

**Groundwater Sampling Report
Fall 2006**

**Bedford Village Wells
Hunting Ridge Mall
Site 3-60-009**

**Work Assignment No.
D004445-12**

Prepared for:



**SUPERFUND STANDBY PROGRAM
New York State
Department of Environmental Conservation
625 Broadway
Albany, New York 12233**

Prepared by:

**Earth Tech Northeast, Inc.
40 British American Boulevard
Latham, New York**

February 1, 2007

Mr. George Momberger
NYSDEC Division of Environmental Remediation
Remedial Bureau E, 12th Floor
625 Broadway
Albany, New York 12233-7017

Re: Bedford Village Wells – Hunting Ridge Mall - Site #3-60-009
Quarterly Sampling Report – Fall 2006

Dear Mr. Momberger:

The following is a quarterly letter report for the first of eight groundwater sampling events to be conducted at the Bedford Village Wells – Hunting Ridge Mall Site, under New York State Department of Environmental Conservation (NYSDEC) Work Assignment # D004445-12. The sampling was conducted by Earth Tech's subcontractor, GeoLogic NY, Inc (GeoLogic), Homer, New York. All sampling was conducted in accordance with GeoLogic's Health and Safety Plan, which was reviewed by Earth Tech. Water samples were submitted to Chemtech, Inc. under routine chain-of-custody protocol.

This report presents the field observation logs, chain-of-custody records and analytical summary table for the groundwater sampling event that took place on November 20th and 21st, 2006. A total of 15 wells were sampled during the fall 2006 event, six of which yielded samples that were split with NYSDEC personnel who were onsite at the time (MW-3S, 3M, 8B, 8M, 10B and 10M).

Table 1 summarizes the analytical data for groundwater samples collected on November 20 and 21, 2006. This table is cumulative, in that it includes the May 2005 and November 2005 groundwater analytical data. Only detected compounds are presented. Attachment 1 presents GeoLogic's field observation logs and the chain-of-custody records. The laboratory data sheets for the VOC analyses are not included as they have been forwarded at a prior date.

A review of the November 2006 analytical data indicates little to no change in the concentrations of VOCs in most of the monitoring wells at the site with the exception of MW-3M. The concentration of tetrachloroethene (PCE) in this well increased by an order of magnitude from the year earlier sample, from 22 ppb in the November 2005 sample to 420 ppb. Trichloroethene and cis-1,2-dichloroethene also show increases in concentration during this sampling event for MW-3M. This is the only sampled monitoring well that exceeded groundwater standards for any compounds during the November 2006 sampling event.

The next quarterly groundwater sampling event is scheduled for mid-February 2007.



Please feel free to contact me at (518) 951-2353 if you have any questions or comments regarding this report.

Sincerely,
Earth Tech Northeast

A handwritten signature in cursive script that reads "Lori A. Hoose".

Lori A. Hoose
Project Geologist

Attachments

Cc: Carl Hoffman
Stephen Choiniere
Stefan Goreau

Table 1
Groundwater Analytical Results
Bedford Village Wells
Hunting Ridge Mall Site
Bedford Village, New York
Volatile Organic Compounds
Date Sampled: November 20 and 21, 2006

		Analyte	Methyl tert-butyl Ether	cis-1,2-dichloroethene	Tetrachloroethene	Methylene Chloride	Trichloroethene	Acetone	1,2-Dichlorobenzene
AWQS+GV [*]		10 (GV)	5	5	5	5	60 (GV)	3	
WELL - 1	May-05	U	U	2.8J	U	U	U	U	U
	Nov-05	U	U	1.9J	U	U	U	U	U
WELL - 2	May-05	U	3.2J	4.7J	U	U	U	U	U
	Nov-05	U	U	3.6J	U	U	U	U	U
WELL - 3	May-05	U	2.3J	4.2J	U	U	U	U	U
	Nov-05	U	U	3.0J	U	U	U	U	U
WELL - 4	May-05	U	U	4.3J	U	U	U	U	U
	Nov-05	U	U	2.2J	U	U	U	U	U
WELL - 5	May-05	U	U	2.2J	U	U	U	U	U
	Nov-05	U	U	1.8J	U	U	U	U	U
WELL - 6	May-05	2.1J	U	1.6J	U	U	U	U	U
	Nov-05	U	3.4J	6.2	U	1.8J	U	U	U
WELL - 8	May-05	U	U	U	U	U	U	U	U
	Nov-05	U	U	0.84J	U	U	U	U	U
WELL - 9	May-05	U	U	U	U	U	U	U	U
	Nov-05	U	U	U	U	U	U	U	U
MW-1S [*]	May-05	4.1	U	U	1.2	U	U	U	U
	Nov-05	7.8	U	U	0.6JB	U	U	U	U
MW - 3S	May-05	U	U	0.98J	U	U	U	U	U
	Nov-05	U	U	0.79J	U	U	U	U	U
MW-3M	May-05	U	8.5	45	U	U	U	U	U
	Nov-05	U	34	22	U	5.4	U	U	U
MW-5M	May-05	0.3 J	59 D	420 D	U	32	U	U	U
	Nov-06 **	U	U	U	U	U	U	U	U
MW-5S	May-05	NA	NA	NA	NA	NA	NA	NA	NA
	Nov-05	U	U	U	U	U	U	U	U
MW-6S [*]	May-05	0.3J	0.6J	4	1.1	0.5J	U	U	U
	Nov-05	0.2J	U	2.3	U	0.5JB	U	U	U
MW-6M [*]	May-05	U	U	1.7	U	U	U	U	U
	Nov-05	0.3J	0.6J	2.9	1J	0.4J	U	U	U
MW-6D	May-05	U	U	2.7	0.5JB	0.3J	U	U	U
	Nov-05	U	U	2.2	U	U	U	U	U
MW-8M	May-05	5.5	U	U	U	U	U	U	U
	Nov-05	6.3	U	U	U	U	U	U	U
MW-8B	May-05	1.2	U	U	U	U	U	U	U
	Nov-05	NA	NA	NA	NA	NA	NA	NA	NA
MW-10M	May-05	1.1J	U	U	U	U	24J	U	U
	Nov-05	1.2	U	U	U	U	U	2.1	U
MW-10B	May-05	NA	NA	NA	NA	NA	NA	NA	NA
	Nov-05	1.1J	U	U	U	U	U	U	U
MW-U5	May-05	0.9 J	U	0.4 J	U	U	U	U	1.9
	Nov-06	U	U	U	U	U	U	U	U
MW-U6	May-05	U	U	U	U	U	U	U	U
	Nov-05	U	U	U	U	U	U	U	U
MW-U6	May-05	NA	NA	NA	NA	NA	NA	NA	NA
	Nov-05	U	U	U	U	U	U	U	U
MW-U6	May-05	U	U	U	U	U	U	U	U
	Nov-06	U	U	U	U	U	U	U	U

All data presented in micrograms per Liter (ug/L).

All Volatile Organic Analyses were conducted by US EPA Method 624 unless otherwise noted.

^ Denotes sample analyzed by US EPA Method 524.2

* New York State Ambient Water Quality Standards (TOGs 1.1.1) GV - guidance value.

** Additional compounds detected in this sample were 2.3 ug/L vinyl Chloride, 0.5 J trans-1,2-Dichloroethene.

U - Compound not detected at or above the instrument detection limit (IDL).

J - Estimated concentration above the IDL but less than the contract required detection limits (CRDL).

D - Results from a subsequent dilution of the original sample due to original sample results being outside the linear range.

NA indicates 1) no standard or guidance value exists for the compound, or 2) sample was not analyzed for indicated compound.

BOLD font in shaded cell indicates exceedances of AWQS+GV.

Attachment 1

Field Observation Logs

FIELD OBSERVATION LOG - GROUNDWATER SAMPLING RECORD

Bedford Village Wells - Huntington Ridge Mall - Work Assignment #D004445-12 Site # 360009		
Sampler: J. SANDBERG		Date(s): 11/20 - 11/21/06
Weather: cloudy ~50°F	Arrival Time 12:00 PM 11/20/06	Departure Time 3:00 PM 11/21/06
	MW-3S (DEC SPLIT)	MW-6M
Well Depth	18.6'	60.5'
Well Diameter	2"	2"
Well Construction (pvc/stainless)	PVC	PVC
Well Condition	POOR	FAIR
Depth to Water	13.80'	30.65'
Volume to Purge	2.3 gal	14.3 gal
Volume Purged	~2.5 gal	~15 gal
Sampling Depth to Water	~18.00'	~33.00'
Color	clear	clear
Odor	none	none
Temperature	55.0 °F	51.2 °F
Conductivity	1323 µS	947 µS
pH	7.2	7.2
Turbidity	27.30 NTU	0.43 NTU
Date & Time	11/21/06 10:40 AM	11/21/06 9:15 AM
Purging Method	bailey.	sub.

FIELD OBSERVATION LOG - GROUNDWATER SAMPLING RECORD

Bedford Village Wells - Huntington Ridge Mall - Work Assignment #D004445-12 Site # 360009

Sampler: J. SANDBERG

Date(s): 11/20 - 11/21/06

Weather: cloudy, ~50°F Arrival Time 12:00 PM Departure Time 3:00 PM

	MW-U6	11/20/06	11/21/06
Well Depth	40'		
Well Diameter	2"		
Well Construction (pvc/stainless)	PVC		
Well Condition	FAIR		
Depth to Water	26.20'		
Volume to Purge	~6.75 gal		
Volume Purged	~8 gal		
Sampling Depth to Water	~30'		
Color	clear		
Odor	none		
Temperature	52.1°F		
Conductivity	528 µS		
pH	7.2		
Turbidity	0.47 NTU		
Date & Time	11/20/06 3:10 PM		
Purging Method	Sub. pump		

FIELD OBSERVATION LOG - GROUNDWATER SAMPLING RECORD

Bedford Village Wells - Huntington Ridge Mall - Work Assignment #D004445-12 Site # 360009		
Sampler: J. SANDBERG		Date(s): 11/20 - 11/21/06
Weather: cloudy, ~50°F	Arrival Time 12:00 PM 11/20/06	Departure Time 3:00 PM 11/21/06
	Well 5 (MW-12)	Well 9 (MW-47)
Well Depth	62'	40'
Well Diameter	2"	2"
Well Construction (pvc/stainless)	PVC	PVC
Well Condition	FAIR	FAIR
Depth to Water	31.10'	30.63
Volume to Purge	14.85'	~5 gal
Volume Purged	~15 gal	~5.5 gal
Sampling Depth to Water	~33.00'	~34.00
Color	clear	clear
Odor	none	none
Temperature	52.7°F	51.8°F
Conductivity	657 μ S	768 μ S
pH	7.4	6.9
Turbidity	0.54 NTU	0.19 NTU
Date & Time	11/20/06 4:15 PM	11/20/06 3:45 PM
Purging Method	sub. pump.	sub. pump.

FIELD OBSERVATION LOG - GROUNDWATER SAMPLING RECORD

Bedford Village Wells - Huntington Ridge Mall - Work Assignment #D004445-12 Site # 360009

Sampler: J. SANDBERG

Date(s): 11/20 - 11/21/06

Weather: CLOUDY ~ 50°F

Arrival Time 12:00 PM
11/20/06

Departure Time 3:00 PM
11/21/06

	MW-1S	MW-3M (DEE SPLIT)
Well Depth	20'	75'
Well Diameter	2"	2"
Well Construction (pvc/stainless)	PVC	PVC
Well Condition	POOR	POOR
Depth to Water	10.45'	14.95'
Volume to Purge	4.5 gal.	~ 28 gal.
Volume Purged	~ 5.0 gal.	~ 30 gal.
Sampling Depth to Water	~ 12.00'	~ 18.00'
Color	clear	clear
Odor	none	none
Temperature	57.2°F	53.9°F
Conductivity	875 μS	475 μS
pH	7.5	7.7
Turbidity	0.73 NTU	22.93 NTU
Date & Time	11/21/06, 2:45 PM	11/21/06 10:50 AM
Purging Method	peristaltic	sub

FIELD OBSERVATION LOG - GROUNDWATER SAMPLING RECORD

Bedford Village Wells - Huntington Ridge Mall - Work Assignment #D004445-12 Site # 360009		
Sampler: J. SANDBERG		Date(s): 11/20 - 11/21/06
Weather: CLOUDY ~50°F	Arrival Time 12:00 PM 11/20/06	Departure Time 3:00 PM 11/21/06
	MW-6S	MW-6D
Well Depth	44.75'	>131'
Well Diameter	2"	4"
Well Construction (pvc/stainless)	PVC	PVC
Well Condition	FAIR	FAIR
Depth to Water	31.25'	29.38'
Volume to Purge	6.50 gal	199 gal
Volume Purged	~ 8.00 gal	~ 150 gal
Sampling Depth to Water	~ 33.00'	~ 40'
Color	clear	clear
Odor	none	none
Temperature	51.6°F	52.1°F
Conductivity	1002 µS	458 µS
pH	7.1	8.4
Turbidity	22.29 NTU	7.31 NTU
Date & Time	11/21/06 9:35 AM	11/21/06 2:30 PM
Purging Method	Sub.	Sub.

FIELD OBSERVATION LOG - GROUNDWATER SAMPLING RECORD

Bedford Village Wells - Huntington Ridge Mall - Work Assignment #D004445-12 Site # 360009

Sampler: J. SANDBERG

Date(s): 11/20 - 11/21/06

Weather: cloudy ~50°F

Arrival Time 12:00pm
11/20/06

Departure Time 3:00 PM
11/21/06

	MW-5M	MW-5S
Well Depth	70'	42'
Well Diameter	2"	2"
Well Construction (pvc/stainless)	PVC	PVC
Well Condition	FAIR	FAIR
Depth to Water	27.50'	27.13'
Volume to Purge	20.5 gal	7.15 gal
Volume Purged	~22 gal	~8.00 gal
Sampling Depth to Water	~35'	~30'
Color	clear	light brown
Odor	none	none
Temperature	51.8°F	52°F
Conductivity	712 µS	617 µS
pH	7.2	7.3
Turbidity	0.75 NTU	261.7 NTU
Date & Time	11/20/06 2:30 PM	11/20/06 2:15 PM
Purging Method	sub.	sub.

FIELD OBSERVATION LOG - GROUNDWATER SAMPLING RECORD

Bedford Village Wells - Huntington Ridge Mall - Work Assignment #D004445-12 Site # 360009		
Sampler: J. SANDBERG		Date(s): 11/20 - 11/21/06
Weather: cloudy ~50° F	Arrival Time 12:00 PM 11/20/06	Departure Time 3:00 PM 11/21/06
	MW-8B (DEC 9117)	MW-8M (DEC 9117)
Well Depth	68'	38'
Well Diameter	4" → 2" (~40')	2"
Well Construction (pvc/stainless)	PVC	PVC PVC
Well Condition	FAIR	FAIR FAIR
Depth to Water	10.1	8.46
Volume to Purge	113 gal.	14.20 gal.
Volume Purged	~100 gal.	15.00 gal
Sampling Depth to Water	~40'	~13.00'
Color	clear	silty brown
Odor	none.	none
Temperature	56.6° F	57.5° F
Conductivity	1538 μS	1357 μS
pH	7.5	7.3
Turbidity	1.36 NTU	278.50 NTU
Date & Time	11/21/06 ~12:50 PM	11/21/06 12:20 PM
Purging Method	sub.	

200' ~ 20m
40 gal.
150' ~ 40 gal.

FIELD OBSERVATION LOG - GROUNDWATER SAMPLING RECORD

Bedford Village Wells - Huntington Ridge Mall - Work Assignment #D004445-12 Site # 360009		
Sampler: J. SANDBERG		Date(s): 11/20 - 11/21/06
Weather: Cloudy ~50°F	Arrival Time 12:00 PM 11/20/06	Departure Time 3:00 PM 11/21/06
	MW-10B (pre 8 in.)	MW-10M (pre 8 in.)
Well Depth	> 50'	> 50'
Well Diameter	4"	2"
Well Construction (pvc/stainless)	PVC	PVC
Well Condition	FAIR	FAIR
Depth to Water	1.60'	1.35'
Volume to Purge	≥ 95 gal	≥ 23.5 gal
Volume Purged	~ 50 gal.	~ 25 gal.
Sampling Depth to Water	~ 40'	~ 40'
Color	clear	clear
Odor	none	none
Temperature	53.0°	52.5° F
Conductivity	203 µS	343 µS
pH	9.0	8.3
Turbidity	10.66 NTU	4.72 NTU
Date & Time	11/21/06 3:20 PM	11/21/06 1:35 PM
Purging Method	sub	sub

CLIENT INFORMATION				CLIENT PROJECT INFORMATION				CLIENT BILLING INFORMATION			
COMPANY: EARTHTECH				PROJECT NAME: Bedford H.P. Mall				BILL TO:			
ADDRESS:				PROJECT NO.: 360009 LOCATION: Bedford, NY				ADDRESS:			
CITY:				PROJECT MANAGER: L. Hoese				CITY:			
ATTENTION: Lois Hoese				e-mail:				ATTENTION:			
PHONE: (518) 951-2358 FAX: (518) 951-2300				PHONE:				PHONE:			
STATE: NY ZIP:				FAX:				STATE: ZIP:			
DATA TURNAROUND INFORMATION				DATA DELIVERABLE INFORMATION				ANALYSIS			
FAX: _____ DAYS* HARD COPY: _____ DAYS* EDD: _____ DAYS* * TO BE APPROVED BY CHEMTECH STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS				☐ RESULTS ONLY ☐ USEPA CLP ☐ RESULTS + QC ☐ New York State ASP "B" ☐ New Jersey REDUCED ☐ New York State ASP "A" ☐ New Jersey CLP ☐ Other _____ ☐ EDD FORMAT _____				1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100			
CHEMTECH SAMPLE ID		PROJECT IDENTIFICATION		SAMPLE TYPE		SAMPLE COLLECTION		PRESERVATIVES		COMMENTS	
				MATRIX		DATE TIME					
1.	MW-1S	W	6/10/04	2:45 PM	3						
2.	MW-3M			10:50 AM	3						
3.	MW-3S			10:40 AM	3						
4.	MW-6M			9:15 AM	3						
5.	MW-6S			9:35 AM	3						
6.	MW-6D			2:30 PM	3						
7.	MW-6D MSD			2:30 PM	3						
8.	MW-6D MSD			2:30 PM	3						
9.	Well-5 (MW-12)			11:20/06/15 PM	3						
10.	Well-9 (MW-12)			11:20/06/15 PM	3						
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY											
RELINQUISHED BY SAMPLER:				DATE/TIME:				RECEIVED BY:			
1. Indy D. Sully				11/1/04 5:00 PM				11/1/04 5:00 PM			
RELINQUISHED BY:				DATE/TIME:				RECEIVED BY:			
2.				2.				2.			
RELINQUISHED BY:				DATE/TIME:				RECEIVED FOR LAB BY:			
3.				3.				3.			
Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant Cooler Temp. _____ MeOH extraction requires an additional 4 oz jar for percent solid. Ice in Cooler?: _____ Comments: _____											
SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT ☐ OVERNIGHT ☐ OVERNIGHT CHEMTECH: ☐ PICKED UP ☐ OVERNIGHT				Shipment Complete: ☐ YES ☐ NO							
Page 1 of 2											



284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO.

CHAIN OF CUSTODY RECORD

COC Number **055047**

CLIENT INFORMATION		REPORT TO BE SENT TO:		CLIENT PROJECT INFORMATION		CLIENT BILLING INFORMATION	
COMPANY: EARTHTECH	PROJECT NAME: Bedford H.R. MAIL	BILL TO:	PO#:				
ADDRESS:	PROJECT NO.: 240009	ADDRESS:					
CITY:	LOCATION: Bedford, NY	CITY:					
STATE: NY	PROJECT MANAGER: L. Hoose	STATE:					
ATTENTION: Hoose	e-mail:	ATTENTION:					
PHONE: (908) 781-2353	PHONE:	PHONE:					
FAX: (516) 951-2300	FAX:	FAX:					
DATA TURNAROUND INFORMATION				DATA DELIVERABLE INFORMATION			
FAX: _____ DAYS*				☐ RESULTS ONLY ☐ USEPA CLP			
HARD COPY: _____ DAYS*				☐ RESULTS + QC ☐ New York State ASP "B"			
EOD: _____ DAYS*				☐ New Jersey REDUCED ☐ New York State ASP "A"			
* TO BE APPROVED BY CHEMTECH				☐ New Jersey CLP ☐ Other _____			
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS				☐ EDD FORMAT			
CHEMTECH SAMPLE ID	PROJECT IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE	SAMPLE GRAF	SAMPLE COLLECTION DATE	SAMPLE TIME	# OF BOTTLES
1.	MW - 5 M	W	X	11/20/06	2:30 PM	3	3
2.	MW - 5 S	I	I	11/20/06	2:15 PM	3	3
3.	MW - 8 B	I	I	11/20/06	12:50 PM	3	3
4.	MW - 9 M	I	I	11/20/06	12:30 PM	3	3
5.	MW - 10 B	I	I	11/20/06	9:20 AM	3	3
6.	MW - 10 M	I	I	11/20/06	1:35 PM	3	3
7.	MW - 10 B	I	I	11/20/06	3:10 PM	3	3
8.	TRP PLANKTONS	I	I	11/15/06	---	2	2
9.							
10.							
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY							
RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	DATE/TIME:	Comments:			
1. Bedford	11/20/06 5:00 PM	1. Bedford	11/20/06 5:00 PM	Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant			
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:	MeOH extraction requires an additional 4 oz jar for percent solid.			
2.		2.		Ice in Cooler?: _____			
RELINQUISHED BY:	DATE/TIME:	RECEIVED FOR LAB BY:	DATE/TIME:	Shipment Complete: ☐ YES ☐ NO			
3.		3.		SHIPMENT VIA: CLIENT: ☐ HAND DELIVERED ☐ PICKED UP ☐ OVERNIGHT			