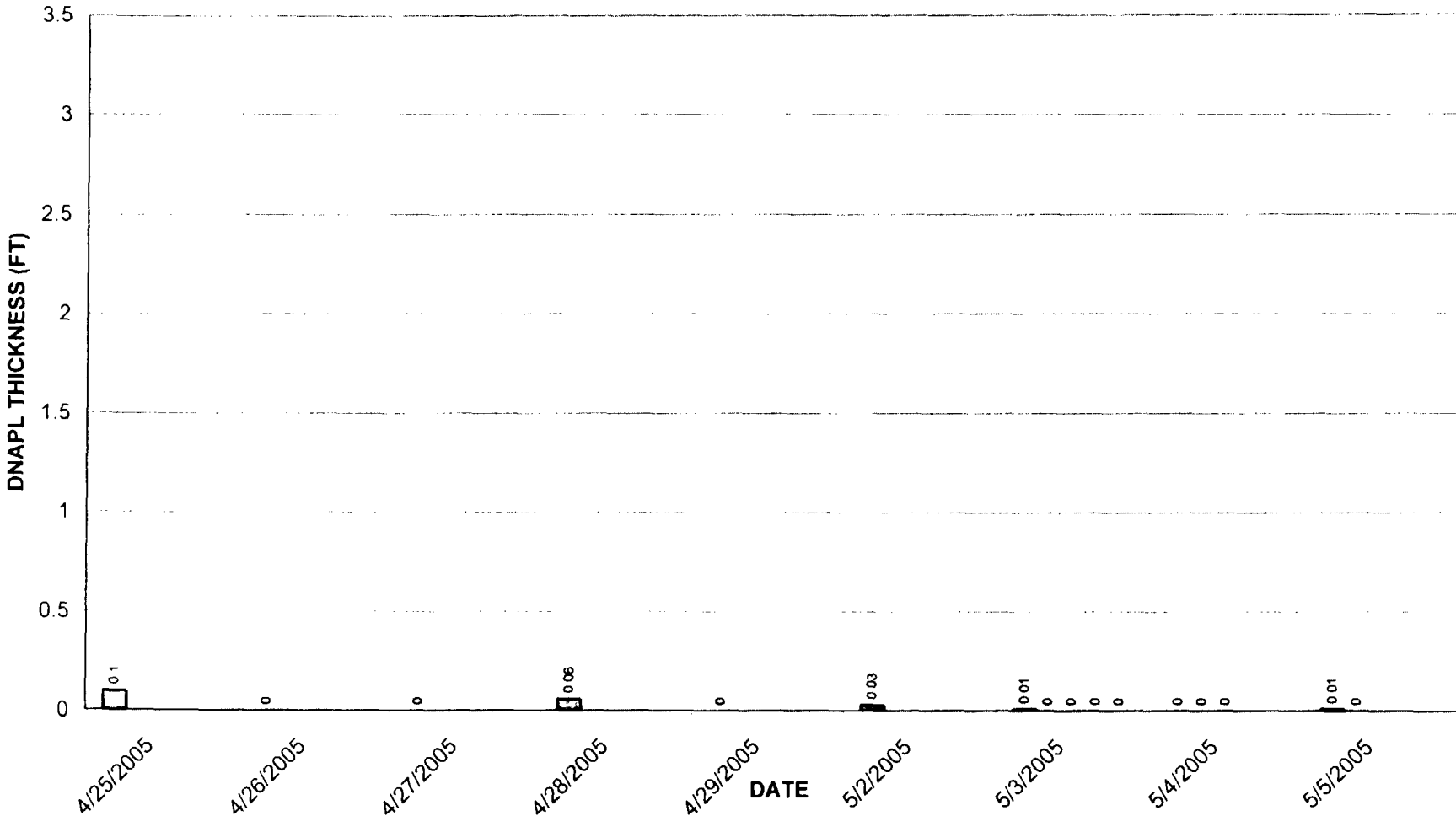
Depth to water on 5/5/05: 11.40'

**WELL NS-15  
DNAPL THICKNESS MEASUREMENTS**



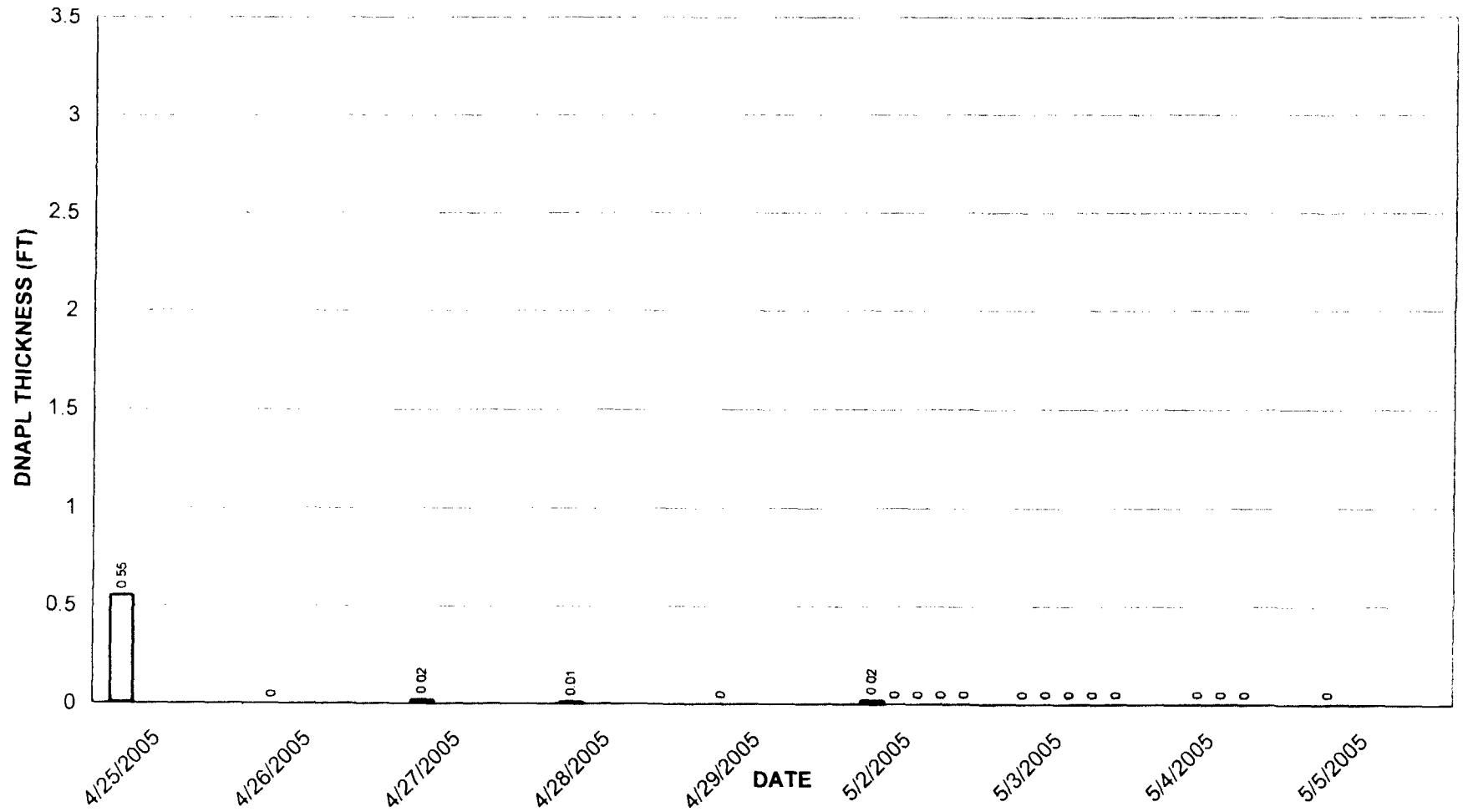
**Note:** Multiple measurements on a single day are shown in order with different shaded bars.

**WELL NS-30  
DNAPL THICKNESS MEASUREMENTS**



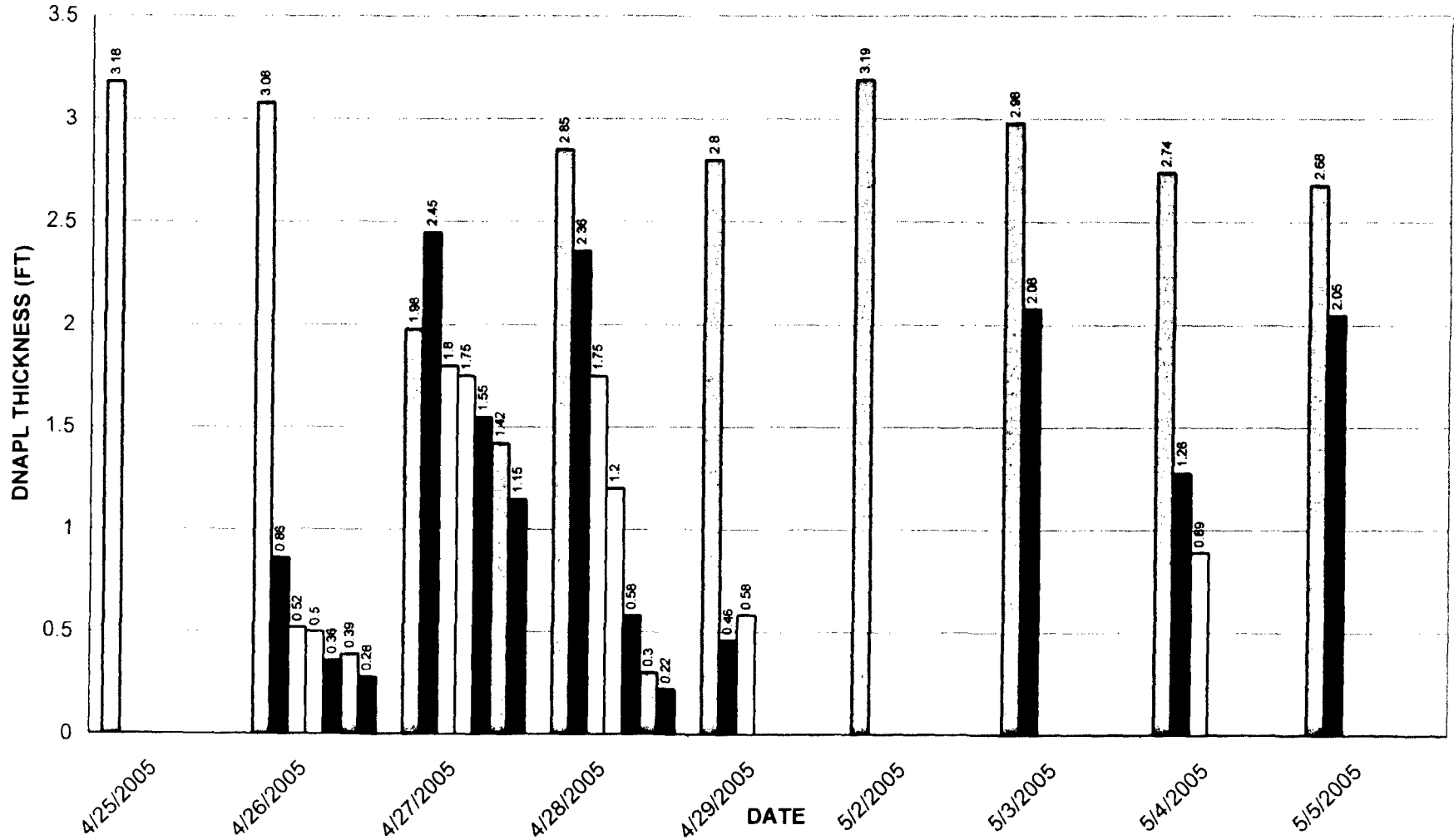
**Note:** Multiple measurements on a single day are shown in order with different shaded bars.

**WELL NS-32  
DNAPL THICKNESS MEASUREMENTS**



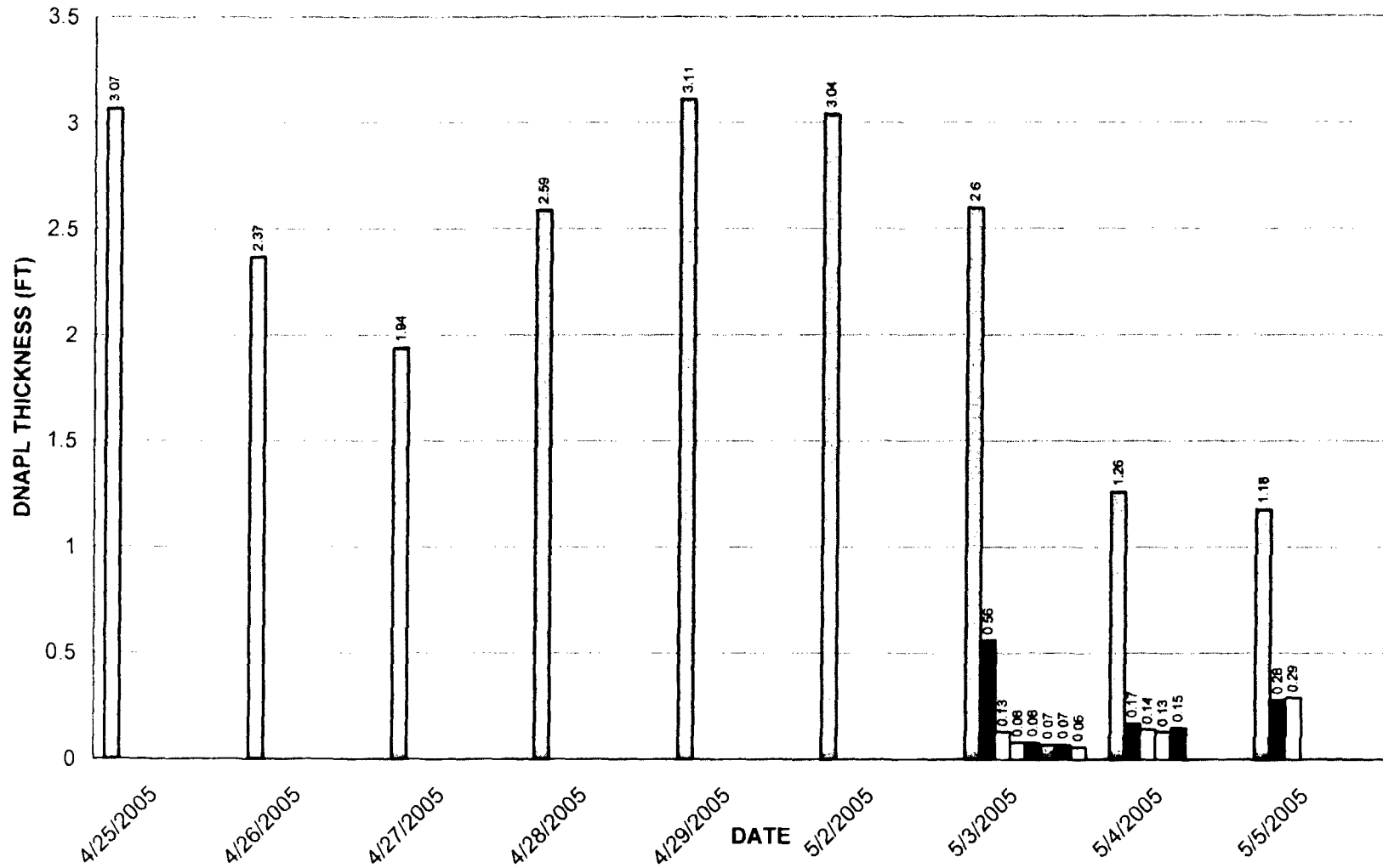
**Note:** Multiple measurements on a single day are shown in order with different shaded bars.

**WELL N2SC01I  
DNAPL THICKNESS MEASUREMENTS**



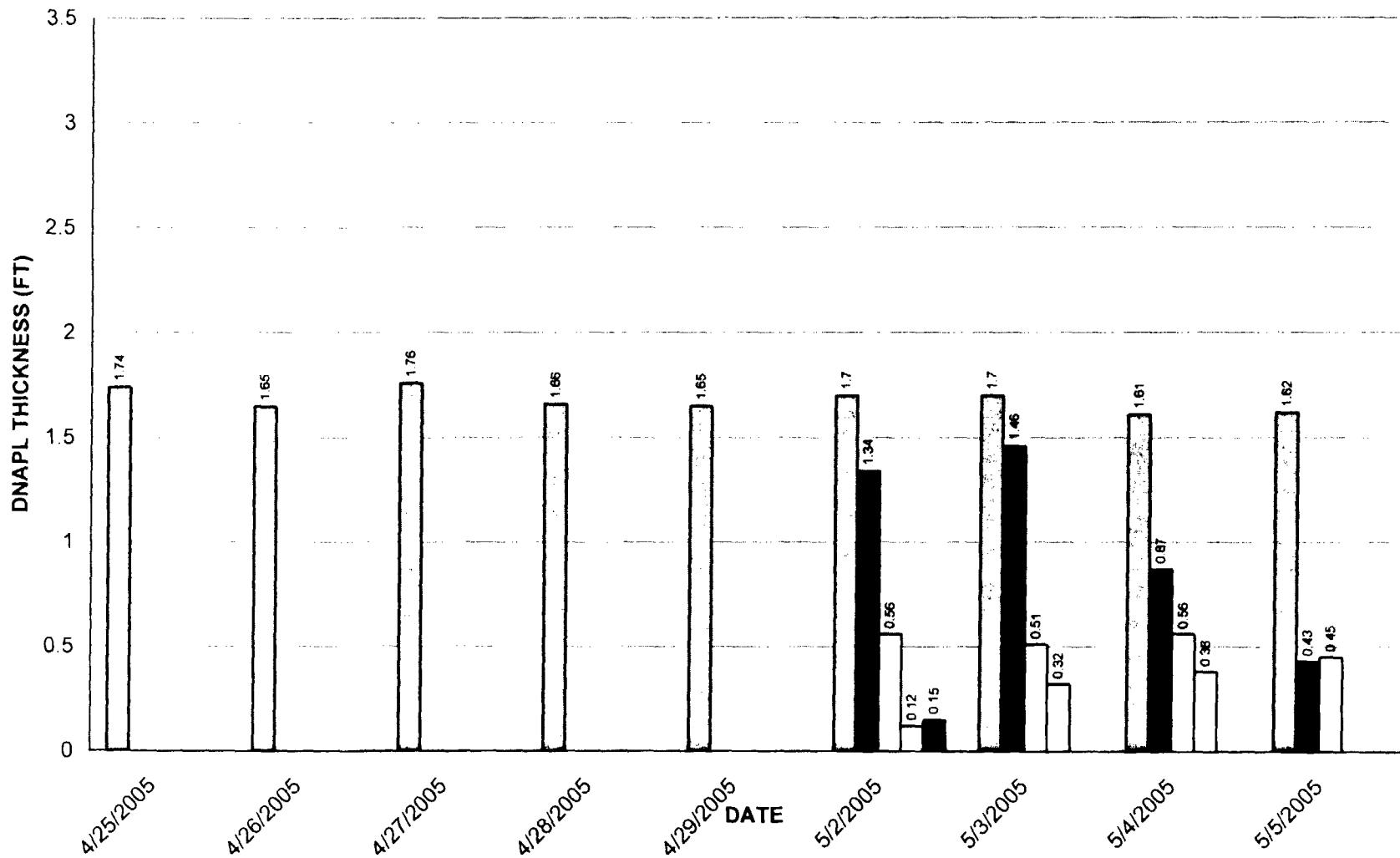
**Note:** Multiple measurements on a single day are shown in order with different shaded bars.

**WELL N2SC03I  
DNAPL THICKNESS MEASUREMENTS**



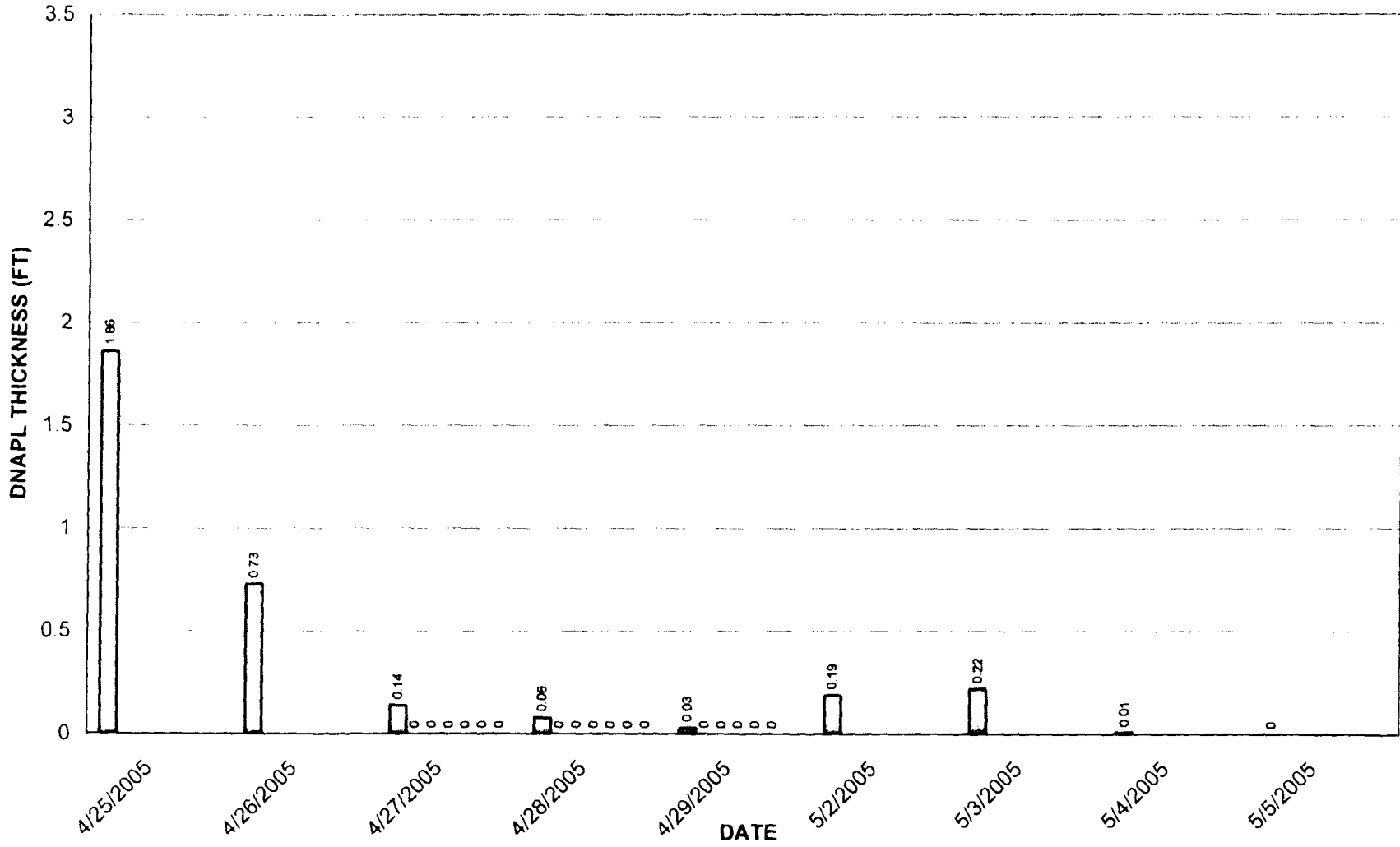
**Note:** Multiple measurements on a single day are shown in order with different shaded bars.

### WELL N2SC14 DNAPL THICKNESS MEASUREMENTS



**Note:** Multiple measurements on a single day are shown in order with different shaded bars.

**WELL N2SC08  
DNAPL THICKNESS MEASUREMENTS**



**Note:** Multiple measurements on a single day are shown in order with different shaded bars.