
Appendix

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Groundwater Monitoring Report



Harter Secrest & Emery LLP
ATTORNEYS AND COUNSELORS

April 21 2008

APR 22 2008

David B. Dake
Engineering Geologist
NYS Department of Environmental Conservation
Division of Environmental Remediation
6274 East Avon Lima Road
Avon NY 14414

Re New NYSDEC Spill #0508947
Old NYSDEC Spill # 9402619
German Brothers Marina
Canandaigua Ontario County New York

Dear Mr. Dake

With regard to the above entitled matter enclosed please find the Groundwater Monitoring report for March 2008

Very truly yours

Harter Secrest & Emery LLP

Paul D. Sylvestri
Partner
DIRECT DIAL: (85) 231-1194
E-MAIL: PSYLVESTRI@HSEI.LAW.COM

EFP:mme
Enclosures

cc Nate Simon Dry Environmental Inc (w/o enc)
✓ Thomas F. Walsh Esq. Harcock & Bireley (w/enc)



DAY ENVIRONMENTAL INC

ENVIRONMENTAL CONSULTANTS
AN AFFILIATE OF DAY ENGINEERING P.C.

April 15 2008

Mr Peter German
Mr Rick German
German Brothers Marina Inc
3907 W Lake Road
Canandaigua New York 14424

RE Groundwater Monitoring March 2008
3907 West Lake Road
Canandaigua New York

Dear Messrs German

This letter prepared by Day Environmental Inc (DAY) for German Brothers Marina Inc (Client) describes groundwater monitoring conducted at the above-referenced property (Site) in March 2008. A project locus map is included as Figure 1. This monitoring was completed in accordance with applicable provisions of the *Remedial Action Plan 3907 West Lake Road Canandaigua New York* dated February 2007 prepared by DAY (the RAP).

BACKGROUND

DAY completed a Phase II Environmental Site Assessment (Phase II ESA) report for the Site dated November 2005. As part of the Phase II ESA four monitoring wells designated MW-1 through MW 4 were installed in the locations depicted on Figure 2. [Note: In 1994, Marcor Remediation Inc installed two 4-inch diameter monitoring wells in proximity of an underground storage tank (UST) at the Site [referred to herein as MW-1 (1994) and MW-2 (1994)]. The locations of these wells are depicted on Figure 2. Monitoring well MW-1 (1994) could not be located by DAY and it is suspected that these monitoring well may have been removed or covered with asphalt pavement.] Groundwater monitoring wells MW-1 through MW 4 have been sampled and tested on various occasions since their installation and historic summaries of field measurements and analytical laboratory test results are presented in Table 1 and Table 2 respectively. As shown on Table 1, historically Light Non Aqueous Phase Liquid (LNAPL) has been measured in MW 3. However, LNAPL has not been observed/measured in monitoring wells MW 1, MW 2 or MW 4.

In December 2006, the New York State Department of Environmental Conservation (NYSDEC) requested the installation of a large diameter well adjacent to monitoring well MW 3 and the development of an Interim Remedial Measure (IRM) work plan, if necessary. In accordance with this request, a subcontractor was retained to install a 4-inch diameter groundwater extraction well (designated EW-1). In the process of development and testing, approximately 55 gallons of water was purged from EW 1 on March 16, 2007. The purge water did not contain a measurable layer of LNAPL. Subsequent to development and return to steady state static water level conditions, extraction well EW 1 was evaluated on March 23, 2007 and a thin layer of LNAPL (i.e. a sheen less

40 COMMERCIAL STREET
ROCHESTER NEW YORK 14614-1008
(585) 454-0210
FAX (585) 454-0825

www.dayenvironmental.com

60 EAST 42ND STREET SUITE 1641
NEW YORK NEW YORK 10165-1617
(212) 986-8645
FAX (212) 986-8657

Mr. Peter German
Mr. Rick German
April 15, 2008
Page 2

than 0.02 feet) was measured/observed on the water in EW-1 and MW-3. Evidence of free product was not observed in the other existing monitoring wells at the Site (i.e., MW-1, MW-2, and MW-4). Based on this evaluation, it was determined that an IRM work plan was not warranted at that time. Alternatively, routine monitoring of groundwater conditions was initiated to evaluate groundwater conditions and assess the need for remediation. The results of the sampling conducted in March 2008 are discussed below.

MARCH 2008 GROUNDWATER SAMPLING EVENT

On March 6, 2008 and March 27, 2008, DAY initially measured the depth to water and evaluated the presence/absence of LNAPL in monitoring wells MW-1, MW-2, MW-3, and MW-4 and extraction well EW-1 using an oil/water interface meter. The water level and LNAPL measurements are included in Table 1. The March 27, 2008 depth to water measurements were subsequently used to prepare the groundwater flow map included as Figure 2. As presented on the well sampling logs included as Attachment A, a measurable layer of LNAPL was not identified in the monitoring wells evaluated on March 6, 2008 and March 27, 2008. However, a petroleum sheen was detected on the water purged from MW-3 and EW-1. This water also exhibited a distinct gasoline odor.

Following the collection of water level and LNAPL measurements, monitoring wells MW-1, MW-2, and MW-4 were each purged of approximately three well volumes using disposable bailers and samples were collected for field measurements and analytical laboratory testing. [Note: Free product was not observed on the purge water for monitoring wells MW-1, MW-2, and MW-4.] Low flow sampling equipment with a flow through cell was used to collect a groundwater sample from extraction well EW-1. A Horiba U-22 water quality meter was used to measure in situ pH, temperature, turbidity, oxygen reduction potential (ORP), and specific conductivity and these measurements are presented on the sample logs included in Attachment A and included in Table 1.

Groundwater samples collected from monitoring wells MW-2 and MW-4 and extraction well EW-1 were submitted to Paradigm Environmental Services, a New York State Department of Health (NYSDOH) ELAP certified analytical laboratory, for testing of the following parameter:

- Spill Technology and Remediation Series (STARS) list volatile organic compounds (VOCs) using United States Environmental Protection Agency (USEPA) method 8260.

A summary of the current analytical laboratory results for monitoring wells MW-2 and MW-4 and extraction well EW-1 and historic results for MW-1 through MW-4 and EW-1 with applicable NYSDEC Technical and Operational Guidance Series (TOGS 1.1.1) guidance values are presented in Table 2. [Note: Monitoring well MW-3 is positioned adjacent to extraction well EW-1 and analytical laboratory data is similar.] The analytical laboratory report prepared by Paradigm for the March 2008 is included as Attachment B.

Mr Peter German
Mr Rick German
April 15 2008
Page 3

If there are any questions please contact this office

Very truly yours
Day Environmental Inc



Nathan Simon
Project Engineer



Raymond L. Kampff
Associate

Figures

Figure 1	Project Locus Map
Figure 2	Groundwater Flow Map – March 27 2008

Tables

Table 1	Summary of Field Parameters Groundwater Samples
Table 2	Summary of VOC Test Results Groundwater Samples

Attachments

Attachment A	Monitoring and Extraction Well Sampling Logs March 2008 Sample Event
Attachment B	Analytical Laboratory Report March 2008 Sample Event

cc Paul Sylvestri Esq

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Figures