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Bi-Annual Sampling Report
For Treatment Systems

March 2001- October 2001

Gladding Cordage Corporation Multi-Site Wells

Work Assignment Number D003821-27

Prepared for:
Superfund Standby Program
New York State Department of Environmental Conservation
625 Broadway, 12th Floor
Albany, New York 12233-7013

Prepared by:
Earth Tech of New York, Inc.
12 Metro Park Road
Albany, New York 12205

October 2001

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1.0 INTRODUCTION

In accordance with the monitoring plan for the treatment system at the Gladding Cordage Corporation (Gladding), the second round of water sampling by Earth Tech was performed on August 29, 2001. In January 2001 Earth Tech took over the responsibilities of operation and maintenance of the granulated activated carbon (GAC) water treatment system located at the NYSDEC Fish Hatchery. The results of laboratory analyses for this sampling event are summarized in the following report as are subsequent actions taken in response to the analysis, routine system maintenance and/or required modifications. This report covers activities that have taken place from March through October of 2001.

1.1 SITE DESCRIPTION

The Gladding site (Site Code #7-09-009) is located in the hamlet of South Otselic, which is in the town of Ostelic, Chenago County, New York. The Gladding site occupies about 7.5 acres near the center of the hamlet. The site 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 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 and installed a new municipal water supply upgradient of the Gladding site.

A pump and treat system was constructed by the NYSDEC in 1996, to remediate the contaminated groundwater at the site. Contamination in a domestic well at the NYSDEC South Otselic Fish Hatchery is being treated with a GAC system, which is being maintained by Earth Tech under this Work Assignment.

1.2 TREATMENT SYSTEMS

1.2.1 Otselic Fish Hatchery (GLADD)

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

New York State Department of Health (NYSDOH) recommends potable water treatment with two tanks connected in series for organics removal from drinking water. This configuration provides a primary and secondary GAC unit and allows for monitoring between these units. The Otselic Fish Hatchery system consists of two activated carbon vessels for the removal of VOCs, and a Trojan model 405 ultraviolet (UV) disinfection unit. This system does not have a particle filter or a flow meter.

2.0 SAMPLING

2.1 SAMPLE LOCATIONS

Table 2-1 presents project information including location and well ID. Sampling points include raw, intermediate and effluent ports.

2.2 SAMPLING PROTOCOL

Standard protocol is to allow a sampling tap to run for at least fifteen minutes prior to sampling to insure that representative water is in the system. 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 overfilled in forty 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 is conducted after volatile sampling. Sampling protocol requires that the sampling port be heated with an open flame for one minute prior to sampling to insure bacteria are coming from sample water only. Bacteria sample bottles may have an air space left inside.

Bi-annual samples are submitted for analysis by EPA Method 524, and total coliform analysis. Analytical services are being provided by Phoenix Environmental Laboratories (Phoenix), Manchester, Connecticut and the NYSDEC Division of Environmental Remediation Laboratory (NYSDEC Laboratory) of Rensselaer, New York.

2.3 SAMPLING, FLOW READINGS AND SITE INSPECTION

This sampling round represents the second bi-annual sampling event to be conducted at the site, by Earth Tech. Samples were collected from the Otselic Fish Hatchery well on August 29, 2001.

All standard sampling procedures were followed except: taps were not run for fifteen minutes prior to sampling since water is regularly drawn through the systems and representative groundwater is already within the systems.

All volatile samples for this round were collected by Earth Tech staff, and packed on ice in a cooler with a completed chain of custody form and forwarded to the NYSDEC Laboratory for analysis. The raw water data will be tracked for the system over the course of the project and is summarized in Table 2-2.

No problems were noted during this sampling event. The UV unit was inspected and the UV bulb was changed.

2.4 ANALYTICAL RESULTS

The laboratory data sheets for volatile analysis are distributed to Earth Tech and the NYSDEC electronically from the lab. The Method 524 results for the sampling events are summarized on Table 2-3. Coliform results are not included on this table. Total coliform analysis was negative for treated water collected. A copy of the total coliform analysis is included with this report.

Raw water analysis data will be summarized in Table 2-2 for each sampling round.

System change out will occur for any intermediate or final water sample with a contamination level of 1

ug/L or above. No breakthrough was reported this sampling round.

Sampling in the Spring of 1992, conducted by the NYSDEC, reported contamination of 1,1,1-TCA. Concentrations of 1,1,1-TCA in the Fish Hatchery well over the past 10 years has been reported as high as 19 ug/L. The level of reported 1,1,1-TCA increased from non-detectable levels to 19 ug/L between 1991 and 1992. Between 1993 and 2000 the reported level of 1,1,1-TCA has decreased to less than 10 ug/L.

The August 29, 2001 sampling results reported no detection of 1,1,1-TCA in the raw, intermediate, or final water samples.

3.0 SYSTEM INSTALLATION, MAINTENANCE AND MODIFICATIONS

Initial site inspections by Earth Tech were conducted in February 2001. The well location was inspected to assess GAC system conditions, foresee any potential maintenance problems, and to choose a suitable plan of action for system maintenance/modifications.

The UV unit was operational and the UV bulb was changed. It is recommended that the UV unit be replaced during the next site visit. The UV unit was noted to be an old model, and replacement parts are no longer available.

All future service will be conducted on an as needed basis and be provided by Earth Tech.

4.0 CONCLUSIONS

This report includes monitoring results from the GAC system at the Otselic Fish Hatchery. The GAC system at the Fish Hatchery is in satisfactory working order. The next bi-annual sampling event and system check will occur in February 2002.

TABLES

Table 2-1

Gladding Coorporation Treatment Systems
Location and System Information

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

Table 2-2

Gladding Cordage Treatment Systems
Raw Water Analytical Data / GAC Change Out Summary

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

Location/ COC	Well ID	19-Feb-91	28-Jun-91	11-Mar-92	25-Mar-92	17-Sep-92	16-Mar-94	10-Nov-94	05-Apr-95	24-Oct-95	04-Jun-97
Gladding	GLADD										
1,1,1-Trichloroethane		**-**	**-**	**8**	**9.4**	**19**	**9**	**-**	**6**	**9**	**8**

- Denotes below detection limit

Table 2-2

Gladding Cordage Treatment Systems
Raw Water Analytical Data / GAC Change Out Summary

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

Location/ COC	Well ID	20-Nov-98	10-May-99	30-Nov-99	12-Jun-00	06-Feb-01	29-Aug-01
Gladding	GLADD						
1,1,1-Trichloroethane		**6**	**5.8**	**8**	**6**	**-**	**-**

- Denotes below detection limit

TABLE 2-3

Gladding- Volatile Organics Analysis Data-EPA Method 524/601

Sampling Date : 8/29/01

Compound	GLADD - R	GLADD - I	GLADD - F
Bromodichloromethane			
Bromoform			
Bromoethane			
Carbon Tetrachloride			
Chlorobenzene			
Chloroethane			
2- Chloroethylvinyl ether			
Chloroform			
Chloromethane			
Dibromochloromethane			
1,2- Dichlorobenzene			
1,3- Dichlorobenzene			
1,4- Dichlorobenzene			
1,1- Dichloroethane			
1,2- Dichloroethane			
1,1- Dichloroethene			
cis- 1,2- Dichloroethene			
trans- 1,2- Dichloroethene			
1,2- Dichloropropane			
cis- 1,2- Dichloropropene			
trans- 1,3- Dichloropropene			
Methylene chloride			
4-methyl-2-pentanone			
Tetrachloroethene			
1,1,1- Trichloroethane			
1,1,2- Trichloroethane			
Trichloroethylene			
Trichlorofluoromethane			
Vinyl chloride			

J = estimated
E= estimated above calibration range.
R= raw water sample
I= intermediate water sample
F= final water sample

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O. Box 418, Manchester, CT 06040-0418
Tel. (860) 645-1102 Fax (860) 645-0823

Wednesday, September 05, 2001

Earthtech
12 Metro Park Rd
Albany NY 12205

Attention: Ms. Amy Van Laak

Sample ID#: AD55432

This laboratory is in compliance with the QA/QC procedure outlined in EPA 600/4-79-019, Handbook for Analytical Quality in Water and Waste Water, March 1979, and SW846 QA/QC requirements of procedures used.

This report, starting with the cover sheet ending with the chain of custody, consists of 3 pages.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

Phyllis Shiller
Laboratory Director

CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007
NY Lab Registration #11301
RI Lab Registration #63
NH Lab Registration #213693-A,B
ME Lab Registration #CT-007

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

September 05, 2001

FOR: Attn: Ms. Amy Van Laak
Earthtech Inc
12 Metro Park Road
Albany, NY 12205

Sample Information		Custody Information		Date	Time
Matrix:	WATER	Collected by:	SG	08/29/01	10:15
Location Code:	RUST-ENV	Received by:	SW	08/30/01	10:41
Project Code:		Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

Client ID: GLADDING Phoenix I.D. AD55432

Parameter	Result	RL	Units	Date	Time	By	Reference
E. Coli	0	0	/100 mls.	08/30/01	16:00	RM	1103.1/9223B
Total Coliform	0	0	/100 mls.	08/30/01	16:00	RM	SM 9222B

Comments: ND=Not detected BDL = Below Detection Limit RL=Reporting Limit

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

Phyllis Shiller, Laboratory Director
September 05, 2001