Bi-Annual Sampling Report For Treatment Systems

September 2007- February 2008

Gladding Corporation

Site Code # 7-09-009 Work Assignment Number D004445-7

Prepared for:
Superfund Standby Program
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1.0 INTRODUCTION

In accordance with the monitoring plan for the granular activated carbon (GAC) groundwater treatment system associated with the Gladding Corporation (Gladding) site, the fifteenth round of semi-annual water sampling was performed on February 20, 2008. The results of laboratory analyses for this sampling event are summarized in this report, as are subsequent actions, if any, taken in response to those results. Routine system maintenance and/or required modifications are also discussed. This report describes activities that occurred during the period September 2007 through February 2008.

1.1 SITE DESCRIPTION

The Gladding site (Site Code #7-09-009) is located in the hamlet of South Otselic, Chenango County, New York. The site occupies about 7.5 acres near the center of the hamlet, and is bound to the east by the Otselic River, to the south by Gladding Street, to the west by Ridge Road and to the north by undeveloped agricultural lands. Past disposal practices of 1,1,1- trichloroethane (1,1,1-TCA) at the Gladding Cordage Site led to volatile organic compound (VOC) contamination of soil and groundwater, and closure of two municipal water supply wells located approximately 250 ft. south of the site. In 1990, the Town of Otselic was awarded a Housing and Urban Development (HUD) grant to install a new municipal water supply well upgradient of the Gladding site.

A pump-and-treat system was constructed by the NYSDEC in 1996 to contain and remediate contaminated groundwater at the site. Groundwater from a supply well at the NYSDEC South Otselic Fish Hatchery is being treated with a GAC system, maintained by Earth Tech under this Work Assignment. The groundwater at the fish hatchery presumably had been impacted by the disposal practices at the Gladding site.

1.2 TREATMENT SYSTEMS

1.2.1 South Otselic Fish Hatchery

The South Otselic Fish Hatchery well is located approximately one-mile southwest of the Gladding site. The NYSDEC began monitoring/maintaining this well in 1991.

The New York State Department of Health (NYSDOH) recommends potable water treatment with two carbon tanks connected in series for organics removal from drinking water. This configuration provides a primary and secondary GAC unit and allows for monitoring water quality between these units.

The South Otselic Fish Hatchery system consists of two activated carbon vessels for the removal of VOCs, and a Trojan model 708 ultraviolet (UV) disinfection unit. This system does not have a particle filter or a flow meter.

2.0 SAMPLING

2.1 SAMPLE LOCATIONS

Table 1 presents project information including location and well ID. Sampling points include raw and intermediate ports. Final samples were collected from a sink in a nearby room.

2.2 SAMPLING PROTOCOL

Standard protocol at sites with limited water usage is to allow a sampling tap to run for at least 15 minutes prior to sampling. After purging, samples are collected in the following order: effluent, intermediate, and finally raw water in order to minimize the possibility of cross-contamination. Volatile organics samples are placed in 40-milliliter (ml) vials and capped and then checked to insure that no air bubbles are trapped in the vial. Care is taken during collection to minimize agitation and to immediately place sample containers on ice to prevent volatilization.

Bacteria sampling of the final (treated) water is conducted after volatile sampling. Sampling protocol requires decontamination of the water tap by heating with an open flame for one minute prior to sampling.

2.3 SAMPLING AND FLOW READINGS

All standard sampling procedures were followed except the tap was not run for 15 minutes prior to sampling since frequent usage ensures that representative groundwater is readily available at the sampling tap.

Samples are submitted for volatile organics analysis by EPA Method 524.2 and bacteria analysis. The NYSDEC Division of Environmental Remediation Laboratory of Rensselaer, N.Y. provided analytical services for volatile organic analysis. Bacteria analysis services are provided by Smith Environmental Laboratory of Hyde Park, New York, an M/WBE enterprise.

A flow meter was not installed as part of the DEC's requirements for the treatment system; therefore flow volume data are not available.

2.4 ANALYTICAL RESULTS

The laboratory data sheets for volatile organics analyses are distributed electronically by the laboratory to Earth Tech and NYSDEC, and are not included in this report. Historical and current raw water volatile organics analytical data are summarized on Table 2. VOC analytical results for raw, intermediate, and final water samples for this round (only) are summarized on Table 3. The bacteria test result was negative, and is not tabulated. A copy of the bacteria analysis is included with this report.

Carbon changeout will typically occur if the VOC concentration of a site-related compound equals or exceeds 1 μ g/l in an intermediate or final water sample. No breakthrough of VOCs occurred in the current sampling event, and a carbon changeout is therefore not required.

3.0 SYSTEM MAINTENANCE AND MODIFICATIONS

This round of sampling included cleaning the UV quartz sleeve and changing the particle filter. System modifications were not required during the reporting period.

4.0 CONCLUSIONS

The GAC water treatment system at the South Otselic Fish Hatchery is operating satisfactorily.

The next sampling round and system inspection is due in August 2008.

TABLES

Table 1
Gladding Corporation, Town of Ostelic, N.Y.
Resident and System Information

System Location	Side room off of kitchen.
Well ID	GLADD
Phone #	(315) 653-7727 GLADD
Owner/Contact	Patrick Emerson, Hatchery Manager Tom Kielbasinski, Assistant Manager
Location	NYSDEC South Otselic Fish Hatchery PO Box 170 NYS Route 26 South Otselic, NY 13155

Table 2
Gladding Corporation, Town of South Ostelic, N.Y.
Historical Raw Water Analytical Summary

Data up to and including June 2000 was provided by the NYSDEC

30-Nov-99	8.0
4-Jun-97 20-Nov-98 10-May-99	5.8
20-Nov-98	0.9
4-Jun-97	8.0
24-Oct-95	9.0
5-Apr-95	6.0
10-Nov-94 5-Apr-95	Q
2 16-Mar-94	9.0
17-Sep-92	19.0
25-Mar-92	9.4
11-Mar-92	8.0
11 28-Jun-91	2
19-Feb-91	2
Well ID	GLADD
Location	Gladding 1,1,1-Trichloroethane

* indicates duplicate sample result.
Concentrations in ug/l (ppb).
NS indicates no sample taken
ND indicates below detection limit
Results are shown only for detected analytes
J = estimated value

Table 2
Gladding Corporation, Town of South Ostelic, N.Y.
Historical Raw Water Analytical Summary

Data up to and including June 2000 was provided by the NYSDEC

-04 7-Feb-05 30-Aug-05 13-Feb-06	8.0
30-Aug-05	8.0
7-Feb-05	6.0
24-Aug-04	10.0
23-Feb-04 24-Aug-0	3.0
4-Feb-03 19-Aug-03	7.0
4-Feb-03	6.0
14-Aug-02	7.0
25-Feb-02 14	0.4
29-Aug-01	Q.
6-Feb-01	Q
12-Jun-00	0.9
Well ID	GLADD
Location	Gladding 1,1,1-Trichloroethane

* indicates duplicate sample result.
Concentrations in ug/l (ppb).
NS indicates no sample taken
ND indicates below detection limit
Results are shown only for detected analytes
J = estimated value

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L:work/32264/docs/Gladding/Table 2-2 - Flow-Raw Data.xls

Gladding Corporation, Town of South Ostelic, N.Y. Historical Raw Water Analytical Summary Table 2

GLADD 12 8	Location	Well ID	21-Aug-06 21-Feb-07 21-Aug-07	21-Feb-07	- 1	20-Feb-08
0.1.0 DN	Gladding 1,1,1-Trichloroethane 1,1-Dichloroethane	GLADD	12 0.1 J	∞ 2	10	∞ S

* indicates duplicate sample result.
Concentrations in ug/l (ppb).
NS indicates no sample taken
ND indicates below detection limit
Results are shown only for detected analytes
J = estimated value

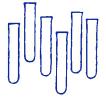
Table 3
Gladding Corporation, Town of South Ostelic, N.Y.
Current Round Analytical Summary
Sampling Date: 2/20/08

Componing	GLADD - R	GLADD - I	GLADD - F
1,1,1- Trichloroethane	8	QN	Q
J = estimated	ND= non detect		
E= estimated above calibration range.	All concentrations are in ug/L	n ug/L	
R= raw water sample	D= diluted sample		
l= intermediate water sample	* = duplicate sample		
F= final water sample	B= detected in method blank	blank	
Only detected analytes are shown in this table.	able.		
Refer to Table 4 for a comprehensive list of analytes included in EDA Method 524.2	f analytes included in FPA	Method 524.2	

TABLE 4 Volatile Organic Compounds Included in EPA Method 524.2

Dichlorodifluromethane Chloromethane Chloromethane Chloroethane Trichlorofluoromethane Chloroethane Trichlorofluoromethane Chloroethane Trichlorofluoromethane Cis- 1,2- Dichloroethene Diethyl ether Dibromochloromethane I,1- Dichloroethene Diethyl ether Dibromochloromethane Carbon disulfide Allyl chloride Methylene chloride trans- 1,2- Dichloroethene Methyl-t-butyl ether Acrylonitrile Jichloropropane C-Butanone Methyl acrylate Propionitrile Bromodichloromethane Tetrahydrofuran Methacrylonitrile Chloroform 1,1- Trichloroethane 1,2- Dichloroethane 1,3- Trichloroethane 1,1- Dichloroethane 1,2- Dichloropropane Dibromochloromethane Tetrahydrofural Methylene chloride Methylene chloroethane Methylene chloride Methylene Me	-		
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BACTERIA ANALYTICAL DATA



SMITH LABORATORY

ENVIRONMENTAL TESTING 4 SCENIC DRIVE & RT. 9 HYDE PARK, NEW YORK 12538 (845) 229-6536

CERTIFICATE OF ANALYSIS

Client:

Earth Tech

Attn: Lori Hoose

40 British American Blvd.

Latham

NY 12110 PO#

Sample Type:

Client Project Name:

Water

Gladding

Order ID:

63737

Order comment:

Project #95480.04

Sample Collected By:

Client

Date/Time sample collected: Date/Time sample received:

2/20/2008

9:45

2/21/2008 10:55

15:00

Received by: Kelly

Sample Comment:

Temp = 7.0 C

Sample Location:

Glad

Sample Number: Date/Time Sample Analyzed: 110116 2/21/2008

Tech:

VZ

Parameter

Test Result*

Units

Test Method

Total Coliform

Absent

CFU/100mL

SM 20 9223

E. Coli

Absent

CFU/100mL

SM 20 9223

Test results do meet / do not meet EPA drinking water standards.

*Bacteriological test results are expressed as Colony Forming Units. **Results Comment:**

Reviewed by: Anne G. Smith, Laboratory Director, ELAP Lab ID #10924

27-Feb-08

Earth TechA Tyco International Ltd. Company

40 British American Blvd. Latham, NY

P 518.951.2200 F 518.951.2300 www.earthtech.com

CHAIN-OF-CUSTODY RECORD

Page

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PINK: CLIENT'S COPY